

Volume 2

VTD Operations

Appendix A

VTD Process Data

**PFF VTD SYSTEM
EPA TSCA/RCRA Test
Batch Protocol**

Stage	Retort	N ₂	Vessel	Temp			<u>Instructions</u>
	Temp	Flow/Temp	vacuum	Ramp Rate & Time (Min)	Soak Time	Stage Time	
	(°F)	(SCFM/°F)	(" Hg)	(°F/ 30 Min)	(Min)	(Min)	
1 (Start)	Ambient → 350	4 - 5 350	4 ± 1	~170 (60)	60	120	Establish and verify nitrogen, cooling water, chilled water, compressed air and specific utilities supply to the VTD system in accordance with SOP valve line-ups and equipment operation. Verify emissions sampling ready status. Load 2 drums of the test feed completely into six trays in the dry room. Transfer the stacked trays into the Q-hut and load into the VTD retort. Close the retort, draw vacuum to tighten door and verify door seal inflation.
2 (Run-Heat-up)	350 → 650	3 - 5 550	4 ± 1	150 (60)	60	120	Begin batch heat cycle by setting the retort heater setpoint to 350 °F. Begin process gas emissions sampling. Set nitrogen purge rate to 4 - 5 scfm and nitrogen temperature to 300 °F. Monitor process temperatures and pressures during heat-up. When the retort temperature reaches 350 °F; hold for ~1 hours at 4" - 5" Hg vacuum.
3 (Run-Heat-up)	650 → 900	2 - 3 @ 600	4 → 26	100 (60)	90	150	Ramp the VTD temperature to 650 °F. Set nitrogen purge rate to 3 - 5 scfm and nitrogen temperature to 550 °F. Monitor process temperatures and oxygen. When the retort temperature reaches 650 °F; hold for 1 hour at 4" - 5" Hg vacuum. Close the upper/lower cond. tanks isolation valve prior to starting the next stage.
4 (Run-Hold)	900 → 1,000	2 - 3 @ 600	27.5 (max limit)	100 (30)	240	270	Ramp the VTD temperature to 900 °F. Adjust nitrogen purge rate to 2 - 3 scfm and nitrogen temperature to 600 °F. Increase the vacuum in 3" - 4" Hg increments. When the retort temperature reaches 900 °F and vacuum 26" Hg; hold for 1.5 hours.
5 (Cool-down)	1,000 → 200	4 - 8 @ heater off	27.5 → 4 → off			420	Ramp the VTD temperature to 1,000 °F. Maintain nitrogen purge rate of 2 - 3 scfm and nitrogen temperature of 600 °F. When the retort temperature reaches 1,000 °F and vacuum 27.5" Hg; hold for up to 4 hours.
6 (Unload-Sample)	<200	Off	Off	-		[~17 - 19 total hours]	Place system in Cool Down Mode. Turn the nitrogen heater off. Vacuum maintained at 4" Hg and nitrogen purge rate maintained to 5 - 6 scfm. When the retort temperature falls to < 400 °F, stop nitrogen purge and vacuum system operation. Maintain retort cooldown blower operation.
							When the retort temperature falls to < 200 °F, stop cooldown sequence. Remove trays and move to Q-hut sub-enclosure. Collect one (1) 1-liter sample from each tray per sampling instructions. Dump the trays into two clean 55-gal drums. Weigh all drums and move to designated cooling area. Transfer batch condensate from tanks into tote container. Drain verify all tanks and filter housings. Prepare for next batch.

**Click Pin for Excel Spreadsheet of PFF VTD
Batch Runs Process Data**



Appendix B

VTD Batch Feedstock Preparation and Spike Data

☒ Non-RAD
☐ RAD
☐ Special precautions
(see remarks)

☐ Industrial
☐ Mixed Waste
☒ R&D
☐ Other (see remarks)

☒ Non-Certified Analysis
☐ Certified Analysis (Metals & pH only)

Priority:
☐ Routine
☒ Rush

Delivery method:
☒ In person
☐ Common carrier (specify)
☐ Other (see remarks)

Perma-Fix of Florida
Analytical Services Laboratory

Chain of Custody Record & Analysis Request

Page 1 of 1

MW No:

Project Name: VTD TSCA Testing 2024 - Preliminary		Analyses Requested (use supplemental form if needed)																		
Project No.: 018N																				
Sample ID No.		Sampling Date	Sampling Time	Matrix ¹	Preserve ²	Containers		Density	pH	Flash point	BTU	TX	PCBs	FID	Total Metals	TCLP Metals	VOLs	Semi-VOLs	Other (Specify)	
PAS-41668	Y	1/29/2024	8:00 AM	Solid		1	P								X		X	X		
PAS-41669	Y	1/29/2024	8:00 AM	Solid		1	P								X		X	X		
PAS-																				
PAS-																				
PAS-																				
PAS-																				
PAS-																				
PAS-																				
PAS-																				
PAS-																				
PAS-																				
Sampled by: Jeffery Gonzales		Date/Time: 1/29/24 8:00	Remarks:																	
Relinquished by: Jeffery Gonzales		Date/Time: 1/29/24 8:00	Received by: [Signature]		Date/Time: 1-29-24 / 0800															
Relinquished by:		Date/Time:	Received by:		Date/Time:															

¹ Matrix: Aq Liq, Org Liq, Solid, Sludge

² Preservative: Blank = Unpreserved. A = HNO₃ to pH < 2; B = NaOH to pH > 12; C = cool to 4° C; O = Other (specify)

³ Type: P = Plastic; G = Glass



PERMA-FIX ANALYTICAL SERVICES

2010 NW 67th Place, Gainesville, FL 32653

Phone: (352) 373-6066

DATA QUALIFIERS

- A : The value reported is the arithmetic mean (average) of two or more measurements.
- B : Blank contamination. The analyte was detected above one-half the reporting limit in an associated blank.
- F : One or more quality control criteria (i.e., recovery, accuracy, precision) failed.
- I : The reported value is between the laboratory method detection limit (MDL) and the laboratory practical quantitation limit (PQL).
- J1 : The reported value is an estimate. No known quality control criteria exist for the component.
- J2 : The reported value is an estimate. It failed to meet the established quality control criteria for either precision (duplicate) or accuracy (spike).
- J3 : The reported value is an estimate. The sample matrix interfered with the ability to make an accurate measurement.
- J4 : The reported value is an estimate. The data are questionable because of improper laboratory or field protocols.
- J5 : The reported value is an estimate. The calibration verification did not meet calibration acceptance criteria.
- K : Off-scale low. Actual value is known to be less than the value given.
- L : Off-scale high. The concentration of the analyte exceeds the highest calibration standard.
- M : The analyte level is too low to permit accurate quantitation, but the estimated concentration is greater than the Method Detection Limit.
- O : Sampled, but analysis lost, not requested, or not performed due to insufficient sample.
- Q : Sample held beyond the accepted holding time.
- T : Value reported is less than the laboratory method detection limit (MDL). The value is reported for informational purposes only and shall not be used in statistical analysis.
- U : The value reported with this qualifier is the laboratory method detection limit. Analysis was performed, but the analyte was not detected above the method detection limit.
- V : The analyte was detected above MDL in the method blank. The blank value has not been subtracted from the sample result.
- Y : The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
- Z : Not reported due to interference.
- ? : Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside acceptance criteria and the presence or absence of the analyte cannot be determined from the data.
- * : Miscellaneous data qualifier. See description on the report.

NOTES :

1. All results relate only to the samples as received by the PAS Laboratory and the items tested.
2. Unless otherwise indicated, concentrations are reported on an as-received rather than dry weight basis.
3. Non-certified analytical results cannot be used to make regulatory determinations.
4. Perma-Fix Analytical Services analytical method SOPs are based on modified SW-846 methods where applicable.

REPORT OF GCMS 'VOLATILES' ANALYSIS

PAS Number : 41668

Chain of Custody : N/A

Sample ID : DE

Project Name : VTD TSCA Testing 2024-Preliminary

Project No. : 018n

Sample Matrix : Solid

Date Analyzed : 02/07/24

Analyst : VTT

PAS SOP : 4000-016

Page : 1 of 1

ANALYTE	RESULT	DATA FLAGS	UNITS	MDL LIMIT	PQL LIMIT	REG. LIMIT
Dichlorodifluoromethane	N/D	<MDL	mg/kg	2.71	10.83	7.20
Chloromethane	N/D	<MDL	mg/kg	1.85	7.41	30.0
Vinyl Chloride	N/D	<MDL	mg/kg	1.90	7.60	6.00
Bromomethane	N/D	<MDL	mg/kg	1.90	7.62	15.0
Chloroethane	N/D	<MDL	mg/kg	1.91	7.65	6.00
Trichlorofluoromethane	N/D	<MDL	mg/kg	1.54	6.17	30.0
1,1-Dichloroethene	N/D	<MDL	mg/kg	1.62	6.46	6.00
Methylene Chloride	N/D	<MDL	mg/kg	1.07	4.26	30.0
Trans-1,2 -Dichloroethene	N/D	<MDL	mg/kg	1.44	5.76	30.0
1,1 -Dichloroethane	N/D	<MDL	mg/kg	1.11	4.46	6.00
Trichloromethane (Chloroform)	N/D	<MDL	mg/kg	1.09	4.35	6.00
1,1,1 -Trichloroethane	N/D	<MDL	mg/kg	1.41	5.63	6.00
Tetrachloromethane (Carbon Tet.)	N/D	<MDL	mg/kg	2.93	11.70	6.00
Benzene	N/D	<MDL	mg/kg	1.17	4.68	10.0
1,2 -Dichloroethane	N/D	<MDL	mg/kg	1.73	6.91	6.00
Trichloroethene	N/D	<MDL	mg/kg	1.08	4.31	6.00
1,2 -Dichloropropane	N/D	<MDL	mg/kg	0.82	3.29	18.0
Bromodichloromethane	N/D	<MDL	mg/kg	0.84	3.38	15.0
Dibromomethane	N/D	<MDL	mg/kg	0.68	2.72	15.0
cis- 1,3 - Dichloropropene	N/D	<MDL	mg/kg	0.66	2.65	18.0
Methylbenzene (Toluene)	N/D	<MDL	mg/kg	0.68	2.74	10.0
Trans -1,3 -Dichloropropene	N/D	<MDL	mg/kg	4.14	16.57	18.0
1,1,2- Trichloroethane	N/D	<MDL	mg/kg	0.78	3.11	6.00
Tetrachloroethene (Perc)	N/D	<MDL	mg/kg	1.27	5.09	6.00
Dibromochloromethane	N/D	<MDL	mg/kg	0.88	3.53	15.0
1,2 -Dibromoethane	N/D	<MDL	mg/kg	0.70	2.82	15.0
Chlorobenzene	N/D	<MDL	mg/kg	2.08	8.30	6.00
1,1,1,2 -Tetrachloroethane	N/D	<MDL	mg/kg	1.02	4.07	6.00
Ethylbenzene	N/D	<MDL	mg/kg	3.75	14.99	10.0
m & p Xylenes	N/D	<MDL	mg/kg	0.97	3.89	20.0
o - Xylenes	N/D	<MDL	mg/kg	1.58	6.32	10.0
Tribromomethane (Bromoform)	N/D	<MDL	mg/kg	1.62	6.47	15.0
1,1,2,2 - Tetrachloroethane	N/D	<MDL	mg/kg	2.55	10.22	6.00
1,2,3 -Trichloropropane	N/D	<MDL	mg/kg	2.66	10.65	30.0
Naphthalene	N/D	<MDL	mg/kg	2.59	10.35	5.60

NOTES :

1. REGULATORY LIMITS are for LDR Volatiles in Non Waste Water (solid) Matrices.
2. Unless otherwise indicated, concentrations are reported on an as-received rather than dry weight basis.
3. Results reported as N/D did not have detectable amounts of the analyte.
4. Results reported as N/Q could not be analyzed for due to sample interference.
5. The PAS Laboratory analytical method SOPs are based on modified SW-846 methods where applicable.
6. The PAS Laboratory is not certified by the state for volatiles analysis. Therefore these results cannot be used to make regulatory determinations.
7. Results with reported values less than PQL must be regarded as estimates and may not be compared to regulatory limits.

This report has been prepared and reviewed in accordance with Perma-Fix of Florida, Inc. standard operating procedures.
Please direct any questions to Sophia Barbour, Laboratory Manager.

Data reviewed by

Date

2/12/24

REPORT OF GCMS 'SEMI-VOLATILES' ANALYSIS

PAS Number : 41668
Chain of Custody : N/A

Sample ID : DE
Project Name : VTD TSCA Testing Preliminary
Project# : 018N
Sample Matrix : Solid

Date Analyzed : 01/31/24
PAS SOP : 4000-006
Analyst : CMD/CNJ

ANALYTE	CAS#	RESULT**	FLAG	UNITS	MDL LIMIT	PQL LIMIT	REG. LIMIT
N-Nitrosodimethylamine	62-75-9	N/D	<MDL	mg/kg	1.88	9.41	2.30
Pyridine	110-86-1	N/D	<MDL	mg/kg	3.33	16.67	16.0
Aniline	62-53-3	N/D	<MDL	mg/kg	3.70	18.49	14.0
Phenol	108-95-2	N/D	<MDL	mg/kg	2.19	10.94	6.20
2-Chlorophenol	95-57-8	N/D	<MDL	mg/kg	4.55	22.73	5.70
Bis(2-chloroethyl) ether	111-44-4	N/D	<MDL	mg/kg	2.40	11.98	6.00
1,3-Dichlorobenzene	541-73-1	N/D	<MDL	mg/kg	1.61	8.05	6.00
1,4-Dichlorobenzene	106-46-7	N/D	<MDL	mg/kg	1.83	9.14	6.00
1,2-Dichlorobenzene	95-50-1	N/D	<MDL	mg/kg	1.63	8.13	6.00
2-Methylphenol	95-48-7	N/D	<MDL	mg/kg	1.70	8.50	5.60
Bis(2-chloroisopropyl) ether	39638-32-9	N/D	<MDL	mg/kg	4.31	21.54	7.20
Acetophenone	98-86-2	N/D	<MDL	mg/kg	2.76	13.82	9.70
4-Methylphenol / 3-Methylphenol	106-44-5 / 108-39-4	N/D	<MDL	mg/kg	4.67	23.34	5.60
N-nitroso-di-n-propylamine	621-64-7	N/D	<MDL	mg/kg	2.15	10.76	14.0
Hexachloroethane	67-72-1	N/D	<MDL	mg/kg	1.74	8.68	30.0
Nitrobenzene	98-95-3	N/D	<MDL	mg/kg	2.14	10.70	14.0
2-Nitrophenol	88-75-5	N/D	<MDL	mg/kg	3.93	19.67	13.0
2,4-Dimethylphenol	105-67-9	N/D	<MDL	mg/kg	2.34	11.70	14.0
bis (2-chloroethoxy) methane	111-91-1	N/D	<MDL	mg/kg	1.55	7.76	7.20
2,4-Dichlorophenol	120-83-2	N/D	<MDL	mg/kg	3.78	18.90	14.0
1,2,4-Trichlorobenzene	120-82-1	N/D	<MDL	mg/kg	1.94	9.68	19.0
Naphthalene	91-20-3	N/D	<MDL	mg/kg	2.06	10.28	5.60
4-Chloroaniline (p-Chloroaniline)	106-47-8	N/D	<MDL	mg/kg	1.66	8.28	16.0
2,6-Dichlorophenol	87-65-0	N/D	<MDL	mg/kg	1.81	9.05	14.0
Hexachloropropene	1888-71-7	N/D	<MDL	mg/kg	2.20	10.98	30.0
Hexachloro-1,3-butadiene	87-68-3	N/D	<MDL	mg/kg	2.42	12.10	5.60
4-Chloro-3-methylphenol	59-50-7	N/D	<MDL	mg/kg	4.43	22.16	14.0
Safrole	94-59-7	N/D	<MDL	mg/kg	2.40	11.99	22.0
1,2,4,5-Tetrachlorobenzene	95-94-3	N/D	<MDL	mg/kg	3.24	16.21	14.0
Hexachlorocyclopentadiene	77-47-4	N/D	<MDL	mg/kg	3.46	17.30	2.40
2,4,6-Trichlorophenol	88-06-2	N/D	<MDL	mg/kg	2.47	12.33	7.40
2,4,5-Trichlorophenol	95-95-4	N/D	<MDL	mg/kg	2.00	9.99	7.40
Isosafrole	120-58-1	N/D	<MDL	mg/kg	2.38	11.91	2.60
2-Chloronaphthalene	91-58-7	N/D	<MDL	mg/kg	2.04	10.21	5.60
2-Nitroaniline	88-74-4	N/D	<MDL	mg/kg	2.09	10.46	14.0
Dimethyl phthalate	131-11-3	N/D	<MDL	mg/kg	2.42	12.11	28.0
2,6-Dinitrotoluene	606-20-2	N/D	<MDL	mg/kg	1.85	9.24	28.0
Acenaphthylene	208-96-8	N/D	<MDL	mg/kg	2.80	13.99	3.40
4-Nitroaniline	100-01-6	N/D	<MDL	mg/kg	11.05	55.23	28.0
Acenaphthene	83-32-9	N/D	<MDL	mg/kg	2.04	10.19	3.40
2,4-Dinitrophenol	51-28-5	N/D	<MDL	mg/kg	8.43	42.16	160
4-Nitrophenol	100-02-7	N/D	<MDL	mg/kg	20.46	102.30	29.0
Pentachlorobenzene	608-93-5	N/D	<MDL	mg/kg	2.61	13.04	10.0
2,4-Dinitrotoluene	121-14-2	N/D	<MDL	mg/kg	3.49	17.45	140
2,3,4,6-Tetrachlorophenol	58-90-2	N/D	<MDL	mg/kg	4.94	24.71	7.40
Diethylphthalate	84-66-2	N/D	<MDL	mg/kg	2.36	11.79	28.0
Fluorene	86-73-7	N/D	<MDL	mg/kg	1.60	7.98	3.40

ANALYTE	CAS#	RESULT**	FLAG	UNITS	MDL LIMIT	PQL LIMIT	REG. LIMIT
4,6-Dinitro-2-methylphenol	534-52-1	N/D	<MDL	mg/kg	0.84	10.61	160
Diphenylamine	122-39-4	N/D	<MDL	mg/kg	2.23	11.16	13.0
4-Bromophenyl phenyl ether	101-55-3	N/D	<MDL	mg/kg	2.41	12.03	15.0
Phenacetin	62-44-2	N/D	<MDL	mg/kg	10.10	50.48	16.0
Hexachlorobenzene	118-74-1	N/D	<MDL	mg/kg	1.87	9.37	10.0
Pentachlorophenol	87-86-5	N/D	<MDL	mg/kg	0.85	4.26	7.40
Pentachloronitrobenzene	82-68-8	N/D	<MDL	mg/kg	1.00	4.99	4.80
Phenanthrene	85-01-8	N/D	<MDL	mg/kg	1.81	9.05	5.60
Anthracene	120-12-7	N/D	<MDL	mg/kg	2.10	10.49	3.40
Dinoseb	88-85-7	N/D	<MDL	mg/kg	0.86	4.29	2.50
Di-n-butylphthalate	84-74-2	N/D	<MDL	mg/kg	1.63	8.14	28.0
Isodrin	465-73-6	N/D	<MDL	mg/kg	2.00	10.02	0.066
Fluoranthene	206-44-0	N/D	<MDL	mg/kg	2.40	11.98	3.40
Pyrene	129-00-0	N/D	<MDL	mg/kg	2.26	11.29	8.20
Benzyl butyl phthalate	85-68-7	N/D	<MDL	mg/kg	2.26	20.30	28.0
Benz(a)anthracene	56-55-3	N/D	<MDL	mg/kg	4.06	10.42	3.40
Chrysene	218-01-9	N/D	<MDL	mg/kg	2.08	6.24	3.40
Di-n-octyl phthalate	117-84-0	N/D	<MDL	mg/kg	1.25	4.24	28.0
Bis(2-ethylhexyl)phthalate	117-81-7	N/D	<MDL	mg/kg	0.83	28.21	28.0
Benzo(b)fluoranthene	205-99-2	N/D	<MDL	mg/kg	5.64	4.77	6.80
Benzo(k)fluoranthene	207-08-9	N/D	<MDL	mg/kg	0.95	10.40	6.80
Benzo(a)pyrene	50-32-8	N/D	<MDL	mg/kg	2.08	6.93	3.40
3-Methylcholanthrene	56-49-5	N/D	<MDL	mg/kg	1.39	14.59	15.0
Indeno(1,2,3-cd)pyrene	193-39-5	N/D	<MDL	mg/kg	2.92	8.47	3.40
Dibenz(a,h)anthracene	53-70-3	N/D	<MDL	mg/kg	1.69	11.11	8.20
Benzo(g,h,i)perylene	191-24-2	N/D	<MDL	mg/kg	2.22	6.01	1.80

NOTES:

1. REG. LIMITS are for LDR Semi-Volatiles in Non Waste Water (solid) Matrices.
2. The PQL (Practical Quantitation Level) is based on 4x the MDL or the lowest calibration standard.
3. Results reported as N/A were not analyzed for.
4. Results reported as N/Q could not be analyzed for due to sample interference.
5. Results reported as N/D did not have detectable amounts of the analyte.
6. Results with reported values less than PQL must be regarded as estimates and may not be compared to regulatory limits.
7. Unless otherwise indicated, concentrations are reported on an as-received rather than dry weight basis.
8. The PAS Laboratory is not a state certified lab for semi-volatiles analysis, therefore these results cannot be used to make regulatory determinations.
9. PAS Laboratory analytical method SOPs are based on modified SW-846 methods where applicable.

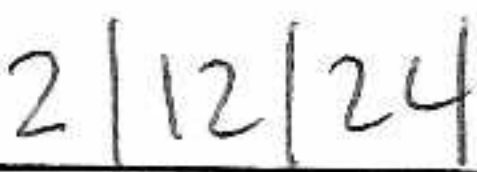
DATA QUALIFIERS:

** The reported value is an estimate. The quality control limits have been exceeded.

This report has been prepared and reviewed in accordance with Perma-Fix of Florida, Inc. standard operating procedures.
Please direct any questions to Sophia Barbour, Laboratory Manager.

Data reviewed by

Date



PERMA-FIX ANALYTICAL SERVICES

2010 NW 67th Place, Gainesville, FL 32653

Phone: (352) 373-6066

NON-CERTIFIED DATA REPORT OF TOTAL METALS ANALYSIS

ICP-MS; AGILENT MODEL 7850

PAS Number : PAS-41668

Chain of Custody : N/A

Project Name : VTD TSCA Testing 2024 Prelim.

Date Analyzed : 1/30/2024

Project No. : 018n

Analyst : MCN

Sample ID : DE

PAS SOP : 4000-015

Sample Matrix : Solid/Soil

Page : 1 of 1

ANALYTE	RESULT		UNITS	DATA FLAGS	MDL LIMIT	PQL LIMIT
ANTIMONY, (Sb)	1.71	<PQL	ppm	J2	0.541	2.70
ARSENIC, (As)	112		ppm	-	0.602	3.01
BARIUM, (Ba)	278		ppm	J2	0.465	2.32
BERYLLIUM, (Be)	0.673	<MDL	ppm	-	0.679	3.39
CADMIUM, (Cd)	0.101	<MDL	ppm	-	0.560	2.80
CHROMIUM, (Cr)	7.04	<PQL	ppm	-	1.94	9.72
LEAD, (Pb)	7.61		ppm	-	0.370	1.85
MERCURY, (Hg)	ND	<MDL	ppm	J5, F	0.196	0.982
NICKEL, (Ni)	7.27		ppm	-	1.14	5.72
SELENIUM, (Se)	1.15	<PQL	ppm	-	0.635	3.17
SILVER, (Ag)	0.0235	<PQL	ppm	-	0.017	0.0844
THALLIUM, (Tl)	0.205	<MDL	ppm	-	0.372	1.86
VANADIUM, (V)	30.2		ppm	-	0.922	4.61
ZINC, (Zn)	28.1		ppm	-	1.40	7.00
ALUMINUM, (Al)	10900		ppm	J2	L 65.9	329
COPPER, (Cu)	11.5		ppm	-	0.784	3.92
IRON, (Fe)	11600		ppm	J2	L 61.7	309
MAGNESIUM, (Mg)	1500		ppm	J2	L 12.8	64.2
PHOSPHORUS, (P)	111	<PQL	ppm	-	52.3	261
POTASSIUM, (K)	1900		ppm	-	9.25	46.3
SODIUM, (Na)	4230		ppm	J2	11.6	58.2
SULFUR, (S)	1020	<MDL	ppm	-	1435	7176
URANIUM 238, (U)	1.26		ppm	-	0.0481	0.241

NOTES :

ND: Not detectable.

1. All results relate only to the samples as received by the PAS Laboratory and the items tested.
2. Unless otherwise indicated, concentrations are reported on an as-received rather than dry weight basis.
3. Non-certified analytical results cannot be used to make regulatory determinations.
4. Perma-Fix Analytical Services analytical method SOPs are based on modified SW-846 methods where applicable.

This report has been prepared and reviewed in accordance with Perma-Fix of Florida, Inc. standard operating procedures.

Please direct any questions or feedback to Sophia Barbour, Laboratory Manager (sophia.barbour@perma-fix.com).

Data reviewed by

Date

2/12/24

REPORT OF GCMS 'VOLATILES' ANALYSIS

PAS Number : 41669
Chain of Custody : N/A

Sample ID : Zircon SAND
Project Name : VTD TSCA Testing 2024-Preliminary
Project No. : 018n
Sample Matrix : Solid

Date Analyzed : 02/07/24
Analyst : VTT
PAS SOP : 4000-016
Page : 1 of 1

ANALYTE	RESULT	DATA FLAGS	UNITS	MDL LIMIT	PQL LIMIT	REG. LIMIT
Dichlorodifluoromethane	N/D	<MDL	mg/kg	2.72	10.88	7.20
Chloromethane	N/D	<MDL	mg/kg	1.86	7.45	30.0
Vinyl Chloride	N/D	<MDL	mg/kg	1.91	7.64	6.00
Bromomethane	N/D	<MDL	mg/kg	1.91	7.66	15.0
Chloroethane	N/D	<MDL	mg/kg	1.92	7.69	6.00
Trichlorofluoromethane	N/D	<MDL	mg/kg	1.55	6.20	30.0
1,1-Dichloroethene	N/D	<MDL	mg/kg	1.62	6.50	6.00
Methylene Chloride	N/D	<MDL	mg/kg	1.07	4.28	30.0
Trans-1,2 -Dichloroethene	N/D	<MDL	mg/kg	1.45	5.79	30.0
1,1 -Dichloroethane	N/D	<MDL	mg/kg	1.12	4.48	6.00
Trichloromethane (Chloroform)	N/D	<MDL	mg/kg	1.09	4.38	6.00
1,1,1 -Trichloroethane	N/D	<MDL	mg/kg	1.41	5.65	6.00
Tetrachloromethane (Carbon Tet.)	N/D	<MDL	mg/kg	2.94	11.76	6.00
Benzene	N/D	<MDL	mg/kg	1.18	4.71	10.0
1,2 -Dichloroethane	N/D	<MDL	mg/kg	1.74	6.95	6.00
Trichloroethene	N/D	<MDL	mg/kg	1.08	4.33	6.00
1,2 -Dichloropropane	N/D	<MDL	mg/kg	0.83	3.30	18.0
Bromodichloromethane	N/D	<MDL	mg/kg	0.85	3.40	15.0
Dibromomethane	N/D	<MDL	mg/kg	0.68	2.73	15.0
cis- 1,3 - Dichloropropene	N/D	<MDL	mg/kg	0.67	2.67	18.0
Methylbenzene (Toluene)	N/D	<MDL	mg/kg	0.69	2.75	10.0
Trans -1,3 -Dichloropropene	N/D	<MDL	mg/kg	4.16	16.65	18.0
1,1,2- Trichloroethane	N/D	<MDL	mg/kg	0.78	3.13	6.00
Tetrachloroethene (Perc)	N/D	<MDL	mg/kg	1.28	5.12	6.00
Dibromochloromethane	N/D	<MDL	mg/kg	0.89	3.55	15.0
1,2 -Dibromoethane	N/D	<MDL	mg/kg	0.71	2.83	15.0
Chlorobenzene	N/D	<MDL	mg/kg	2.09	8.34	6.00
1,1,1,2 -Tetrachloroethane	N/D	<MDL	mg/kg	1.02	4.09	6.00
Ethylbenzene	N/D	<MDL	mg/kg	3.77	15.06	10.0
m & p Xylenes	N/D	<MDL	mg/kg	0.98	3.91	20.0
o - Xylenes	N/D	<MDL	mg/kg	1.59	6.35	10.0
Tribromomethane (Bromoform)	N/D	<MDL	mg/kg	1.63	6.50	15.0
1,1,2,2 - Tetrachloroethane	N/D	<MDL	mg/kg	2.57	10.27	6.00
1,2,3 -Trichloropropane	N/D	<MDL	mg/kg	2.68	10.71	30.0
Naphthalene	N/D	<MDL	mg/kg	2.60	10.40	5.60

NOTES :

1. REGULATORY LIMITS are for LDR Volatiles in Non Waste Water (solid) Matrices.
2. Unless otherwise indicated, concentrations are reported on an as-received rather than dry weight basis.
3. Results reported as N/D did not have detectable amounts of the analyte.
4. Results reported as N/Q could not be analyzed for due to sample interference.
5. The PAS Laboratory analytical method SOPs are based on modified SW-846 methods where applicable.
6. The PAS Laboratory is not certified by the state for volatiles analysis. Therefore these results cannot be used to make regulatory determinations.
7. Results with reported values less than PQL must be regarded as estimates and may not be compared to regulatory limits.

This report has been prepared and reviewed in accordance with Perma-Fix of Florida, Inc. standard operating procedures.
Please direct any questions to Sophia Barbour, Laboratory Manager.

Data reviewed by

Date

[Signature]

2/12/24

REPORT OF GCMS 'SEMI-VOLATILES' ANALYSIS

PAS Number : 41669
Chain of Custody : N/A

Sample ID : Zircon SAND
Project Name : VTD TSCA Testing Preliminary
Project# : 018N
Sample Matrix : Solid

Date Analyzed : 01/31/24
PAS SOP : 4000-006
Analyst : CMD/CNJ

ANALYTE	CAS#	RESULT**	FLAG	UNITS	MDL LIMIT	PQL LIMIT	REG. LIMIT
N-Nitrosodimethylamine	62-75-9	N/D	<MDL	mg/kg	0.99	4.95	2.30
Pyridine	110-86-1	N/D	<MDL	mg/kg	1.75	8.76	16.0
Aniline	62-53-3	N/D	<MDL	mg/kg	1.94	9.72	14.0
Phenol	108-95-2	N/D	<MDL	mg/kg	1.15	5.75	6.20
2-Chlorophenol	95-57-8	N/D	<MDL	mg/kg	2.39	11.95	5.70
Bis(2-chloroethyl) ether	111-44-4	N/D	<MDL	mg/kg	1.26	6.30	6.00
1,3-Dichlorobenzene	541-73-1	N/D	<MDL	mg/kg	0.85	4.23	6.00
1,4-Dichlorobenzene	106-46-7	N/D	<MDL	mg/kg	0.96	4.80	6.00
1,2-Dichlorobenzene	95-50-1	N/D	<MDL	mg/kg	0.86	4.28	6.00
2-Methylphenol	95-48-7	N/D	<MDL	mg/kg	0.89	4.47	5.60
Bis(2-chloroisopropyl) ether	39638-32-9	N/D	<MDL	mg/kg	2.26	11.32	7.20
Acetophenone	98-86-2	N/D	<MDL	mg/kg	1.45	7.26	9.70
4-Methylphenol / 3-Methylphenol	106-44-5 / 108-39-4	N/D	<MDL	mg/kg	2.45	12.27	5.60
N-nitroso-di-n-propylamine	621-64-7	N/D	<MDL	mg/kg	1.13	5.66	14.0
Hexachloroethane	67-72-1	N/D	<MDL	mg/kg	0.91	4.56	30.0
Nitrobenzene	98-95-3	N/D	<MDL	mg/kg	1.12	5.62	14.0
2-Nitrophenol	88-75-5	N/D	<MDL	mg/kg	2.07	10.34	13.0
2,4-Dimethylphenol	105-67-9	N/D	<MDL	mg/kg	1.23	6.15	14.0
bis (2-chloroethoxy) methane	111-91-1	N/D	<MDL	mg/kg	0.82	4.08	7.20
2,4-Dichlorophenol	120-83-2	N/D	<MDL	mg/kg	1.99	9.94	14.0
1,2,4-Trichlorobenzene	120-82-1	N/D	<MDL	mg/kg	1.02	5.09	19.0
Naphthalene	91-20-3	N/D	<MDL	mg/kg	1.08	5.40	5.60
4-Chloroaniline (p-Chloroaniline)	106-47-8	N/D	<MDL	mg/kg	0.87	4.35	16.0
2,6-Dichlorophenol	87-65-0	N/D	<MDL	mg/kg	0.95	4.76	14.0
Hexachloropropene	1888-71-7	N/D	<MDL	mg/kg	1.15	5.77	30.0
Hexachloro-1,3-butadiene	87-68-3	N/D	<MDL	mg/kg	1.27	6.36	5.60
4-Chloro-3-methylphenol	59-50-7	N/D	<MDL	mg/kg	2.33	11.65	14.0
Safrole	94-59-7	N/D	<MDL	mg/kg	1.26	6.30	22.0
1,2,4,5-Tetrachlorobenzene	95-94-3	N/D	<MDL	mg/kg	1.70	8.52	14.0
Hexachlorocyclopentadiene	77-47-4	N/D	<MDL	mg/kg	1.82	9.09	2.40
2,4,6-Trichlorophenol	88-06-2	N/D	<MDL	mg/kg	1.30	6.48	7.40
2,4,5-Trichlorophenol	95-95-4	N/D	<MDL	mg/kg	1.05	5.25	7.40
Isosafrole	120-58-1	N/D	<MDL	mg/kg	1.25	6.26	2.60
2-Chloronaphthalene	91-58-7	N/D	<MDL	mg/kg	1.07	5.37	5.60
2-Nitroaniline	88-74-4	N/D	<MDL	mg/kg	1.10	5.50	14.0
Dimethyl phthalate	131-11-3	N/D	<MDL	mg/kg	1.27	6.37	28.0
2,6-Dinitrotoluene	606-20-2	N/D	<MDL	mg/kg	0.97	4.86	28.0
Acenaphthylene	208-96-8	N/D	<MDL	mg/kg	1.47	7.35	3.40
4-Nitroaniline	100-01-6	N/D	<MDL	mg/kg	5.81	29.03	28.0
Acenaphthene	83-32-9	N/D	<MDL	mg/kg	1.07	5.35	3.40
2,4-Dinitrophenol	51-28-5	N/D	<MDL	mg/kg	4.43	22.16	160
4-Nitrophenol	100-02-7	N/D	<MDL	mg/kg	10.75	53.77	29.0
Pentachlorobenzene	608-93-5	N/D	<MDL	mg/kg	1.37	6.85	10.0
2,4-Dinitrotoluene	121-14-2	N/D	<MDL	mg/kg	1.83	9.17	140
2,3,4,6-Tetrachlorophenol	58-90-2	N/D	<MDL	mg/kg	2.60	12.99	7.40
Diethylphthalate	84-66-2	N/D	<MDL	mg/kg	1.24	6.20	28.0
Fluorene	86-73-7	N/D	<MDL	mg/kg	0.84	4.19	3.40

ANALYTE	CAS#	RESULT**	FLAG	UNITS	MDL LIMIT	PQL LIMIT	REG. LIMIT
4,6-Dinitro-2-methylphenol	534-52-1	N/D	<MDL	mg/kg	0.44	5.57	160
Diphenylamine	122-39-4	N/D	<MDL	mg/kg	1.17	5.87	13.0
4-Bromophenyl phenyl ether	101-55-3	N/D	<MDL	mg/kg	1.26	6.32	15.0
Phenacetin	62-44-2	N/D	<MDL	mg/kg	5.31	26.53	16.0
Hexachlorobenzene	118-74-1	N/D	<MDL	mg/kg	0.98	4.92	10.0
Pentachlorophenol	87-86-5	N/D	<MDL	mg/kg	0.45	2.24	7.40
Pentachloronitrobenzene	82-68-8	N/D	<MDL	mg/kg	0.52	2.62	4.80
Phenanthrene	85-01-8	N/D	<MDL	mg/kg	0.95	4.76	5.60
Anthracene	120-12-7	N/D	<MDL	mg/kg	1.10	5.52	3.40
Dinoseb	88-85-7	N/D	<MDL	mg/kg	0.45	2.25	2.50
Di-n-butylphthalate	84-74-2	N/D	<MDL	mg/kg	0.86	4.28	28.0
Isodrin	465-73-6	N/D	<MDL	mg/kg	1.05	5.27	0.066
Fluoranthene	206-44-0	N/D	<MDL	mg/kg	1.26	6.30	3.40
Pyrene	129-00-0	N/D	<MDL	mg/kg	1.19	5.93	8.20
Benzyl butyl phthalate	85-68-7	N/D	<MDL	mg/kg	1.19	10.67	28.0
Benz(a)anthracene	56-55-3	N/D	<MDL	mg/kg	2.13	5.48	3.40
Chrysene	218-01-9	N/D	<MDL	mg/kg	1.10	3.28	3.40
Di-n-octyl phthalate	117-84-0	N/D	<MDL	mg/kg	0.66	2.23	28.0
Bis(2-ethylhexyl)phthalate	117-81-7	N/D	<MDL	mg/kg	0.44	14.83	28.0
Benzo(b)fluoranthene	205-99-2	N/D	<MDL	mg/kg	2.97	2.51	6.80
Benzo(k)fluoranthene	207-08-9	N/D	<MDL	mg/kg	0.50	5.46	6.80
Benzo(a)pyrene	50-32-8	N/D	<MDL	mg/kg	1.09	3.64	3.40
3-Methylcholanthrene	56-49-5	N/D	<MDL	mg/kg	0.73	7.67	15.0
Indeno(1,2,3-cd)pyrene	193-39-5	N/D	<MDL	mg/kg	1.53	4.45	3.40
Dibenz(a,h)anthracene	53-70-3	N/D	<MDL	mg/kg	0.89	5.84	8.20
Benzo(g,h,i)perylene	191-24-2	N/D	<MDL	mg/kg	1.17	3.16	1.80

NOTES:

1. REG. LIMITS are for LDR Semi-Volatiles in Non Waste Water (solid) Matrices.
2. The PQL (Practical Quantitation Level) is based on 4x the MDL or the lowest calibration standard.
3. Results reported as N/A were not analyzed for.
4. Results reported as N/Q could not be analyzed for due to sample interference.
5. Results reported as N/D did not have detectable amounts of the analyte.
6. Results with reported values less than PQL must be regarded as estimates and may not be compared to regulatory limits.
7. Unless otherwise indicated, concentrations are reported on an as-received rather than dry weight basis.
8. The PAS Laboratory is not a state certified lab for semi-volatiles analysis, therefore these results cannot be used to make regulatory determinations.
9. PAS Laboratory analytical method SOPs are based on modified SW-846 methods where applicable.

DATA QUALIFIERS:

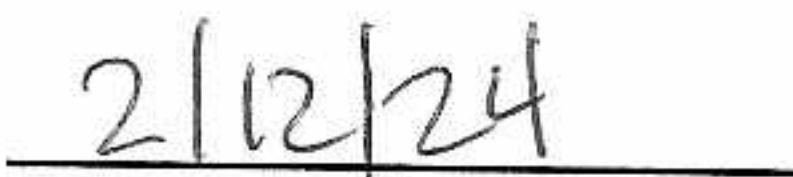
** The reported value is an estimate. The quality control limits have been exceeded.

This report has been prepared and reviewed in accordance with Perma-Fix of Florida, Inc. standard operating procedures. Please direct any questions to Sophia Barbour, Laboratory Manager.

Data reviewed by



Date





PERMA-FIX ANALYTICAL SERVICES

2010 NW 67th Place, Gainesville, FL 32653

Phone: (352) 373-6066

NON-CERTIFIED DATA REPORT OF TOTAL METALS ANALYSIS

ICP-MS; AGILENT MODEL 7850

PAS Number : PAS-41669
 Project Name : VTD TSCA Testing 2024 Prelim.
 Project No. : 018n
 Sample ID : Zircon SAND
 Sample Matrix : Solid/Soil

Chain of Custody : N/A
 Date Analyzed : 1/30/2024
 Analyst : MCN
 PAS SOP : 4000-015
 Page : 1 of 1

ANALYTE	RESULT		UNITS	DATA FLAGS	MDL LIMIT	PQL LIMIT
ANTIMONY, (Sb)	ND	<MDL	ppm	J2	0.538	2.69
ARSENIC, (As)	0.113	<MDL	ppm	-	0.599	2.99
BARIUM, (Ba)	2.16	<PQL	ppm	J2	0.462	2.31
BERYLLIUM, (Be)	ND	<MDL	ppm	-	0.675	3.38
CADMIUM, (Cd)	ND	<MDL	ppm	-	0.557	2.79
CHROMIUM, (Cr)	0.668	<MDL	ppm	-	1.93	9.67
LEAD, (Pb)	2.03		ppm	-	0.368	1.84
MERCURY, (Hg)	ND	<MDL	ppm	J5, F	0.195	0.976
NICKEL, (Ni)	0.341	<MDL	ppm	-	1.14	5.70
SELENIUM, (Se)	0.523	<MDL	ppm	-	0.631	3.16
SILVER, (Ag)	0.0249	<PQL	ppm	-	0.017	0.0840
THALLIUM, (Tl)	ND	<MDL	ppm	-	0.370	1.85
VANADIUM, (V)	0.487	<MDL	ppm	-	0.917	4.59
ZINC, (Zn)	0.392	<MDL	ppm	-	1.39	6.96
ALUMINUM, (Al)	105	<PQL	ppm	J2	65.5	328
COPPER, (Cu)	0.362	<MDL	ppm	-	0.780	3.90
IRON, (Fe)	37.3	<MDL	ppm	J2	61.4	307
MAGNESIUM, (Mg)	3.91	<MDL	ppm	J2	12.8	63.8
PHOSPHORUS, (P)	ND	<MDL	ppm	-	52.0	260
POTASSIUM, (K)	4.83	<MDL	ppm	-	9.21	46.0
SODIUM, (Na)	ND	<MDL	ppm	J2	11.6	57.9
SULFUR, (S)	283	<MDL	ppm	-	1428	7139
URANIUM 238, (U)	0.615		ppm	-	0.0479	0.239


NOTES :

ND: Not detectable.

1. All results relate only to the samples as received by the PAS Laboratory and the items tested.
2. Unless otherwise indicated, concentrations are reported on an as-received rather than dry weight basis.
3. Non-certified analytical results cannot be used to make regulatory determinations.
4. Perma-Fix Analytical Services analytical method SOPs are based on modified SW-846 methods where applicable.

This report has been prepared and reviewed in accordance with Perma-Fix of Florida, Inc. standard operating procedures.

Please direct any questions or feedback to Sophia Barbour, Laboratory Manager (sophia.barbour@perma-fix.com).


 Data reviewed by


 Date

To: Rich Devin

From: John Baier

RE: Surrogate Spike Weights

Rich,

Performed 26 July, 2024.

Balance Model	Serial Number	Capacity (gm)	Resolution (gm)
Ohaus SPX6201	C336769016	6200	0.1

Organic Spike:

Gross Weight (gm)	Tare Weight (gm)	Net Weight (gm)
4602.6	1204.4	3398.2

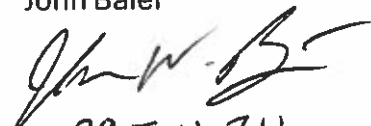
Metals Spike:

Gross Weight (gm)	Tare Weight (gm)	Net Weight (gm)
1171.0	40.2	1130.8

Note that these are the weights with the spikes weighed as received, then shaken and poured out for tare. Lid securing tape was maintained with the organic spike for gross and tare. Lids were maintained for gross and tare on both spikes. Net weights represent "to deliver" weights, i.e. what was added to each drum of surrogate material.

Thanks,

John Baier


29 JUL 24

Test Report

SwRI Project #: 28407.06.005
SwRI SDG: 720195
SwRI Task Order: 240520-2
SwRI Sample Receipt: 71145
Date Received: 05/13/2024

Prepared by:

*Southwest Research Institute®
Department of Analytical and Environmental Chemistry
6220 Culebra Road
San Antonio, Texas 78238*

Prepared for:

*Perma-Fix of Florida, Inc.
1940 N W 67th Place
Gainesville FL 32653
Attn: Rich Devin*

*Authorized for Release
06/19/2024 5:00PM
Jacqueline Ranger, Project Manager
Jacqueline.Ranger@swri.org
210-522-3320*

*Mike Dammann
Laboratory Director*



"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within this report. This report shall not be reproduced except in full without the written approval of SwRI."

Results relate only to the items tested and the samples/materials received by the laboratory.



SOUTHWEST RESEARCH INSTITUTE

Analytical Report

Testing of Organic and Metals Spike Mixtures

Prepared by:

Jackie Ranger

Prepared for:

Perma-Fix of Florida, Inc.

SwRI Project #: 28407.06.005

SwRI TO#: 240520-2

INTRODUCTION

Two spike solution samples were received at SwRI on 5/13/2024. The samples were logged into SwRI's Laboratory Information Management System (LIMS) under Sample Receipt Record (SRR) #71145 and were assigned to task order #240520-2. Table 1 contains the sample information. The SwRI task order and sample receipt information are provided in Appendix A.

Table 1. Sample Information

SwRI System ID	Customer Sample ID
720195	Metals Spike
720196	Organic Spike

METALS SPIKE SAMPLE ANALYSIS

The Metals Spike sample contained yellow-orange precipitate. Five milliliter aliquots of well-mixed sample were weighed in triplicate. The aliquots were initially digested with nitric acid, followed by hydrochloric acid, and then brought to fifty milliliter final volume with DI water. A preparation blank and laboratory control sample were also prepared with the samples.

The resulting digestates were analyzed for arsenic, cadmium, chromium, and lead by ICP-AES, using SW-846 Method 6010D as a guide. The results are presented below in Table 2. The report and raw data are provided in Appendix B.

All QC criteria were met. The calibration verification (ICV/CCV) recoveries were within 90-110%. No analytes were detected above SwRI's reporting limits (RL) in the initial and continuing calibration blanks (ICB/CCB). The low level, check standard recoveries were within 80-120%. The percent recoveries for the ICSAB interference check samples were within 80-120%. The limits (which are the ICSA true value \pm 2 times the RL) were met for the ICSA interference check samples.

No analytes were detected in the preparation blank above SwRI's RLs. The laboratory control sample recoveries were within 80-120%. The recoveries for the post-digestion spike (AS) analyses were within 75-125%. The duplicate (D) and triplicate (T) relative percent differences (RPD) were less than 20%, when compared to the parent sample. The percent differences for the serial dilution analyses were less than 10%.

Table 2. Metals Spike Sample Results (in weight percent)

SwRI ID	Arsenic	Cadmium	Chromium	Lead
720195	1.69%	1.58%	1.49%	1.37%
720195D	1.68%	1.55%	1.48%	1.34%
720195T	1.64%	1.52%	1.45%	1.31%
Target	1.72%	1.62%	1.47%	1.46%

ORGANIC SPIKE SAMPLE ANALYSIS

The bulk density was determined for the Organic Spike sample according to SwRI TAP 01-0406-164. The test was performed at room temperature of 21.4°C. The sample was analyzed in duplicate (D). The RPD was less than 20%. DI water was used as the laboratory control sample, and an acceptable recovery of 100.2% was obtained. The results are presented in Table 3. The report and raw data are provided in Appendix C.

Table 3. Bulk Density Results for the Organic Spike Sample

SwRI ID	Bulk Density
720196	1.26 g/mL
720196D	1.26 g/mL

The Organic Spike sample was analyzed for the requested volatile organic compounds (VOC) using a purge and trap GC/MS method (similar to SW-846 Method 8260D). It was prepared using a methanol extraction procedure due to the high level of VOC's present in the sample. A method blank and two laboratory control samples (LCS, LCSD) were prepared with the sample.

The VOC results are presented below in Table 4. The report forms and raw data are provided in Appendix D. The sum of the reported VOCs is 102%. Given the large level of dilutions required, and the inherent variance in the instrumentation's daily performance, this value is within accuracy and precision data for this method.

Most QC met criteria. All compounds were recovered within the accepted limits for the initial calibration verification. The percent difference limits for the continuing calibration checks were met for all compounds. The bromofluorobenzene (BFB) instrument performance checks were acceptable. The surrogate recoveries were within 70-130%. The internal standard acceptance limits were met for the areas (-50% to 100%) and retention times (± 0.50 minutes).

No target compounds were detected in the method blank above SwRI's RLs. The recoveries for the LCS and LCSD were within 70-130%. The LCS/LCSD RPDs were less than 20%.

Table 4. Organic Spike Sample Results (in weight percent)

Compound	Result	Target
Ethylbenzene	0.890%	----
M/P-Xylene	6.40%	6.67%
O-Xylene	1.40%	
Tetrachloroethene	5.60%	6.67%
1,2-Dichlorobenzene	83.0%	80.0%
Naphthalene	5.00%	6.67%

SOUTHWEST RESEARCH INSTITUTE

CLIENT: Perma-Fix of Florida, Inc.

SwRI PROJECT#: 28407.06.005

SwRI Task Order: 240520-2

PO #: 718640

Appendix A

Sample Receipt Paperwork

Laboratory Task Order

TO #: 240520-2 Revision: 0

SDG: 720195
vtsr: 5/13/24SRR #'s: 71145
Client(s): Perma-Fix of Florida, Inc.Project(s): 28407.06.005
Manager(s): Ranger, Jacqueline
To Client: 06/03/24**Instructions**

Refer to client emails before starting.

The samples include 1 organic mixtures (4 compounds) and 1 aqueous metal mixtures (4 metal compounds in water). The client is using them for a treatment test. They are using a mass balance basis to determine test inputs and outputs. They need SwRI to analyze the mixtures to determine the actual mass-based concentrations of:

1. Each organic compound relative to the total mixture
2. Each metal (as pure metal) relative to the total mixture.

TAT: 21 days

Tests to include:

1. Metals list: As, Pb, Cd, and Cr
2. GC/MS Volatile Analysis for: Xylenes (o, m/p), Ethylbenzene, Dichlorobenzene-1,2, Tetrachloroethylene, and Napthalene
- NOTE per Elaine: run low level if Medium level indicates we can go lower
3. WET-MISC: Density for Organic Mixture sample only

Metals solution will be returned to the client.

Email results to: Rich Devin, rick.devin@perma-fix.com

Documents Related to this task order: 394853[COC for SRR 71145], 394854[Paperwork for SRR 71145], 392817[], 393810[]

Deliverables --> Hard Copy: no EDD: no PDF: -YES-

Test: 8260_S 5030 Medium
Section: VOA

Holding: 14 days from CED

SW846 Volatile Organic Compounds by GC/MS (SW 5030/8260 Rev D) for Solid/non-Aqueous Medium Level (Methanol Extraction)

Cnt: 1

System ID	Type	Cont	Matrix	Customer ID	CED	Method Date
720196		1	Liquid	Organic Spike	07 May 24	21 May 24

Test: DIG-MISC
Section: METALPREP

Holding: 180 days from CED

Miscellaneous Digestion

Cnt: 1

System ID	Type	Cont	Matrix	Customer ID	CED	Method Date
720195		1	Liquid	Metals Spike	07 May 24	03 Nov 24

Test: HANDLING-MET
Section: METALPREP

Holding: 180 days from CED

Special Handling required - See SOW/TOS or PM before starting. Do not start until plan of action has been approved by PM.

Cnt: 1

System ID	Type	Cont	Matrix	Customer ID	CED	Method Date
720195		1	Liquid	Metals Spike	07 May 24	03 Nov 24

Test: ICP-6010D
Section: METALS

Holding: 180 days from CED

ICP Method 6010D Total Metals

Cnt: 1

System ID	Type	Cont	Matrix	Customer ID	CED	Method Date
720195		1	Liquid	Metals Spike	07 May 24	03 Nov 24

Test: MET Narrative
Section: METALS

Holding: 0 days from CED

Metals Narrative

Cnt: 1

System ID	Type	Cont	Matrix	Customer ID	CED	Method Date
720195		1	Liquid	Metals Spike	07 May 24	07 May 24



Laboratory Task Order

TO #: 240520-2 Revision: 0

SDG: 720195
vtsr: 5/13/24SRR #'s: 71145
Client(s): Perma-Fix of Florida, Inc.Project(s): 28407.06.005
Manager(s): Ranger, Jacqueline
To Client: 06/03/24Test: WET-MISC
Section: WETCHEM

Holding: 60 days from CED

Any miscellaneous wetchem test.

Cnt: 1

System ID	Type	Cont	Matrix	Customer ID	CED	Method Date
720196		1	Liquid	Organic Spike	07 May 24	06 Jul 24



Southwest Research Institute

Sample Receipt

VTSR: 05/13/24

Time: 10:52:00

Project: 28407.06.005

Sample Receipt Number: 71145

Manager: Ranger, Jacqueline

Case #: Spike

Logged in by: DXGARCIA

Client: Perma-Fix of Florida, Inc.

Creation Date: 05/13/24

Notes

1 cooler was delivered to SwRI's Shipping & Receiving Warehouse. Division 01 AEC LOGIN staff picked up the cooler from Receiving and took custody. Samples were received intact.

FED Ex Tracking #:

7763 0803 0164 _16.5°C (wet ice).

See the chain-of-custody for more information.

Test requirements located on the applicable Task Order.

DELIVERY DISCREPANCY _ Cooler under FED EX Tracking # 7763 0803 0164 was shipped out on 05-09-2024 for anticipated delivery on 05-10-2024 (Friday). Due to a delay with FED EX, the cooler was finally delivered to SWRI on 05-13-2024 (Monday). The cooler arrived at an elevated temp of 16.5°C, with melted ice.

Background CPM: <120cpm
Container Wipe CPM: <120cpm
Total CPM: <120

System ID	Customer ID	CED	Matrix	Containers	Special Regs.
720195	Metals Spike	05/07/24	Liquid	1	
720196	Organic Spike	05/07/24	Liquid	1	

Containers: 2

Samples: 2

These documents are associated with this receipt: 394853[COC for SRR 71145], 394854[Paperwork for SRR 71145], 392817[], 393810[]

Thermometer: 029926
Temperature: 16.5

71145 Perma-Fix of Florida, Inc.

☒ Non-RAD
☐ RAD
☐ Special Precaution (Describe):

☐ Initial
☐ In Process
☒ Final

Priority:

☐ Routine
☐ Rush
☒ 21-Day

Perma-Fix of Florida External Lab Chain of Custody Record and Analysis Request

Page 1 of 1

C.O.C. No: _____

Lab Comments	Project Name: VTD TSCA TEST 2024								Analyses Requested (use supplemental form if needed)							
	Project No 2024 TSCA TEST PFF						Containers		Other Specify	Remarks (Continue on back if needed)						
	Sample ID No.	Date	Time	Sample Location	Matrix ¹	Preserv ²	No.	Type ³								
	Organic Spike	07-May-24	13:41 EDT	Cooler	Org. Liq.	C, O	1	G						X	Zero Headspace. Analyze via GC/MS for: Xylenes (o-, m/p-), Ethylbenzene, 1,2-Dichlorobenzene, Tetrachloroethylene, Naphthalene	
	Metals Spike	07-May-24	13:33 EDT	Cooler	Aq. Liq.	C	1	G						X	Excess to be returned to PFF for disposal. Analyze via ICP for: Arsenic, Lead, Cadmium, Chromium	
Sampler's Signature John Baier <i>[Signature]</i>		Date/Time: 7-May-24 13:50 EDT		Received by: <i>[Signature]</i> DRm2 5/13/24		Received for Lab by: <i>[Signature]</i> DRm2 5/13/24										
Relinquished by: John Baier <i>[Signature]</i>		Date/Time: 9-May-24 10:00 EDT		Received by: <i>[Signature]</i> DRm2 5/13/24		Received by Lab Date/Time: <i>[Signature]</i> DRm2 5/13/24										
Relinquished by: <i>[Signature]</i> SWRI/DRm2 5/13/24		Date/Time: 5.13.24 10:32		Received by: <i>[Signature]</i> SWRI		Remarks:										
Delivery Method: <input type="checkbox"/> In person <input checked="" type="checkbox"/> Common Carrier <input checked="" type="checkbox"/> FedEx Priority Overnight <input type="checkbox"/> Lab courier <input type="checkbox"/> Other _____ (Specify)								(Specify)								

Client: Perma-Fix of Fla
SwRI Project # 28407-06-005
SwRI SRR # 71145
Received: 05/13/24

¹ Matrix: Aq Liq, Org Liq, Solid, Sludge

² Preservative: Blank Unpreserved A HNO₃ to pH 2, B NaOH to pH 12, C cool to 4° C, O Other (specify)

³ Type P Plastic, G Glass

SOUTHWEST RESEARCH INSTITUTE

CLIENT: Perma-Fix of Florida, Inc.

SwRI PROJECT#: 28407.06.005

SwRI Task Order: 240520-2

PO #: 718640

Appendix B

Metals Report & Raw Data

SOUTHWEST RESEARCH INSTITUTE

Metals Report

Cover Page

Client: Perma-Fix of Florida, Inc.
Task Order: 240520-2

SDG: 720195
SRR: 71145

Case: Spike
Project: 28407.06.005

Client Sample ID	Lab Sample ID
Metals Spike	720195
Metals SpikeD	720195D
Metals SpikeT	720195T

Comments:

SOUTHWEST RESEARCH INSTITUTE
Metals Report - Form I
Certificate of Analysis

Client Sample ID

Metals Spike

Type: Unknown

Client: Perma-Fix of Florida, Inc.
Task Order: 240520-2
Lab ID: 720195
Result Units: mg/Kg

SDG: 720195
SRR: 71145
Matrix: Liquid
% Solids: NA

Case: Spike
Project: 28407.06.005
Receipt Date: 05/13/2024
Collection Date: 05/07/2024

CAS No.	Analyte	Result	Qual	M	RL	DF	Prep Batch	Analysis Date/Time
7440-38-2	Arsenic	16,900	D	P4	453	500	20240603-P005	06/05/2024 12:54
7440-43-9	Cadmium	15,800	D	P4	45.3	500	20240603-P005	06/05/2024 12:54
7440-47-3	Chromium	14,900	D	P4	45.3	500	20240603-P005	06/05/2024 12:54
7439-92-1	Lead	13,700	D	P4	90.7	500	20240603-P005	06/05/2024 12:54

Data Reporting Qualifiers (Qual)	Columns	Instruments/Methods (M)
U - Result is less than the SwRI Reporting Limit (RL) N - Matrix spike and/or matrix spike duplicate criteria was not met X - Analytical spike criteria was not met E - Result is estimated due to interferences D - Result is reported from a dilution * - Duplicate criteria was not met & - See narrative	RL - SwRI Reporting Limit DF - Dilution Factor M - Instrument	P4 - Thermo Scientific iCAP PRO XP/SW846 Method 6010D NA - Not Applicable

Form I-IN

SOUTHWEST RESEARCH INSTITUTE
Metals Report - Form I
Certificate of Analysis

SwRI ID

PB24F03KE1

Type: Blank

Client: Perma-Fix of Florida, Inc.
Task Order: 240520-2
Lab ID: PB24F03KE1
Result Units: mg/Kg

SDG: 720195
SRR: 71145
Matrix: Solid
% Solids: NA

Case: Spike
Project: 28407.06.005
Receipt Date: NA
Collection Date: NA

CAS No.	Analyte	Result	Qual	M	RL	DF	Prep Batch	Analysis Date/Time
7440-38-2	Arsenic	1.00	U	P4	1.00	1	20240603-P005	06/05/2024 12:50
7440-43-9	Cadmium	0.100	U	P4	0.100	1	20240603-P005	06/05/2024 12:50
7440-47-3	Chromium	0.100	U	P4	0.100	1	20240603-P005	06/05/2024 12:50
7439-92-1	Lead	0.200	U	P4	0.200	1	20240603-P005	06/05/2024 12:50

Data Reporting Qualifiers (Qual)	Columns	Instruments/Methods (M)
U - Result is less than the SwRI Reporting Limit (RL) N - Matrix spike and/or matrix spike duplicate criteria was not met X - Analytical spike criteria was not met E - Result is estimated due to interferences D - Result is reported from a dilution * - Duplicate criteria was not met & - See narrative	RL - SwRI Reporting Limit DF - Dilution Factor M - Instrument	P4 - Thermo Scientific iCAP PRO XP/SW846 Method 6010D NA - Not Applicable

Form I-IN

SOUTHWEST RESEARCH INSTITUTE

Metals Report - Form IIA

Initial and Continuing Calibration Verification

Client: Perma-Fix of Florida, Inc.

Task Order: 240520-2

Result Units: ug/L

Associated Analytical Batches: 20240610-A010

SDG: 720195

SRR: 71145

Initial Calibration Source: SPEX

Continuing Calibration Source: SPEX

Case: Spike

Project: 28407.06.005

Analyte	Initial Calibration Verification				Continuing Calibration Verification						
	True	Found	%Rec	Limit	True	Found1	%Rec	Found2	%Rec	Limit	M
Arsenic	4000	4150	103.7%	90%-110%	4000	4140	103.5%	4140	103.4%	90%-110%	P4
Cadmium	100	99.5	99.5%	90%-110%	100	99.8	99.8%	99.4	99.4%	90%-110%	P4
Chromium	400	390	97.5%	90%-110%	400	393	98.2%	392	98.1%	90%-110%	P4
Lead	1000	958	95.8%	90%-110%	1000	952	95.2%	954	95.4%	90%-110%	P4

Instruments/Methods (M)

P4 - Thermo Scientific iCAP PRO XP/SW846 Method 6010D

NA - Not Applicable

SOUTHWEST RESEARCH INSTITUTE

Metals Report - Form IIA

Initial and Continuing Calibration Verification

Client: Perma-Fix of Florida, Inc.

Task Order: 240520-2

Result Units: ug/L

Associated Analytical Batches: 20240610-A014

SDG: 720195

SRR: 71145

Initial Calibration Source: SPEX

Continuing Calibration Source: SPEX

Case: Spike

Project: 28407.06.005

Analyte	Initial Calibration Verification				Continuing Calibration Verification						
	True	Found	%Rec	Limit	True	Found1	%Rec	Found2	%Rec	Limit	M
Arsenic	4000	4160	104.1%	90%-110%	4000	4150	103.7%	4150	103.8%	90%-110%	P4
Cadmium	100	98.9	98.8%	90%-110%	100	99.2	99.2%	98.9	98.9%	90%-110%	P4
Chromium	400	388	97.0%	90%-110%	400	388	97.1%	389	97.3%	90%-110%	P4
Lead	1000	953	95.3%	90%-110%	1000	954	95.4%	953	95.3%	90%-110%	P4

Instruments/Methods (M)

P4 - Thermo Scientific iCAP PRO XP/SW846 Method 6010D

NA - Not Applicable

SOUTHWEST RESEARCH INSTITUTE

Metals Report - Form IIB

Low Level Check Standard

Client: Perma-Fix of Florida, Inc.

SDG: 720195

Case: Spike

Task Order: 240520-2

SRR: 71145

Project: 28407.06.005

Result Units: ug/L

Associated Analytical Batch: 20240610-A010

CRI/CRA Standards					
Analyte	True	Found1	%Rec	Limit	M
Arsenic	100	106	106.3%	80%-120%	P4
Cadmium	10	10.5	104.6%	80%-120%	P4
Chromium	10	9.03	90.3%	80%-120%	P4
Lead	20	19.4	96.8%	80%-120%	P4

Instruments/Methods (M)

P4 - Thermo Scientific iCAP PRO XP/SW846 Method 6010D

NA - Not Applicable

Form IIB-IN

SOUTHWEST RESEARCH INSTITUTE

Metals Report - Form IIB

Low Level Check Standard

Client: Perma-Fix of Florida, Inc.

SDG: 720195

Case: Spike

Task Order: 240520-2

SRR: 71145

Project: 28407.06.005

Result Units: ug/L

Associated Analytical Batch: 20240610-A014

CRI/CRA Standards					
Analyte	True	Found1	%Rec	Limit	M
Arsenic	100	105	104.7%	80%-120%	P4
Cadmium	10	10.5	105.0%	80%-120%	P4
Chromium	10	9.15	91.5%	80%-120%	P4
Lead	20	22.7	113.4%	80%-120%	P4

Instruments/Methods (M)

P4 - Thermo Scientific iCAP PRO XP/SW846 Method 6010D

NA - Not Applicable

Form IIB-IN

SOUTHWEST RESEARCH INSTITUTE

Metals Report - Form III

Blanks

Client: Perma-Fix of Florida, Inc.

Task Order: 240520-2

Preparation Blank Result Units: mg/Kg

Initial/Continuing Blank Result Units: ug/L

SDG: 720195

SRR: 71145

Preparation Blank Matrix: Liquid

Associated Prep Batches: 20240603-P005

Case: Spike

Project: 28407.06.005

Associated Analytical Batches: 20240610-A010

Analyte	Preparation Blank		Initial Calibration Blank		Continuing Calibration Blank				M
	Result	Qual	Found	Qual	Found1	Qual	Found2	Qual	
Arsenic	1.00	U	100	U	100	U	100	U	P4
Cadmium	0.100	U	10.0	U	10.0	U	10.0	U	P4
Chromium	0.100	U	10.0	U	10.0	U	10.0	U	P4
Lead	0.200	U	20.0	U	20.0	U	20.0	U	P4

Data Reporting Qualifiers (Qual)	Instruments/Methods (M)
U - Result is less than the SwRI Reporting Limit (RL) N - Matrix spike and/or matrix spike duplicate criteria was not met X - Analytical spike criteria was not met E - Result is estimated due to interferences D - Result is reported from a dilution * - Duplicate criteria was not met	P4 - Thermo Scientific iCAP PRO XP/SW846 Method 6010D NA - Not Applicable

SOUTHWEST RESEARCH INSTITUTE

Metals Report - Form III

Blanks

Client: Perma-Fix of Florida, Inc.

Task Order: 240520-2

Preparation Blank Result Units: mg/Kg

Initial/Continuing Blank Result Units: ug/L

SDG: 720195

SRR: 71145

Preparation Blank Matrix: Liquid

Associated Prep Batches: 20240603-P005

Case: Spike

Project: 28407.06.005

Associated Analytical Batches: 20240610-A014

Analyte	Preparation Blank		Initial Calibration Blank		Continuing Calibration Blank				M
	Result	Qual	Found	Qual	Found1	Qual	Found2	Qual	
Arsenic	-		100	U	100	U	100	U	P4
Cadmium	-		10.0	U	10.0	U	10.0	U	P4
Chromium	-		10.0	U	10.0	U	10.0	U	P4
Lead	-		20.0	U	20.0	U	20.0	U	P4

Data Reporting Qualifiers (Qual)	Instruments/Methods (M)
U - Result is less than the SwRI Reporting Limit (RL) N - Matrix spike and/or matrix spike duplicate criteria was not met X - Analytical spike criteria was not met E - Result is estimated due to interferences D - Result is reported from a dilution * - Duplicate criteria was not met	P4 - Thermo Scientific iCAP PRO XP/SW846 Method 6010D NA - Not Applicable

SOUTHWEST RESEARCH INSTITUTE

Metals Report - Form IVA

ICP-AES Interference Check Sample

Client: Perma-Fix of Florida, Inc.

Task Order: 240520-2

Instrument: Thermo Scientific iCAP PRO XP

Result Units: ug/L

SDG: 720195

SRR: 71145

ICSA Source: See Raw Data

ICSB Source: See Raw Data

Case: Spike

Project: 28407.06.005

Analysis Date: 06/05/2024

Associated Analytical Batch: 20240610-A010

Analyte	True		Found				Limit	Limit
	ICSA	ICSAB	ICSA	%Rec	ICSAB	%Rec	ICSA	ICSAB
Arsenic	0	1000	14.4	-	1050	105.4%	-200 to 200	80%-120%
Cadmium	0	1000	1.60	-	893	89.3%	-20.0 to 20.0	80%-120%
Chromium	0	500	-2.41	-	468	93.7%	-20.0 to 20.0	80%-120%
Lead	0	1000	-5.17	-	827	82.7%	-40.0 to 40.0	80%-120%

SOUTHWEST RESEARCH INSTITUTE

Metals Report - Form IVA

ICP-AES Interference Check Sample

Client: Perma-Fix of Florida, Inc.

Task Order: 240520-2

Instrument: Thermo Scientific iCAP PRO XP

Result Units: ug/L

SDG: 720195

SRR: 71145

ICSA Source: See Raw Data

ICSB Source: See Raw Data

Case: Spike

Project: 28407.06.005

Analysis Date: 06/05/2024

Associated Analytical Batch: 20240610-A014

Analyte	True		Found				Limit	Limit
	ICSA	ICSAB	ICSA	%Rec	ICSAB	%Rec	ICSA	ICSAB
Arsenic	0	1000	24.9	-	1040	104.2%	-200 to 200	80%-120%
Cadmium	0	1000	1.63	-	884	88.4%	-20.0 to 20.0	80%-120%
Chromium	0	500	-2.25	-	459	91.9%	-20.0 to 20.0	80%-120%
Lead	0	1000	-0.0878	-	830	83.0%	-40.0 to 40.0	80%-120%

SOUTHWEST RESEARCH INSTITUTE

Metals Report - Form VB

Post-Digestion Spike Sample Recovery

Client Sample ID

Metals SpikeAS

Client: Perma-Fix of Florida, Inc.
Task Order: 240520-2
Lab ID: 720195AS
Result Units: ug/L at the instrument

SDG: 720195
SRR: 71145
Matrix: Liquid
% Solids: NA

Case: Spike
Project: 28407.06.005

Analyte	Parent Sample Result	Qual	Spiked Sample Result	Qual	Spike Added	%Rec.	Control Limit	M	Q	DF	Prep Batch	Analysis Date/Time	Note
Arsenic	3740	D	11600	D	8000	97.9%	75%-125%	P4		500	20240603-P005	06/05/2024 16:04	
Cadmium	3470	D	11200	D	8000	96.1%	75%-125%	P4		500	20240603-P005	06/05/2024 16:04	
Chromium	3290	D	10900	D	8000	95.2%	75%-125%	P4		500	20240603-P005	06/05/2024 16:04	
Lead	3020	D	11100	D	8000	101.1%	75%-125%	P4		500	20240603-P005	06/05/2024 16:04	

Data Reporting Qualifiers (Qual)	Columns	Instruments/Methods (M)
U - Result is less than the SwRI Reporting Limit (RL) N - Matrix spike and/or matrix spike duplicate criteria was not met X - Analytical spike criteria was not met E - Result is estimated due to interferences D - Result is reported from a dilution * - Duplicate criteria was not met	M - Instrument MS - Matrix Spike MSD - Matrix Spike Duplicate Q - Qualifier RPD - Relative Percent Difference	P4 - Thermo Scientific iCAP PRO XP/SW846 Method 6010D NA - Not Applicable

Form VB-IN

SOUTHWEST RESEARCH INSTITUTE
Metals Report - Form VI
Duplicates

Client Sample ID

Metals Spiked

Client: Perma-Fix of Florida, Inc.
Task Order: 240520-2
Lab ID: 720195D
Result Units: mg/Kg

SDG: 720195
SRR: 71145
Matrix: Liquid
% Solids: NA

Case: Spike
Project: 28407.06.005

Analyte	Parent Sample Result	Qual	Duplicate Result	Qual	RPD	RPD Limit	Control Limit	M	Note
Arsenic	16900	D	16800	D	0.6%	20%	-	P4	
Cadmium	15800	D	15500	D	1.9%	20%	-	P4	
Chromium	14900	D	14800	D	0.7%	20%	-	P4	
Lead	13700	D	13400	D	2.2%	20%	-	P4	

<i>Data Reporting Qualifiers (Qual)</i>	<i>Columns</i>	<i>Instruments/Method (M)</i>
U - Result is less than the SwRI Reporting Limit (RL) N - Matrix spike and/or matrix spike duplicate criteria was not met X - Analytical spike criteria was not met E - Result is estimated due to interferences D - Result is reported from a dilution * - Duplicate criteria was not met	M - Instrument RPD - Relative Percent Difference	P4 - Thermo Scientific iCAP PRO XP/SW846 Method 6010D NA - Not Applicable

Form VI-IN

SOUTHWEST RESEARCH INSTITUTE
Metals Report - Form VI
Duplicates

Client Sample ID

Metals SpikeT

Client: Perma-Fix of Florida, Inc.
Task Order: 240520-2
Lab ID: 720195T
Result Units: mg/Kg

SDG: 720195
SRR: 71145
Matrix: Liquid
% Solids: NA

Case: Spike
Project: 28407.06.005

Analyte	Parent Sample Result	Qual	Duplicate Result	Qual	RPD	RPD Limit	Control Limit	M	Note
Arsenic	16900	D	16400	D	3.0%	20%	-	P4	
Cadmium	15800	D	15200	D	3.9%	20%	-	P4	
Chromium	14900	D	14500	D	2.7%	20%	-	P4	
Lead	13700	D	13100	D	4.5%	20%	-	P4	

<i>Data Reporting Qualifiers (Qual)</i>	<i>Columns</i>	<i>Instruments/Method (M)</i>
U - Result is less than the SwRI Reporting Limit (RL) N - Matrix spike and/or matrix spike duplicate criteria was not met X - Analytical spike criteria was not met E - Result is estimated due to interferences D - Result is reported from a dilution * - Duplicate criteria was not met	M - Instrument RPD - Relative Percent Difference	P4 - Thermo Scientific iCAP PRO XP/SW846 Method 6010D NA - Not Applicable

Form VI-IN

SOUTHWEST RESEARCH INSTITUTE
Metals Report - Form VII
Laboratory Control Sample

SwRI ID

LCS24F03KE1

Client: Perma-Fix of Florida, Inc.
Task Order: 240520-2
Lab ID: LCS24F03KE1
Result Units: mg/Kg

SDG: 720195
SRR: 71145
Matrix: Solid
Associated Prep Batches: 20240603-P005

Case: Spike
Project: 28407.06.005
LCS Source: Spex Certiprep

Analyte	True	Found	Qual	%Rec.	Limit	M	Analysis Date/Time
Arsenic	20.0	19.8		99.0%	80%-120%	P4	06/05/2024 12:52
Cadmium	0.500	0.479		95.8%	80%-120%	P4	06/05/2024 12:52
Chromium	2.00	2.04		102.0%	80%-120%	P4	06/05/2024 12:52
Lead	5.00	4.65		93.0%	80%-120%	P4	06/05/2024 12:52

Instruments/Methods (M)

P4 - Thermo Scientific iCAP PRO XP/SW846 Method 6010D
NA - Not Applicable

Form VII-IN

SOUTHWEST RESEARCH INSTITUTE

Metals Report - Form VIII

ICP-AES and ICP-MS Serial Dilutions

Client Sample ID

Metals SpikeL

Client: Perma-Fix of Florida, Inc.
Task Order: 240520-2
Lab ID: 720195L
Result Units: ug/L

SDG: 720195
SRR: 71145
Matrix: Liquid

Case: Spike
Project: 28407.06.005

Analyte	Parent Sample Result	Qual	Serial Dilution Result	Qual	% Diff.	% Diff. Limit	M	Note	DF	Prep Batch	Analysis Date/Time
Arsenic	3740	D	3760	D	0.642%	-	P4	#	2500	20240603-P005	06/05/2024 13:01
Cadmium	3470	D	3530	D	1.56%	10%	P4		2500	20240603-P005	06/05/2024 13:01
Chromium	3290	D	3290	D	0.168%	10%	P4		2500	20240603-P005	06/05/2024 13:01
Lead	3020	D	3050	D	1.17%	10%	P4		2500	20240603-P005	06/05/2024 13:01

Indicates that the parent sample result is less than 50 times the RL, therefore no percent difference limit is applicable.

Data Reporting Qualifiers (Qual)	Instruments/Methods (M)
J - Result is greater than or equal to the SwRI Reporting Limit (RL) and less than the SwRI Reporting Limit (RL) U - Result is less than the SwRI Reporting Limit (RL) N - Matrix spike and/or matrix spike duplicate criteria was not met X - Analytical spike criteria was not met E - Result is estimated due to interferences D - Result is reported from a dilution * - Duplicate criteria was not met	P4 - Thermo Scientific iCAP PRO XP/SW846 Method 6010D NA - Not Applicable

Form VIII-IN

SOUTHWEST RESEARCH INSTITUTE

Metals Report - Form IX

Detection Limits

Client: Perma-Fix of Florida, Inc.

Task Order: 240520-2

Result Units: ug/L

SDG: 720195

SRR: 71145

Instrument: Thermo Scientific iCAP PRO XP

Case: Spike

Project: 28407.06.005

Analyte	Wavelength	RL
Arsenic	193.759	100
Cadmium	226.502	10.0
Chromium	267.716	10.0
Lead	220.353	20.0

Columns	
RL	- SwRI Reporting Limit

SOUTHWEST RESEARCH INSTITUTE

Metals Report - Form XII

Analysis Run Log

Client: Perma-Fix of Florida, Inc.

Task Order: 240520-2

Analytical Batch: 20240610-A010

Analysis Method: SW846 Method 6010D

SDG: 720195

SRR: 71145

Instrument: Thermo Scientific iCAP PRO XP

Case: Spike

Project: 28407.06.005

Start Date: 06/05/2024

End Date: 06/05/2024

Lab Sample ID	Client Sample ID	Time	DF	A	C	C	P
				s	d	r	b
STD0	STD0	12:11	1	X	X	X	X
STD1	STD1	12:14	1				
STD2	STD2	12:17	1			X	
STD3	STD3	12:19	1	X	X		
STD4	STD4	12:21	1				X
STD5	STD5	12:24	1				
STD6	STD6	12:26	1				
ICV	ICV	12:28	1	X	X	X	X
ICB	ICB	12:31	1	X	X	X	X
CRI	CRI	12:33	1	X	X	X	X
ICSA	ICSA	12:36	1	X	X	X	X
ICSAB	ICSAB	12:38	1	X	X	X	X
UCL1	UCL1	12:40	1	X	X	X	X
UCL2	UCL2	12:43	1	X	X	X	X
CCV	CCV	12:45	1	X	X	X	X
CCB	CCB	12:47	1	X	X	X	X
PB24F03KE1	NA	12:50	1	X	X	X	X
LCS24F03KE1	NA	12:52	1	X	X	X	X
720195	Metals Spike	12:54	500	X	X	X	X
720195D	Metals SpikeD	12:57	500	X	X	X	X
720195T	Metals SpikeT	12:59	500	X	X	X	X
720195L	Metals SpikeL	13:01	2500	X	X	X	X
Z	Z	13:04	500				
CCV	CCV	13:06	1	X	X	X	X
CCB	CCB	13:09	1	X	X	X	X

SOUTHWEST RESEARCH INSTITUTE

Metals Report - Form XII

Analysis Run Log

Client: Perma-Fix of Florida, Inc.

Task Order: 240520-2

Analytical Batch: 20240610-A014

Analysis Method: SW846 Method 6010D

SDG: 720195

SRR: 71145

Instrument: Thermo Scientific iCAP PRO XP

Case: Spike

Project: 28407.06.005

Start Date: 06/05/2024

End Date: 06/05/2024

Lab Sample ID	Client Sample ID	Time	DF	A	C	C	P
				s	d	r	b
STD0	STD0	15:25	1	X	X	X	X
STD1	STD1	15:28	1				
STD2	STD2	15:31	1			X	
STD3	STD3	15:34	1	X	X		
STD4	STD4	15:36	1				X
STD5	STD5	15:38	1				
STD6	STD6	15:41	1				
ICV	ICV	15:43	1	X	X	X	X
ICB	ICB	15:45	1	X	X	X	X
CRI	CRI	15:48	1	X	X	X	X
ICSA	ICSA	15:50	1	X	X	X	X
ICSAB	ICSAB	15:52	1	X	X	X	X
UCL1	UCL1	15:55	1	X	X	X	X
UCL2	UCL2	15:57	1	X	X	X	X
CCV	CCV	16:00	1	X	X	X	X
CCB	CCB	16:02	1	X	X	X	X
720195A	Metals SpikeAS	16:04	500	X	X	X	X
CCV	CCV	16:07	1	X	X	X	X
CCB	CCB	16:09	1	X	X	X	X

SOUTHWEST RESEARCH INSTITUTE

Metals Report - Form XIV

Internal Standards Relative Intensity Summary

Client: Perma-Fix of Florida, Inc.
 Task Order: 240520-2
 Analytical Batch: 20240610-A010
 Analysis Method: SW846 Method 6010D

SDG: 720195
 SRR: 71145
 Instrument: Thermo Scientific iCAP PRO XP

Case: Spike
 Project: 28407.06.005
 Start Date: 06/05/2024
 End Date: 06/05/2024

Lab Sample ID	Client Sample ID	Time	DF	Sc_Axial-iFR	Sc_Radiation
STD0	STD0	12:11	1	-	-
STD1	STD1	12:14	1	-	-
STD2	STD2	12:17	1	-	-
STD3	STD3	12:19	1	-	-
STD4	STD4	12:21	1	-	-
STD5	STD5	12:24	1	-	-
STD6	STD6	12:26	1	-	-
ICV	ICV	12:28	1	93.3	95.1
ICB	ICB	12:31	1	99.9	97.8
CRI	CRI	12:33	1	95.1	93.2
ICSA	ICSA	12:36	1	80.6	87.0
ICSAB	ICSAB	12:38	1	81.7	87.6
UCL1	UCL1	12:40	1	80.9	88.0
UCL2	UCL2	12:43	1	93.5	93.1
CCV	CCV	12:45	1	94.0	94.4
CCB	CCB	12:47	1	99.8	97.2
PB24F03KE1	NA	12:50	1	95.5	91.8
LCS24F03KE1	NA	12:52	1	92.2	91.8
720195	Metals Spike	12:54	500	97.0	95.2
720195D	Metals SpikeD	12:57	500	97.1	94.8
720195T	Metals SpikeT	12:59	500	96.8	94.7
720195L	Metals SpikeL	13:01	2500	96.4	94.6
720195A	Metals SpikeAS	13:04	500	92.0	92.2
CCV	CCV	13:06	1	93.4	94.8
CCB	CCB	13:09	1	99.2	97.1

SOUTHWEST RESEARCH INSTITUTE
Metals Report - Form XIV

Internal Standards Relative Intensity Summary

Client: Perma-Fix of Florida, Inc.
Task Order: 240520-2
Analytical Batch: 20240610-A014
Analysis Method: SW846 Method 6010D

SDG: 720195
SRR: 71145
Instrument: Thermo Scientific iCAP PRO XP

Case: Spike
Project: 28407.06.005
Start Date: 06/05/2024
End Date: 06/05/2024

Lab Sample ID	Client Sample ID	Time	DF	Sc_Axi al-iFR	Sc_Ra dial-
STD0	STD0	15:25	1	-	-
STD1	STD1	15:28	1	-	-
STD2	STD2	15:31	1	-	-
STD3	STD3	15:34	1	-	-
STD4	STD4	15:36	1	-	-
STD5	STD5	15:38	1	-	-
STD6	STD6	15:41	1	-	-
ICV	ICV	15:43	1	93.2	94.5
ICB	ICB	15:45	1	101	98.5
CRI	CRI	15:48	1	95.3	93.6
ICSA	ICSA	15:50	1	80.7	86.8
ICSAB	ICSAB	15:52	1	82.0	87.8
UCL1	UCL1	15:55	1	81.3	88.4
UCL2	UCL2	15:57	1	93.6	93.7
CCV	CCV	16:00	1	93.1	94.0
CCB	CCB	16:02	1	101	98.2
720195A	Metals SpikeAS	16:04	500	95.0	92.7
CCV	CCV	16:07	1	92.8	94.6
CCB	CCB	16:09	1	101	98.0

SOUTHWEST RESEARCH INSTITUTE

Metals Report - Form XVII

Linear Ranges

Client: Perma-Fix of Florida, Inc.

Task Order: 240520-2

Result Units: ug/L

SDG: 720195

SRR: 71145

Instrument: Thermo Scientific iCAP PRO XP

Case: Spike

Project: 28407.06.005

Date: 06/05/2024

Analyte	Upper Calibration Limit
Arsenic	20000
Cadmium	10000
Chromium	20000
Lead	20000

SOUTHWEST RESEARCH INSTITUTE

Metals Report - Form XVIII

Preparation/Digestion Summary

Client: Perma-Fix of Florida, Inc.
Task Order: 240520-2

SDG: 720195
SRR: 71145

Case: Spike
Project: 28407.06.005

Prep Batch	Method	Preparation Date
20240603-P005	SW-846 Method 3010A	06/03/2024

Preparation Log

A38286

Southwest Research Institute
San Antonio, Texas 78238

Metals

Batch: 20240603-P005 (Ver. 1)

Status: APPROVED

Client(s): Perma-Fix of Florida, Inc.
Task Order(s): 240520-2
SDG(s): 720195
Case(s): Spike
Project(s): 28407.06.005
Method(s): SW-846 Method 3010A (TAP: 01-0406-113)
Matrix(s): Liquid
Instrument(s): ICP
Reagent(s): HNO3 256171, HCl 258059
Balance(s): Bal #88 (AN:014981)
Pipette(s): 1000-J, 200-1
Equipment: SC 20240523-Q004
Heating Device: Block #4
Temperature (C): 95
Time In: 06/03/2024 16:45:00
Location: S2-B8

Sample Identification	Client Identification	Initial Volume (g)	Final Volume (mL)
PB24F03KE1 ①	NA	5	50
LCS24F03KE1 ②	NA	5	50
720195 ①	Metals Spike	5.5135	50
720195D ①	Metals Spike	5.5000	50
720195T ①	Metals Spike	5.5177	50

① spiked 0.05 mL of Cl# 255977 Scandium (Lot# U2-SC739503, Source: Inorganic Ventures, Exp: 02/22/2025)

② spiked 0.2 mL of Cl# 248757 Instrument Calibration Standard 1 (Lot# 61-221CRY, Source: Spex Certiprep, Exp: 11/30/2024) and
0.05 mL of Cl# 255977 Scandium (Lot# U2-SC739503, Source: Inorganic Ventures, Exp: 02/22/2025) and
0.5 mL of Cl# 256177 Spike Sample Standard I (Lot# 60-091CRX, Source: Spex Certiprep, Exp: 02/28/2025)

Comments:
Aliquoted 5mL, recorded weights below.

Sample ID / Sample Weight
720195 / 5.5135g
720195D / 5.5000g
720195T / 5.5177g

Procedure:
See TAP 01-0406-113 for details.

Reagent Volumes:
3mL Nitric Acid
2.5mL Hydrochloric Acid

CGL - 06/10/2024

Prepared by: EDRISI, KHALED

Date: 06/03/2024

Reviewed by: SILVIN, KRISTA

Date: 06/10/2024

Disposal Int/Date/Loc: _____

Page 1 of 1

Program version(8/11/2011)

SOUTHWEST RESEARCH INSTITUTE
CLIENT: Perma-Fix of Florida, Inc.
SwRI PROJECT#: 28407.06.005
SwRI TASK ORDER: 240520-2

Sample Calculation

system id	instr	elem	A @instr (mg/L)	B FV (mL)	C Wt (g)	D DF	F result (mg/kg)	reported mg/kg
720195	ICP	arsenic	3.737	50	5.5135	500	16945	16900

sample calculation:

$F = (A * D * B) / (C)$

Range
6/12/24

SOUTHWEST RESEARCH INSTITUTE
CLIENT: Perma-Fix of Florida, Inc.
SwRI PROJECT#: 28407.06.005
SwRI TASK ORDER: 240520-2

ICP-AES
Raw Data

Southwest Research Institute

- ☒ 6010D TAP No. 01-0413-004
- ☐ SWRI TAP No. 01-0406-166D
- ☐ OTHER _____

QC STD. ID's		ICP CAL. STD. ID's	
ICV/CCV	259723	STD0	263679
CRI	260474	STD1	260475
ICSA	256412	STD2	256207
ICSAB	262545	STD3	256211
UCL1	260476	STD4	260479
UCL2	260477	STD5	262310
Dilution Solution	259046	STD6	260481

IDL run date: 02/09/24

QC Earliest Expiration Date

6/6/2024

IEC run date: 02/09/24

Pipettes
200- 16
1000- 6
5000- 18

PROJ. NO.	CLIENT	TO#	DATE	PREP BATCH
<u>28407.06.005</u>	<u>Perna - Fla</u> <u>of Florida, Inc</u>	<u>240520-2</u>	<u>6/5/24</u>	<u>20240603-1005</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

INSTRUMENT: STEVE ROGERS (iCAP PRO XP)

Datto by 6/5/24
ANALYST/DATE

FILENAME: P240605

Analytical Batch # 20240610-A010

☒ PDF

SR
6/10/24

SwRI - ICP Dilution Sheet

Client(s): Perma-Fox of Florida, Inc
 Task Order(s): 240520-2
 Prep Batch: 20240603-POOS
 Prepared By/Date: Bertha Perez 6/5/24
 CIMS ID for SO/DS: 263679

Pipettes: 5000- 18
 1000- 1
 200- 12

- | | | | |
|-------------------------------------|-----------------|--|--|
| <input type="checkbox"/> | DF2 | 2.5mL sample | + 2.5mL <input type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution (DS) |
| <input type="checkbox"/> | DF2 (for DF500) | 0.1mL sample | + 0.1mL <input type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |
| <input type="checkbox"/> | DF5 | 1.0mL sample | + 4.0mL <input type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |
| <input checked="" type="checkbox"/> | DF10 | 0.5mL sample | + 4.5mL <input checked="" type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |
| <input type="checkbox"/> | DF20 | 0.25mL sample | + 4.75mL <input type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |
| <input type="checkbox"/> | DF25 | 0.2mL sample | + 4.8mL <input type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |
| <input checked="" type="checkbox"/> | DF50 | 0.1mL sample | + 4.9mL <input checked="" type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |
| <input type="checkbox"/> | DF100 | 0.05mL sample | + 4.95mL <input type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |
| <input type="checkbox"/> | DF200 | 0.025mL sample | + 4.975mL <input type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |
| <input type="checkbox"/> | DF250 | 0.020mL sample | + 4.98mL <input type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |
| <input type="checkbox"/> | DF500 | 0.020mL DF2 (for DF500) + 4.98mL <input type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution | |
| <input checked="" type="checkbox"/> | DF <u>500</u> | <u>0.1</u> mL sample ^{DF 10} | + <u>4.9</u> mL <input checked="" type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |
| <input checked="" type="checkbox"/> | DF <u>2500</u> | <u>0.1</u> mL sample ^{DF 50} | + <u>4.9</u> mL <input checked="" type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |

☒ Internal Standard @10ppm (Sc) 255976

☒ 5mL Final Volume Sample Spiked With (A)

☒ 50μL Spike Sample Standard I 256177

☒ 20μL ICAL-I 248757

☐ 20μL Li 258985

☐ 20μL B 239901

☐ 20μL P 244300

☐ 20μL S 239903

☐ 20μL Mo 244296

☐ 20μL Si 241704

☐ 20μL Sr 244302

☐ 20μL Bi 244291

☐ 20μL Sn 258993

☐ 20μL Ti 240515

☐ 20μL U 240519

☐ 20μL Zr 258996

☐ 20μL _____

☐ 20μL _____

☐ 20μL _____

for P240605B
 40μL Pb 258984
 40μL As 244289
 40μL Cd 238572
 40μL Cr 240509

JR
 6/10/24

for P240605
 JR
 6/10/24

ThermoScientific iCAP Pro XP
Nickname: "Steve Rogers"



Report Date/Time: 6/5/2024 1:18:51 PM

SOUTHWEST RESEARCH INSTITUTE

LabBook Summary

LabBook: P240605.imexp

Acquired by: CAX3-NIDELL Analysis started at: 6/5/2024 12:11:13 PM

Configuration: iCAP PRO + iSC 65
Template: 6010 Daily - iFR Only
Evaluation: eQuant

Sample List

Label	Sample Type	Start time
STD0	BLK	6/5/2024 12:11:21 PM
STD1	STD	6/5/2024 12:14:16 PM
STD2	STD	6/5/2024 12:17:08 PM
STD3	STD	6/5/2024 12:19:29 PM
STD4	STD	6/5/2024 12:21:51 PM
STD5	STD	6/5/2024 12:24:13 PM
STD6	STD	6/5/2024 12:26:35 PM
ICV	QC	6/5/2024 12:28:58 PM
ICB	QC	6/5/2024 12:31:19 PM
CRI	QC	6/5/2024 12:33:40 PM
ICSA	QC	6/5/2024 12:36:02 PM
ICSAB	QC	6/5/2024 12:38:23 PM
UCL1	QC	6/5/2024 12:40:45 PM
UCL2	QC	6/5/2024 12:43:07 PM
CCV	QC	6/5/2024 12:45:29 PM
CCB	QC	6/5/2024 12:47:50 PM
PB24F03KE1	UNKNOWN	6/5/2024 12:50:11 PM
LCS24F03KE1	UNKNOWN	6/5/2024 12:52:33 PM
720195 DF500	UNKNOWN	6/5/2024 12:54:55 PM
720195D DF500	UNKNOWN	6/5/2024 12:57:16 PM
720195T DF500	UNKNOWN	6/5/2024 12:59:38 PM
720195L DF2500	UNKNOWN	6/5/2024 1:01:59 PM
720195A DF500	UNKNOWN	6/5/2024 1:04:21 PM
CCV	QC	6/5/2024 1:06:43 PM
CCB	QC	6/5/2024 1:09:04 PM

ThermoScientific iCAP Pro XP
Nickname: "Steve Rogers"



Report Date/Time: 6/5/2024 1:18:51 PM

SOUTHWEST RESEARCH INSTITUTE

Calibration Details

Analyte (Measure Mode)	STD1	STD2	STD3	STD4
P 177.495 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
S 182.034 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
Sn 189.989 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
As 193.759 (Aqueous-Axial-iFR)	N/A	N/A	10.000 ppm	N/A
Se 196.090 (Aqueous-Axial-iFR)	N/A	N/A	N/A	10.000 ppm
Mo 202.030 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
Zn 206.200 (Aqueous-Axial-iFR)	N/A	N/A	10.000 ppm	N/A
W 207.911 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
B 208.959 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
Sb 217.581 (Aqueous-Axial-iFR)	N/A	N/A	N/A	10.000 ppm
Pb 220.353 (Aqueous-Axial-iFR)	N/A	N/A	N/A	10.000 ppm
Ni 221.647 (Aqueous-Axial-iFR)	N/A	10.000 ppm	N/A	N/A
Bi 223.061 (Aqueous-Radial-iFR)	N/A	N/A	N/A	N/A
Cd 226.502 (Aqueous-Axial-iFR)	N/A	N/A	10.000 ppm	N/A
Co 228.616 (Aqueous-Axial-iFR)	N/A	N/A	10.000 ppm	N/A
Fe 233.280 (Aqueous-Radial-iFR)	50.000 ppm	N/A	N/A	N/A
Mn 257.610 (Aqueous-Axial-iFR)	N/A	N/A	10.000 ppm	N/A
U 263.553 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
Cr 267.716 (Aqueous-Axial-iFR)	N/A	10.000 ppm	N/A	N/A
Mg 279.079 (Aqueous-Radial-iFR)	25.000 ppm	N/A	N/A	N/A
Si 288.158 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
V 292.402 (Aqueous-Axial-iFR)	N/A	N/A	10.000 ppm	N/A
Al 308.215 (Aqueous-Axial-iFR)	50.000 ppm	N/A	N/A	N/A
Be 313.107 (Aqueous-Axial-iFR)	N/A	1.000 ppm	N/A	N/A
Ca 317.933 (Aqueous-Radial-iFR)	50.000 ppm	N/A	N/A	N/A
Th 318.019 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
Cu 324.754 (Aqueous-Axial-iFR)	N/A	10.000 ppm	N/A	N/A
Ag 328.068 (Aqueous-Axial-iFR)	N/A	N/A	N/A	2.000 ppm
La 333.749 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
Ti 334.941 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
Zr 339.198 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
Pd 340.458 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
Tl 351.924 (Aqueous-Axial-iFR)	N/A	N/A	N/A	10.000 ppm
Y 360.073 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
Sr 421.552 (Aqueous-Radial-iFR)	N/A	N/A	N/A	N/A
Ba 493.409 (Aqueous-Axial-iFR)	N/A	10.000 ppm	N/A	N/A
Na 588.995 (Aqueous-Radial-iFR)	50.000 ppm	N/A	N/A	N/A
Li 670.784 (Aqueous-Radial-iFR)	10.000 ppm	N/A	N/A	N/A
K 766.490 (Aqueous-Radial-iFR)	50.000 ppm	N/A	N/A	N/A

Analyte (Measure Mode)	STD5	STD6
P 177.495 (Aqueous-Axial-iFR)	10.000 ppm	N/A
S 182.034 (Aqueous-Axial-iFR)	N/A	10.000 ppm
Sn 189.989 (Aqueous-Axial-iFR)	10.000 ppm	N/A
As 193.759 (Aqueous-Axial-iFR)	N/A	N/A
Se 196.090 (Aqueous-Axial-iFR)	N/A	N/A
Mo 202.030 (Aqueous-Axial-iFR)	10.000 ppm	N/A
Zn 206.200 (Aqueous-Axial-iFR)	N/A	N/A
W 207.911 (Aqueous-Axial-iFR)	N/A	5.000 ppm
B 208.959 (Aqueous-Axial-iFR)	10.000 ppm	N/A
Sb 217.581 (Aqueous-Axial-iFR)	N/A	N/A
Pb 220.353 (Aqueous-Axial-iFR)	N/A	N/A
Ni 221.647 (Aqueous-Axial-iFR)	N/A	N/A
Bi 223.061 (Aqueous-Radial-iFR)	5.000 ppm	N/A
Cd 226.502 (Aqueous-Axial-iFR)	N/A	N/A
Co 228.616 (Aqueous-Axial-iFR)	N/A	N/A

ThermoScientific iCAP Pro XP
Nickname: "Steve Rogers"



Report Date/Time: 6/5/2024 1:18:51 PM

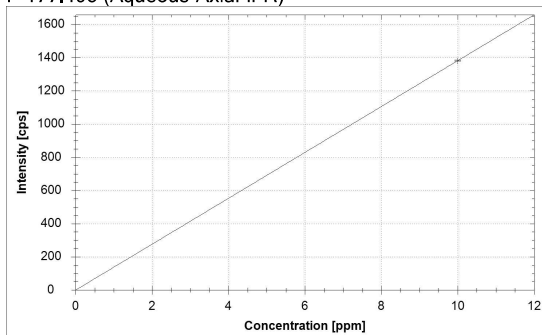
SOUTHWEST RESEARCH INSTITUTE

Analyte (Measure Mode)	STD5	STD6
Fe 233.280 (Aqueous-Radial-iFR)	N/A	N/A
Mn 257.610 (Aqueous-Axial-iFR)	N/A	N/A
U 263.553 (Aqueous-Axial-iFR)	N/A	10.000 ppm
Cr 267.716 (Aqueous-Axial-iFR)	N/A	N/A
Mg 279.079 (Aqueous-Radial-iFR)	N/A	N/A
Si 288.158 (Aqueous-Axial-iFR)	10.000 ppm	N/A
V 292.402 (Aqueous-Axial-iFR)	N/A	N/A
Al 308.215 (Aqueous-Axial-iFR)	N/A	N/A
Be 313.107 (Aqueous-Axial-iFR)	N/A	N/A
Ca 317.933 (Aqueous-Radial-iFR)	N/A	N/A
Th 318.019 (Aqueous-Axial-iFR)	N/A	10.000 ppm
Cu 324.754 (Aqueous-Axial-iFR)	N/A	N/A
Ag 328.068 (Aqueous-Axial-iFR)	N/A	N/A
La 333.749 (Aqueous-Axial-iFR)	N/A	10.000 ppm
Ti 334.941 (Aqueous-Axial-iFR)	10.000 ppm	N/A
Zr 339.198 (Aqueous-Axial-iFR)	N/A	10.000 ppm
Pd 340.458 (Aqueous-Axial-iFR)	N/A	10.000 ppm
Tl 351.924 (Aqueous-Axial-iFR)	N/A	N/A
Y 360.073 (Aqueous-Axial-iFR)	N/A	10.000 ppm
Sr 421.552 (Aqueous-Radial-iFR)	10.000 ppm	N/A
Ba 493.409 (Aqueous-Axial-iFR)	N/A	N/A
Na 588.995 (Aqueous-Radial-iFR)	N/A	N/A
Li 670.784 (Aqueous-Radial-iFR)	N/A	N/A
K 766.490 (Aqueous-Radial-iFR)	N/A	N/A

Analyte (Measure Mode)	Fit Type	Weighting	Forcing
P 177.495 (Aqueous-Axial-iFR)	Linear	None	Blank
S 182.034 (Aqueous-Axial-iFR)	Linear	None	Blank
Sn 189.989 (Aqueous-Axial-iFR)	Linear	None	Blank
As 193.759 (Aqueous-Axial-iFR)	Linear	None	Blank
Se 196.090 (Aqueous-Axial-iFR)	Linear	None	Blank
Mo 202.030 (Aqueous-Axial-iFR)	Linear	None	Blank
Zn 206.200 (Aqueous-Axial-iFR)	Linear	None	Blank
W 207.911 (Aqueous-Axial-iFR)	Linear	None	Blank
B 208.959 (Aqueous-Axial-iFR)	Linear	None	Blank
Sb 217.581 (Aqueous-Axial-iFR)	Linear	None	Blank
Pb 220.353 (Aqueous-Axial-iFR)	Linear	None	Blank
Ni 221.647 (Aqueous-Axial-iFR)	Linear	None	Blank
Bi 223.061 (Aqueous-Radial-iFR)	Linear	None	Blank
Cd 226.502 (Aqueous-Axial-iFR)	Linear	None	Blank
Co 228.616 (Aqueous-Axial-iFR)	Linear	None	Blank
Fe 233.280 (Aqueous-Radial-iFR)	Linear	None	Blank
Mn 257.610 (Aqueous-Axial-iFR)	Linear	None	Blank
U 263.553 (Aqueous-Axial-iFR)	Linear	None	Blank
Cr 267.716 (Aqueous-Axial-iFR)	Linear	None	Blank
Mg 279.079 (Aqueous-Radial-iFR)	Linear	None	Blank
Si 288.158 (Aqueous-Axial-iFR)	Linear	None	Blank
V 292.402 (Aqueous-Axial-iFR)	Linear	None	Blank
Al 308.215 (Aqueous-Axial-iFR)	Linear	None	Blank
Be 313.107 (Aqueous-Axial-iFR)	Linear	None	Blank
Ca 317.933 (Aqueous-Radial-iFR)	Linear	None	Blank
Th 318.019 (Aqueous-Axial-iFR)	Linear	None	Blank
Cu 324.754 (Aqueous-Axial-iFR)	Linear	None	Blank
Ag 328.068 (Aqueous-Axial-iFR)	Linear	None	Blank
La 333.749 (Aqueous-Axial-iFR)	Linear	None	Blank
Ti 334.941 (Aqueous-Axial-iFR)	Linear	None	Blank

Analyte (Measure Mode)	Fit Type	Weighting	Forcing
Zr 339.198 (Aqueous-Axial-iFR)	Linear	None	Blank
Pd 340.458 (Aqueous-Axial-iFR)	Linear	None	Blank
Tl 351.924 (Aqueous-Axial-iFR)	Linear	None	Blank
Y 360.073 (Aqueous-Axial-iFR)	Linear	None	Blank
Sr 421.552 (Aqueous-Radial-iFR)	Linear	None	Blank
Ba 493.409 (Aqueous-Axial-iFR)	Linear	None	Blank
Na 588.995 (Aqueous-Radial-iFR)	Linear	None	Blank
Li 670.784 (Aqueous-Radial-iFR)	Linear	None	Blank
K 766.490 (Aqueous-Radial-iFR)	Linear	None	Blank

P 177.495 (Aqueous-Axial-iFR)



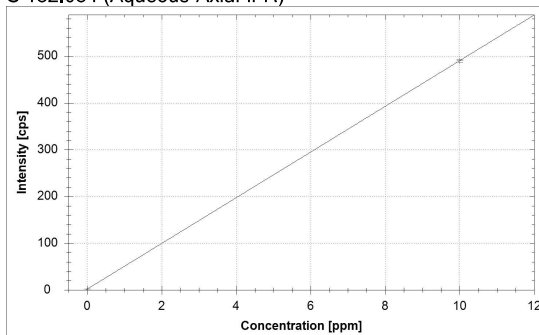
$$f(x) = 138.2360 \cdot x + -0.1958$$

$$R^2 = 1.0000$$

$$BEC = -0.001 \text{ ppm}$$

$$LoD = 0.0055 \text{ ppm}$$

S 182.034 (Aqueous-Axial-iFR)



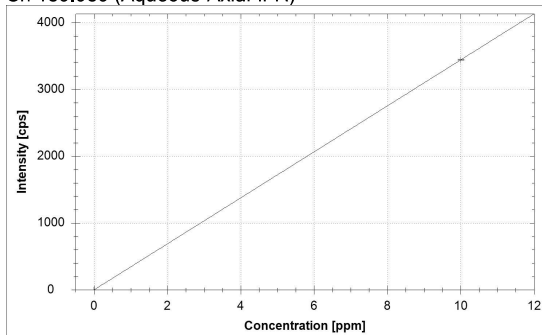
$$f(x) = 48.8277 \cdot x + 2.0292$$

$$R^2 = 1.0000$$

$$BEC = 0.042 \text{ ppm}$$

$$LoD = 0.0074 \text{ ppm}$$

Sn 189.989 (Aqueous-Axial-iFR)



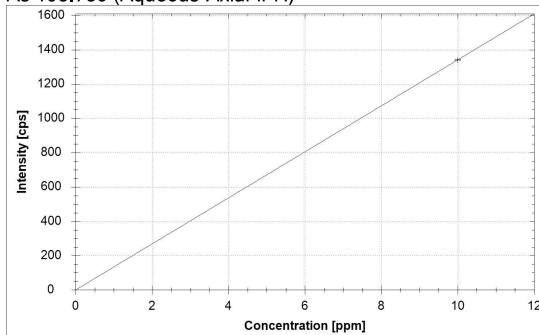
$$f(x) = 344.2651 \cdot x + 0.0185$$

$$R^2 = 1.0000$$

$$BEC = 0.000 \text{ ppm}$$

$$LoD = 0.0025 \text{ ppm}$$

As 193.759 (Aqueous-Axial-iFR)



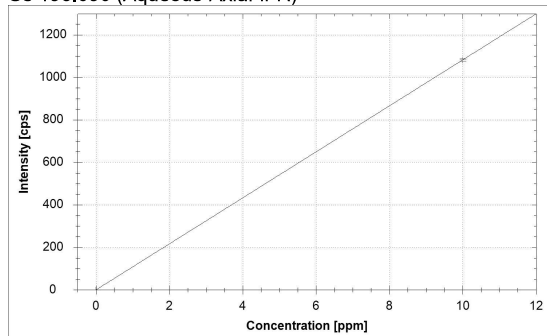
$$f(x) = 134.1503 \cdot x + -0.1620$$

$$R^2 = 1.0000$$

$$BEC = -0.001 \text{ ppm}$$

$$LoD = 0.0012 \text{ ppm}$$

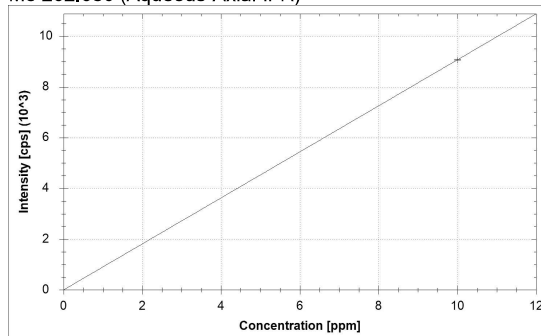
Se 196.090 (Aqueous-Axial-iFR)



$$f(x) = 108.2191 \cdot x + 0.0091$$

$R^2 = 1.0000$
 $BEC = 0.000 \text{ ppm}$
 $LoD = 0.0082 \text{ ppm}$

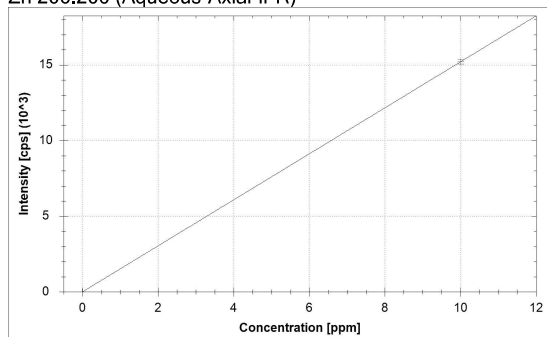
Mo 202.030 (Aqueous-Axial-iFR)



$$f(x) = 907.0732 \cdot x - 0.3845$$

$R^2 = 1.0000$
 $BEC = 0.000 \text{ ppm}$
 $LoD = 0.0010 \text{ ppm}$

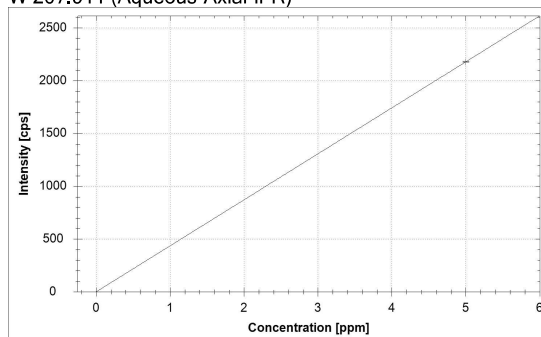
Zn 206.200 (Aqueous-Axial-iFR)



$$f(x) = 1520.2162 \cdot x + 2.0664$$

$R^2 = 1.0000$
 $BEC = 0.001 \text{ ppm}$
 $LoD = 0.0005 \text{ ppm}$

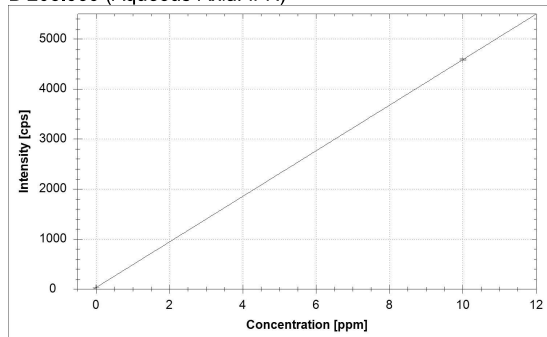
W 207.911 (Aqueous-Axial-iFR)



$$f(x) = 435.6749 \cdot x + 0.4746$$

$R^2 = 1.0000$
 $BEC = 0.001 \text{ ppm}$
 $LoD = 0.0010 \text{ ppm}$

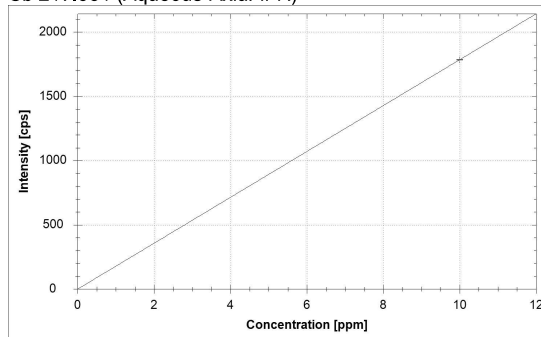
B 208.959 (Aqueous-Axial-iFR)



$$f(x) = 455.6119 \cdot x + 29.3036$$

$R^2 = 1.0000$
 $BEC = 0.064 \text{ ppm}$
 $LoD = 0.0043 \text{ ppm}$

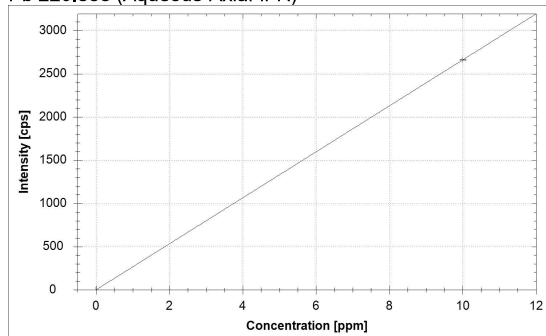
Sb 217.581 (Aqueous-Axial-iFR)



$$f(x) = 178.5886 \cdot x - 0.4838$$

$R^2 = 1.0000$
 $BEC = -0.003 \text{ ppm}$
 $LoD = 0.0038 \text{ ppm}$

Pb 220.353 (Aqueous-Axial-iFR)



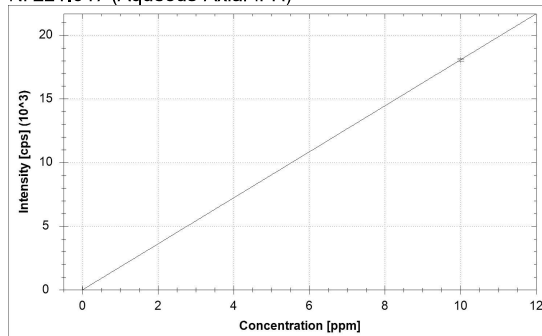
$$f(x) = 266.1141x + 0.3134$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.001 \text{ ppm}$$

$$\text{LoD} = 0.0024 \text{ ppm}$$

Ni 221.647 (Aqueous-Axial-iFR)



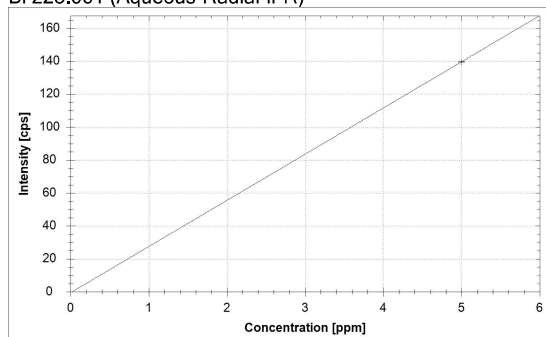
$$f(x) = 1806.3192x + 1.6762$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.001 \text{ ppm}$$

$$\text{LoD} = 0.0006 \text{ ppm}$$

Bi 223.061 (Aqueous-Radial-iFR)



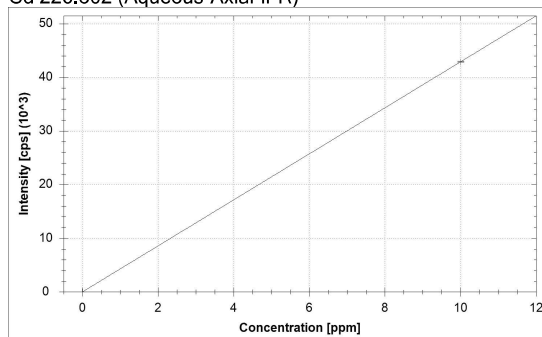
$$f(x) = 28.0287x + -0.5182$$

$$R^2 = 1.0000$$

$$\text{BEC} = -0.018 \text{ ppm}$$

$$\text{LoD} = 0.0060 \text{ ppm}$$

Cd 226.502 (Aqueous-Axial-iFR)



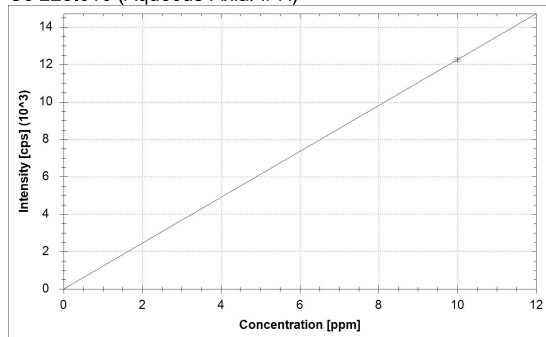
$$f(x) = 4288.7443x + 0.0424$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.000 \text{ ppm}$$

$$\text{LoD} = 0.0004 \text{ ppm}$$

Co 228.616 (Aqueous-Axial-iFR)



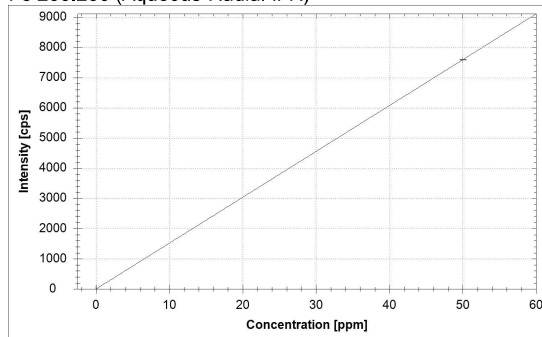
$$f(x) = 1225.7499x + -0.2091$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.000 \text{ ppm}$$

$$\text{LoD} = 0.0006 \text{ ppm}$$

Fe 233.280 (Aqueous-Radial-iFR)



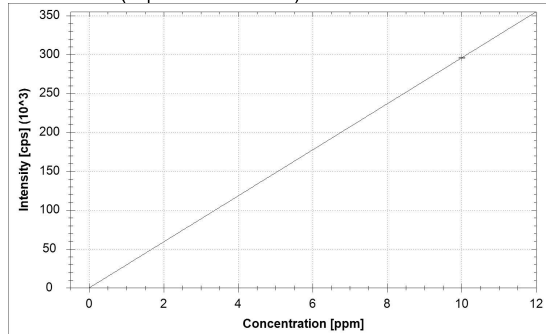
$$f(x) = 151.9183x + 0.0298$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.000 \text{ ppm}$$

$$\text{LoD} = 0.0066 \text{ ppm}$$

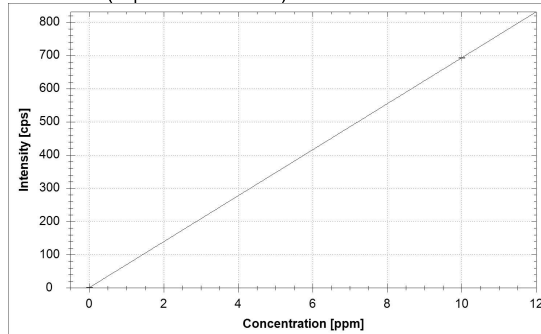
Mn 257.610 (Aqueous-Axial-iFR)



$$f(x) = 29580.2687x + 1.2323$$

$R^2 = 1.0000$
BEC = 0.000 ppm
LoD = 0.0000 ppm

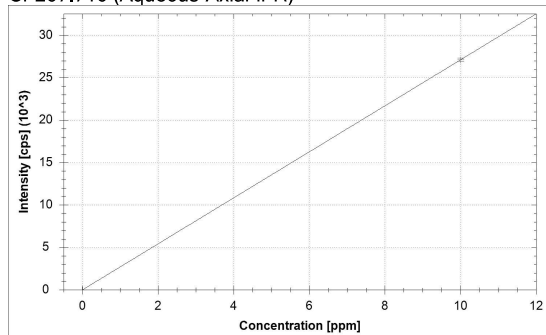
U 263.553 (Aqueous-Axial-iFR)



$$f(x) = 69.2166x + 0.6737$$

$R^2 = 1.0000$
BEC = 0.010 ppm
LoD = 0.0343 ppm

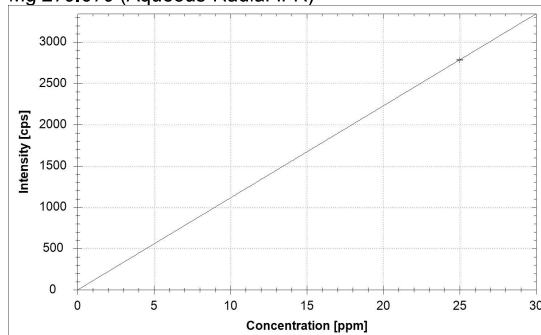
Cr 267.716 (Aqueous-Axial-iFR)



$$f(x) = 2710.7066x + 3.3612$$

$R^2 = 1.0000$
BEC = 0.001 ppm
LoD = 0.0007 ppm

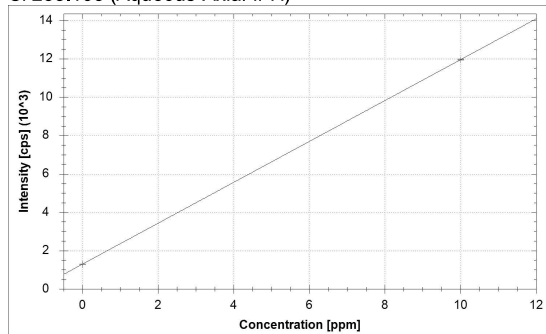
Mg 279.079 (Aqueous-Radial-iFR)



$$f(x) = 111.4551x + -0.0821$$

$R^2 = 1.0000$
BEC = -0.001 ppm
LoD = 0.0273 ppm

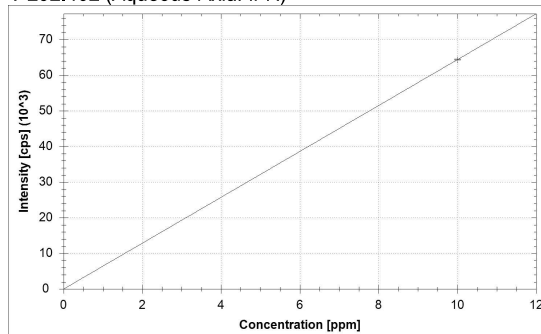
Si 288.158 (Aqueous-Axial-iFR)



$$f(x) = 1065.4681x + 1299.0246$$

$R^2 = 1.0000$
BEC = 1.219 ppm
LoD = 0.0202 ppm

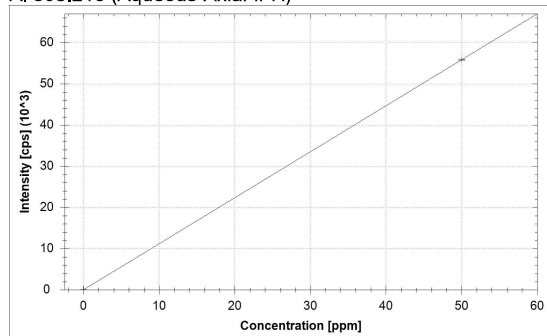
V 292.402 (Aqueous-Axial-iFR)



$$f(x) = 6438.5160x + -1.1891$$

$R^2 = 1.0000$
BEC = 0.000 ppm
LoD = 0.0008 ppm

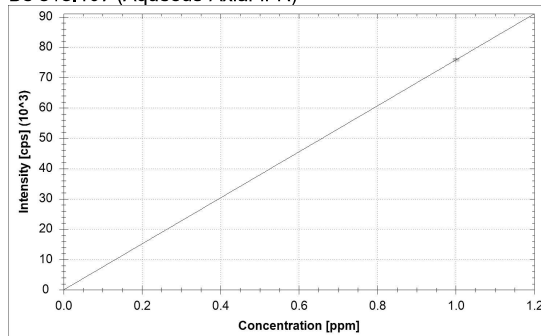
Al 308.215 (Aqueous-Axial-iFR)



$$f(x) = 1115.9310 \cdot x + 23.6479$$

$R^2 = 1.0000$
BEC = 0.021 ppm
LoD = 0.0023 ppm

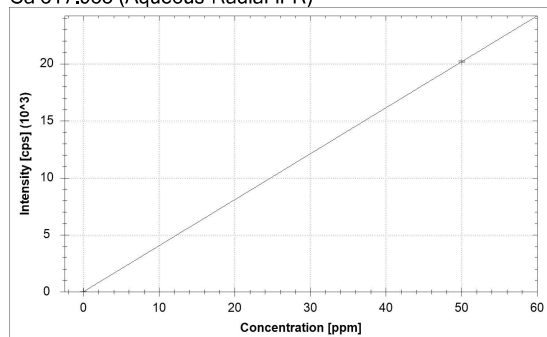
Be 313.107 (Aqueous-Axial-iFR)



$$f(x) = 75888.5815 \cdot x + -14.8659$$

$R^2 = 1.0000$
BEC = 0.000 ppm
LoD = 0.0001 ppm

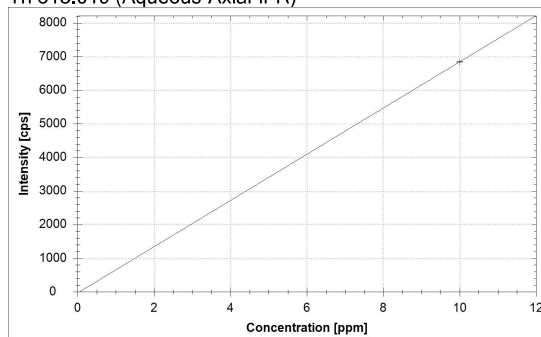
Ca 317.933 (Aqueous-Radial-iFR)



$$f(x) = 403.2410 \cdot x + 14.3630$$

$R^2 = 1.0000$
BEC = 0.036 ppm
LoD = 0.0042 ppm

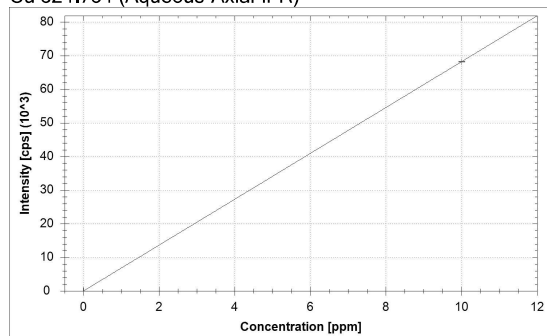
Th 318.019 (Aqueous-Axial-iFR)



$$f(x) = 687.7114 \cdot x + -31.2000$$

$R^2 = 1.0000$
BEC = -0.045 ppm
LoD = 0.0011 ppm

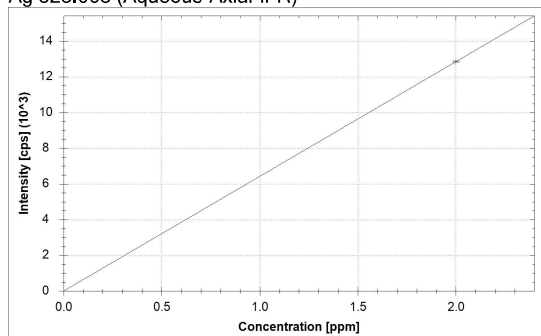
Cu 324.754 (Aqueous-Axial-iFR)



$$f(x) = 6818.1844 \cdot x + 13.7553$$

$R^2 = 1.0000$
BEC = 0.002 ppm
LoD = 0.0002 ppm

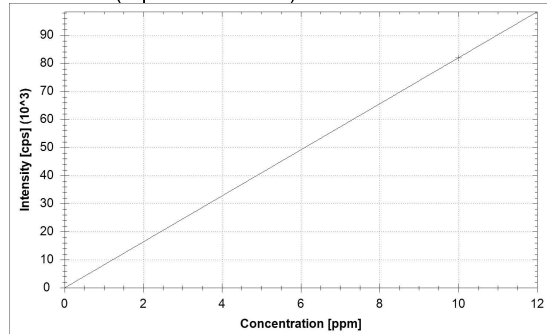
Ag 328.068 (Aqueous-Axial-iFR)



$$f(x) = 6423.7104 \cdot x + -0.7413$$

$R^2 = 1.0000$
BEC = 0.000 ppm
LoD = 0.0008 ppm

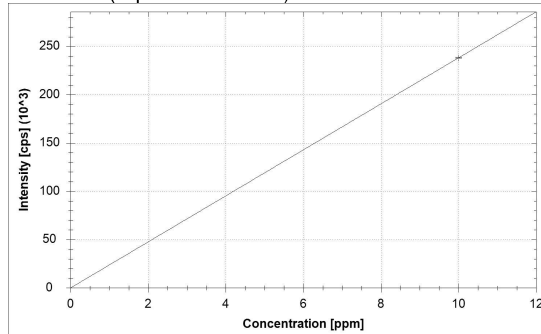
La 333.749 (Aqueous-Axial-iFR)



$$f(x) = 8194.8172 \cdot x - 5.1997$$

$R^2 = 1.0000$
BEC = -0.001 ppm
LoD = 0.0003 ppm

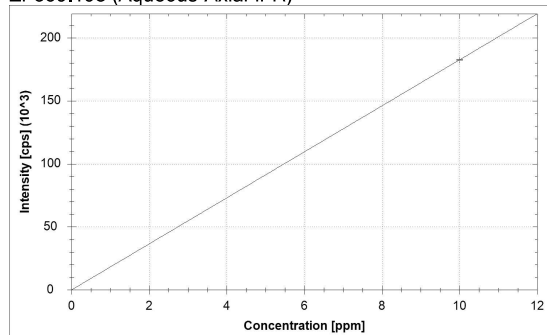
Ti 334.941 (Aqueous-Axial-iFR)



$$f(x) = 23819.1028 \cdot x - 2.9563$$

$R^2 = 1.0000$
BEC = 0.000 ppm
LoD = 0.0000 ppm

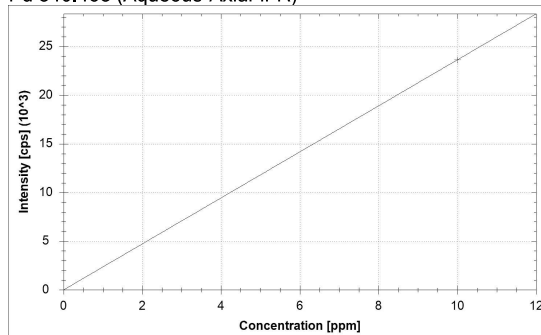
Zr 339.198 (Aqueous-Axial-iFR)



$$f(x) = 18259.5218 \cdot x - 2.9543$$

$R^2 = 1.0000$
BEC = 0.000 ppm
LoD = 0.0000 ppm

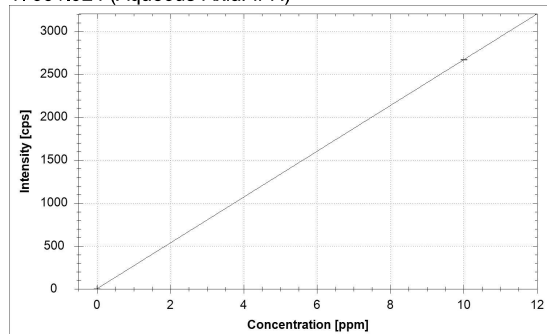
Pd 340.458 (Aqueous-Axial-iFR)



$$f(x) = 2363.5283 \cdot x - 0.5367$$

$R^2 = 1.0000$
BEC = 0.000 ppm
LoD = 0.0022 ppm

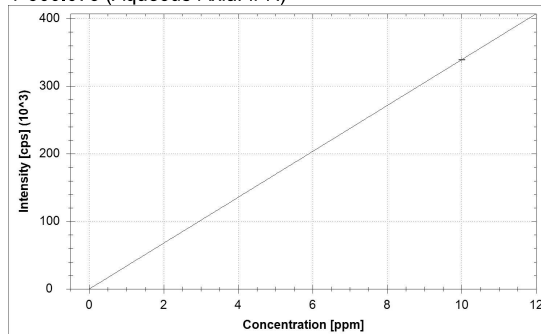
Tl 351.924 (Aqueous-Axial-iFR)



$$f(x) = 266.6862 \cdot x + 3.6049$$

$R^2 = 1.0000$
BEC = 0.014 ppm
LoD = 0.0110 ppm

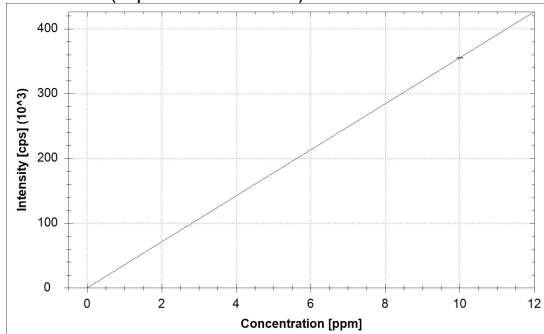
Y 360.073 (Aqueous-Axial-iFR)



$$f(x) = 33914.5509 \cdot x + 1.4336$$

$R^2 = 1.0000$
BEC = 0.000 ppm
LoD = 0.0001 ppm

Sr 421.552 (Aqueous-Radial-iFR)



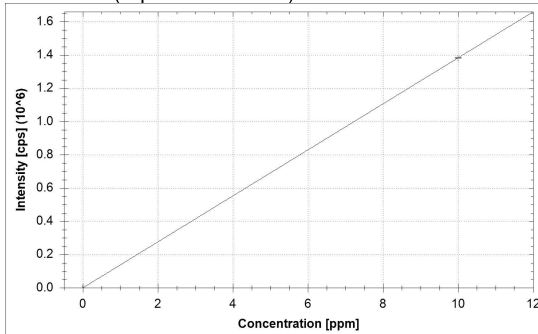
$$f(x) = 35525.1286 \cdot x + 1.7137$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.000 \text{ ppm}$$

$$\text{LoD} = 0.0001 \text{ ppm}$$

Ba 493.409 (Aqueous-Axial-iFR)



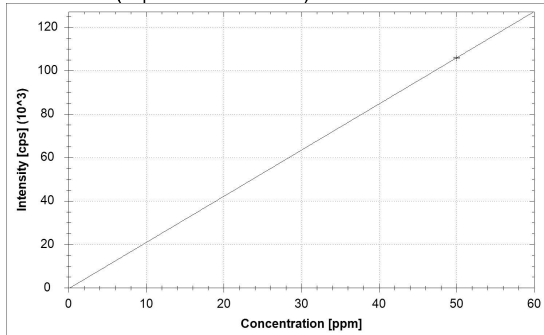
$$f(x) = 138318.7249 \cdot x + 33.0458$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.000 \text{ ppm}$$

$$\text{LoD} = 0.0000 \text{ ppm}$$

Na 588.995 (Aqueous-Radial-iFR)



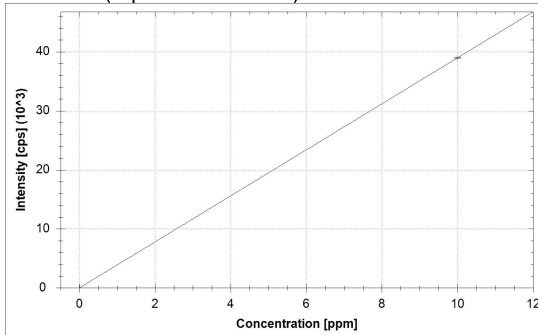
$$f(x) = 2125.4442 \cdot x + -374.4019$$

$$R^2 = 1.0000$$

$$\text{BEC} = -0.176 \text{ ppm}$$

$$\text{LoD} = 0.0068 \text{ ppm}$$

Li 670.784 (Aqueous-Radial-iFR)



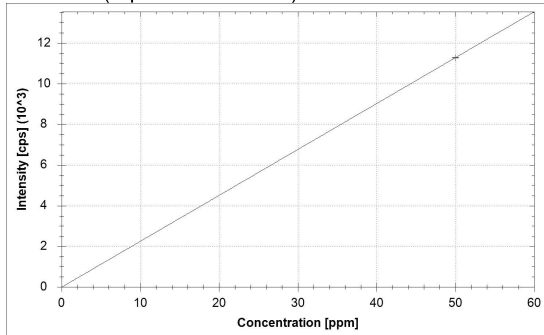
$$f(x) = 3897.7306 \cdot x + 2.2549$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.001 \text{ ppm}$$

$$\text{LoD} = 0.0012 \text{ ppm}$$

K 766.490 (Aqueous-Radial-iFR)



$$f(x) = 225.8345 \cdot x + -7.8764$$

$$R^2 = 1.0000$$

$$\text{BEC} = -0.035 \text{ ppm}$$

$$\text{LoD} = 0.0189 \text{ ppm}$$

ThermoScientific iCAP Pro XP
Nickname: "Steve Rogers"



Report Date/Time: 6/5/2024 1:18:51 PM

SOUTHWEST RESEARCH INSTITUTE

Standard Readbacks

Analyte (Measure Mode)	STD1 Concentration average 1
P 177.495 (Aqueous-Axial-iFR)	N/A
S 182.034 (Aqueous-Axial-iFR)	N/A
Sn 189.989 (Aqueous-Axial-iFR)	N/A
As 193.759 (Aqueous-Axial-iFR)	N/A
Se 196.090 (Aqueous-Axial-iFR)	N/A
Mo 202.030 (Aqueous-Axial-iFR)	N/A
Zn 206.200 (Aqueous-Axial-iFR)	N/A
W 207.911 (Aqueous-Axial-iFR)	N/A
B 208.959 (Aqueous-Axial-iFR)	N/A
Sb 217.581 (Aqueous-Axial-iFR)	N/A
Pb 220.353 (Aqueous-Axial-iFR)	N/A
Ni 221.647 (Aqueous-Axial-iFR)	N/A
Bi 223.061 (Aqueous-Radial-iFR)	N/A
Cd 226.502 (Aqueous-Axial-iFR)	N/A
Co 228.616 (Aqueous-Axial-iFR)	N/A
Fe 233.280 (Aqueous-Radial-iFR)	50.000 ppm
Mn 257.610 (Aqueous-Axial-iFR)	N/A
U 263.553 (Aqueous-Axial-iFR)	N/A
Cr 267.716 (Aqueous-Axial-iFR)	N/A
Mg 279.079 (Aqueous-Radial-iFR)	25.000 ppm
Si 288.158 (Aqueous-Axial-iFR)	N/A
V 292.402 (Aqueous-Axial-iFR)	N/A
Al 308.215 (Aqueous-Axial-iFR)	50.000 ppm
Be 313.107 (Aqueous-Axial-iFR)	N/A
Ca 317.933 (Aqueous-Radial-iFR)	50.000 ppm
Th 318.019 (Aqueous-Axial-iFR)	N/A
Cu 324.754 (Aqueous-Axial-iFR)	N/A
Ag 328.068 (Aqueous-Axial-iFR)	N/A
La 333.749 (Aqueous-Axial-iFR)	N/A
Ti 334.941 (Aqueous-Axial-iFR)	N/A
Zr 339.198 (Aqueous-Axial-iFR)	N/A
Pd 340.458 (Aqueous-Axial-iFR)	N/A
Tl 351.924 (Aqueous-Axial-iFR)	N/A
Y 360.073 (Aqueous-Axial-iFR)	N/A
Sc 361.384 (Aqueous-Axial-iFR)	95.754 %
Sc 361.384 (Aqueous-Radial-iFR)	99.284 %
Sr 421.552 (Aqueous-Radial-iFR)	N/A
Ba 493.409 (Aqueous-Axial-iFR)	N/A
Na 588.995 (Aqueous-Radial-iFR)	50.000 ppm
Li 670.784 (Aqueous-Radial-iFR)	10.000 ppm
K 766.490 (Aqueous-Radial-iFR)	50.000 ppm

Analyte (Measure Mode)	STD2 Concentration average 1
P 177.495 (Aqueous-Axial-iFR)	N/A
S 182.034 (Aqueous-Axial-iFR)	N/A
Sn 189.989 (Aqueous-Axial-iFR)	N/A
As 193.759 (Aqueous-Axial-iFR)	N/A
Se 196.090 (Aqueous-Axial-iFR)	N/A
Mo 202.030 (Aqueous-Axial-iFR)	N/A
Zn 206.200 (Aqueous-Axial-iFR)	N/A
W 207.911 (Aqueous-Axial-iFR)	N/A
B 208.959 (Aqueous-Axial-iFR)	N/A
Sb 217.581 (Aqueous-Axial-iFR)	N/A
Pb 220.353 (Aqueous-Axial-iFR)	N/A

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	STD2
Ni 221.647 (Aqueous-Axial-iFR)	10.000 ppm
Bi 223.061 (Aqueous-Radial-iFR)	N/A
Cd 226.502 (Aqueous-Axial-iFR)	N/A
Co 228.616 (Aqueous-Axial-iFR)	N/A
Fe 233.280 (Aqueous-Radial-iFR)	N/A
Mn 257.610 (Aqueous-Axial-iFR)	N/A
U 263.553 (Aqueous-Axial-iFR)	N/A
Cr 267.716 (Aqueous-Axial-iFR)	10.000 ppm
Mg 279.079 (Aqueous-Radial-iFR)	N/A
Si 288.158 (Aqueous-Axial-iFR)	N/A
V 292.402 (Aqueous-Axial-iFR)	N/A
Al 308.215 (Aqueous-Axial-iFR)	N/A
Be 313.107 (Aqueous-Axial-iFR)	1.000 ppm
Ca 317.933 (Aqueous-Radial-iFR)	N/A
Th 318.019 (Aqueous-Axial-iFR)	N/A
Cu 324.754 (Aqueous-Axial-iFR)	10.000 ppm
Ag 328.068 (Aqueous-Axial-iFR)	N/A
La 333.749 (Aqueous-Axial-iFR)	N/A
Ti 334.941 (Aqueous-Axial-iFR)	N/A
Zr 339.198 (Aqueous-Axial-iFR)	N/A
Pd 340.458 (Aqueous-Axial-iFR)	N/A
Tl 351.924 (Aqueous-Axial-iFR)	N/A
Y 360.073 (Aqueous-Axial-iFR)	N/A
Sc 361.384 (Aqueous-Axial-iFR)	99.271 %
Sc 361.384 (Aqueous-Radial-iFR)	98.293 %
Sr 421.552 (Aqueous-Radial-iFR)	N/A
Ba 493.409 (Aqueous-Axial-iFR)	10.000 ppm
Na 588.995 (Aqueous-Radial-iFR)	N/A
Li 670.784 (Aqueous-Radial-iFR)	N/A
K 766.490 (Aqueous-Radial-iFR)	N/A

	STD3
Analyte (Measure Mode)	Concentration average 1
P 177.495 (Aqueous-Axial-iFR)	N/A
S 182.034 (Aqueous-Axial-iFR)	N/A
Sn 189.989 (Aqueous-Axial-iFR)	N/A
As 193.759 (Aqueous-Axial-iFR)	10.000 ppm
Se 196.090 (Aqueous-Axial-iFR)	N/A
Mo 202.030 (Aqueous-Axial-iFR)	N/A
Zn 206.200 (Aqueous-Axial-iFR)	10.000 ppm
W 207.911 (Aqueous-Axial-iFR)	N/A
B 208.959 (Aqueous-Axial-iFR)	N/A
Sb 217.581 (Aqueous-Axial-iFR)	N/A
Pb 220.353 (Aqueous-Axial-iFR)	N/A
Ni 221.647 (Aqueous-Axial-iFR)	N/A
Bi 223.061 (Aqueous-Radial-iFR)	N/A
Cd 226.502 (Aqueous-Axial-iFR)	10.000 ppm
Co 228.616 (Aqueous-Axial-iFR)	10.000 ppm
Fe 233.280 (Aqueous-Radial-iFR)	N/A
Mn 257.610 (Aqueous-Axial-iFR)	10.000 ppm
U 263.553 (Aqueous-Axial-iFR)	N/A
Cr 267.716 (Aqueous-Axial-iFR)	N/A
Mg 279.079 (Aqueous-Radial-iFR)	N/A
Si 288.158 (Aqueous-Axial-iFR)	N/A
V 292.402 (Aqueous-Axial-iFR)	10.000 ppm
Al 308.215 (Aqueous-Axial-iFR)	N/A

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	STD3	
Be 313.107 (Aqueous-Axial-iFR)		N/A
Ca 317.933 (Aqueous-Radial-iFR)		N/A
Th 318.019 (Aqueous-Axial-iFR)		N/A
Cu 324.754 (Aqueous-Axial-iFR)		N/A
Ag 328.068 (Aqueous-Axial-iFR)		N/A
La 333.749 (Aqueous-Axial-iFR)		N/A
Ti 334.941 (Aqueous-Axial-iFR)		N/A
Zr 339.198 (Aqueous-Axial-iFR)		N/A
Pd 340.458 (Aqueous-Axial-iFR)		N/A
Tl 351.924 (Aqueous-Axial-iFR)		N/A
Y 360.073 (Aqueous-Axial-iFR)		N/A
Sc 361.384 (Aqueous-Axial-iFR)	98.864 %	
Sc 361.384 (Aqueous-Radial-iFR)	97.966 %	
Sr 421.552 (Aqueous-Radial-iFR)		N/A
Ba 493.409 (Aqueous-Axial-iFR)		N/A
Na 588.995 (Aqueous-Radial-iFR)		N/A
Li 670.784 (Aqueous-Radial-iFR)		N/A
K 766.490 (Aqueous-Radial-iFR)		N/A

	STD4	
Analyte (Measure Mode)	Concentration average 1	
P 177.495 (Aqueous-Axial-iFR)		N/A
S 182.034 (Aqueous-Axial-iFR)		N/A
Sn 189.989 (Aqueous-Axial-iFR)		N/A
As 193.759 (Aqueous-Axial-iFR)		N/A
Se 196.090 (Aqueous-Axial-iFR)	10.000 ppm	
Mo 202.030 (Aqueous-Axial-iFR)		N/A
Zn 206.200 (Aqueous-Axial-iFR)		N/A
W 207.911 (Aqueous-Axial-iFR)		N/A
B 208.959 (Aqueous-Axial-iFR)		N/A
Sb 217.581 (Aqueous-Axial-iFR)	10.000 ppm	
Pb 220.353 (Aqueous-Axial-iFR)	10.000 ppm	
Ni 221.647 (Aqueous-Axial-iFR)		N/A
Bi 223.061 (Aqueous-Radial-iFR)		N/A
Cd 226.502 (Aqueous-Axial-iFR)		N/A
Co 228.616 (Aqueous-Axial-iFR)		N/A
Fe 233.280 (Aqueous-Radial-iFR)		N/A
Mn 257.610 (Aqueous-Axial-iFR)		N/A
U 263.553 (Aqueous-Axial-iFR)		N/A
Cr 267.716 (Aqueous-Axial-iFR)		N/A
Mg 279.079 (Aqueous-Radial-iFR)		N/A
Si 288.158 (Aqueous-Axial-iFR)		N/A
V 292.402 (Aqueous-Axial-iFR)		N/A
Al 308.215 (Aqueous-Axial-iFR)		N/A
Be 313.107 (Aqueous-Axial-iFR)		N/A
Ca 317.933 (Aqueous-Radial-iFR)		N/A
Th 318.019 (Aqueous-Axial-iFR)		N/A
Cu 324.754 (Aqueous-Axial-iFR)		N/A
Ag 328.068 (Aqueous-Axial-iFR)	2.000 ppm	
La 333.749 (Aqueous-Axial-iFR)		N/A
Ti 334.941 (Aqueous-Axial-iFR)		N/A
Zr 339.198 (Aqueous-Axial-iFR)		N/A
Pd 340.458 (Aqueous-Axial-iFR)		N/A
Tl 351.924 (Aqueous-Axial-iFR)	10.000 ppm	
Y 360.073 (Aqueous-Axial-iFR)		N/A
Sc 361.384 (Aqueous-Axial-iFR)	103.797 %	

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	STD4
Sc 361.384 (Aqueous-Radial-iFR)	102.224 %
Sr 421.552 (Aqueous-Radial-iFR)	N/A
Ba 493.409 (Aqueous-Axial-iFR)	N/A
Na 588.995 (Aqueous-Radial-iFR)	N/A
Li 670.784 (Aqueous-Radial-iFR)	N/A
K 766.490 (Aqueous-Radial-iFR)	N/A

	STD5
Analyte (Measure Mode)	Concentration average 1
P 177.495 (Aqueous-Axial-iFR)	10.000 ppm
S 182.034 (Aqueous-Axial-iFR)	N/A
Sn 189.989 (Aqueous-Axial-iFR)	10.000 ppm
As 193.759 (Aqueous-Axial-iFR)	N/A
Se 196.090 (Aqueous-Axial-iFR)	N/A
Mo 202.030 (Aqueous-Axial-iFR)	10.000 ppm
Zn 206.200 (Aqueous-Axial-iFR)	N/A
W 207.911 (Aqueous-Axial-iFR)	N/A
B 208.959 (Aqueous-Axial-iFR)	10.000 ppm
Sb 217.581 (Aqueous-Axial-iFR)	N/A
Pb 220.353 (Aqueous-Axial-iFR)	N/A
Ni 221.647 (Aqueous-Axial-iFR)	N/A
Bi 223.061 (Aqueous-Radial-iFR)	5.000 ppm
Cd 226.502 (Aqueous-Axial-iFR)	N/A
Co 228.616 (Aqueous-Axial-iFR)	N/A
Fe 233.280 (Aqueous-Radial-iFR)	N/A
Mn 257.610 (Aqueous-Axial-iFR)	N/A
U 263.553 (Aqueous-Axial-iFR)	N/A
Cr 267.716 (Aqueous-Axial-iFR)	N/A
Mg 279.079 (Aqueous-Radial-iFR)	N/A
Si 288.158 (Aqueous-Axial-iFR)	10.000 ppm
V 292.402 (Aqueous-Axial-iFR)	N/A
Al 308.215 (Aqueous-Axial-iFR)	N/A
Be 313.107 (Aqueous-Axial-iFR)	N/A
Ca 317.933 (Aqueous-Radial-iFR)	N/A
Th 318.019 (Aqueous-Axial-iFR)	N/A
Cu 324.754 (Aqueous-Axial-iFR)	N/A
Ag 328.068 (Aqueous-Axial-iFR)	N/A
La 333.749 (Aqueous-Axial-iFR)	N/A
Ti 334.941 (Aqueous-Axial-iFR)	10.000 ppm
Zr 339.198 (Aqueous-Axial-iFR)	N/A
Pd 340.458 (Aqueous-Axial-iFR)	N/A
Tl 351.924 (Aqueous-Axial-iFR)	N/A
Y 360.073 (Aqueous-Axial-iFR)	N/A
Sc 361.384 (Aqueous-Axial-iFR)	97.544 %
Sc 361.384 (Aqueous-Radial-iFR)	96.385 %
Sr 421.552 (Aqueous-Radial-iFR)	10.000 ppm
Ba 493.409 (Aqueous-Axial-iFR)	N/A
Na 588.995 (Aqueous-Radial-iFR)	N/A
Li 670.784 (Aqueous-Radial-iFR)	N/A
K 766.490 (Aqueous-Radial-iFR)	N/A

	STD6
Analyte (Measure Mode)	Concentration average 1
P 177.495 (Aqueous-Axial-iFR)	N/A
S 182.034 (Aqueous-Axial-iFR)	10.000 ppm
Sn 189.989 (Aqueous-Axial-iFR)	N/A

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	STD6	
As 193.759 (Aqueous-Axial-iFR)		N/A
Se 196.090 (Aqueous-Axial-iFR)		N/A
Mo 202.030 (Aqueous-Axial-iFR)		N/A
Zn 206.200 (Aqueous-Axial-iFR)		N/A
W 207.911 (Aqueous-Axial-iFR)	5.000	ppm
B 208.959 (Aqueous-Axial-iFR)		N/A
Sb 217.581 (Aqueous-Axial-iFR)		N/A
Pb 220.353 (Aqueous-Axial-iFR)		N/A
Ni 221.647 (Aqueous-Axial-iFR)		N/A
Bi 223.061 (Aqueous-Radial-iFR)		N/A
Cd 226.502 (Aqueous-Axial-iFR)		N/A
Co 228.616 (Aqueous-Axial-iFR)		N/A
Fe 233.280 (Aqueous-Radial-iFR)		N/A
Mn 257.610 (Aqueous-Axial-iFR)		N/A
U 263.553 (Aqueous-Axial-iFR)	10.000	ppm
Cr 267.716 (Aqueous-Axial-iFR)		N/A
Mg 279.079 (Aqueous-Radial-iFR)		N/A
Si 288.158 (Aqueous-Axial-iFR)		N/A
V 292.402 (Aqueous-Axial-iFR)		N/A
Al 308.215 (Aqueous-Axial-iFR)		N/A
Be 313.107 (Aqueous-Axial-iFR)		N/A
Ca 317.933 (Aqueous-Radial-iFR)		N/A
Th 318.019 (Aqueous-Axial-iFR)	10.000	ppm
Cu 324.754 (Aqueous-Axial-iFR)		N/A
Ag 328.068 (Aqueous-Axial-iFR)		N/A
La 333.749 (Aqueous-Axial-iFR)	10.000	ppm
Ti 334.941 (Aqueous-Axial-iFR)		N/A
Zr 339.198 (Aqueous-Axial-iFR)	10.000	ppm
Pd 340.458 (Aqueous-Axial-iFR)	10.000	ppm
Tl 351.924 (Aqueous-Axial-iFR)		N/A
Y 360.073 (Aqueous-Axial-iFR)	10.000	ppm
Sc 361.384 (Aqueous-Axial-iFR)	102.244	%
Sc 361.384 (Aqueous-Radial-iFR)	101.723	%
Sr 421.552 (Aqueous-Radial-iFR)		N/A
Ba 493.409 (Aqueous-Axial-iFR)		N/A
Na 588.995 (Aqueous-Radial-iFR)		N/A
Li 670.784 (Aqueous-Radial-iFR)		N/A
K 766.490 (Aqueous-Radial-iFR)		N/A

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Sample Results

Label: STD0
Sample Type: BLK
Analysis started at: 6/5/2024 12:11:21 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.3 cps	2.1 cps	-0.2 cps	-0.1 cps	-0.2 cps
Intensity per Run 2	0.1 cps	2.1 cps	0.0 cps	-0.1 cps	-0.1 cps
Intensity per Run 3	-0.4 cps	1.9 cps	0.3 cps	-0.2 cps	0.3 cps
Intensity average 1	0 cps	2 cps	0 cps	0 cps	0 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	-1.3 %	0.1 %	15.8 %	-0.3 %	32.5 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	0.0 cps	2.2 cps	0.6 cps	29.8 cps	-0.5 cps
Intensity per Run 2	-0.6 cps	1.8 cps	0.3 cps	28.9 cps	-0.7 cps
Intensity per Run 3	-0.5 cps	2.2 cps	0.5 cps	29.2 cps	-0.2 cps
Intensity average 1	0 cps	2 cps	0 cps	29 cps	0 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	-0.8 %	0.1 %	0.3 %	0.0 %	-0.5 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	0.5 cps	2.0 cps	-0.6 cps	-0.5 cps	-0.1 cps
Intensity per Run 2	0.4 cps	1.5 cps	-0.5 cps	0.2 cps	-0.5 cps
Intensity per Run 3	0.1 cps	1.4 cps	-0.5 cps	0.4 cps	0.0 cps
Intensity average 1	0 cps	2 cps	-1 cps	0 cps	0 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.7 %	0.2 %	-0.1 %	12.3 %	-1.2 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	0.3 cps	1.6 cps	1.0 cps	4.1 cps	0.5 cps
Intensity per Run 2	-0.4 cps	1.3 cps	1.3 cps	3.0 cps	-1.3 cps
Intensity per Run 3	0.2 cps	0.8 cps	-0.2 cps	3.0 cps	0.5 cps
Intensity average 1	0 cps	1 cps	1 cps	3 cps	0 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	11.3 %	0.3 %	1.2 %	0.2 %	-12.4 %

	Si 288.158 (Aqueous-Axial-iFR)	V 292.402 (Aqueous-Axial-iFR)	Al 308.215 (Aqueous-Axial-iFR)	Be 313.107 (Aqueous-Axial-iFR)	Ca 317.933 (Aqueous-Radial-iFR)
Intensity per Run 1	1,298.8 cps	0.4 cps	22.7 cps	-14.0 cps	14.2 cps
Intensity per Run 2	1,296.7 cps	-3.1 cps	23.6 cps	-14.1 cps	13.9 cps

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	Si 288.158 (Aqueous-Axial-iFR)	V 292.402 (Aqueous-Axial-iFR)	Al 308.215 (Aqueous-Axial-iFR)	Be 313.107 (Aqueous-Axial-iFR)	Ca 317.933 (Aqueous-Radial-iFR)
Intensity per Run 3	1,301.5 cps	-0.8 cps	24.6 cps	-16.5 cps	15.0 cps
Intensity average 1	1,299 cps	-1 cps	24 cps	-15 cps	14 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.0 %	-1.5 %	0.0 %	-0.1 %	0.0 %

	Th 318.019 (Aqueous-Axial-iFR)	Cu 324.754 (Aqueous-Axial-iFR)	Ag 328.068 (Aqueous-Axial-iFR)	La 333.749 (Aqueous-Axial-iFR)	Ti 334.941 (Aqueous-Axial-iFR)
Intensity per Run 1	-31.3 cps	14.1 cps	-2.6 cps	-4.4 cps	-3.2 cps
Intensity per Run 2	-31.1 cps	13.7 cps	-0.6 cps	-6.2 cps	-2.8 cps
Intensity per Run 3	-31.2 cps	13.5 cps	1.0 cps	-5.0 cps	-2.9 cps
Intensity average 1	-31 cps	14 cps	-1 cps	-5 cps	-3 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.0 %	0.0 %	-2.4 %	-0.2 %	-0.1 %

	Zr 339.198 (Aqueous-Axial-iFR)	Pd 340.458 (Aqueous-Axial-iFR)	Tl 351.924 (Aqueous-Axial-iFR)	Y 360.073 (Aqueous-Axial-iFR)	Sc 361.384 (Aqueous-Axial-iFR)
Intensity per Run 1	-3.1 cps	-1.7 cps	4.5 cps	1.0 cps	830,248.6 cps
Intensity per Run 2	-3.0 cps	1.5 cps	3.7 cps	1.0 cps	837,840.3 cps
Intensity per Run 3	-2.7 cps	-1.4 cps	2.6 cps	2.3 cps	838,270.0 cps
Intensity average 1	-3 cps	-1 cps	4 cps	1 cps	835,453 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	100.000 %
Concentration average 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	100.000 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 %
Concentration RSD 1	-0.1 %	-3.2 %	0.3 %	0.5 %	0.0 %

	Sc 361.384 (Aqueous-Radial-iFR)	Sr 421.552 (Aqueous-Radial-iFR)	Ba 493.409 (Aqueous-Axial-iFR)	Na 588.995 (Aqueous-Radial-iFR)	Li 670.784 (Aqueous-Radial-iFR)
Intensity per Run 1	141,442.7 cps	0.8 cps	33.6 cps	-377.8 cps	1.8 cps
Intensity per Run 2	142,230.1 cps	2.3 cps	34.6 cps	-374.2 cps	1.0 cps
Intensity per Run 3	142,577.5 cps	2.0 cps	30.9 cps	-371.2 cps	4.0 cps
Intensity average 1	142,083 cps	2 cps	33 cps	-374 cps	2 cps
Concentration per Run 1	100.000 %	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	100.000 %	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.0 %	0.5 %	0.1 %	0.0 %	0.7 %

	K 766.490 (Aqueous-Radial-iFR)
Intensity per Run 1	-6.6 cps
Intensity per Run 2	-9.5 cps
Intensity per Run 3	-7.5 cps



	K 766.490 (Aqueous- Radial-iFR)
Intensity average 1	-8 cps
Concentration per Run 1	0.000 ppm
Concentration average 1	0.000 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	-0.2 %

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Label: STD1
Sample Type: STD
Analysis started at: 6/5/2024 12:14:16 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	0.3 cps	1.7 cps	-0.2 cps	0.9 cps	-1.1 cps
Intensity per Run 2	0.7 cps	1.8 cps	0.2 cps	0.2 cps	-1.7 cps
Intensity per Run 3	0.0 cps	1.8 cps	0.3 cps	-0.5 cps	-1.6 cps
Intensity average 1	0 cps	2 cps	0 cps	0 cps	-1 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.4 cps	-0.3 cps	0.5 cps	26.7 cps	-1.5 cps
Intensity per Run 2	-0.7 cps	0.2 cps	1.2 cps	26.8 cps	-0.7 cps
Intensity per Run 3	-0.4 cps	0.3 cps	0.7 cps	26.9 cps	-1.1 cps
Intensity average 1	0 cps	0 cps	1 cps	27 cps	-1 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	0.2 cps	2.8 cps	0.0 cps	18.7 cps	-0.2 cps
Intensity per Run 2	-0.1 cps	2.5 cps	-0.5 cps	19.4 cps	0.9 cps
Intensity per Run 3	-0.5 cps	3.5 cps	-0.1 cps	18.5 cps	0.6 cps
Intensity average 1	0 cps	3 cps	0 cps	19 cps	0 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	7,557.4 cps	17.1 cps	0.6 cps	-0.4 cps	2,769.6 cps
Intensity per Run 2	7,529.5 cps	16.3 cps	-0.5 cps	0.0 cps	2,754.0 cps
Intensity per Run 3	7,537.6 cps	17.7 cps	-0.4 cps	-0.1 cps	2,775.5 cps
Intensity average 1	7,542 cps	17 cps	0 cps	0 cps	2,766 cps
Concentration per Run 1	50.061 ppm	N/A	N/A	N/A	25.007 ppm
Concentration per Run 2	50.032 ppm	N/A	N/A	N/A	24.944 ppm
Concentration per Run 3	49.908 ppm	N/A	N/A	N/A	25.049 ppm
Concentration average 1	50.000 ppm	N/A	N/A	N/A	25.000 ppm
Concentration SD 1	0.1 ppm	N/A	N/A	N/A	0.1 ppm

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	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration RSD 1	0.2 %	N/A	N/A	N/A	0.2 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	1,214.4 cps	-0.9 cps	53,219.6 cps	-16.0 cps	20,077.0 cps
Intensity per Run 2	1,211.2 cps	-0.7 cps	53,564.6 cps	-14.9 cps	19,902.4 cps
Intensity per Run 3	1,204.7 cps	1.3 cps	53,565.6 cps	-15.1 cps	20,116.6 cps
Intensity average 1	1,210 cps	0 cps	53,450 cps	-15 cps	20,032 cps
Concentration per Run 1	N/A	N/A	49.922 ppm	N/A	50.068 ppm
Concentration per Run 2	N/A	N/A	49.904 ppm	N/A	49.787 ppm
Concentration per Run 3	N/A	N/A	50.174 ppm	N/A	50.145 ppm
Concentration average 1	N/A	N/A	50.000 ppm	N/A	50.000 ppm
Concentration SD 1	N/A	N/A	0.2 ppm	N/A	0.2 ppm
Concentration RSD 1	N/A	N/A	0.3 %	N/A	0.4 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	43.0 cps	14.9 cps	0.3 cps	-1.7 cps	-13.4 cps
Intensity per Run 2	44.3 cps	16.2 cps	0.7 cps	-0.8 cps	-10.8 cps
Intensity per Run 3	46.7 cps	14.1 cps	-1.1 cps	-1.4 cps	-11.8 cps
Intensity average 1	45 cps	15 cps	0 cps	-1 cps	-12 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	-21.0 cps	-32.5 cps	1.1 cps	13.4 cps	797,774.7 cps
Intensity per Run 2	-21.7 cps	-35.0 cps	-1.1 cps	11.1 cps	803,242.7 cps
Intensity per Run 3	-21.9 cps	-31.5 cps	-1.6 cps	10.9 cps	798,921.3 cps
Intensity average 1	-22 cps	-33 cps	-1 cps	12 cps	799,980 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	95.490 %
Concentration per Run 2	N/A	N/A	N/A	N/A	96.145 %
Concentration per Run 3	N/A	N/A	N/A	N/A	95.627 %
Concentration average 1	N/A	N/A	N/A	N/A	95.754 %
Concentration SD 1	N/A	N/A	N/A	N/A	0.3 %
Concentration RSD 1	N/A	N/A	N/A	N/A	0.4 %

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 1	141,192.5 cps	14.9 cps	109.2 cps	105,046.3 cps	38,642.0 cps
Intensity per Run 2	140,752.2 cps	17.3 cps	110.0 cps	105,241.9 cps	38,692.8 cps

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 3	141,253.1 cps	14.4 cps	110.7 cps	105,129.0 cps	38,766.2 cps
Intensity average 1	141,066 cps	16 cps	110 cps	105,139 cps	38,700 cps
Concentration per Run 1	99.373 %	N/A	N/A	49.911 ppm	9.976 ppm
Concentration per Run 2	99.063 %	N/A	N/A	50.160 ppm	10.020 ppm
Concentration per Run 3	99.416 %	N/A	N/A	49.929 ppm	10.004 ppm
Concentration average 1	99.284 %	N/A	N/A	50.000 ppm	10.000 ppm
Concentration SD 1	0.2 %	N/A	N/A	0.1 ppm	0.0 ppm
Concentration RSD 1	0.2 %	N/A	N/A	0.3 %	0.2 %

	K 766.490 (Aqueous- Radial-iFR)
Intensity per Run 1	11,206.5 cps
Intensity per Run 2	11,198.4 cps
Intensity per Run 3	11,204.1 cps
Intensity average 1	11,203 cps
Concentration per Run 1	49.971 ppm
Concentration per Run 2	50.091 ppm
Concentration per Run 3	49.938 ppm
Concentration average 1	50.000 ppm
Concentration SD 1	0.1 ppm
Concentration RSD 1	0.2 %

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Label: STD2
Sample Type: STD
Analysis started at: 6/5/2024 12:17:08 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	4.9 cps	1.7 cps	-0.2 cps	0.8 cps	0.1 cps
Intensity per Run 2	5.7 cps	1.7 cps	-0.2 cps	0.5 cps	-0.3 cps
Intensity per Run 3	5.2 cps	1.6 cps	-0.4 cps	0.6 cps	0.0 cps
Intensity average 1	5 cps	2 cps	0 cps	1 cps	0 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	0.1 cps	-3.3 cps	-0.5 cps	28.5 cps	0.4 cps
Intensity per Run 2	0.0 cps	-3.7 cps	0.6 cps	28.3 cps	-0.5 cps
Intensity per Run 3	0.1 cps	-3.1 cps	-0.1 cps	28.5 cps	0.6 cps
Intensity average 1	0 cps	-3 cps	0 cps	28 cps	0 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	0.3 cps	17,939.6 cps	0.6 cps	-0.1 cps	-4.8 cps
Intensity per Run 2	0.4 cps	17,925.6 cps	0.7 cps	-1.0 cps	-5.3 cps
Intensity per Run 3	0.1 cps	17,932.7 cps	-0.1 cps	-0.9 cps	-5.7 cps
Intensity average 1	0 cps	17,933 cps	0 cps	-1 cps	-5 cps
Concentration per Run 1	N/A	9.933 ppm	N/A	N/A	N/A
Concentration per Run 2	N/A	10.063 ppm	N/A	N/A	N/A
Concentration per Run 3	N/A	10.004 ppm	N/A	N/A	N/A
Concentration average 1	N/A	10.000 ppm	N/A	N/A	N/A
Concentration SD 1	N/A	0.1 ppm	N/A	N/A	N/A
Concentration RSD 1	N/A	0.6 %	N/A	N/A	N/A

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	0.1 cps	-3.1 cps	-1.2 cps	26,896.3 cps	-0.4 cps
Intensity per Run 2	0.5 cps	-4.6 cps	0.0 cps	26,912.9 cps	-0.4 cps
Intensity per Run 3	1.0 cps	-3.7 cps	-1.7 cps	26,926.6 cps	-0.1 cps
Intensity average 1	1 cps	-4 cps	-1 cps	26,912 cps	0 cps
Concentration per Run 1	N/A	N/A	N/A	9.924 ppm	N/A
Concentration per Run 2	N/A	N/A	N/A	10.067 ppm	N/A
Concentration per Run 3	N/A	N/A	N/A	10.009 ppm	N/A
Concentration average 1	N/A	N/A	N/A	10.000 ppm	N/A
Concentration SD 1	N/A	N/A	N/A	0.1 ppm	N/A

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	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration RSD 1	N/A	N/A	N/A	0.7 %	N/A

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	1,191.5 cps	-66.7 cps	20.6 cps	75,485.2 cps	3.0 cps
Intensity per Run 2	1,199.2 cps	-68.3 cps	19.9 cps	75,104.3 cps	3.3 cps
Intensity per Run 3	1,192.5 cps	-68.4 cps	19.1 cps	75,367.9 cps	4.0 cps
Intensity average 1	1,194 cps	-68 cps	20 cps	75,319 cps	3 cps
Concentration per Run 1	N/A	N/A	N/A	0.995 ppm	N/A
Concentration per Run 2	N/A	N/A	N/A	1.004 ppm	N/A
Concentration per Run 3	N/A	N/A	N/A	1.001 ppm	N/A
Concentration average 1	N/A	N/A	N/A	1.000 ppm	N/A
Concentration SD 1	N/A	N/A	N/A	0.0 ppm	N/A
Concentration RSD 1	N/A	N/A	N/A	0.4 %	N/A

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	-43.5 cps	68,089.1 cps	0.3 cps	-3.7 cps	39.6 cps
Intensity per Run 2	-44.1 cps	67,270.0 cps	-1.3 cps	-1.4 cps	38.8 cps
Intensity per Run 3	-43.7 cps	67,735.7 cps	2.3 cps	-2.2 cps	38.5 cps
Intensity average 1	-44 cps	67,698 cps	0 cps	-2 cps	39 cps
Concentration per Run 1	N/A	9.987 ppm	N/A	N/A	N/A
Concentration per Run 2	N/A	10.003 ppm	N/A	N/A	N/A
Concentration per Run 3	N/A	10.010 ppm	N/A	N/A	N/A
Concentration average 1	N/A	10.000 ppm	N/A	N/A	N/A
Concentration SD 1	N/A	0.0 ppm	N/A	N/A	N/A
Concentration RSD 1	N/A	0.1 %	N/A	N/A	N/A

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	-5.3 cps	0.4 cps	0.7 cps	4.9 cps	835,225.4 cps
Intensity per Run 2	-3.6 cps	1.9 cps	-0.2 cps	4.6 cps	823,848.2 cps
Intensity per Run 3	-6.5 cps	1.3 cps	-2.0 cps	3.4 cps	829,016.6 cps
Intensity average 1	-5 cps	1 cps	0 cps	4 cps	829,363 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	99.973 %
Concentration per Run 2	N/A	N/A	N/A	N/A	98.611 %
Concentration per Run 3	N/A	N/A	N/A	N/A	99.230 %
Concentration average 1	N/A	N/A	N/A	N/A	99.271 %
Concentration SD 1	N/A	N/A	N/A	N/A	0.7 %
Concentration RSD 1	N/A	N/A	N/A	N/A	0.7 %

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 1	139,677.6 cps	-1.1 cps	1,380,112.6 cps	-387.2 cps	2.1 cps
Intensity per Run 2	139,432.8 cps	-1.2 cps	1,365,543.9 cps	-383.4 cps	4.4 cps

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 3	139,863.1 cps	0.4 cps	1,373,727.6 cps	-388.2 cps	4.2 cps
Intensity average 1	139,658 cps	-1 cps	1,373,128 cps	-386 cps	4 cps
Concentration per Run 1	98.307 %	N/A	9.980 ppm	N/A	N/A
Concentration per Run 2	98.134 %	N/A	10.011 ppm	N/A	N/A
Concentration per Run 3	98.437 %	N/A	10.008 ppm	N/A	N/A
Concentration average 1	98.293 %	N/A	10.000 ppm	N/A	N/A
Concentration SD 1	0.2 %	N/A	0.0 ppm	N/A	N/A
Concentration RSD 1	0.2 %	N/A	0.2 %	N/A	N/A

	K 766.490 (Aqueous- Radial-iFR)
Intensity per Run 1	-7.6 cps
Intensity per Run 2	-8.9 cps
Intensity per Run 3	-9.0 cps
Intensity average 1	-9 cps
Concentration per Run 1	N/A
Concentration per Run 2	N/A
Concentration per Run 3	N/A
Concentration average 1	N/A
Concentration SD 1	N/A
Concentration RSD 1	N/A

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Label: STD3
Sample Type: STD
Analysis started at: 6/5/2024 12:19:29 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	-1.1 cps	2.6 cps	-0.1 cps	1,325.6 cps	0.5 cps
Intensity per Run 2	-0.9 cps	3.0 cps	-0.2 cps	1,328.3 cps	0.4 cps
Intensity per Run 3	-0.7 cps	3.0 cps	-0.2 cps	1,324.4 cps	0.2 cps
Intensity average 1	-1 cps	3 cps	0 cps	1,326 cps	0 cps
Concentration per Run 1	N/A	N/A	N/A	9.961 ppm	N/A
Concentration per Run 2	N/A	N/A	N/A	10.023 ppm	N/A
Concentration per Run 3	N/A	N/A	N/A	10.016 ppm	N/A
Concentration average 1	N/A	N/A	N/A	10.000 ppm	N/A
Concentration SD 1	N/A	N/A	N/A	0.0 ppm	N/A
Concentration RSD 1	N/A	N/A	N/A	0.3 %	N/A

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	-1.0 cps	14,918.1 cps	33.6 cps	27.6 cps	3.1 cps
Intensity per Run 2	-1.7 cps	15,106.5 cps	32.4 cps	27.9 cps	3.8 cps
Intensity per Run 3	-1.2 cps	15,069.1 cps	32.5 cps	28.3 cps	3.4 cps
Intensity average 1	-1 cps	15,031 cps	33 cps	28 cps	3 cps
Concentration per Run 1	N/A	9.889 ppm	N/A	N/A	N/A
Concentration per Run 2	N/A	10.056 ppm	N/A	N/A	N/A
Concentration per Run 3	N/A	10.054 ppm	N/A	N/A	N/A
Concentration average 1	N/A	10.000 ppm	N/A	N/A	N/A
Concentration SD 1	N/A	0.1 ppm	N/A	N/A	N/A
Concentration RSD 1	N/A	1.0 %	N/A	N/A	N/A

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.3 cps	0.6 cps	-1.5 cps	42,416.8 cps	12,057.3 cps
Intensity per Run 2	0.0 cps	0.6 cps	-0.5 cps	42,467.8 cps	12,171.1 cps
Intensity per Run 3	-0.2 cps	0.7 cps	-1.2 cps	42,316.0 cps	12,125.3 cps
Intensity average 1	0 cps	1 cps	-1 cps	42,400 cps	12,118 cps
Concentration per Run 1	N/A	N/A	N/A	9.968 ppm	9.915 ppm
Concentration per Run 2	N/A	N/A	N/A	10.022 ppm	10.050 ppm
Concentration per Run 3	N/A	N/A	N/A	10.009 ppm	10.035 ppm
Concentration average 1	N/A	N/A	N/A	10.000 ppm	10.000 ppm
Concentration SD 1	N/A	N/A	N/A	0.0 ppm	0.1 ppm
Concentration RSD 1	N/A	N/A	N/A	0.3 %	0.7 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	1.7 cps	292,375.2 cps	9.5 cps	1.3 cps	-2.6 cps
Intensity per Run 2	2.0 cps	293,037.0 cps	8.6 cps	1.7 cps	-1.9 cps
Intensity per Run 3	1.4 cps	291,915.8 cps	9.8 cps	1.1 cps	-1.7 cps
Intensity average 1	2 cps	292,443 cps	9 cps	1 cps	-2 cps
Concentration per Run 1	N/A	9.962 ppm	N/A	N/A	N/A
Concentration per Run 2	N/A	10.026 ppm	N/A	N/A	N/A

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 3	N/A	10.011 ppm	N/A	N/A	N/A
Concentration average 1	N/A	10.000 ppm	N/A	N/A	N/A
Concentration SD 1	N/A	0.0 ppm	N/A	N/A	N/A
Concentration RSD 1	N/A	0.3 %	N/A	N/A	N/A

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	1,212.0 cps	63,727.0 cps	118.6 cps	-16.1 cps	4.6 cps
Intensity per Run 2	1,216.0 cps	63,653.1 cps	105.6 cps	-18.9 cps	4.1 cps
Intensity per Run 3	1,211.0 cps	63,577.3 cps	106.8 cps	-20.0 cps	3.8 cps
Intensity average 1	1,213 cps	63,652 cps	110 cps	-18 cps	4 cps
Concentration per Run 1	N/A	9.976 ppm	N/A	N/A	N/A
Concentration per Run 2	N/A	10.006 ppm	N/A	N/A	N/A
Concentration per Run 3	N/A	10.018 ppm	N/A	N/A	N/A
Concentration average 1	N/A	10.000 ppm	N/A	N/A	N/A
Concentration SD 1	N/A	0.0 ppm	N/A	N/A	N/A
Concentration RSD 1	N/A	0.2 %	N/A	N/A	N/A

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	-30.3 cps	0.1 cps	5.4 cps	-6.2 cps	-3.9 cps
Intensity per Run 2	-30.7 cps	1.0 cps	5.2 cps	-4.0 cps	-2.0 cps
Intensity per Run 3	-32.1 cps	-1.8 cps	4.8 cps	-5.6 cps	-3.2 cps
Intensity average 1	-31 cps	0 cps	5 cps	-5 cps	-3 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	2.3 cps	3.9 cps	8.4 cps	7.3 cps	828,895.8 cps
Intensity per Run 2	2.6 cps	3.7 cps	9.1 cps	5.5 cps	825,454.4 cps
Intensity per Run 3	1.3 cps	0.9 cps	9.8 cps	4.3 cps	823,543.7 cps
Intensity average 1	2 cps	3 cps	9 cps	6 cps	825,965 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	99.215 %
Concentration per Run 2	N/A	N/A	N/A	N/A	98.803 %
Concentration per Run 3	N/A	N/A	N/A	N/A	98.575 %
Concentration average 1	N/A	N/A	N/A	N/A	98.864 %
Concentration SD 1	N/A	N/A	N/A	N/A	0.3 %
Concentration RSD 1	N/A	N/A	N/A	N/A	0.3 %

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 1	138,711.9 cps	-0.5 cps	39.0 cps	-381.5 cps	2.2 cps

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 2	138,980.0 cps	0.3 cps	31.2 cps	-386.3 cps	2.9 cps
Intensity per Run 3	139,889.9 cps	0.4 cps	31.6 cps	-385.3 cps	1.2 cps
Intensity average 1	139,194 cps	0 cps	34 cps	-384 cps	2 cps
Concentration per Run 1	97.627 %	N/A	N/A	N/A	N/A
Concentration per Run 2	97.816 %	N/A	N/A	N/A	N/A
Concentration per Run 3	98.456 %	N/A	N/A	N/A	N/A
Concentration average 1	97.966 %	N/A	N/A	N/A	N/A
Concentration SD 1	0.4 %	N/A	N/A	N/A	N/A
Concentration RSD 1	0.4 %	N/A	N/A	N/A	N/A

	K 766.490 (Aqueous- Radial-iFR)
Intensity per Run 1	-9.8 cps
Intensity per Run 2	-8.9 cps
Intensity per Run 3	-8.6 cps
Intensity average 1	-9 cps
Concentration per Run 1	N/A
Concentration per Run 2	N/A
Concentration per Run 3	N/A
Concentration average 1	N/A
Concentration SD 1	N/A
Concentration RSD 1	N/A

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Label: STD4
Sample Type: STD
Analysis started at: 6/5/2024 12:21:51 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.3 cps	2.1 cps	0.2 cps	0.7 cps	1,124.5 cps
Intensity per Run 2	-0.2 cps	1.8 cps	-0.2 cps	0.9 cps	1,119.3 cps
Intensity per Run 3	0.1 cps	2.2 cps	-0.4 cps	0.3 cps	1,126.1 cps
Intensity average 1	0 cps	2 cps	0 cps	1 cps	1,123 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	10.017 ppm
Concentration per Run 2	N/A	N/A	N/A	N/A	9.930 ppm
Concentration per Run 3	N/A	N/A	N/A	N/A	10.053 ppm
Concentration average 1	N/A	N/A	N/A	N/A	10.000 ppm
Concentration SD 1	N/A	N/A	N/A	N/A	0.1 ppm
Concentration RSD 1	N/A	N/A	N/A	N/A	0.6 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.1 cps	1.6 cps	0.6 cps	28.0 cps	1,852.4 cps
Intensity per Run 2	-0.9 cps	0.7 cps	0.4 cps	27.3 cps	1,857.4 cps
Intensity per Run 3	-0.5 cps	1.0 cps	0.4 cps	27.7 cps	1,849.8 cps
Intensity average 1	0 cps	1 cps	0 cps	28 cps	1,853 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	10.002 ppm
Concentration per Run 2	N/A	N/A	N/A	N/A	9.988 ppm
Concentration per Run 3	N/A	N/A	N/A	N/A	10.010 ppm
Concentration average 1	N/A	N/A	N/A	N/A	10.000 ppm
Concentration SD 1	N/A	N/A	N/A	N/A	0.0 ppm
Concentration RSD 1	N/A	N/A	N/A	N/A	0.1 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	2,763.0 cps	3.1 cps	0.0 cps	2.1 cps	0.1 cps
Intensity per Run 2	2,763.0 cps	2.1 cps	-0.6 cps	1.0 cps	-0.5 cps
Intensity per Run 3	2,761.5 cps	2.8 cps	0.0 cps	0.7 cps	0.2 cps
Intensity average 1	2,763 cps	3 cps	0 cps	1 cps	0 cps
Concentration per Run 1	10.008 ppm	N/A	N/A	N/A	N/A
Concentration per Run 2	9.967 ppm	N/A	N/A	N/A	N/A
Concentration per Run 3	10.025 ppm	N/A	N/A	N/A	N/A
Concentration average 1	10.000 ppm	N/A	N/A	N/A	N/A
Concentration SD 1	0.0 ppm	N/A	N/A	N/A	N/A
Concentration RSD 1	0.3 %	N/A	N/A	N/A	N/A

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	1.3 cps	12.6 cps	0.2 cps	6.7 cps	0.3 cps
Intensity per Run 2	1.4 cps	8.9 cps	-0.1 cps	6.2 cps	-0.2 cps
Intensity per Run 3	1.4 cps	8.4 cps	-0.2 cps	6.2 cps	-0.5 cps
Intensity average 1	1 cps	10 cps	0 cps	6 cps	0 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A

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	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	1,221.2 cps	1.7 cps	20.7 cps	-14.1 cps	2.4 cps
Intensity per Run 2	1,210.8 cps	-1.1 cps	20.3 cps	-13.8 cps	2.8 cps
Intensity per Run 3	1,231.2 cps	-0.7 cps	21.3 cps	-15.9 cps	2.4 cps
Intensity average 1	1,221 cps	0 cps	21 cps	-15 cps	3 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	-30.1 cps	14.0 cps	13,321.9 cps	-4.5 cps	-0.1 cps
Intensity per Run 2	-28.5 cps	14.5 cps	13,340.9 cps	-4.8 cps	0.7 cps
Intensity per Run 3	-30.9 cps	13.9 cps	13,340.6 cps	-4.8 cps	-2.2 cps
Intensity average 1	-30 cps	14 cps	13,334 cps	-5 cps	-1 cps
Concentration per Run 1	N/A	N/A	1.999 ppm	N/A	N/A
Concentration per Run 2	N/A	N/A	1.994 ppm	N/A	N/A
Concentration per Run 3	N/A	N/A	2.007 ppm	N/A	N/A
Concentration average 1	N/A	N/A	2.000 ppm	N/A	N/A
Concentration SD 1	N/A	N/A	0.0 ppm	N/A	N/A
Concentration RSD 1	N/A	N/A	0.3 %	N/A	N/A

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	-1.8 cps	0.7 cps	2,766.7 cps	2.4 cps	866,656.8 cps
Intensity per Run 2	-0.8 cps	-1.6 cps	2,783.3 cps	3.3 cps	870,174.6 cps
Intensity per Run 3	-3.2 cps	-0.9 cps	2,765.6 cps	3.8 cps	864,703.5 cps
Intensity average 1	-2 cps	-1 cps	2,772 cps	3 cps	867,178 cps
Concentration per Run 1	N/A	N/A	9.987 ppm	N/A	103.735 %
Concentration per Run 2	N/A	N/A	10.007 ppm	N/A	104.156 %
Concentration per Run 3	N/A	N/A	10.006 ppm	N/A	103.501 %
Concentration average 1	N/A	N/A	10.000 ppm	N/A	103.797 %
Concentration SD 1	N/A	N/A	0.0 ppm	N/A	0.3 %
Concentration RSD 1	N/A	N/A	0.1 %	N/A	0.3 %

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 1	145,673.7 cps	3.2 cps	40.9 cps	-378.4 cps	1.8 cps
Intensity per Run 2	144,971.9 cps	2.8 cps	40.0 cps	-381.1 cps	1.2 cps

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 3	145,083.8 cps	1.4 cps	36.1 cps	-378.8 cps	1.8 cps
Intensity average 1	145,243 cps	2 cps	39 cps	-379 cps	2 cps
Concentration per Run 1	102.527 %	N/A	N/A	N/A	N/A
Concentration per Run 2	102.033 %	N/A	N/A	N/A	N/A
Concentration per Run 3	102.112 %	N/A	N/A	N/A	N/A
Concentration average 1	102.224 %	N/A	N/A	N/A	N/A
Concentration SD 1	0.3 %	N/A	N/A	N/A	N/A
Concentration RSD 1	0.3 %	N/A	N/A	N/A	N/A

	K 766.490 (Aqueous- Radial-iFR)
Intensity per Run 1	-8.6 cps
Intensity per Run 2	-6.7 cps
Intensity per Run 3	-8.5 cps
Intensity average 1	-8 cps
Concentration per Run 1	N/A
Concentration per Run 2	N/A
Concentration per Run 3	N/A
Concentration average 1	N/A
Concentration SD 1	N/A
Concentration RSD 1	N/A

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Label: STD5
Sample Type: STD
Analysis started at: 6/5/2024 12:24:13 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	1,348.4 cps	0.1 cps	3,366.7 cps	1.1 cps	0.7 cps
Intensity per Run 2	1,351.9 cps	-0.2 cps	3,362.9 cps	0.7 cps	0.5 cps
Intensity per Run 3	1,344.4 cps	-0.3 cps	3,344.8 cps	0.5 cps	1.0 cps
Intensity average 1	1,348 cps	0 cps	3,358 cps	1 cps	1 cps
Concentration per Run 1	9.998 ppm	N/A	10.023 ppm	N/A	N/A
Concentration per Run 2	10.029 ppm	N/A	10.016 ppm	N/A	N/A
Concentration per Run 3	9.973 ppm	N/A	9.961 ppm	N/A	N/A
Concentration average 1	10.000 ppm	N/A	10.000 ppm	N/A	N/A
Concentration SD 1	0.0 ppm	N/A	0.0 ppm	N/A	N/A
Concentration RSD 1	0.3 %	N/A	0.3 %	N/A	N/A

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	8,867.3 cps	3.0 cps	1.3 cps	4,453.0 cps	0.8 cps
Intensity per Run 2	8,857.1 cps	3.1 cps	1.8 cps	4,481.9 cps	0.5 cps
Intensity per Run 3	8,818.4 cps	3.2 cps	1.1 cps	4,483.5 cps	0.0 cps
Intensity average 1	8,848 cps	3 cps	1 cps	4,473 cps	0 cps
Concentration per Run 1	10.019 ppm	N/A	N/A	9.952 ppm	N/A
Concentration per Run 2	10.013 ppm	N/A	N/A	10.023 ppm	N/A
Concentration per Run 3	9.968 ppm	N/A	N/A	10.025 ppm	N/A
Concentration average 1	10.000 ppm	N/A	N/A	10.000 ppm	N/A
Concentration SD 1	0.0 ppm	N/A	N/A	0.0 ppm	N/A
Concentration RSD 1	0.3 %	N/A	N/A	0.4 %	N/A

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	-2.6 cps	11.5 cps	134.4 cps	2.8 cps	18.0 cps
Intensity per Run 2	-3.6 cps	11.5 cps	134.2 cps	1.9 cps	17.6 cps
Intensity per Run 3	-3.4 cps	11.1 cps	135.1 cps	2.3 cps	18.1 cps
Intensity average 1	-3 cps	11 cps	135 cps	2 cps	18 cps
Concentration per Run 1	N/A	N/A	4.993 ppm	N/A	N/A
Concentration per Run 2	N/A	N/A	4.988 ppm	N/A	N/A
Concentration per Run 3	N/A	N/A	5.019 ppm	N/A	N/A
Concentration average 1	N/A	N/A	5.000 ppm	N/A	N/A
Concentration SD 1	N/A	N/A	0.0 ppm	N/A	N/A
Concentration RSD 1	N/A	N/A	0.3 %	N/A	N/A

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	1.1 cps	-1.4 cps	23.9 cps	4.0 cps	3.0 cps
Intensity per Run 2	-0.2 cps	-2.7 cps	24.9 cps	4.3 cps	4.5 cps
Intensity per Run 3	0.7 cps	-3.4 cps	26.7 cps	2.8 cps	3.6 cps
Intensity average 1	1 cps	-2 cps	25 cps	4 cps	4 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A

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	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	11,663.5 cps	-58.7 cps	112.8 cps	-249.2 cps	109.0 cps
Intensity per Run 2	11,683.4 cps	-55.3 cps	114.8 cps	-242.2 cps	107.8 cps
Intensity per Run 3	11,633.6 cps	-55.7 cps	112.4 cps	-248.4 cps	106.9 cps
Intensity average 1	11,660 cps	-57 cps	113 cps	-247 cps	108 cps
Concentration per Run 1	10.000 ppm	N/A	N/A	N/A	N/A
Concentration per Run 2	10.025 ppm	N/A	N/A	N/A	N/A
Concentration per Run 3	9.976 ppm	N/A	N/A	N/A	N/A
Concentration average 1	10.000 ppm	N/A	N/A	N/A	N/A
Concentration SD 1	0.0 ppm	N/A	N/A	N/A	N/A
Concentration RSD 1	0.2 %	N/A	N/A	N/A	N/A

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	-17.7 cps	28.8 cps	-14.7 cps	-3.5 cps	231,889.4 cps
Intensity per Run 2	-20.1 cps	29.1 cps	-17.0 cps	-4.1 cps	232,357.6 cps
Intensity per Run 3	-19.1 cps	29.7 cps	-18.4 cps	-4.3 cps	232,768.0 cps
Intensity average 1	-19 cps	29 cps	-17 cps	-4 cps	232,338 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	9.978 ppm
Concentration per Run 2	N/A	N/A	N/A	N/A	10.003 ppm
Concentration per Run 3	N/A	N/A	N/A	N/A	10.020 ppm
Concentration average 1	N/A	N/A	N/A	N/A	10.000 ppm
Concentration SD 1	N/A	N/A	N/A	N/A	0.0 ppm
Concentration RSD 1	N/A	N/A	N/A	N/A	0.2 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	456.0 cps	-17.5 cps	10.4 cps	6.0 cps	815,184.9 cps
Intensity per Run 2	354.3 cps	-19.5 cps	11.5 cps	7.0 cps	814,772.5 cps
Intensity per Run 3	286.4 cps	-18.8 cps	9.9 cps	10.4 cps	814,847.4 cps
Intensity average 1	366 cps	-19 cps	11 cps	8 cps	814,935 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	97.574 %
Concentration per Run 2	N/A	N/A	N/A	N/A	97.525 %
Concentration per Run 3	N/A	N/A	N/A	N/A	97.534 %
Concentration average 1	N/A	N/A	N/A	N/A	97.544 %
Concentration SD 1	N/A	N/A	N/A	N/A	0.0 %
Concentration RSD 1	N/A	N/A	N/A	N/A	0.0 %

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 1	136,965.2 cps	342,915.1 cps	61.6 cps	-311.5 cps	1.4 cps

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 2	136,900.9 cps	342,366.9 cps	61.0 cps	-314.8 cps	4.7 cps
Intensity per Run 3	136,973.5 cps	341,945.3 cps	65.0 cps	-318.9 cps	0.6 cps
Intensity average 1	136,947 cps	342,409 cps	63 cps	-315 cps	2 cps
Concentration per Run 1	96.398 %	10.013 ppm	N/A	N/A	N/A
Concentration per Run 2	96.352 %	10.002 ppm	N/A	N/A	N/A
Concentration per Run 3	96.404 %	9.984 ppm	N/A	N/A	N/A
Concentration average 1	96.385 %	10.000 ppm	N/A	N/A	N/A
Concentration SD 1	0.0 %	0.0 ppm	N/A	N/A	N/A
Concentration RSD 1	0.0 %	0.1 %	N/A	N/A	N/A

	K 766.490 (Aqueous- Radial-iFR)
Intensity per Run 1	-6.3 cps
Intensity per Run 2	-6.9 cps
Intensity per Run 3	-8.8 cps
Intensity average 1	-7 cps
Concentration per Run 1	N/A
Concentration per Run 2	N/A
Concentration per Run 3	N/A
Concentration average 1	N/A
Concentration SD 1	N/A
Concentration RSD 1	N/A

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Label: STD6
Sample Type: STD
Analysis started at: 6/5/2024 12:26:35 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	-3.5 cps	501.2 cps	0.1 cps	-2.7 cps	3.0 cps
Intensity per Run 2	-3.8 cps	505.6 cps	-0.1 cps	-2.8 cps	3.6 cps
Intensity per Run 3	-3.7 cps	497.2 cps	-0.2 cps	-2.7 cps	3.1 cps
Intensity average 1	-4 cps	501 cps	0 cps	-3 cps	3 cps
Concentration per Run 1	N/A	9.978 ppm	N/A	N/A	N/A
Concentration per Run 2	N/A	10.074 ppm	N/A	N/A	N/A
Concentration per Run 3	N/A	9.948 ppm	N/A	N/A	N/A
Concentration average 1	N/A	10.000 ppm	N/A	N/A	N/A
Concentration SD 1	N/A	0.1 ppm	N/A	N/A	N/A
Concentration RSD 1	N/A	0.7 %	N/A	N/A	N/A

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	-1.0 cps	4.1 cps	2,229.3 cps	43.9 cps	10.0 cps
Intensity per Run 2	-1.6 cps	3.6 cps	2,236.3 cps	44.4 cps	9.6 cps
Intensity per Run 3	-1.5 cps	3.0 cps	2,217.7 cps	43.5 cps	10.4 cps
Intensity average 1	-1 cps	4 cps	2,228 cps	44 cps	10 cps
Concentration per Run 1	N/A	N/A	4.994 ppm	N/A	N/A
Concentration per Run 2	N/A	N/A	5.013 ppm	N/A	N/A
Concentration per Run 3	N/A	N/A	4.993 ppm	N/A	N/A
Concentration average 1	N/A	N/A	5.000 ppm	N/A	N/A
Concentration SD 1	N/A	N/A	0.0 ppm	N/A	N/A
Concentration RSD 1	N/A	N/A	0.2 %	N/A	N/A

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	1.5 cps	12.6 cps	-3.8 cps	0.2 cps	1.3 cps
Intensity per Run 2	0.6 cps	12.0 cps	-4.2 cps	1.6 cps	0.7 cps
Intensity per Run 3	0.6 cps	11.5 cps	-4.0 cps	1.2 cps	1.3 cps
Intensity average 1	1 cps	12 cps	-4 cps	1 cps	1 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	3.3 cps	-24.2 cps	710.2 cps	12.2 cps	-50.6 cps
Intensity per Run 2	2.9 cps	-22.7 cps	709.9 cps	11.3 cps	-49.5 cps
Intensity per Run 3	3.1 cps	-21.5 cps	705.1 cps	11.8 cps	-50.1 cps
Intensity average 1	3 cps	-23 cps	708 cps	12 cps	-50 cps
Concentration per Run 1	N/A	N/A	10.007 ppm	N/A	N/A
Concentration per Run 2	N/A	N/A	10.009 ppm	N/A	N/A
Concentration per Run 3	N/A	N/A	9.983 ppm	N/A	N/A
Concentration average 1	N/A	N/A	10.000 ppm	N/A	N/A
Concentration SD 1	N/A	N/A	0.0 ppm	N/A	N/A

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	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration RSD 1	N/A	N/A	0.1 %	N/A	N/A

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	1,538.7 cps	38.5 cps	612.9 cps	563.9 cps	-11.5 cps
Intensity per Run 2	1,579.7 cps	36.5 cps	619.5 cps	569.5 cps	-10.0 cps
Intensity per Run 3	1,558.3 cps	38.7 cps	608.1 cps	562.6 cps	-8.7 cps
Intensity average 1	1,559 cps	38 cps	614 cps	565 cps	-10 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	6,997.0 cps	200.5 cps	-32.2 cps	83,952.8 cps	101.8 cps
Intensity per Run 2	6,997.0 cps	202.0 cps	-37.9 cps	83,871.3 cps	96.1 cps
Intensity per Run 3	7,004.6 cps	197.7 cps	-28.0 cps	83,522.4 cps	95.3 cps
Intensity average 1	7,000 cps	200 cps	-33 cps	83,782 cps	98 cps
Concentration per Run 1	9.977 ppm	N/A	N/A	10.001 ppm	N/A
Concentration per Run 2	9.985 ppm	N/A	N/A	9.999 ppm	N/A
Concentration per Run 3	10.037 ppm	N/A	N/A	9.999 ppm	N/A
Concentration average 1	10.000 ppm	N/A	N/A	10.000 ppm	N/A
Concentration SD 1	0.0 ppm	N/A	N/A	0.0 ppm	N/A
Concentration RSD 1	0.3 %	N/A	N/A	0.0 %	N/A

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	186,772.2 cps	24,198.1 cps	-3.1 cps	346,935.0 cps	855,827.7 cps
Intensity per Run 2	187,088.9 cps	24,197.4 cps	-3.0 cps	347,583.9 cps	855,172.8 cps
Intensity per Run 3	186,209.8 cps	24,100.2 cps	-5.0 cps	345,757.7 cps	851,613.2 cps
Intensity average 1	186,690 cps	24,165 cps	-4 cps	346,759 cps	854,205 cps
Concentration per Run 1	9.985 ppm	9.995 ppm	N/A	9.986 ppm	102.439 %
Concentration per Run 2	10.010 ppm	10.002 ppm	N/A	10.012 ppm	102.360 %
Concentration per Run 3	10.005 ppm	10.003 ppm	N/A	10.001 ppm	101.934 %
Concentration average 1	10.000 ppm	10.000 ppm	N/A	10.000 ppm	102.244 %
Concentration SD 1	0.0 ppm	0.0 ppm	N/A	0.0 ppm	0.3 %
Concentration RSD 1	0.1 %	0.0 %	N/A	0.1 %	0.3 %

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 1	145,059.3 cps	10.2 cps	374.7 cps	1,838.1 cps	5.6 cps
Intensity per Run 2	144,133.6 cps	7.4 cps	378.8 cps	1,817.9 cps	5.8 cps

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 3	144,400.1 cps	6.9 cps	376.1 cps	1,809.8 cps	6.3 cps
Intensity average 1	144,531 cps	8 cps	377 cps	1,822 cps	6 cps
Concentration per Run 1	102.094 %	N/A	N/A	N/A	N/A
Concentration per Run 2	101.443 %	N/A	N/A	N/A	N/A
Concentration per Run 3	101.630 %	N/A	N/A	N/A	N/A
Concentration average 1	101.723 %	N/A	N/A	N/A	N/A
Concentration SD 1	0.3 %	N/A	N/A	N/A	N/A
Concentration RSD 1	0.3 %	N/A	N/A	N/A	N/A

	K 766.490 (Aqueous- Radial-iFR)
Intensity per Run 1	-7.9 cps
Intensity per Run 2	-9.3 cps
Intensity per Run 3	-8.9 cps
Intensity average 1	-9 cps
Concentration per Run 1	N/A
Concentration per Run 2	N/A
Concentration per Run 3	N/A
Concentration average 1	N/A
Concentration SD 1	N/A
Concentration RSD 1	N/A

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Label: ICV
Sample Type: QC
Analysis started at: 6/5/2024 12:28:58 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Recovery Percentage 1	105.306 %	102.974 %	98.176 %	103.699 %	101.690 %
Intensity per Run 1	675.6 cps	46.6 cps	1,567.8 cps	517.0 cps	409.7 cps
Intensity per Run 2	680.1 cps	47.2 cps	1,569.0 cps	514.9 cps	411.5 cps
Intensity per Run 3	682.9 cps	48.2 cps	1,583.8 cps	519.4 cps	414.0 cps
Intensity average 1	680 cps	47 cps	1,574 cps	517 cps	412 cps
Concentration per Run 1	5.219 ppm	1.011 ppm	4.876 ppm	4.134 ppm	4.035 ppm
Concentration per Run 2	5.280 ppm	1.030 ppm	4.904 ppm	4.138 ppm	4.073 ppm
Concentration per Run 3	5.297 ppm	1.049 ppm	4.947 ppm	4.171 ppm	4.095 ppm
Concentration average 1	5.265 ppm	1.030 ppm	4.909 ppm	4.148 ppm	4.068 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.8 %	1.9 %	0.7 %	0.5 %	0.7 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Recovery Percentage 1	101.426 %	99.652 %	98.766 %	101.450 %	101.507 %
Intensity per Run 1	4,291.1 cps	1,414.2 cps	404.3 cps	2,245.0 cps	172.1 cps
Intensity per Run 2	4,297.5 cps	1,418.6 cps	404.5 cps	2,252.7 cps	171.8 cps
Intensity per Run 3	4,289.9 cps	1,420.5 cps	409.1 cps	2,275.7 cps	170.1 cps
Intensity average 1	4,293 cps	1,418 cps	406 cps	2,258 cps	171 cps
Concentration per Run 1	5.054 ppm	0.991 ppm	0.981 ppm	5.027 ppm	1.017 ppm
Concentration per Run 2	5.086 ppm	0.999 ppm	0.986 ppm	5.070 ppm	1.020 ppm
Concentration per Run 3	5.074 ppm	1.000 ppm	0.997 ppm	5.121 ppm	1.009 ppm
Concentration average 1	5.071 ppm	0.997 ppm	0.988 ppm	5.073 ppm	1.015 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.3 %	0.5 %	0.8 %	0.9 %	0.6 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Recovery Percentage 1	95.802 %	95.322 %	100.121 %	99.501 %	95.449 %
Intensity per Run 1	237.3 cps	1,610.2 cps	130.6 cps	399.5 cps	1,095.6 cps
Intensity per Run 2	237.6 cps	1,615.1 cps	130.4 cps	397.7 cps	1,098.1 cps
Intensity per Run 3	236.2 cps	1,620.1 cps	131.6 cps	400.1 cps	1,106.8 cps
Intensity average 1	237 cps	1,615 cps	131 cps	399 cps	1,100 cps
Concentration per Run 1	0.956 ppm	0.947 ppm	4.969 ppm	0.099 ppm	0.948 ppm
Concentration per Run 2	0.962 ppm	0.955 ppm	4.999 ppm	0.099 ppm	0.954 ppm
Concentration per Run 3	0.956 ppm	0.957 ppm	5.050 ppm	0.100 ppm	0.961 ppm
Concentration average 1	0.958 ppm	0.953 ppm	5.006 ppm	0.100 ppm	0.954 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.4 %	0.5 %	0.8 %	0.3 %	0.7 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Recovery Percentage 1	99.490 %	101.613 %	99.111 %	97.534 %	105.293 %
Intensity per Run 1	286.1 cps	28,114.6 cps	337.7 cps	995.2 cps	2,218.1 cps
Intensity per Run 2	288.2 cps	28,053.6 cps	334.0 cps	992.8 cps	2,225.3 cps
Intensity per Run 3	287.8 cps	28,025.7 cps	340.3 cps	999.1 cps	2,221.1 cps
Intensity average 1	287 cps	28,065 cps	337 cps	996 cps	2,221 cps
Concentration per Run 1	1.970 ppm	1.015 ppm	4.946 ppm	0.389 ppm	20.909 ppm

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 2	2.000 ppm	1.018 ppm	4.913 ppm	0.390 ppm	21.138 ppm
Concentration per Run 3	2.000 ppm	1.016 ppm	5.007 ppm	0.392 ppm	21.129 ppm
Concentration average 1	1.990 ppm	1.016 ppm	4.956 ppm	0.390 ppm	21.059 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.1 ppm
Concentration RSD 1	0.9 %	0.1 %	1.0 %	0.4 %	0.6 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Recovery Percentage 1	101.351 %	101.485 %	102.086 %	99.863 %	106.822 %
Intensity per Run 1	6,305.5 cps	6,071.3 cps	4,364.2 cps	70,831.1 cps	8,228.2 cps
Intensity per Run 2	6,263.2 cps	6,045.4 cps	4,341.3 cps	70,547.6 cps	8,265.6 cps
Intensity per Run 3	6,275.4 cps	6,038.3 cps	4,358.5 cps	70,462.8 cps	8,245.8 cps
Intensity average 1	6,281 cps	6,052 cps	4,355 cps	70,614 cps	8,247 cps
Concentration per Run 1	5.073 ppm	1.015 ppm	4.080 ppm	0.999 ppm	21.196 ppm
Concentration per Run 2	5.061 ppm	1.016 ppm	4.078 ppm	1.000 ppm	21.459 ppm
Concentration per Run 3	5.069 ppm	1.014 ppm	4.092 ppm	0.998 ppm	21.439 ppm
Concentration average 1	5.068 ppm	1.015 ppm	4.083 ppm	0.999 ppm	21.364 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.1 ppm
Concentration RSD 1	0.1 %	0.1 %	0.2 %	0.1 %	0.7 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Recovery Percentage 1	99.987 %	95.796 %	103.248 %	100.242 %	103.169 %
Intensity per Run 1	641.0 cps	3,111.5 cps	591.3 cps	38,468.8 cps	114,699.0 cps
Intensity per Run 2	641.4 cps	3,097.7 cps	596.5 cps	38,282.0 cps	114,412.9 cps
Intensity per Run 3	641.4 cps	3,107.9 cps	600.9 cps	38,342.7 cps	115,053.6 cps
Intensity average 1	641 cps	3,106 cps	596 cps	38,364 cps	114,722 cps
Concentration per Run 1	0.996 ppm	0.478 ppm	0.102 ppm	5.011 ppm	5.142 ppm
Concentration per Run 2	1.002 ppm	0.479 ppm	0.104 ppm	5.011 ppm	5.154 ppm
Concentration per Run 3	1.001 ppm	0.480 ppm	0.104 ppm	5.015 ppm	5.179 ppm
Concentration average 1	1.000 ppm	0.479 ppm	0.103 ppm	5.012 ppm	5.158 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.3 %	0.2 %	1.0 %	0.1 %	0.4 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Recovery Percentage 1	98.825 %	96.002 %	102.203 %	104.640 %	
Intensity per Run 1	85,319.8 cps	2,196.7 cps	1,030.5 cps	165,812.4 cps	782,139.5 cps
Intensity per Run 2	84,990.6 cps	2,191.3 cps	1,024.2 cps	165,410.4 cps	778,366.9 cps
Intensity per Run 3	84,958.6 cps	2,196.7 cps	1,023.7 cps	165,145.2 cps	778,889.8 cps
Intensity average 1	85,090 cps	2,195 cps	1,026 cps	165,456 cps	779,799 cps
Concentration per Run 1	4.940 ppm	0.958 ppm	4.093 ppm	5.228 ppm	93.619 %
Concentration per Run 2	4.944 ppm	0.960 ppm	4.088 ppm	5.240 ppm	93.167 %
Concentration per Run 3	4.939 ppm	0.962 ppm	4.083 ppm	5.228 ppm	93.230 %
Concentration average 1	4.941 ppm	0.960 ppm	4.088 ppm	5.232 ppm	93.338 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.2 %

	Zr 339.198 (Aqueous-Axial-iFR)	Pd 340.458 (Aqueous-Axial-iFR)	Tl 351.924 (Aqueous-Axial-iFR)	Y 360.073 (Aqueous-Axial-iFR)	Sc 361.384 (Aqueous-Axial-iFR)
Concentration RSD 1	0.1 %	0.2 %	0.1 %	0.1 %	0.3 %

	Sc 361.384 (Aqueous-Radial-iFR)	Sr 421.552 (Aqueous-Radial-iFR)	Ba 493.409 (Aqueous-Axial-iFR)	Na 588.995 (Aqueous-Radial-iFR)	Li 670.784 (Aqueous-Radial-iFR)
Recovery Percentage 1		102.584 %	100.602 %	103.660 %	102.692 %
Intensity per Run 1	135,854.7 cps	174,522.4 cps	520,773.8 cps	63,096.0 cps	19,296.8 cps
Intensity per Run 2	134,807.8 cps	172,762.6 cps	517,433.3 cps	62,234.9 cps	18,891.8 cps
Intensity per Run 3	134,614.2 cps	172,485.4 cps	520,440.5 cps	62,151.8 cps	18,904.5 cps
Intensity average 1	135,092 cps	173,257 cps	519,549 cps	62,494 cps	19,031 cps
Concentration per Run 1	95.616 %	5.138 ppm	4.021 ppm	31.221 ppm	5.177 ppm
Concentration per Run 2	94.879 %	5.125 ppm	4.015 ppm	31.035 ppm	5.108 ppm
Concentration per Run 3	94.743 %	5.124 ppm	4.036 ppm	31.038 ppm	5.119 ppm
Concentration average 1	95.079 %	5.129 ppm	4.024 ppm	31.098 ppm	5.135 ppm
Concentration SD 1	0.5 %	0.0 ppm	0.0 ppm	0.1 ppm	0.0 ppm
Concentration RSD 1	0.5 %	0.1 %	0.3 %	0.3 %	0.7 %

	K 766.490 (Aqueous-Radial-iFR)
Recovery Percentage 1	103.134 %
Intensity per Run 1	4,455.6 cps
Intensity per Run 2	4,417.4 cps
Intensity per Run 3	4,394.4 cps
Intensity average 1	4,422 cps
Concentration per Run 1	20.665 ppm
Concentration per Run 2	20.647 ppm
Concentration per Run 3	20.569 ppm
Concentration average 1	20.627 ppm
Concentration SD 1	0.1 ppm
Concentration RSD 1	0.2 %

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Sample Type: QC
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	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Recovery Percentage 1	0.031 %	-0.803 %	-0.141 %	0.175 %	0.223 %
Intensity per Run 1	0.2 cps	1.7 cps	-0.5 cps	0.2 cps	0.0 cps
Intensity per Run 2	-0.2 cps	1.5 cps	-0.7 cps	-0.4 cps	0.5 cps
Intensity per Run 3	-0.4 cps	1.7 cps	-0.2 cps	0.4 cps	0.2 cps
Intensity average 1	0 cps	2 cps	0 cps	0 cps	0 cps
Concentration per Run 1	0.003 ppm	-0.007 ppm	-0.002 ppm	0.003 ppm	0.000 ppm
Concentration per Run 2	0.000 ppm	-0.012 ppm	-0.002 ppm	-0.002 ppm	0.005 ppm
Concentration per Run 3	-0.002 ppm	-0.005 ppm	-0.001 ppm	0.004 ppm	0.002 ppm
Concentration average 1	0.000 ppm	-0.008 ppm	-0.001 ppm	0.002 ppm	0.002 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	775.9 %	39.9 %	55.1 %	180.0 %	107.4 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Recovery Percentage 1	0.026 %	-0.083 %	0.231 %	0.702 %	0.248 %
Intensity per Run 1	-0.2 cps	1.2 cps	1.6 cps	33.3 cps	-0.3 cps
Intensity per Run 2	-0.1 cps	0.7 cps	1.0 cps	32.3 cps	0.3 cps
Intensity per Run 3	-0.1 cps	0.5 cps	1.8 cps	31.8 cps	-0.1 cps
Intensity average 1	0 cps	1 cps	1 cps	32 cps	0 cps
Concentration per Run 1	0.000 ppm	-0.001 ppm	0.003 ppm	0.008 ppm	0.001 ppm
Concentration per Run 2	0.000 ppm	-0.001 ppm	0.001 ppm	0.007 ppm	0.004 ppm
Concentration per Run 3	0.000 ppm	-0.001 ppm	0.003 ppm	0.006 ppm	0.002 ppm
Concentration average 1	0.000 ppm	-0.001 ppm	0.002 ppm	0.007 ppm	0.002 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	3.8 %	29.2 %	40.6 %	15.9 %	63.9 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Recovery Percentage 1	0.045 %	-0.016 %	0.282 %	-0.003 %	0.020 %
Intensity per Run 1	0.7 cps	0.9 cps	-0.1 cps	-0.6 cps	0.3 cps
Intensity per Run 2	0.7 cps	1.6 cps	-0.7 cps	0.2 cps	-0.3 cps
Intensity per Run 3	0.0 cps	1.4 cps	-0.5 cps	0.1 cps	0.2 cps
Intensity average 1	0 cps	1 cps	0 cps	0 cps	0 cps
Concentration per Run 1	0.001 ppm	0.000 ppm	0.014 ppm	0.000 ppm	0.000 ppm
Concentration per Run 2	0.001 ppm	0.000 ppm	-0.007 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	-0.001 ppm	0.000 ppm	0.001 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.000 ppm	0.000 ppm	0.003 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	342.0 %	135.5 %	369.6 %	350.1 %	127.7 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Recovery Percentage 1	0.094 %	0.003 %	-1.471 %	0.022 %	-0.660 %
Intensity per Run 1	-0.3 cps	1.8 cps	-1.3 cps	4.7 cps	-0.6 cps
Intensity per Run 2	0.4 cps	2.2 cps	-0.2 cps	3.4 cps	-0.9 cps
Intensity per Run 3	0.3 cps	2.0 cps	0.5 cps	3.7 cps	-0.9 cps
Intensity average 1	0 cps	2 cps	0 cps	4 cps	-1 cps
Concentration per Run 1	-0.002 ppm	0.000 ppm	-0.028 ppm	0.000 ppm	-0.005 ppm

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 2	0.003 ppm	0.000 ppm	-0.013 ppm	0.000 ppm	-0.008 ppm
Concentration per Run 3	0.002 ppm	0.000 ppm	-0.003 ppm	0.000 ppm	-0.007 ppm
Concentration average 1	0.001 ppm	0.000 ppm	-0.015 ppm	0.000 ppm	-0.007 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	264.0 %	23.3 %	85.4 %	113.1 %	24.7 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Recovery Percentage 1	-9.743 %	0.004 %	-0.159 %	0.002 %	-1.635 %
Intensity per Run 1	1,196.7 cps	-0.1 cps	22.3 cps	-10.7 cps	7.8 cps
Intensity per Run 2	1,192.3 cps	-1.8 cps	22.2 cps	-14.6 cps	7.7 cps
Intensity per Run 3	1,192.5 cps	-0.7 cps	21.5 cps	-14.2 cps	7.3 cps
Intensity average 1	1,194 cps	-1 cps	22 cps	-13 cps	8 cps
Concentration per Run 1	-0.104 ppm	0.000 ppm	-0.002 ppm	0.000 ppm	-0.016 ppm
Concentration per Run 2	-0.098 ppm	0.000 ppm	-0.001 ppm	0.000 ppm	-0.016 ppm
Concentration per Run 3	-0.090 ppm	0.000 ppm	-0.002 ppm	0.000 ppm	-0.017 ppm
Concentration average 1	-0.097 ppm	0.000 ppm	-0.002 ppm	0.000 ppm	-0.016 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	6.8 %	289.9 %	17.2 %	142.5 %	3.9 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Recovery Percentage 1	0.085 %	-0.019 %	0.009 %	0.012 %	0.000 %
Intensity per Run 1	-30.8 cps	11.8 cps	0.4 cps	-3.4 cps	-0.5 cps
Intensity per Run 2	-31.0 cps	11.6 cps	-0.5 cps	-4.0 cps	-3.9 cps
Intensity per Run 3	-30.2 cps	13.7 cps	-0.6 cps	-5.3 cps	-4.8 cps
Intensity average 1	-31 cps	12 cps	0 cps	-4 cps	-3 cps
Concentration per Run 1	0.001 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 2	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	0.001 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.001 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	61.3 %	89.9 %	106.2 %	102.8 %	9,963.3 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Recovery Percentage 1	0.012 %	0.022 %	0.006 %	0.006 %	
Intensity per Run 1	0.4 cps	-0.1 cps	3.9 cps	4.5 cps	841,156.1 cps
Intensity per Run 2	-0.3 cps	1.4 cps	3.5 cps	3.8 cps	833,899.9 cps
Intensity per Run 3	-0.3 cps	-1.1 cps	3.3 cps	2.2 cps	828,380.9 cps
Intensity average 1	0 cps	0 cps	4 cps	4 cps	834,479 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.001 ppm	0.000 ppm	100.683 %
Concentration per Run 2	0.000 ppm	0.001 ppm	0.000 ppm	0.000 ppm	99.814 %
Concentration per Run 3	0.000 ppm	0.000 ppm	-0.001 ppm	0.000 ppm	99.154 %
Concentration average 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	99.883 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.8 %
Concentration RSD 1	21.4 %	239.2 %	1,811.7 %	53.3 %	0.8 %

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Recovery Percentage 1		-0.001 %	0.006 %	-0.921 %	-0.009 %
Intensity per Run 1	139,077.8 cps	0.6 cps	44.7 cps	-388.1 cps	2.2 cps
Intensity per Run 2	138,934.0 cps	2.0 cps	39.9 cps	-385.0 cps	0.9 cps
Intensity per Run 3	138,803.7 cps	1.6 cps	39.7 cps	-382.7 cps	2.4 cps
Intensity average 1	138,939 cps	1 cps	41 cps	-385 cps	2 cps
Concentration per Run 1	97.885 %	0.000 ppm	0.000 ppm	-0.010 ppm	0.000 ppm
Concentration per Run 2	97.783 %	0.000 ppm	0.000 ppm	-0.009 ppm	0.000 ppm
Concentration per Run 3	97.692 %	0.000 ppm	0.000 ppm	-0.008 ppm	0.000 ppm
Concentration average 1	97.787 %	0.000 ppm	0.000 ppm	-0.009 ppm	0.000 ppm
Concentration SD 1	0.1 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.1 %	303.4 %	29.0 %	12.0 %	232.1 %

	K 766.490 (Aqueous- Radial-iFR)
Recovery Percentage 1	-0.488 %
Intensity per Run 1	-9.5 cps
Intensity per Run 2	-10.7 cps
Intensity per Run 3	-6.2 cps
Intensity average 1	-9 cps
Concentration per Run 1	-0.008 ppm
Concentration per Run 2	-0.014 ppm
Concentration per Run 3	0.007 ppm
Concentration average 1	-0.005 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	218.2 %

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Sample Type: QC
Analysis started at: 6/5/2024 12:33:40 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Recovery Percentage 1	104.481 %	101.336 %	103.479 %	106.281 %	103.994 %
Intensity per Run 1	68.1 cps	15.9 cps	50.9 cps	13.4 cps	16.4 cps
Intensity per Run 2	69.4 cps	16.2 cps	50.8 cps	13.2 cps	16.0 cps
Intensity per Run 3	67.9 cps	16.0 cps	50.9 cps	13.4 cps	16.1 cps
Intensity average 1	68 cps	16 cps	51 cps	13 cps	16 cps
Concentration per Run 1	0.521 ppm	0.303 ppm	0.156 ppm	0.107 ppm	0.158 ppm
Concentration per Run 2	0.528 ppm	0.307 ppm	0.155 ppm	0.105 ppm	0.154 ppm
Concentration per Run 3	0.518 ppm	0.302 ppm	0.155 ppm	0.107 ppm	0.155 ppm
Concentration average 1	0.522 ppm	0.304 ppm	0.155 ppm	0.106 ppm	0.156 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.9 %	0.9 %	0.3 %	1.3 %	1.4 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Recovery Percentage 1	103.118 %	98.916 %	103.606 %	98.962 %	108.130 %
Intensity per Run 1	26.5 cps	44.8 cps	43.5 cps	114.8 cps	17.9 cps
Intensity per Run 2	26.4 cps	45.0 cps	43.5 cps	114.3 cps	18.0 cps
Intensity per Run 3	25.9 cps	45.0 cps	43.3 cps	113.2 cps	18.3 cps
Intensity average 1	26 cps	45 cps	43 cps	114 cps	18 cps
Concentration per Run 1	0.031 ppm	0.030 ppm	0.104 ppm	0.200 ppm	0.108 ppm
Concentration per Run 2	0.031 ppm	0.030 ppm	0.104 ppm	0.198 ppm	0.108 ppm
Concentration per Run 3	0.031 ppm	0.030 ppm	0.103 ppm	0.196 ppm	0.109 ppm
Concentration average 1	0.031 ppm	0.030 ppm	0.104 ppm	0.198 ppm	0.108 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	1.2 %	0.2 %	0.4 %	1.1 %	0.9 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Recovery Percentage 1	96.823 %	101.029 %	113.070 %	104.612 %	100.570 %
Intensity per Run 1	5.1 cps	27.6 cps	5.7 cps	42.4 cps	12.2 cps
Intensity per Run 2	5.1 cps	28.6 cps	5.5 cps	43.3 cps	11.1 cps
Intensity per Run 3	5.7 cps	28.1 cps	4.9 cps	42.8 cps	11.5 cps
Intensity average 1	5 cps	28 cps	5 cps	43 cps	12 cps
Concentration per Run 1	0.019 ppm	0.015 ppm	0.238 ppm	0.010 ppm	0.011 ppm
Concentration per Run 2	0.019 ppm	0.015 ppm	0.233 ppm	0.011 ppm	0.010 ppm
Concentration per Run 3	0.021 ppm	0.015 ppm	0.207 ppm	0.010 ppm	0.010 ppm
Concentration average 1	0.019 ppm	0.015 ppm	0.226 ppm	0.010 ppm	0.010 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	6.5 %	1.6 %	7.2 %	0.8 %	5.1 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Recovery Percentage 1	104.519 %	108.127 %	103.632 %	90.333 %	102.071 %
Intensity per Run 1	38.3 cps	458.3 cps	40.3 cps	27.0 cps	9.8 cps
Intensity per Run 2	37.0 cps	460.3 cps	42.3 cps	27.5 cps	9.7 cps
Intensity per Run 3	36.0 cps	456.9 cps	42.1 cps	26.9 cps	9.5 cps
Intensity average 1	37 cps	459 cps	42 cps	27 cps	10 cps
Concentration per Run 1	0.269 ppm	0.016 ppm	0.604 ppm	0.009 ppm	0.103 ppm

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 2	0.262 ppm	0.016 ppm	0.631 ppm	0.009 ppm	0.103 ppm
Concentration per Run 3	0.254 ppm	0.016 ppm	0.630 ppm	0.009 ppm	0.101 ppm
Concentration average 1	0.261 ppm	0.016 ppm	0.622 ppm	0.009 ppm	0.102 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	2.9 %	0.3 %	2.5 %	1.1 %	1.3 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Recovery Percentage 1	86.907 %	98.320 %	100.122 %	100.049 %	99.386 %
Intensity per Run 1	1,452.8 cps	58.9 cps	242.5 cps	704.6 cps	105.7 cps
Intensity per Run 2	1,470.1 cps	58.8 cps	238.9 cps	705.9 cps	105.8 cps
Intensity per Run 3	1,447.4 cps	57.1 cps	237.5 cps	709.5 cps	106.3 cps
Intensity average 1	1,457 cps	58 cps	240 cps	707 cps	106 cps
Concentration per Run 1	0.217 ppm	0.010 ppm	0.203 ppm	0.010 ppm	0.247 ppm
Concentration per Run 2	0.226 ppm	0.010 ppm	0.199 ppm	0.010 ppm	0.249 ppm
Concentration per Run 3	0.208 ppm	0.010 ppm	0.198 ppm	0.010 ppm	0.249 ppm
Concentration average 1	0.217 ppm	0.010 ppm	0.200 ppm	0.010 ppm	0.248 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	4.2 %	1.7 %	1.4 %	0.4 %	0.6 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Recovery Percentage 1	98.802 %	101.587 %	100.931 %	103.697 %	105.880 %
Intensity per Run 1	39.8 cps	115.1 cps	127.5 cps	401.7 cps	243.2 cps
Intensity per Run 2	40.2 cps	118.0 cps	126.1 cps	401.9 cps	241.3 cps
Intensity per Run 3	39.1 cps	115.1 cps	125.2 cps	404.1 cps	240.6 cps
Intensity average 1	40 cps	116 cps	126 cps	403 cps	242 cps
Concentration per Run 1	0.099 ppm	0.015 ppm	0.020 ppm	0.052 ppm	0.011 ppm
Concentration per Run 2	0.099 ppm	0.015 ppm	0.020 ppm	0.052 ppm	0.011 ppm
Concentration per Run 3	0.098 ppm	0.015 ppm	0.020 ppm	0.052 ppm	0.011 ppm
Concentration average 1	0.099 ppm	0.015 ppm	0.020 ppm	0.052 ppm	0.011 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.8 %	1.4 %	1.2 %	0.4 %	0.8 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Recovery Percentage 1	99.753 %	97.899 %	106.183 %	112.181 %	
Intensity per Run 1	777.9 cps	112.9 cps	111.3 cps	357.9 cps	792,268.3 cps
Intensity per Run 2	783.5 cps	112.3 cps	111.5 cps	360.1 cps	796,693.1 cps
Intensity per Run 3	777.6 cps	113.3 cps	111.2 cps	356.8 cps	794,317.4 cps
Intensity average 1	780 cps	113 cps	111 cps	358 cps	794,426 cps
Concentration per Run 1	0.040 ppm	0.049 ppm	0.426 ppm	0.011 ppm	94.831 %
Concentration per Run 2	0.040 ppm	0.049 ppm	0.424 ppm	0.011 ppm	95.361 %
Concentration per Run 3	0.040 ppm	0.049 ppm	0.424 ppm	0.011 ppm	95.076 %
Concentration average 1	0.040 ppm	0.049 ppm	0.425 ppm	0.011 ppm	95.089 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.3 %
Concentration RSD 1	0.2 %	0.7 %	0.2 %	0.4 %	0.3 %

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Recovery Percentage 1		104.820 %	114.081 %	99.244 %	106.092 %
Intensity per Run 1	132,853.0 cps	348.8 cps	1,521.5 cps	241.2 cps	120.4 cps
Intensity per Run 2	131,978.9 cps	348.5 cps	1,537.2 cps	244.1 cps	115.6 cps
Intensity per Run 3	132,460.5 cps	349.0 cps	1,531.0 cps	237.6 cps	117.2 cps
Intensity average 1	132,431 cps	349 cps	1,530 cps	241 cps	118 cps
Concentration per Run 1	93.504 %	0.010 ppm	0.011 ppm	0.297 ppm	0.032 ppm
Concentration per Run 2	92.888 %	0.011 ppm	0.011 ppm	0.300 ppm	0.031 ppm
Concentration per Run 3	93.227 %	0.010 ppm	0.011 ppm	0.296 ppm	0.032 ppm
Concentration average 1	93.206 %	0.010 ppm	0.011 ppm	0.298 ppm	0.032 ppm
Concentration SD 1	0.3 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.3 %	0.3 %	0.3 %	0.6 %	1.8 %

	K 766.490 (Aqueous- Radial-iFR)
Recovery Percentage 1	99.453 %
Intensity per Run 1	57.7 cps
Intensity per Run 2	55.2 cps
Intensity per Run 3	53.5 cps
Intensity average 1	55 cps
Concentration per Run 1	0.308 ppm
Concentration per Run 2	0.298 ppm
Concentration per Run 3	0.289 ppm
Concentration average 1	0.298 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	3.3 %

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Sample Type: QC
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	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	0.1 cps	2.8 cps	0.7 cps	0.7 cps	-5.3 cps
Intensity per Run 2	1.2 cps	1.8 cps	0.0 cps	1.5 cps	-5.8 cps
Intensity per Run 3	0.4 cps	1.8 cps	0.8 cps	2.1 cps	-6.3 cps
Intensity average 1	1 cps	2 cps	1 cps	1 cps	-6 cps
Concentration per Run 1	-0.017 ppm	0.030 ppm	0.003 ppm	0.008 ppm	-0.014 ppm
Concentration per Run 2	-0.007 ppm	0.004 ppm	0.000 ppm	0.015 ppm	-0.019 ppm
Concentration per Run 3	-0.014 ppm	0.004 ppm	0.003 ppm	0.021 ppm	-0.025 ppm
Concentration average 1	-0.012 ppm	0.013 ppm	0.002 ppm	0.014 ppm	-0.019 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	41.4 %	119.1 %	90.7 %	45.2 %	28.1 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	-1.4 cps	7.4 cps	1.2 cps	23.3 cps	-3.5 cps
Intensity per Run 2	-2.5 cps	8.6 cps	0.0 cps	23.7 cps	-3.6 cps
Intensity per Run 3	-0.7 cps	7.8 cps	2.1 cps	23.1 cps	-2.5 cps
Intensity average 1	-2 cps	8 cps	1 cps	23 cps	-3 cps
Concentration per Run 1	-0.002 ppm	0.005 ppm	0.002 ppm	-0.001 ppm	-0.006 ppm
Concentration per Run 2	-0.003 ppm	0.006 ppm	-0.001 ppm	0.001 ppm	-0.007 ppm
Concentration per Run 3	-0.001 ppm	0.005 ppm	0.005 ppm	-0.002 ppm	0.001 ppm
Concentration average 1	-0.002 ppm	0.005 ppm	0.002 ppm	-0.001 ppm	-0.004 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	73.7 %	10.2 %	154.7 %	187.3 %	114.8 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	-3.1 cps	6.2 cps	-0.6 cps	70.4 cps	1.7 cps
Intensity per Run 2	-4.4 cps	5.6 cps	-0.5 cps	69.4 cps	2.2 cps
Intensity per Run 3	-3.4 cps	7.0 cps	-0.4 cps	71.6 cps	2.1 cps
Intensity average 1	-4 cps	6 cps	0 cps	70 cps	2 cps
Concentration per Run 1	-0.003 ppm	0.003 ppm	-0.003 ppm	0.002 ppm	0.002 ppm
Concentration per Run 2	-0.009 ppm	0.003 ppm	0.000 ppm	0.001 ppm	0.002 ppm
Concentration per Run 3	-0.004 ppm	0.004 ppm	0.002 ppm	0.002 ppm	0.002 ppm
Concentration average 1	-0.005 ppm	0.003 ppm	0.000 ppm	0.002 ppm	0.002 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	64.0 %	13.4 %	848.6 %	19.1 %	13.7 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	25,778.0 cps	24.1 cps	0.8 cps	-2.4 cps	53,836.6 cps
Intensity per Run 2	25,820.1 cps	23.3 cps	-1.0 cps	-2.6 cps	53,998.5 cps
Intensity per Run 3	25,721.2 cps	25.1 cps	-1.2 cps	-2.8 cps	53,862.5 cps
Intensity average 1	25,773 cps	24 cps	0 cps	-3 cps	53,899 cps
Concentration per Run 1	194.549 ppm	0.001 ppm	0.009 ppm	-0.002 ppm	553.827 ppm
Concentration per Run 2	195.601 ppm	0.001 ppm	-0.024 ppm	-0.002 ppm	557.586 ppm

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 3	194.543 ppm	0.001 ppm	-0.027 ppm	-0.003 ppm	555.299 ppm
Concentration average 1	194.898 ppm	0.001 ppm	-0.014 ppm	-0.002 ppm	555.571 ppm
Concentration SD 1	0.6 ppm	0.0 ppm	0.0 ppm	0.0 ppm	1.9 ppm
Concentration RSD 1	0.3 %	3.3 %	138.9 %	4.0 %	0.3 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	1,027.9 cps	1.0 cps	444,033.0 cps	-15.5 cps	169,165.1 cps
Intensity per Run 2	1,018.0 cps	-0.2 cps	442,727.6 cps	-17.1 cps	168,327.8 cps
Intensity per Run 3	1,028.5 cps	1.5 cps	447,747.8 cps	-16.2 cps	169,513.8 cps
Intensity average 1	1,025 cps	1 cps	444,836 cps	-16 cps	169,002 cps
Concentration per Run 1	-0.022 ppm	0.000 ppm	493.881 ppm	0.000 ppm	480.959 ppm
Concentration per Run 2	-0.031 ppm	0.000 ppm	493.316 ppm	0.000 ppm	480.383 ppm
Concentration per Run 3	-0.026 ppm	0.000 ppm	495.924 ppm	0.000 ppm	482.999 ppm
Concentration average 1	-0.026 ppm	0.000 ppm	494.374 ppm	0.000 ppm	481.447 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	1.4 ppm	0.0 ppm	1.4 ppm
Concentration RSD 1	17.8 %	137.2 %	0.3 %	7.0 %	0.3 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	83.1 cps	25.8 cps	-3.0 cps	-16.7 cps	-72.1 cps
Intensity per Run 2	84.7 cps	26.2 cps	0.9 cps	-14.2 cps	-73.2 cps
Intensity per Run 3	84.3 cps	26.1 cps	-1.8 cps	-16.4 cps	-73.5 cps
Intensity average 1	84 cps	26 cps	-1 cps	-16 cps	-73 cps
Concentration per Run 1	0.054 ppm	0.002 ppm	0.000 ppm	-0.002 ppm	-0.004 ppm
Concentration per Run 2	0.053 ppm	0.002 ppm	0.001 ppm	-0.002 ppm	-0.004 ppm
Concentration per Run 3	0.059 ppm	0.002 ppm	0.000 ppm	-0.002 ppm	-0.004 ppm
Concentration average 1	0.055 ppm	0.002 ppm	0.000 ppm	-0.002 ppm	-0.004 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	5.5 %	2.3 %	438.9 %	8.6 %	0.8 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	-78.5 cps	-117.8 cps	-9.9 cps	45.2 cps	673,055.5 cps
Intensity per Run 2	-79.0 cps	-123.0 cps	-12.9 cps	43.8 cps	671,844.9 cps
Intensity per Run 3	-81.8 cps	-118.2 cps	-10.7 cps	41.6 cps	675,890.5 cps
Intensity average 1	-80 cps	-120 cps	-11 cps	44 cps	673,597 cps
Concentration per Run 1	-0.010 ppm	-0.001 ppm	0.034 ppm	0.002 ppm	80.562 %
Concentration per Run 2	-0.010 ppm	-0.004 ppm	0.020 ppm	0.002 ppm	80.417 %
Concentration per Run 3	-0.010 ppm	-0.001 ppm	0.030 ppm	0.002 ppm	80.901 %

	Zr 339.198 (Aqueous-Axial-iFR)	Pd 340.458 (Aqueous-Axial-iFR)	Tl 351.924 (Aqueous-Axial-iFR)	Y 360.073 (Aqueous-Axial-iFR)	Sc 361.384 (Aqueous-Axial-iFR)
Concentration average 1	-0.010 ppm	-0.002 ppm	0.028 ppm	0.002 ppm	80.627 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.2 %
Concentration RSD 1	1.4 %	82.8 %	25.0 %	4.0 %	0.3 %

	Sc 361.384 (Aqueous-Radial-iFR)	Sr 421.552 (Aqueous-Radial-iFR)	Ba 493.409 (Aqueous-Axial-iFR)	Na 588.995 (Aqueous-Radial-iFR)	Li 670.784 (Aqueous-Radial-iFR)
Intensity per Run 1	123,923.3 cps	287.8 cps	704.8 cps	-346.9 cps	12.8 cps
Intensity per Run 2	123,457.8 cps	284.0 cps	706.2 cps	-364.2 cps	9.2 cps
Intensity per Run 3	123,654.1 cps	287.9 cps	704.1 cps	-359.8 cps	10.7 cps
Intensity average 1	123,678 cps	287 cps	705 cps	-357 cps	11 cps
Concentration per Run 1	87.219 %	0.006 ppm	0.003 ppm	-0.011 ppm	0.003 ppm
Concentration per Run 2	86.891 %	0.005 ppm	0.003 ppm	-0.021 ppm	0.002 ppm
Concentration per Run 3	87.029 %	0.006 ppm	0.002 ppm	-0.018 ppm	0.003 ppm
Concentration average 1	87.046 %	0.005 ppm	0.003 ppm	-0.017 ppm	0.003 ppm
Concentration SD 1	0.2 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.2 %	0.9 %	1.5 %	30.9 %	19.9 %

	K 766.490 (Aqueous-Radial-iFR)
Intensity per Run 1	-9.6 cps
Intensity per Run 2	-13.3 cps
Intensity per Run 3	-12.1 cps
Intensity average 1	-12 cps
Concentration per Run 1	-0.014 ppm
Concentration per Run 2	-0.033 ppm
Concentration per Run 3	-0.027 ppm
Concentration average 1	-0.024 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	39.2 %

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Sample Type: QC
Analysis started at: 6/5/2024 12:38:23 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	114.9 cps	1.3 cps	245.4 cps	115.4 cps	78.8 cps
Intensity per Run 2	115.3 cps	1.7 cps	247.1 cps	113.2 cps	79.4 cps
Intensity per Run 3	117.9 cps	2.8 cps	249.6 cps	115.8 cps	79.7 cps
Intensity average 1	116 cps	2 cps	247 cps	115 cps	79 cps
Concentration per Run 1	0.998 ppm	-0.004 ppm	0.876 ppm	1.061 ppm	0.938 ppm
Concentration per Run 2	1.002 ppm	0.004 ppm	0.882 ppm	1.040 ppm	0.945 ppm
Concentration per Run 3	1.021 ppm	0.032 ppm	0.887 ppm	1.061 ppm	0.945 ppm
Concentration average 1	1.007 ppm	0.011 ppm	0.882 ppm	1.054 ppm	0.943 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	1.2 %	176.9 %	0.7 %	1.1 %	0.4 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	717.6 cps	1,071.0 cps	3.2 cps	362.2 cps	147.0 cps
Intensity per Run 2	717.4 cps	1,080.2 cps	4.2 cps	366.4 cps	149.0 cps
Intensity per Run 3	718.0 cps	1,081.4 cps	4.4 cps	367.2 cps	148.8 cps
Intensity average 1	718 cps	1,078 cps	4 cps	365 cps	148 cps
Concentration per Run 1	0.970 ppm	0.862 ppm	0.000 ppm	0.877 ppm	1.026 ppm
Concentration per Run 2	0.969 ppm	0.869 ppm	0.002 ppm	0.888 ppm	1.039 ppm
Concentration per Run 3	0.967 ppm	0.867 ppm	0.003 ppm	0.887 ppm	1.035 ppm
Concentration average 1	0.969 ppm	0.866 ppm	0.002 ppm	0.884 ppm	1.033 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.2 %	0.4 %	102.5 %	0.7 %	0.6 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	176.1 cps	1,241.0 cps	-0.6 cps	3,192.0 cps	437.8 cps
Intensity per Run 2	176.7 cps	1,249.3 cps	-0.7 cps	3,191.2 cps	438.4 cps
Intensity per Run 3	178.7 cps	1,251.7 cps	-0.8 cps	3,201.4 cps	441.7 cps
Intensity average 1	177 cps	1,247 cps	-1 cps	3,195 cps	439 cps
Concentration per Run 1	0.823 ppm	0.841 ppm	0.002 ppm	0.894 ppm	0.436 ppm
Concentration per Run 2	0.826 ppm	0.846 ppm	0.000 ppm	0.893 ppm	0.437 ppm
Concentration per Run 3	0.832 ppm	0.845 ppm	-0.005 ppm	0.893 ppm	0.438 ppm
Concentration average 1	0.827 ppm	0.844 ppm	-0.001 ppm	0.893 ppm	0.437 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.5 %	0.3 %	337.7 %	0.0 %	0.3 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	25,493.6 cps	11,858.6 cps	57.1 cps	1,033.7 cps	53,018.8 cps
Intensity per Run 2	25,386.1 cps	11,912.5 cps	57.0 cps	1,045.3 cps	52,563.9 cps
Intensity per Run 3	25,261.7 cps	11,946.3 cps	57.5 cps	1,043.7 cps	52,238.6 cps
Intensity average 1	25,380 cps	11,906 cps	57 cps	1,041 cps	52,607 cps
Concentration per Run 1	191.258 ppm	0.491 ppm	0.943 ppm	0.466 ppm	542.187 ppm
Concentration per Run 2	190.339 ppm	0.493 ppm	0.939 ppm	0.471 ppm	537.215 ppm

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	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 3	190.594 ppm	0.493 ppm	0.945 ppm	0.468 ppm	537.240 ppm
Concentration average 1	190.731 ppm	0.492 ppm	0.943 ppm	0.468 ppm	538.881 ppm
Concentration SD 1	0.5 ppm	0.0 ppm	0.0 ppm	0.0 ppm	2.9 ppm
Concentration RSD 1	0.2 %	0.2 %	0.3 %	0.5 %	0.5 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	1,902.7 cps	2,551.9 cps	440,813.9 cps	29,689.5 cps	168,039.2 cps
Intensity per Run 2	1,908.8 cps	2,554.7 cps	439,107.7 cps	29,686.9 cps	166,952.5 cps
Intensity per Run 3	1,918.3 cps	2,563.2 cps	442,479.4 cps	29,759.5 cps	165,793.6 cps
Intensity average 1	1,910 cps	2,557 cps	440,800 cps	29,712 cps	166,928 cps
Concentration per Run 1	0.974 ppm	0.488 ppm	484.074 ppm	0.480 ppm	474.921 ppm
Concentration per Run 2	0.980 ppm	0.488 ppm	482.018 ppm	0.480 ppm	471.569 ppm
Concentration per Run 3	0.983 ppm	0.488 ppm	484.002 ppm	0.479 ppm	471.233 ppm
Concentration average 1	0.979 ppm	0.488 ppm	483.364 ppm	0.480 ppm	472.574 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	1.2 ppm	0.0 ppm	2.0 ppm
Concentration RSD 1	0.5 %	0.0 %	0.2 %	0.1 %	0.4 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	98.7 cps	3,024.2 cps	5,715.4 cps	-15.5 cps	19,634.0 cps
Intensity per Run 2	91.2 cps	3,022.1 cps	5,771.1 cps	-13.3 cps	19,867.2 cps
Intensity per Run 3	99.1 cps	3,031.5 cps	5,778.3 cps	-13.3 cps	19,853.5 cps
Intensity average 1	96 cps	3,026 cps	5,755 cps	-14 cps	19,785 cps
Concentration per Run 1	0.074 ppm	0.540 ppm	1.086 ppm	-0.003 ppm	1.010 ppm
Concentration per Run 2	0.059 ppm	0.540 ppm	1.096 ppm	-0.002 ppm	1.022 ppm
Concentration per Run 3	0.071 ppm	0.539 ppm	1.093 ppm	-0.002 ppm	1.017 ppm
Concentration average 1	0.068 ppm	0.540 ppm	1.092 ppm	-0.002 ppm	1.016 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	11.2 %	0.1 %	0.5 %	8.8 %	0.6 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	14,538.1 cps	-113.6 cps	220.8 cps	43.6 cps	681,698.1 cps
Intensity per Run 2	14,583.0 cps	-113.0 cps	223.0 cps	47.6 cps	681,956.8 cps
Intensity per Run 3	14,622.9 cps	-112.7 cps	219.6 cps	46.4 cps	684,375.5 cps
Intensity average 1	14,581 cps	-113 cps	221 cps	46 cps	682,677 cps
Concentration per Run 1	0.970 ppm	-0.002 ppm	1.087 ppm	0.002 ppm	81.596 %
Concentration per Run 2	0.973 ppm	-0.002 ppm	1.097 ppm	0.002 ppm	81.627 %
Concentration per Run 3	0.972 ppm	-0.002 ppm	1.077 ppm	0.002 ppm	81.917 %

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	Zr 339.198 (Aqueous-Axial-iFR)	Pd 340.458 (Aqueous-Axial-iFR)	Tl 351.924 (Aqueous-Axial-iFR)	Y 360.073 (Aqueous-Axial-iFR)	Sc 361.384 (Aqueous-Axial-iFR)
Concentration average 1	0.972 ppm	-0.002 ppm	1.087 ppm	0.002 ppm	81.713 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.2 %
Concentration RSD 1	0.2 %	13.6 %	0.9 %	3.6 %	0.2 %

	Sc 361.384 (Aqueous-Radial-iFR)	Sr 421.552 (Aqueous-Radial-iFR)	Ba 493.409 (Aqueous-Axial-iFR)	Na 588.995 (Aqueous-Radial-iFR)	Li 670.784 (Aqueous-Radial-iFR)
Intensity per Run 1	124,663.7 cps	32,369.1 cps	59,395.9 cps	-352.5 cps	3,759.5 cps
Intensity per Run 2	124,737.7 cps	32,469.4 cps	59,205.5 cps	-357.4 cps	3,781.8 cps
Intensity per Run 3	123,960.3 cps	32,278.6 cps	59,136.4 cps	-357.2 cps	3,771.0 cps
Intensity average 1	124,454 cps	32,372 cps	59,246 cps	-356 cps	3,771 cps
Concentration per Run 1	87.740 %	1.035 ppm	0.523 ppm	-0.013 ppm	1.099 ppm
Concentration per Run 2	87.792 %	1.037 ppm	0.521 ppm	-0.016 ppm	1.105 ppm
Concentration per Run 3	87.245 %	1.038 ppm	0.518 ppm	-0.017 ppm	1.108 ppm
Concentration average 1	87.592 %	1.037 ppm	0.521 ppm	-0.015 ppm	1.104 ppm
Concentration SD 1	0.3 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.3 %	0.2 %	0.4 %	12.0 %	0.4 %

	K 766.490 (Aqueous-Radial-iFR)
Intensity per Run 1	-10.3 cps
Intensity per Run 2	-10.3 cps
Intensity per Run 3	-11.8 cps
Intensity average 1	-11 cps
Concentration per Run 1	-0.018 ppm
Concentration per Run 2	-0.018 ppm
Concentration per Run 3	-0.026 ppm
Concentration average 1	-0.021 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	22.3 %

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Sample Type: QC
Analysis started at: 6/5/2024 12:40:45 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Recovery Percentage 1					
Intensity per Run 1	-4.7 cps	1.1 cps	0.1 cps	1.1 cps	-13.5 cps
Intensity per Run 2	-4.3 cps	1.7 cps	-0.8 cps	-1.7 cps	-14.9 cps
Intensity per Run 3	-4.6 cps	1.5 cps	-0.6 cps	-0.1 cps	-15.4 cps
Intensity average 1	-5 cps	1 cps	0 cps	0 cps	-15 cps
Concentration per Run 1	-0.021 ppm	-0.026 ppm	0.005 ppm	0.008 ppm	-0.018 ppm
Concentration per Run 2	-0.017 ppm	-0.010 ppm	0.002 ppm	-0.018 ppm	-0.035 ppm
Concentration per Run 3	-0.020 ppm	-0.017 ppm	0.002 ppm	-0.003 ppm	-0.040 ppm
Concentration average 1	-0.019 ppm	-0.018 ppm	0.003 ppm	-0.004 ppm	-0.031 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	11.1 %	44.4 %	54.6 %	300.2 %	37.8 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Recovery Percentage 1					
Intensity per Run 1	-3.6 cps	1.1 cps	0.9 cps	22.2 cps	-8.1 cps
Intensity per Run 2	-3.0 cps	0.0 cps	0.7 cps	21.2 cps	-7.5 cps
Intensity per Run 3	-2.6 cps	-0.2 cps	2.5 cps	21.7 cps	-8.8 cps
Intensity average 1	-3 cps	0 cps	1 cps	22 cps	-8 cps
Concentration per Run 1	-0.005 ppm	0.000 ppm	0.001 ppm	-0.004 ppm	-0.008 ppm
Concentration per Run 2	-0.004 ppm	-0.001 ppm	0.001 ppm	-0.007 ppm	-0.004 ppm
Concentration per Run 3	-0.003 ppm	-0.002 ppm	0.006 ppm	-0.006 ppm	-0.013 ppm
Concentration average 1	-0.004 ppm	-0.001 ppm	0.003 ppm	-0.005 ppm	-0.008 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	19.8 %	53.2 %	104.1 %	25.4 %	55.8 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Recovery Percentage 1					
Intensity per Run 1	-1.8 cps	15.4 cps	-3.2 cps	213.9 cps	4.0 cps
Intensity per Run 2	-2.3 cps	16.2 cps	-2.5 cps	214.0 cps	4.4 cps
Intensity per Run 3	-1.6 cps	16.2 cps	-1.9 cps	208.1 cps	4.8 cps
Intensity average 1	-2 cps	16 cps	-3 cps	212 cps	4 cps
Concentration per Run 1	-0.012 ppm	0.010 ppm	-0.013 ppm	0.008 ppm	0.004 ppm
Concentration per Run 2	-0.014 ppm	0.010 ppm	0.014 ppm	0.008 ppm	0.005 ppm
Concentration per Run 3	-0.011 ppm	0.010 ppm	0.038 ppm	0.006 ppm	0.005 ppm
Concentration average 1	-0.012 ppm	0.010 ppm	0.013 ppm	0.008 ppm	0.005 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	12.7 %	3.3 %	199.4 %	12.9 %	8.4 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Recovery Percentage 1	92.679 %				108.064 %
Intensity per Run 1	74,378.4 cps	37.5 cps	-4.4 cps	-2.2 cps	63,376.5 cps
Intensity per Run 2	74,401.7 cps	40.2 cps	-4.9 cps	-4.1 cps	63,597.0 cps
Intensity per Run 3	74,130.4 cps	36.7 cps	-4.4 cps	-2.7 cps	63,505.7 cps
Intensity average 1	74,303 cps	38 cps	-5 cps	-3 cps	63,493 cps

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 1	558.875 ppm	0.006 ppm	0.237 ppm	0.000 ppm	649.802 ppm
Concentration per Run 2	554.390 ppm	0.006 ppm	0.227 ppm	-0.001 ppm	646.630 ppm
Concentration per Run 3	554.953 ppm	0.006 ppm	0.236 ppm	0.000 ppm	648.719 ppm
Concentration average 1	556.073 ppm	0.006 ppm	0.233 ppm	0.000 ppm	648.384 ppm
Concentration SD 1	2.4 ppm	0.0 ppm	0.0 ppm	0.0 ppm	1.6 ppm
Concentration RSD 1	0.4 %	1.3 %	2.4 %	94.4 %	0.2 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Recovery Percentage 1			93.179 %		94.677 %
Intensity per Run 1	994.2 cps	84.5 cps	506,268.0 cps	948.5 cps	67,099.7 cps
Intensity per Run 2	1,002.9 cps	85.0 cps	504,988.6 cps	942.1 cps	66,920.0 cps
Intensity per Run 3	996.8 cps	84.3 cps	506,098.7 cps	942.9 cps	67,041.6 cps
Intensity average 1	998 cps	85 cps	505,785 cps	944 cps	67,020 cps
Concentration per Run 1	-0.052 ppm	-0.005 ppm	559.178 ppm	-0.002 ppm	190.339 ppm
Concentration per Run 2	-0.039 ppm	-0.005 ppm	559.044 ppm	-0.002 ppm	188.251 ppm
Concentration per Run 3	-0.049 ppm	-0.005 ppm	558.996 ppm	-0.002 ppm	189.471 ppm
Concentration average 1	-0.047 ppm	-0.005 ppm	559.072 ppm	-0.002 ppm	189.354 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.1 ppm	0.0 ppm	1.0 ppm
Concentration RSD 1	14.3 %	1.8 %	0.0 %	1.1 %	0.6 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Recovery Percentage 1	96.628 %				
Intensity per Run 1	11,814.2 cps	270.1 cps	-127.0 cps	310.1 cps	-0.8 cps
Intensity per Run 2	11,766.2 cps	269.5 cps	-123.6 cps	315.2 cps	-2.3 cps
Intensity per Run 3	11,758.0 cps	260.8 cps	-146.8 cps	305.7 cps	-0.2 cps
Intensity average 1	11,779 cps	267 cps	-132 cps	310 cps	-1 cps
Concentration per Run 1	19.362 ppm	-0.009 ppm	-0.009 ppm	-0.012 ppm	-0.002 ppm
Concentration per Run 2	19.339 ppm	-0.009 ppm	-0.008 ppm	-0.011 ppm	-0.002 ppm
Concentration per Run 3	19.275 ppm	-0.011 ppm	-0.012 ppm	-0.013 ppm	-0.001 ppm
Concentration average 1	19.326 ppm	-0.010 ppm	-0.010 ppm	-0.012 ppm	-0.002 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.2 %	8.7 %	23.8 %	5.8 %	3.7 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Recovery Percentage 1					
Intensity per Run 1	13,002.2 cps	350.3 cps	-67.3 cps	-1,237.2 cps	676,128.3 cps

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	Zr 339.198 (Aqueous-Axial-iFR)	Pd 340.458 (Aqueous-Axial-iFR)	Tl 351.924 (Aqueous-Axial-iFR)	Y 360.073 (Aqueous-Axial-iFR)	Sc 361.384 (Aqueous-Axial-iFR)
Intensity per Run 2	13,148.0 cps	347.0 cps	-69.0 cps	-1,250.0 cps	674,583.3 cps
Intensity per Run 3	12,545.2 cps	336.4 cps	-66.2 cps	-1,188.0 cps	676,129.6 cps
Intensity average 1	12,898 cps	345 cps	-67 cps	-1,225 cps	675,614 cps
Concentration per Run 1	-0.169 ppm	-0.076 ppm	0.024 ppm	-0.023 ppm	80.930 %
Concentration per Run 2	-0.155 ppm	-0.078 ppm	0.013 ppm	-0.024 ppm	80.745 %
Concentration per Run 3	-0.195 ppm	-0.082 ppm	0.027 ppm	-0.022 ppm	80.930 %
Concentration average 1	-0.173 ppm	-0.078 ppm	0.021 ppm	-0.023 ppm	80.868 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.1 %
Concentration RSD 1	11.7 %	4.1 %	33.6 %	5.2 %	0.1 %

	Sc 361.384 (Aqueous-Radial-iFR)	Sr 421.552 (Aqueous-Radial-iFR)	Ba 493.409 (Aqueous-Axial-iFR)	Na 588.995 (Aqueous-Radial-iFR)	Li 670.784 (Aqueous-Radial-iFR)
Recovery Percentage 1		96.904 %		98.978 %	104.289 %
Intensity per Run 1	124,470.1 cps	363,660.5 cps	1,343.5 cps	459,983.5 cps	71,130.4 cps
Intensity per Run 2	125,516.3 cps	363,347.2 cps	1,339.0 cps	463,963.3 cps	71,668.1 cps
Intensity per Run 3	124,931.8 cps	363,187.6 cps	1,339.0 cps	462,950.3 cps	71,729.0 cps
Intensity average 1	124,973 cps	363,398 cps	1,341 cps	462,299 cps	71,509 cps
Concentration per Run 1	87.604 %	11.684 ppm	0.000 ppm	247.199 ppm	20.831 ppm
Concentration per Run 2	88.340 %	11.576 ppm	0.000 ppm	247.259 ppm	20.814 ppm
Concentration per Run 3	87.928 %	11.625 ppm	0.000 ppm	247.873 ppm	20.929 ppm
Concentration average 1	87.957 %	11.629 ppm	0.000 ppm	247.444 ppm	20.858 ppm
Concentration SD 1	0.4 %	0.1 ppm	0.0 ppm	0.4 ppm	0.1 ppm
Concentration RSD 1	0.4 %	0.5 %	0.3 %	0.2 %	0.3 %

	K 766.490 (Aqueous-Radial-iFR)
Recovery Percentage 1	105.274 %
Intensity per Run 1	20,865.1 cps
Intensity per Run 2	20,976.9 cps
Intensity per Run 3	20,881.4 cps
Intensity average 1	20,908 cps
Concentration per Run 1	105.483 ppm
Concentration per Run 2	105.164 ppm
Concentration per Run 3	105.175 ppm
Concentration average 1	105.274 ppm
Concentration SD 1	0.2 ppm
Concentration RSD 1	0.2 %

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Label: UCL2
Sample Type: QC
Analysis started at: 6/5/2024 12:43:07 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Recovery Percentage 1	98.738 %	99.315 %	97.560 %	101.219 %	99.231 %
Intensity per Run 1	2,556.5 cps	901.8 cps	6,237.1 cps	2,494.8 cps	2,022.4 cps
Intensity per Run 2	2,579.4 cps	908.3 cps	6,280.6 cps	2,500.2 cps	2,026.5 cps
Intensity per Run 3	2,570.3 cps	909.1 cps	6,279.4 cps	2,501.5 cps	2,029.5 cps
Intensity average 1	2,569 cps	906 cps	6,266 cps	2,499 cps	2,026 cps
Concentration per Run 1	19.629 ppm	19.738 ppm	19.399 ppm	20.188 ppm	19.786 ppm
Concentration per Run 2	19.939 ppm	20.014 ppm	19.666 ppm	20.364 ppm	19.959 ppm
Concentration per Run 3	19.675 ppm	19.837 ppm	19.471 ppm	20.180 ppm	19.794 ppm
Concentration average 1	19.748 ppm	19.863 ppm	19.512 ppm	20.244 ppm	19.846 ppm
Concentration SD 1	0.2 ppm	0.1 ppm	0.1 ppm	0.1 ppm	0.1 ppm
Concentration RSD 1	0.8 %	0.7 %	0.7 %	0.5 %	0.5 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Recovery Percentage 1	99.284 %	94.240 %	100.304 %	91.253 %	101.684 %
Intensity per Run 1	16,802.3 cps	26,668.1 cps	8,228.8 cps	8,081.5 cps	3,443.2 cps
Intensity per Run 2	16,810.6 cps	26,874.3 cps	8,238.4 cps	8,113.5 cps	3,428.5 cps
Intensity per Run 3	16,894.4 cps	26,875.5 cps	8,272.0 cps	8,105.4 cps	3,450.7 cps
Intensity average 1	16,836 cps	26,806 cps	8,246 cps	8,100 cps	3,441 cps
Concentration per Run 1	19.793 ppm	18.728 ppm	19.994 ppm	18.186 ppm	20.327 ppm
Concentration per Run 2	19.936 ppm	19.000 ppm	20.151 ppm	18.384 ppm	20.375 ppm
Concentration per Run 3	19.841 ppm	18.816 ppm	20.037 ppm	18.182 ppm	20.309 ppm
Concentration average 1	19.857 ppm	18.848 ppm	20.061 ppm	18.251 ppm	20.337 ppm
Concentration SD 1	0.1 ppm	0.1 ppm	0.1 ppm	0.1 ppm	0.0 ppm
Concentration RSD 1	0.4 %	0.7 %	0.4 %	0.6 %	0.2 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Recovery Percentage 1	97.261 %	94.811 %	101.695 %	95.665 %	96.820 %
Intensity per Run 1	4,825.0 cps	32,029.3 cps	521.9 cps	38,342.9 cps	22,166.5 cps
Intensity per Run 2	4,811.2 cps	32,037.9 cps	520.6 cps	38,230.3 cps	22,246.4 cps
Intensity per Run 3	4,849.5 cps	32,148.7 cps	522.0 cps	38,527.8 cps	22,265.2 cps
Intensity average 1	4,829 cps	32,072 cps	521 cps	38,367 cps	22,226 cps
Concentration per Run 1	19.415 ppm	18.914 ppm	20.398 ppm	9.549 ppm	19.289 ppm
Concentration per Run 2	19.489 ppm	19.046 ppm	20.252 ppm	9.585 ppm	19.488 ppm
Concentration per Run 3	19.453 ppm	18.926 ppm	20.367 ppm	9.566 ppm	19.315 ppm
Concentration average 1	19.452 ppm	18.962 ppm	20.339 ppm	9.566 ppm	19.364 ppm
Concentration SD 1	0.0 ppm	0.1 ppm	0.1 ppm	0.0 ppm	0.1 ppm
Concentration RSD 1	0.2 %	0.4 %	0.4 %	0.2 %	0.6 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Recovery Percentage 1		91.908 %	101.882 %	98.012 %	
Intensity per Run 1	16.1 cps	508,056.1 cps	1,415.2 cps	49,645.5 cps	-26.9 cps
Intensity per Run 2	15.7 cps	507,485.3 cps	1,412.5 cps	49,747.0 cps	-26.4 cps

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Intensity per Run 3	14.7 cps	510,033.6 cps	1,415.6 cps	49,798.0 cps	-27.0 cps
Intensity average 1	15 cps	508,525 cps	1,414 cps	49,730 cps	-27 cps
Concentration per Run 1	0.001 ppm	18.342 ppm	20.365 ppm	19.545 ppm	0.030 ppm
Concentration per Run 2	-0.004 ppm	18.445 ppm	20.461 ppm	19.717 ppm	0.037 ppm
Concentration per Run 3	-0.009 ppm	18.358 ppm	20.304 ppm	19.545 ppm	0.029 ppm
Concentration average 1	-0.004 ppm	18.382 ppm	20.376 ppm	19.602 ppm	0.032 ppm
Concentration SD 1	0.0 ppm	0.1 ppm	0.1 ppm	0.1 ppm	0.0 ppm
Concentration RSD 1	139.6 %	0.3 %	0.4 %	0.5 %	14.7 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Recovery Percentage 1	96.443 %	99.397 %		96.999 %	
Intensity per Run 1	20,641.6 cps	119,692.7 cps	200.4 cps	68,273.4 cps	164.6 cps
Intensity per Run 2	20,565.9 cps	118,787.9 cps	200.7 cps	67,807.7 cps	159.6 cps
Intensity per Run 3	20,730.3 cps	119,593.2 cps	185.5 cps	68,424.1 cps	161.8 cps
Intensity average 1	20,646 cps	119,358 cps	196 cps	68,168 cps	162 cps
Concentration per Run 1	19.260 ppm	19.911 ppm	0.033 ppm	0.970 ppm	-0.087 ppm
Concentration per Run 2	19.321 ppm	19.893 ppm	0.033 ppm	0.970 ppm	-0.102 ppm
Concentration per Run 3	19.285 ppm	19.834 ppm	0.017 ppm	0.969 ppm	-0.095 ppm
Concentration average 1	19.289 ppm	19.879 ppm	0.028 ppm	0.970 ppm	-0.095 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.2 %	0.2 %	32.2 %	0.0 %	8.1 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Recovery Percentage 1		100.083 %	99.843 %	100.155 %	97.600 %
Intensity per Run 1	108.4 cps	128,126.2 cps	11,962.1 cps	153,644.7 cps	434,341.0 cps
Intensity per Run 2	107.1 cps	127,059.4 cps	11,931.4 cps	153,159.2 cps	434,953.4 cps
Intensity per Run 3	106.6 cps	127,990.1 cps	11,968.6 cps	153,827.3 cps	435,842.2 cps
Intensity average 1	107 cps	127,725 cps	11,954 cps	153,544 cps	435,046 cps
Concentration per Run 1	-0.002 ppm	20.055 ppm	1.996 ppm	20.020 ppm	19.465 ppm
Concentration per Run 2	-0.004 ppm	20.022 ppm	2.004 ppm	20.091 ppm	19.623 ppm
Concentration per Run 3	-0.005 ppm	19.973 ppm	1.991 ppm	19.982 ppm	19.472 ppm
Concentration average 1	-0.004 ppm	20.017 ppm	1.997 ppm	20.031 ppm	19.520 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.1 ppm	0.1 ppm
Concentration RSD 1	36.0 %	0.2 %	0.3 %	0.3 %	0.5 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Recovery Percentage 1	95.121 %	100.649 %	99.934 %	98.443 %	
Intensity per Run 1	326,437.7 cps	44,732.4 cps	5,022.4 cps	624,894.3 cps	782,204.3 cps
Intensity per Run 2	323,374.4 cps	44,408.2 cps	4,992.5 cps	620,606.5 cps	776,992.7 cps

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	Zr 339.198 (Aqueous-Axial-iFR)	Pd 340.458 (Aqueous-Axial-iFR)	Ti 351.924 (Aqueous-Axial-iFR)	Y 360.073 (Aqueous-Axial-iFR)	Sc 361.384 (Aqueous-Axial-iFR)
Intensity per Run 3	325,098.3 cps	44,710.9 cps	5,025.0 cps	626,175.3 cps	784,603.9 cps
Intensity average 1	324,970 cps	44,617 cps	5,013 cps	623,892 cps	781,267 cps
Concentration per Run 1	19.087 ppm	20.157 ppm	19.999 ppm	19.697 ppm	93.626 %
Concentration per Run 2	19.035 ppm	20.146 ppm	20.013 ppm	19.693 ppm	93.003 %
Concentration per Run 3	18.951 ppm	20.086 ppm	19.948 ppm	19.677 ppm	93.914 %
Concentration average 1	19.024 ppm	20.130 ppm	19.987 ppm	19.689 ppm	93.514 %
Concentration SD 1	0.1 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.5 %
Concentration RSD 1	0.4 %	0.2 %	0.2 %	0.1 %	0.5 %

	Sc 361.384 (Aqueous-Radial-iFR)	Sr 421.552 (Aqueous-Radial-iFR)	Ba 493.409 (Aqueous-Axial-iFR)	Na 588.995 (Aqueous-Radial-iFR)	Li 670.784 (Aqueous-Radial-iFR)
Recovery Percentage 1			91.535 %		
Intensity per Run 1	132,018.6 cps	58.4 cps	2,366,493.9 cps	-361.7 cps	10.0 cps
Intensity per Run 2	132,650.2 cps	61.8 cps	2,360,633.7 cps	-354.8 cps	7.4 cps
Intensity per Run 3	132,230.0 cps	59.8 cps	2,376,105.8 cps	-354.3 cps	5.9 cps
Intensity average 1	132,300 cps	60 cps	2,367,744 cps	-357 cps	8 cps
Concentration per Run 1	92.916 %	0.002 ppm	18.275 ppm	-0.007 ppm	0.002 ppm
Concentration per Run 2	93.361 %	0.002 ppm	18.352 ppm	-0.003 ppm	0.001 ppm
Concentration per Run 3	93.065 %	0.002 ppm	18.293 ppm	-0.003 ppm	0.001 ppm
Concentration average 1	93.114 %	0.002 ppm	18.307 ppm	-0.004 ppm	0.002 ppm
Concentration SD 1	0.2 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.2 %	2.6 %	0.2 %	56.4 %	37.2 %

	K 766.490 (Aqueous-Radial-iFR)
Recovery Percentage 1	
Intensity per Run 1	-5.3 cps
Intensity per Run 2	-5.8 cps
Intensity per Run 3	-7.4 cps
Intensity average 1	-6 cps
Concentration per Run 1	0.010 ppm
Concentration per Run 2	0.007 ppm
Concentration per Run 3	0.000 ppm
Concentration average 1	0.006 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	90.8 %

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Sample Type: QC
Analysis started at: 6/5/2024 12:45:29 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Recovery Percentage 1	105.280 %	103.639 %	98.609 %	103.509 %	101.677 %
Intensity per Run 1	683.5 cps	47.6 cps	1,587.5 cps	519.7 cps	416.3 cps
Intensity per Run 2	685.8 cps	48.2 cps	1,594.5 cps	523.0 cps	414.7 cps
Intensity per Run 3	682.5 cps	48.0 cps	1,591.0 cps	516.1 cps	412.4 cps
Intensity average 1	684 cps	48 cps	1,591 cps	520 cps	414 cps
Concentration per Run 1	5.223 ppm	1.022 ppm	4.885 ppm	4.112 ppm	4.057 ppm
Concentration per Run 2	5.270 ppm	1.040 ppm	4.933 ppm	4.161 ppm	4.063 ppm
Concentration per Run 3	5.299 ppm	1.047 ppm	4.973 ppm	4.148 ppm	4.082 ppm
Concentration average 1	5.264 ppm	1.036 ppm	4.930 ppm	4.140 ppm	4.067 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.7 %	1.2 %	0.9 %	0.6 %	0.3 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Recovery Percentage 1	101.419 %	100.001 %	103.568 %	101.875 %	100.770 %
Intensity per Run 1	4,338.2 cps	1,428.4 cps	430.1 cps	2,285.6 cps	172.8 cps
Intensity per Run 2	4,329.4 cps	1,433.1 cps	429.7 cps	2,290.2 cps	171.2 cps
Intensity per Run 3	4,296.3 cps	1,435.2 cps	425.2 cps	2,270.2 cps	170.0 cps
Intensity average 1	4,321 cps	1,432 cps	428 cps	2,282 cps	171 cps
Concentration per Run 1	5.055 ppm	0.990 ppm	1.033 ppm	5.065 ppm	1.009 ppm
Concentration per Run 2	5.073 ppm	0.999 ppm	1.037 ppm	5.104 ppm	1.006 ppm
Concentration per Run 3	5.086 ppm	1.011 ppm	1.037 ppm	5.112 ppm	1.008 ppm
Concentration average 1	5.071 ppm	1.000 ppm	1.036 ppm	5.094 ppm	1.008 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.3 %	1.0 %	0.2 %	0.5 %	0.2 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Recovery Percentage 1	95.171 %	96.013 %	100.091 %	99.754 %	95.688 %
Intensity per Run 1	237.6 cps	1,641.7 cps	129.8 cps	403.7 cps	1,112.5 cps
Intensity per Run 2	236.2 cps	1,641.0 cps	130.6 cps	403.2 cps	1,112.8 cps
Intensity per Run 3	237.2 cps	1,630.5 cps	129.1 cps	401.5 cps	1,105.9 cps
Intensity average 1	237 cps	1,638 cps	130 cps	403 cps	1,110 cps
Concentration per Run 1	0.947 ppm	0.956 ppm	5.020 ppm	0.099 ppm	0.952 ppm
Concentration per Run 2	0.947 ppm	0.961 ppm	5.029 ppm	0.100 ppm	0.957 ppm
Concentration per Run 3	0.961 ppm	0.964 ppm	4.965 ppm	0.100 ppm	0.961 ppm
Concentration average 1	0.952 ppm	0.960 ppm	5.005 ppm	0.100 ppm	0.957 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.8 %	0.5 %	0.7 %	0.5 %	0.5 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Recovery Percentage 1	99.941 %	101.870 %	100.170 %	98.193 %	105.760 %
Intensity per Run 1	286.4 cps	28,401.4 cps	344.7 cps	1,009.4 cps	2,217.6 cps
Intensity per Run 2	285.4 cps	28,417.9 cps	345.2 cps	1,011.3 cps	2,206.1 cps
Intensity per Run 3	287.9 cps	28,152.8 cps	339.4 cps	1,006.7 cps	2,219.6 cps
Intensity average 1	287 cps	28,324 cps	343 cps	1,009 cps	2,214 cps
Concentration per Run 1	2.005 ppm	1.014 ppm	4.997 ppm	0.390 ppm	21.259 ppm

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	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 2	1.989 ppm	1.020 ppm	5.032 ppm	0.393 ppm	21.052 ppm
Concentration per Run 3	2.003 ppm	1.021 ppm	4.997 ppm	0.395 ppm	21.145 ppm
Concentration average 1	1.999 ppm	1.019 ppm	5.009 ppm	0.393 ppm	21.152 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.1 ppm
Concentration RSD 1	0.4 %	0.4 %	0.4 %	0.7 %	0.5 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Recovery Percentage 1	101.200 %	101.596 %	102.013 %	99.216 %	106.647 %
Intensity per Run 1	6,346.3 cps	6,129.6 cps	4,420.1 cps	70,689.5 cps	8,154.0 cps
Intensity per Run 2	6,325.3 cps	6,111.7 cps	4,375.6 cps	70,801.5 cps	8,181.5 cps
Intensity per Run 3	6,277.7 cps	6,055.3 cps	4,346.0 cps	70,376.8 cps	8,176.3 cps
Intensity average 1	6,316 cps	6,099 cps	4,381 cps	70,623 cps	8,171 cps
Concentration per Run 1	5.045 ppm	1.014 ppm	4.089 ppm	0.986 ppm	21.364 ppm
Concentration per Run 2	5.059 ppm	1.017 ppm	4.069 ppm	0.993 ppm	21.337 ppm
Concentration per Run 3	5.076 ppm	1.018 ppm	4.084 ppm	0.997 ppm	21.287 ppm
Concentration average 1	5.060 ppm	1.016 ppm	4.081 ppm	0.992 ppm	21.329 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.3 %	0.2 %	0.2 %	0.6 %	0.2 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Recovery Percentage 1	99.918 %	95.377 %	104.274 %	100.767 %	103.660 %
Intensity per Run 1	651.0 cps	3,149.7 cps	612.3 cps	39,033.0 cps	116,625.9 cps
Intensity per Run 2	646.6 cps	3,109.4 cps	606.2 cps	38,954.4 cps	116,412.5 cps
Intensity per Run 3	639.1 cps	3,080.7 cps	600.5 cps	38,484.5 cps	115,083.7 cps
Intensity average 1	646 cps	3,113 cps	606 cps	38,824 cps	116,041 cps
Concentration per Run 1	1.001 ppm	0.479 ppm	0.105 ppm	5.030 ppm	5.172 ppm
Concentration per Run 2	0.999 ppm	0.476 ppm	0.104 ppm	5.048 ppm	5.192 ppm
Concentration per Run 3	0.998 ppm	0.476 ppm	0.104 ppm	5.038 ppm	5.185 ppm
Concentration average 1	0.999 ppm	0.477 ppm	0.104 ppm	5.038 ppm	5.183 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.1 %	0.4 %	0.3 %	0.2 %	0.2 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Recovery Percentage 1	98.355 %	96.367 %	101.596 %	104.533 %	
Intensity per Run 1	85,828.8 cps	2,239.4 cps	1,035.9 cps	167,724.5 cps	790,611.0 cps
Intensity per Run 2	85,333.4 cps	2,218.3 cps	1,027.2 cps	166,540.4 cps	786,231.2 cps
Intensity per Run 3	84,608.8 cps	2,194.4 cps	1,017.7 cps	164,920.6 cps	778,241.5 cps
Intensity average 1	85,257 cps	2,217 cps	1,027 cps	166,395 cps	785,028 cps
Concentration per Run 1	4.916 ppm	0.966 ppm	4.070 ppm	5.231 ppm	94.633 %
Concentration per Run 2	4.915 ppm	0.963 ppm	4.059 ppm	5.223 ppm	94.108 %
Concentration per Run 3	4.923 ppm	0.962 ppm	4.062 ppm	5.226 ppm	93.152 %
Concentration average 1	4.918 ppm	0.964 ppm	4.064 ppm	5.227 ppm	93.964 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.8 %

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	Zr 339.198 (Aqueous-Axial-iFR)	Pd 340.458 (Aqueous-Axial-iFR)	Tl 351.924 (Aqueous-Axial-iFR)	Y 360.073 (Aqueous-Axial-iFR)	Sc 361.384 (Aqueous-Axial-iFR)
Concentration RSD 1	0.1 %	0.3 %	0.1 %	0.1 %	0.8 %

	Sc 361.384 (Aqueous-Radial-iFR)	Sr 421.552 (Aqueous-Radial-iFR)	Ba 493.409 (Aqueous-Axial-iFR)	Na 588.995 (Aqueous-Radial-iFR)	Li 670.784 (Aqueous-Radial-iFR)
Recovery Percentage 1		102.472 %	99.628 %	104.044 %	102.799 %
Intensity per Run 1	133,576.6 cps	170,865.6 cps	521,908.1 cps	62,076.1 cps	18,840.1 cps
Intensity per Run 2	134,198.9 cps	172,372.6 cps	517,013.1 cps	62,327.0 cps	18,937.0 cps
Intensity per Run 3	134,420.7 cps	172,018.2 cps	514,980.2 cps	62,344.0 cps	18,940.1 cps
Intensity average 1	134,065 cps	171,752 cps	517,967 cps	62,249 cps	18,906 cps
Concentration per Run 1	94.013 %	5.116 ppm	3.987 ppm	31.240 ppm	5.141 ppm
Concentration per Run 2	94.451 %	5.137 ppm	3.972 ppm	31.221 ppm	5.143 ppm
Concentration per Run 3	94.607 %	5.118 ppm	3.997 ppm	31.178 ppm	5.136 ppm
Concentration average 1	94.357 %	5.124 ppm	3.985 ppm	31.213 ppm	5.140 ppm
Concentration SD 1	0.3 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.3 %	0.2 %	0.3 %	0.1 %	0.1 %

	K 766.490 (Aqueous-Radial-iFR)
Recovery Percentage 1	103.143 %
Intensity per Run 1	4,374.3 cps
Intensity per Run 2	4,400.5 cps
Intensity per Run 3	4,392.9 cps
Intensity average 1	4,389 cps
Concentration per Run 1	20.634 ppm
Concentration per Run 2	20.661 ppm
Concentration per Run 3	20.591 ppm
Concentration average 1	20.629 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	0.2 %

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Label: CCB
Sample Type: QC
Analysis started at: 6/5/2024 12:47:50 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Recovery Percentage 1	0.083 %	-0.723 %	-0.062 %	0.248 %	0.183 %
Intensity per Run 1	-0.3 cps	1.4 cps	-0.1 cps	0.4 cps	0.3 cps
Intensity per Run 2	0.0 cps	2.1 cps	-0.4 cps	0.0 cps	-0.2 cps
Intensity per Run 3	0.1 cps	1.5 cps	0.0 cps	0.1 cps	0.6 cps
Intensity average 1	0 cps	2 cps	0 cps	0 cps	0 cps
Concentration per Run 1	-0.001 ppm	-0.014 ppm	0.000 ppm	0.005 ppm	0.003 ppm
Concentration per Run 2	0.001 ppm	0.002 ppm	-0.001 ppm	0.001 ppm	-0.002 ppm
Concentration per Run 3	0.002 ppm	-0.010 ppm	0.000 ppm	0.002 ppm	0.005 ppm
Concentration average 1	0.001 ppm	-0.007 ppm	-0.001 ppm	0.002 ppm	0.002 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	182.2 %	111.0 %	100.2 %	77.4 %	212.7 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Recovery Percentage 1	0.038 %	-0.073 %	0.741 %	1.018 %	0.264 %
Intensity per Run 1	0.4 cps	1.1 cps	3.9 cps	34.6 cps	-0.4 cps
Intensity per Run 2	0.0 cps	0.8 cps	3.6 cps	34.2 cps	0.5 cps
Intensity per Run 3	-0.5 cps	1.0 cps	3.5 cps	32.9 cps	0.0 cps
Intensity average 1	0 cps	1 cps	4 cps	34 cps	0 cps
Concentration per Run 1	0.001 ppm	-0.001 ppm	0.008 ppm	0.012 ppm	0.000 ppm
Concentration per Run 2	0.000 ppm	-0.001 ppm	0.007 ppm	0.011 ppm	0.005 ppm
Concentration per Run 3	0.000 ppm	-0.001 ppm	0.007 ppm	0.008 ppm	0.003 ppm
Concentration average 1	0.000 ppm	-0.001 ppm	0.007 ppm	0.010 ppm	0.003 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	127.7 %	12.4 %	7.2 %	21.1 %	97.1 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Recovery Percentage 1	-0.031 %	0.001 %	0.525 %	-0.003 %	0.049 %
Intensity per Run 1	0.2 cps	1.5 cps	-0.6 cps	-0.1 cps	0.2 cps
Intensity per Run 2	0.3 cps	1.5 cps	-0.2 cps	0.3 cps	0.4 cps
Intensity per Run 3	0.2 cps	1.7 cps	-0.3 cps	-0.4 cps	0.6 cps
Intensity average 1	0 cps	2 cps	0 cps	0 cps	0 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	-0.002 ppm	0.000 ppm	0.000 ppm
Concentration per Run 2	0.000 ppm	0.000 ppm	0.012 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	0.000 ppm	0.000 ppm	0.006 ppm	0.000 ppm	0.001 ppm
Concentration average 1	0.000 ppm	0.000 ppm	0.005 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	37.8 %	486.1 %	127.5 %	331.4 %	36.0 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Recovery Percentage 1	0.171 %	0.006 %	-0.742 %	0.013 %	-0.594 %
Intensity per Run 1	0.7 cps	3.8 cps	-0.2 cps	3.7 cps	-0.5 cps
Intensity per Run 2	-0.2 cps	3.1 cps	0.7 cps	3.6 cps	-1.4 cps
Intensity per Run 3	0.4 cps	2.3 cps	0.0 cps	3.8 cps	-0.3 cps
Intensity average 1	0 cps	3 cps	0 cps	4 cps	-1 cps
Concentration per Run 1	0.004 ppm	0.000 ppm	-0.013 ppm	0.000 ppm	-0.004 ppm

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 2	-0.002 ppm	0.000 ppm	0.000 ppm	0.000 ppm	-0.012 ppm
Concentration per Run 3	0.003 ppm	0.000 ppm	-0.009 ppm	0.000 ppm	-0.002 ppm
Concentration average 1	0.002 ppm	0.000 ppm	-0.007 ppm	0.000 ppm	-0.006 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	178.3 %	38.5 %	92.4 %	31.7 %	93.2 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Recovery Percentage 1	-12.526 %	0.020 %	-0.172 %	0.001 %	-1.503 %
Intensity per Run 1	1,162.9 cps	-0.4 cps	22.4 cps	-13.4 cps	8.0 cps
Intensity per Run 2	1,163.3 cps	0.3 cps	22.2 cps	-14.0 cps	8.7 cps
Intensity per Run 3	1,165.2 cps	0.6 cps	20.9 cps	-14.7 cps	7.5 cps
Intensity average 1	1,164 cps	0 cps	22 cps	-14 cps	8 cps
Concentration per Run 1	-0.124 ppm	0.000 ppm	-0.001 ppm	0.000 ppm	-0.015 ppm
Concentration per Run 2	-0.123 ppm	0.000 ppm	-0.001 ppm	0.000 ppm	-0.013 ppm
Concentration per Run 3	-0.129 ppm	0.000 ppm	-0.003 ppm	0.000 ppm	-0.017 ppm
Concentration average 1	-0.125 ppm	0.000 ppm	-0.002 ppm	0.000 ppm	-0.015 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	2.6 %	38.7 %	49.9 %	99.9 %	10.7 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Recovery Percentage 1	0.154 %	-0.009 %	0.019 %	0.022 %	0.008 %
Intensity per Run 1	-30.1 cps	12.4 cps	0.8 cps	-3.7 cps	-0.5 cps
Intensity per Run 2	-30.5 cps	14.2 cps	0.7 cps	-3.2 cps	-0.9 cps
Intensity per Run 3	-29.7 cps	12.7 cps	-0.2 cps	-3.1 cps	-1.7 cps
Intensity average 1	-30 cps	13 cps	0 cps	-3 cps	-1 cps
Concentration per Run 1	0.002 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 2	0.001 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	0.002 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.002 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	48.8 %	162.1 %	41.8 %	17.5 %	31.1 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Recovery Percentage 1	-0.003 %	0.019 %	0.222 %	0.009 %	
Intensity per Run 1	0.5 cps	1.2 cps	2.2 cps	5.8 cps	832,649.7 cps
Intensity per Run 2	-3.1 cps	0.4 cps	4.7 cps	4.2 cps	831,835.0 cps
Intensity per Run 3	-3.6 cps	-1.5 cps	5.6 cps	3.6 cps	837,929.5 cps
Intensity average 1	-2 cps	0 cps	4 cps	5 cps	834,138 cps
Concentration per Run 1	0.000 ppm	0.001 ppm	-0.005 ppm	0.000 ppm	99.664 %
Concentration per Run 2	0.000 ppm	0.000 ppm	0.004 ppm	0.000 ppm	99.567 %
Concentration per Run 3	0.000 ppm	0.000 ppm	0.008 ppm	0.000 ppm	100.296 %
Concentration average 1	0.000 ppm	0.000 ppm	0.002 ppm	0.000 ppm	99.843 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.4 %
Concentration RSD 1	487.8 %	317.9 %	294.2 %	35.7 %	0.4 %

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Recovery Percentage 1		-0.004 %	0.010 %	-0.616 %	0.023 %
Intensity per Run 1	138,158.8 cps	-1.2 cps	46.9 cps	-371.2 cps	2.5 cps
Intensity per Run 2	137,813.5 cps	0.8 cps	46.1 cps	-384.0 cps	3.1 cps
Intensity per Run 3	138,492.3 cps	1.2 cps	49.7 cps	-375.1 cps	3.7 cps
Intensity average 1	138,155 cps	0 cps	48 cps	-377 cps	3 cps
Concentration per Run 1	97.238 %	0.000 ppm	0.000 ppm	-0.003 ppm	0.000 ppm
Concentration per Run 2	96.995 %	0.000 ppm	0.000 ppm	-0.010 ppm	0.000 ppm
Concentration per Run 3	97.473 %	0.000 ppm	0.000 ppm	-0.005 ppm	0.000 ppm
Concentration average 1	97.235 %	0.000 ppm	0.000 ppm	-0.006 ppm	0.000 ppm
Concentration SD 1	0.2 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.2 %	92.7 %	11.5 %	56.6 %	69.0 %

	K 766.490 (Aqueous- Radial-iFR)
Recovery Percentage 1	-0.178 %
Intensity per Run 1	-6.6 cps
Intensity per Run 2	-8.1 cps
Intensity per Run 3	-9.5 cps
Intensity average 1	-8 cps
Concentration per Run 1	0.005 ppm
Concentration per Run 2	-0.002 ppm
Concentration per Run 3	-0.008 ppm
Concentration average 1	-0.002 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	364.1 %

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Label: PB24F03KE1
Sample Type: UNKNOWN
Analysis started at: 6/5/2024 12:50:11 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.2 cps	1.7 cps	-0.1 cps	0.5 cps	-0.2 cps
Intensity per Run 2	0.0 cps	2.0 cps	0.1 cps	0.1 cps	0.5 cps
Intensity per Run 3	-0.2 cps	1.4 cps	-0.1 cps	0.5 cps	0.5 cps
Intensity average 1	0 cps	2 cps	0 cps	0 cps	0 cps
Concentration per Run 1	0.000 ppm	-0.005 ppm	0.000 ppm	0.005 ppm	-0.002 ppm
Concentration per Run 2	0.001 ppm	0.000 ppm	0.000 ppm	0.002 ppm	0.004 ppm
Concentration per Run 3	0.000 ppm	-0.012 ppm	0.000 ppm	0.005 ppm	0.005 ppm
Concentration average 1	0.000 ppm	-0.005 ppm	0.000 ppm	0.004 ppm	0.002 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	162.2 %	111.3 %	366.7 %	39.6 %	157.8 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	0.0 cps	1.8 cps	6.5 cps	31.0 cps	0.2 cps
Intensity per Run 2	-0.2 cps	1.0 cps	6.5 cps	31.6 cps	0.0 cps
Intensity per Run 3	-0.1 cps	1.4 cps	6.0 cps	30.6 cps	0.6 cps
Intensity average 1	0 cps	1 cps	6 cps	31 cps	0 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.014 ppm	0.007 ppm	0.004 ppm
Concentration per Run 2	0.000 ppm	-0.001 ppm	0.014 ppm	0.008 ppm	0.003 ppm
Concentration per Run 3	0.000 ppm	0.000 ppm	0.013 ppm	0.006 ppm	0.006 ppm
Concentration average 1	0.000 ppm	0.000 ppm	0.014 ppm	0.007 ppm	0.004 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	38.4 %	66.2 %	5.2 %	17.1 %	45.7 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.2 cps	1.8 cps	-0.3 cps	-0.5 cps	-0.5 cps
Intensity per Run 2	-0.2 cps	1.9 cps	-0.4 cps	-0.2 cps	0.4 cps
Intensity per Run 3	0.2 cps	1.9 cps	-0.4 cps	-0.6 cps	-0.7 cps
Intensity average 1	0 cps	2 cps	0 cps	0 cps	0 cps
Concentration per Run 1	-0.002 ppm	0.000 ppm	0.008 ppm	0.000 ppm	0.000 ppm
Concentration per Run 2	-0.002 ppm	0.000 ppm	0.004 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	0.000 ppm	0.000 ppm	0.002 ppm	0.000 ppm	0.000 ppm
Concentration average 1	-0.001 ppm	0.000 ppm	0.005 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	63.5 %	42.9 %	71.1 %	49.5 %	832.0 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	1.3 cps	2.8 cps	0.6 cps	24.2 cps	-0.3 cps
Intensity per Run 2	1.3 cps	3.5 cps	0.5 cps	23.9 cps	-0.4 cps
Intensity per Run 3	0.6 cps	3.9 cps	0.0 cps	26.3 cps	-0.6 cps
Intensity average 1	1 cps	3 cps	0 cps	25 cps	0 cps
Concentration per Run 1	0.009 ppm	0.000 ppm	-0.001 ppm	0.008 ppm	-0.002 ppm
Concentration per Run 2	0.009 ppm	0.000 ppm	-0.002 ppm	0.008 ppm	-0.003 ppm
Concentration per Run 3	0.004 ppm	0.000 ppm	-0.010 ppm	0.009 ppm	-0.005 ppm
Concentration average 1	0.007 ppm	0.000 ppm	-0.004 ppm	0.008 ppm	-0.003 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration RSD 1	40.8 %	25.3 %	116.4 %	5.9 %	45.9 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	1,280.5 cps	-1.6 cps	25.3 cps	-15.1 cps	4.9 cps
Intensity per Run 2	1,280.5 cps	0.8 cps	22.3 cps	-15.6 cps	5.3 cps
Intensity per Run 3	1,273.3 cps	2.0 cps	23.9 cps	-15.3 cps	5.6 cps
Intensity average 1	1,278 cps	0 cps	24 cps	-15 cps	5 cps
Concentration per Run 1	0.042 ppm	0.000 ppm	0.003 ppm	0.000 ppm	-0.023 ppm
Concentration per Run 2	0.038 ppm	0.000 ppm	0.000 ppm	0.000 ppm	-0.021 ppm
Concentration per Run 3	0.030 ppm	0.001 ppm	0.001 ppm	0.000 ppm	-0.021 ppm
Concentration average 1	0.037 ppm	0.000 ppm	0.001 ppm	0.000 ppm	-0.022 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	17.3 %	112.5 %	132.9 %	28.1 %	4.5 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	-31.2 cps	15.8 cps	-0.6 cps	-4.7 cps	-1.7 cps
Intensity per Run 2	-29.3 cps	13.3 cps	-1.6 cps	-3.9 cps	-2.4 cps
Intensity per Run 3	-29.8 cps	14.2 cps	0.5 cps	-5.6 cps	-0.6 cps
Intensity average 1	-30 cps	14 cps	-1 cps	-5 cps	-2 cps
Concentration per Run 1	-0.002 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 2	0.001 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	345.1 %	98.1 %	598.7 %	352.1 %	74.0 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	0.9 cps	-3.3 cps	3.4 cps	1.1 cps	795,894.2 cps
Intensity per Run 2	2.0 cps	0.6 cps	4.6 cps	2.1 cps	798,575.5 cps
Intensity per Run 3	0.4 cps	1.0 cps	3.2 cps	2.7 cps	799,331.7 cps
Intensity average 1	1 cps	-1 cps	4 cps	2 cps	797,934 cps
Concentration per Run 1	0.000 ppm	-0.001 ppm	0.000 ppm	0.000 ppm	95.265 %
Concentration per Run 2	0.000 ppm	0.000 ppm	0.005 ppm	0.000 ppm	95.586 %
Concentration per Run 3	0.000 ppm	0.001 ppm	-0.001 ppm	0.000 ppm	95.676 %
Concentration average 1	0.000 ppm	0.000 ppm	0.001 ppm	0.000 ppm	95.509 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.2 %
Concentration RSD 1	29.1 %	5,154.3 %	278.0 %	142.7 %	0.2 %

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 1	130,586.0 cps	-0.8 cps	41.2 cps	-382.0 cps	3.5 cps
Intensity per Run 2	130,488.1 cps	-2.4 cps	42.5 cps	-377.2 cps	7.1 cps

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 3	130,334.5 cps	0.6 cps	38.0 cps	-386.6 cps	5.1 cps
Intensity average 1	130,470 cps	-1 cps	41 cps	-382 cps	5 cps
Concentration per Run 1	91.908 %	0.000 ppm	0.000 ppm	-0.019 ppm	0.000 ppm
Concentration per Run 2	91.839 %	0.000 ppm	0.000 ppm	-0.017 ppm	0.001 ppm
Concentration per Run 3	91.731 %	0.000 ppm	0.000 ppm	-0.022 ppm	0.001 ppm
Concentration average 1	91.826 %	0.000 ppm	0.000 ppm	-0.020 ppm	0.001 ppm
Concentration SD 1	0.1 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.1 %	61.9 %	26.9 %	12.9 %	56.4 %

	K 766.490 (Aqueous- Radial-iFR)
Intensity per Run 1	-11.6 cps
Intensity per Run 2	-8.8 cps
Intensity per Run 3	-9.2 cps
Intensity average 1	-10 cps
Concentration per Run 1	-0.021 ppm
Concentration per Run 2	-0.007 ppm
Concentration per Run 3	-0.009 ppm
Concentration average 1	-0.013 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	57.7 %

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Sample Type: UNKNOWN
Analysis started at: 6/5/2024 12:52:33 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.3 cps	1.7 cps	-0.1 cps	243.5 cps	185.5 cps
Intensity per Run 2	0.2 cps	1.5 cps	-0.1 cps	242.5 cps	185.1 cps
Intensity per Run 3	-0.3 cps	1.4 cps	-0.4 cps	246.2 cps	187.0 cps
Intensity average 1	0 cps	2 cps	0 cps	244 cps	186 cps
Concentration per Run 1	-0.002 ppm	-0.007 ppm	-0.001 ppm	1.970 ppm	1.853 ppm
Concentration per Run 2	0.002 ppm	-0.010 ppm	0.000 ppm	1.981 ppm	1.868 ppm
Concentration per Run 3	-0.003 ppm	-0.013 ppm	-0.001 ppm	1.989 ppm	1.866 ppm
Concentration average 1	-0.001 ppm	-0.010 ppm	-0.001 ppm	1.980 ppm	1.862 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	218.0 %	28.3 %	79.1 %	0.5 %	0.4 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.2 cps	673.6 cps	5.5 cps	29.2 cps	80.2 cps
Intensity per Run 2	0.0 cps	671.0 cps	5.4 cps	27.9 cps	80.7 cps
Intensity per Run 3	-0.4 cps	673.4 cps	4.9 cps	28.4 cps	80.9 cps
Intensity average 1	0 cps	673 cps	5 cps	29 cps	81 cps
Concentration per Run 1	0.000 ppm	0.478 ppm	0.008 ppm	0.005 ppm	0.487 ppm
Concentration per Run 2	0.000 ppm	0.481 ppm	0.008 ppm	0.003 ppm	0.495 ppm
Concentration per Run 3	0.000 ppm	0.477 ppm	0.007 ppm	0.003 ppm	0.491 ppm
Concentration average 1	0.000 ppm	0.479 ppm	0.007 ppm	0.004 ppm	0.491 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	97.4 %	0.4 %	11.5 %	36.4 %	0.8 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	115.7 cps	786.0 cps	-0.3 cps	190.2 cps	533.2 cps
Intensity per Run 2	113.7 cps	781.1 cps	-0.7 cps	189.0 cps	531.2 cps
Intensity per Run 3	114.1 cps	785.0 cps	-0.7 cps	190.9 cps	533.6 cps
Intensity average 1	114 cps	784 cps	-1 cps	190 cps	533 cps
Concentration per Run 1	0.469 ppm	0.470 ppm	0.007 ppm	0.048 ppm	0.472 ppm
Concentration per Run 2	0.465 ppm	0.471 ppm	-0.007 ppm	0.048 ppm	0.475 ppm
Concentration per Run 3	0.462 ppm	0.469 ppm	-0.009 ppm	0.048 ppm	0.472 ppm
Concentration average 1	0.465 ppm	0.470 ppm	-0.003 ppm	0.048 ppm	0.473 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.8 %	0.3 %	290.8 %	0.2 %	0.4 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	140.5 cps	13,975.5 cps	-0.4 cps	515.3 cps	2,168.0 cps
Intensity per Run 2	139.9 cps	13,898.8 cps	-1.3 cps	511.3 cps	2,151.0 cps
Intensity per Run 3	140.5 cps	13,937.1 cps	-0.7 cps	515.8 cps	2,178.7 cps
Intensity average 1	140 cps	13,937 cps	-1 cps	514 cps	2,166 cps
Concentration per Run 1	1.009 ppm	0.511 ppm	-0.023 ppm	0.204 ppm	21.240 ppm
Concentration per Run 2	1.002 ppm	0.513 ppm	-0.036 ppm	0.205 ppm	21.039 ppm
Concentration per Run 3	1.002 ppm	0.509 ppm	-0.027 ppm	0.204 ppm	21.204 ppm
Concentration average 1	1.004 ppm	0.511 ppm	-0.028 ppm	0.204 ppm	21.161 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.1 ppm

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	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration RSD 1	0.4 %	0.4 %	24.4 %	0.1 %	0.5 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	1,206.6 cps	3,020.9 cps	2,026.3 cps	3,368.9 cps	8,020.0 cps
Intensity per Run 2	1,213.5 cps	3,005.9 cps	2,022.0 cps	3,354.2 cps	8,038.1 cps
Intensity per Run 3	1,202.3 cps	3,019.0 cps	2,036.0 cps	3,364.8 cps	8,018.3 cps
Intensity average 1	1,207 cps	3,015 cps	2,028 cps	3,363 cps	8,025 cps
Concentration per Run 1	0.007 ppm	0.508 ppm	1.941 ppm	0.048 ppm	21.681 ppm
Concentration per Run 2	0.026 ppm	0.510 ppm	1.956 ppm	0.048 ppm	21.693 ppm
Concentration per Run 3	0.001 ppm	0.507 ppm	1.948 ppm	0.048 ppm	21.532 ppm
Concentration average 1	0.011 ppm	0.508 ppm	1.948 ppm	0.048 ppm	21.635 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.1 ppm
Concentration RSD 1	119.2 %	0.4 %	0.4 %	0.4 %	0.4 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	-42.9 cps	1,492.6 cps	280.1 cps	-6.0 cps	-5.4 cps
Intensity per Run 2	-42.5 cps	1,488.1 cps	280.2 cps	-7.0 cps	-3.4 cps
Intensity per Run 3	-43.7 cps	1,500.3 cps	281.5 cps	-4.5 cps	-3.4 cps
Intensity average 1	-43 cps	1,494 cps	281 cps	-6 cps	-4 cps
Concentration per Run 1	0.002 ppm	0.235 ppm	0.047 ppm	0.000 ppm	0.000 ppm
Concentration per Run 2	0.002 ppm	0.237 ppm	0.048 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	0.001 ppm	0.236 ppm	0.047 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.002 ppm	0.236 ppm	0.047 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	44.5 %	0.3 %	0.5 %	235.1 %	57.5 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	7.3 cps	0.4 cps	483.3 cps	6.8 cps	772,618.8 cps
Intensity per Run 2	3.3 cps	-0.9 cps	482.8 cps	4.7 cps	764,997.1 cps
Intensity per Run 3	1.7 cps	-1.0 cps	484.4 cps	5.6 cps	773,596.8 cps
Intensity average 1	4 cps	0 cps	484 cps	6 cps	770,404 cps
Concentration per Run 1	0.002 ppm	0.001 ppm	1.946 ppm	0.000 ppm	92.479 %
Concentration per Run 2	0.001 ppm	0.000 ppm	1.964 ppm	0.000 ppm	91.567 %
Concentration per Run 3	0.001 ppm	0.000 ppm	1.948 ppm	0.000 ppm	92.596 %
Concentration average 1	0.002 ppm	0.001 ppm	1.953 ppm	0.000 ppm	92.214 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.6 %
Concentration RSD 1	9.9 %	52.9 %	0.5 %	28.9 %	0.6 %

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 1	130,124.7 cps	5.8 cps	260,493.5 cps	40,310.2 cps	6.0 cps
Intensity per Run 2	130,342.7 cps	6.5 cps	260,149.7 cps	40,284.2 cps	5.4 cps

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 3	130,992.5 cps	8.8 cps	261,408.6 cps	40,413.4 cps	3.7 cps
Intensity average 1	130,487 cps	7 cps	260,684 cps	40,336 cps	5 cps
Concentration per Run 1	91.583 %	0.000 ppm	2.036 ppm	20.885 ppm	0.001 ppm
Concentration per Run 2	91.737 %	0.000 ppm	2.054 ppm	20.837 ppm	0.001 ppm
Concentration per Run 3	92.194 %	0.000 ppm	2.041 ppm	20.800 ppm	0.000 ppm
Concentration average 1	91.838 %	0.000 ppm	2.044 ppm	20.841 ppm	0.001 ppm
Concentration SD 1	0.3 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.3 %	8,080.5 %	0.4 %	0.2 %	40.2 %

	K 766.490 (Aqueous- Radial-iFR)
Intensity per Run 1	4,262.1 cps
Intensity per Run 2	4,259.2 cps
Intensity per Run 3	4,251.1 cps
Intensity average 1	4,257 cps
Concentration per Run 1	20.642 ppm
Concentration per Run 2	20.594 ppm
Concentration per Run 3	20.453 ppm
Concentration average 1	20.563 ppm
Concentration SD 1	0.1 ppm
Concentration RSD 1	0.5 %

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Analysis started at: 6/5/2024 12:54:55 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.1 cps	1.7 cps	0.2 cps	483.8 cps	0.1 cps
Intensity per Run 2	-0.2 cps	2.0 cps	0.1 cps	485.5 cps	0.0 cps
Intensity per Run 3	0.4 cps	2.2 cps	-0.2 cps	490.3 cps	-0.2 cps
Intensity average 1	0 cps	2 cps	0 cps	487 cps	0 cps
Concentration per Run 1	0.001 ppm	-0.005 ppm	0.000 ppm	3.718 ppm	0.001 ppm
Concentration per Run 2	0.000 ppm	0.000 ppm	0.000 ppm	3.730 ppm	0.000 ppm
Concentration per Run 3	0.004 ppm	0.005 ppm	-0.001 ppm	3.763 ppm	-0.002 ppm
Concentration average 1	0.002 ppm	0.000 ppm	0.000 ppm	3.737 ppm	-0.001 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	123.5 %	3,396.9 %	4,410.1 %	0.6 %	236.0 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	0.1 cps	3.0 cps	1.0 cps	26.9 cps	7.4 cps
Intensity per Run 2	-0.3 cps	3.7 cps	1.7 cps	28.2 cps	6.3 cps
Intensity per Run 3	-0.4 cps	3.8 cps	1.2 cps	27.9 cps	7.2 cps
Intensity average 1	0 cps	4 cps	1 cps	28 cps	7 cps
Concentration per Run 1	0.001 ppm	0.001 ppm	0.001 ppm	-0.003 ppm	0.047 ppm
Concentration per Run 2	0.000 ppm	0.002 ppm	0.003 ppm	-0.001 ppm	0.040 ppm
Concentration per Run 3	0.000 ppm	0.002 ppm	0.002 ppm	-0.001 ppm	0.045 ppm
Concentration average 1	0.000 ppm	0.002 ppm	0.002 ppm	-0.002 ppm	0.044 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	145.3 %	17.6 %	42.1 %	80.5 %	8.1 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	774.6 cps	-1.5 cps	-0.4 cps	14,374.7 cps	-0.8 cps
Intensity per Run 2	781.7 cps	-0.6 cps	0.0 cps	14,494.8 cps	-0.2 cps
Intensity per Run 3	781.5 cps	-0.2 cps	-0.5 cps	14,517.7 cps	0.2 cps
Intensity average 1	779 cps	-1 cps	0 cps	14,462 cps	0 cps
Concentration per Run 1	3.000 ppm	0.000 ppm	-0.001 ppm	3.456 ppm	-0.001 ppm
Concentration per Run 2	3.026 ppm	0.000 ppm	0.015 ppm	3.483 ppm	0.000 ppm
Concentration per Run 3	3.023 ppm	0.001 ppm	-0.003 ppm	3.486 ppm	0.000 ppm
Concentration average 1	3.016 ppm	0.000 ppm	0.004 ppm	3.475 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.5 %	176.1 %	258.0 %	0.5 %	654.1 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	1.0 cps	2.6 cps	0.3 cps	8,604.9 cps	0.1 cps
Intensity per Run 2	0.6 cps	0.9 cps	0.9 cps	8,665.3 cps	-0.4 cps
Intensity per Run 3	0.8 cps	1.2 cps	-0.6 cps	8,694.9 cps	-1.5 cps
Intensity average 1	1 cps	2 cps	0 cps	8,655 cps	-1 cps
Concentration per Run 1	0.007 ppm	0.000 ppm	-0.010 ppm	3.272 ppm	0.001 ppm
Concentration per Run 2	0.004 ppm	0.000 ppm	-0.002 ppm	3.293 ppm	-0.003 ppm
Concentration per Run 3	0.005 ppm	0.000 ppm	-0.025 ppm	3.302 ppm	-0.014 ppm
Concentration average 1	0.005 ppm	0.000 ppm	-0.012 ppm	3.289 ppm	-0.005 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration RSD 1	23.7 %	238.1 %	93.8 %	0.5 %	152.9 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	1,092.9 cps	-20.9 cps	23.9 cps	-14.6 cps	7.2 cps
Intensity per Run 2	1,121.0 cps	-21.4 cps	23.2 cps	-12.6 cps	7.1 cps
Intensity per Run 3	1,106.0 cps	-20.3 cps	24.9 cps	-15.4 cps	7.5 cps
Intensity average 1	1,107 cps	-21 cps	24 cps	-14 cps	7 cps
Concentration per Run 1	-0.137 ppm	0.001 ppm	0.001 ppm	0.000 ppm	-0.017 ppm
Concentration per Run 2	-0.110 ppm	0.001 ppm	0.001 ppm	0.000 ppm	-0.017 ppm
Concentration per Run 3	-0.125 ppm	0.001 ppm	0.002 ppm	0.000 ppm	-0.016 ppm
Concentration average 1	-0.124 ppm	0.001 ppm	0.001 ppm	0.000 ppm	-0.017 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	10.9 %	10.8 %	52.9 %	272.9 %	2.3 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	-34.7 cps	65.9 cps	-1.0 cps	-5.6 cps	8.8 cps
Intensity per Run 2	-35.2 cps	65.3 cps	-0.6 cps	-7.5 cps	11.5 cps
Intensity per Run 3	-35.1 cps	67.1 cps	-0.6 cps	-4.4 cps	10.0 cps
Intensity average 1	-35 cps	66 cps	-1 cps	-6 cps	10 cps
Concentration per Run 1	0.002 ppm	0.008 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 2	0.001 ppm	0.008 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	0.001 ppm	0.008 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.001 ppm	0.008 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	26.9 %	1.7 %	2,353.3 %	272.6 %	80.4 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	-6.5 cps	-2.6 cps	2.8 cps	5.6 cps	810,302.5 cps
Intensity per Run 2	-4.9 cps	-2.4 cps	2.8 cps	3.3 cps	810,618.6 cps
Intensity per Run 3	-6.0 cps	-0.4 cps	3.6 cps	3.8 cps	811,347.0 cps
Intensity average 1	-6 cps	-2 cps	3 cps	4 cps	810,756 cps
Concentration per Run 1	0.000 ppm	-0.001 ppm	-0.001 ppm	0.000 ppm	96.990 %
Concentration per Run 2	0.000 ppm	-0.001 ppm	-0.001 ppm	0.000 ppm	97.027 %
Concentration per Run 3	0.000 ppm	0.000 ppm	0.002 ppm	0.000 ppm	97.115 %
Concentration average 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	97.044 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.1 %
Concentration RSD 1	33.5 %	128.4 %	4,740.9 %	46.8 %	0.1 %

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 1	135,359.7 cps	83.3 cps	1,616.6 cps	2,736.8 cps	2.6 cps
Intensity per Run 2	134,856.1 cps	81.3 cps	1,589.1 cps	2,712.7 cps	1.3 cps

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 3	135,771.4 cps	81.5 cps	1,584.4 cps	2,737.4 cps	4.7 cps
Intensity average 1	135,329 cps	82 cps	1,597 cps	2,729 cps	3 cps
Concentration per Run 1	95.268 %	0.002 ppm	0.012 ppm	1.528 ppm	0.000 ppm
Concentration per Run 2	94.913 %	0.002 ppm	0.012 ppm	1.521 ppm	0.000 ppm
Concentration per Run 3	95.557 %	0.002 ppm	0.012 ppm	1.524 ppm	0.001 ppm
Concentration average 1	95.246 %	0.002 ppm	0.012 ppm	1.524 ppm	0.000 ppm
Concentration SD 1	0.3 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.3 %	1.3 %	1.2 %	0.2 %	231.9 %

	K 766.490 (Aqueous- Radial-iFR)
Intensity per Run 1	-8.3 cps
Intensity per Run 2	-6.8 cps
Intensity per Run 3	-7.8 cps
Intensity average 1	-8 cps
Concentration per Run 1	-0.004 ppm
Concentration per Run 2	0.003 ppm
Concentration per Run 3	-0.001 ppm
Concentration average 1	-0.001 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	468.8 %

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Analysis started at: 6/5/2024 12:57:16 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	0.1 cps	2.4 cps	-0.4 cps	482.8 cps	0.3 cps
Intensity per Run 2	0.0 cps	1.8 cps	0.0 cps	481.5 cps	0.5 cps
Intensity per Run 3	-0.2 cps	2.1 cps	-0.3 cps	480.9 cps	-0.4 cps
Intensity average 1	0 cps	2 cps	0 cps	482 cps	0 cps
Concentration per Run 1	0.002 ppm	0.010 ppm	-0.001 ppm	3.703 ppm	0.002 ppm
Concentration per Run 2	0.002 ppm	-0.004 ppm	0.000 ppm	3.703 ppm	0.004 ppm
Concentration per Run 3	0.000 ppm	0.003 ppm	-0.001 ppm	3.686 ppm	-0.004 ppm
Concentration average 1	0.002 ppm	0.003 ppm	-0.001 ppm	3.697 ppm	0.001 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	65.5 %	225.5 %	79.5 %	0.3 %	381.2 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	0.4 cps	3.6 cps	1.2 cps	27.1 cps	7.6 cps
Intensity per Run 2	-0.6 cps	4.0 cps	1.5 cps	27.1 cps	6.7 cps
Intensity per Run 3	0.0 cps	3.3 cps	1.3 cps	26.9 cps	6.9 cps
Intensity average 1	0 cps	4 cps	1 cps	27 cps	7 cps
Concentration per Run 1	0.001 ppm	0.002 ppm	0.002 ppm	-0.003 ppm	0.048 ppm
Concentration per Run 2	0.000 ppm	0.002 ppm	0.002 ppm	-0.003 ppm	0.043 ppm
Concentration per Run 3	0.000 ppm	0.002 ppm	0.002 ppm	-0.004 ppm	0.044 ppm
Concentration average 1	0.000 ppm	0.002 ppm	0.002 ppm	-0.003 ppm	0.045 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	159.6 %	13.6 %	18.2 %	9.6 %	6.2 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	765.5 cps	-0.4 cps	-0.1 cps	14,194.3 cps	0.3 cps
Intensity per Run 2	763.3 cps	-1.3 cps	0.2 cps	14,163.3 cps	0.5 cps
Intensity per Run 3	762.9 cps	-0.2 cps	-0.1 cps	14,196.8 cps	-0.2 cps
Intensity average 1	764 cps	-1 cps	0 cps	14,185 cps	0 cps
Concentration per Run 1	2.959 ppm	0.000 ppm	0.012 ppm	3.406 ppm	0.000 ppm
Concentration per Run 2	2.958 ppm	0.000 ppm	0.022 ppm	3.407 ppm	0.001 ppm
Concentration per Run 3	2.947 ppm	0.001 ppm	0.009 ppm	3.404 ppm	0.000 ppm
Concentration average 1	2.955 ppm	0.000 ppm	0.014 ppm	3.406 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.2 %	123.6 %	45.4 %	0.1 %	82.3 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	1.7 cps	0.9 cps	0.9 cps	8,569.3 cps	0.9 cps
Intensity per Run 2	1.5 cps	0.8 cps	0.2 cps	8,530.8 cps	-0.4 cps
Intensity per Run 3	1.2 cps	1.0 cps	-0.2 cps	8,569.8 cps	0.0 cps
Intensity average 1	1 cps	1 cps	0 cps	8,557 cps	0 cps
Concentration per Run 1	0.012 ppm	0.000 ppm	-0.001 ppm	3.252 ppm	0.009 ppm
Concentration per Run 2	0.010 ppm	0.000 ppm	-0.013 ppm	3.246 ppm	-0.003 ppm
Concentration per Run 3	0.008 ppm	0.000 ppm	-0.018 ppm	3.249 ppm	0.000 ppm
Concentration average 1	0.010 ppm	0.000 ppm	-0.011 ppm	3.249 ppm	0.002 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration RSD 1	18.2 %	36.8 %	78.7 %	0.1 %	332.5 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	1,066.9 cps	-20.6 cps	24.3 cps	-16.1 cps	9.8 cps
Intensity per Run 2	1,066.0 cps	-21.3 cps	24.4 cps	-14.4 cps	8.1 cps
Intensity per Run 3	1,059.3 cps	-20.5 cps	21.1 cps	-15.3 cps	9.5 cps
Intensity average 1	1,064 cps	-21 cps	23 cps	-15 cps	9 cps
Concentration per Run 1	-0.164 ppm	0.001 ppm	0.002 ppm	0.000 ppm	-0.010 ppm
Concentration per Run 2	-0.162 ppm	0.001 ppm	0.002 ppm	0.000 ppm	-0.015 ppm
Concentration per Run 3	-0.173 ppm	0.001 ppm	-0.001 ppm	0.000 ppm	-0.011 ppm
Concentration average 1	-0.166 ppm	0.001 ppm	0.001 ppm	0.000 ppm	-0.012 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	3.2 %	9.4 %	246.7 %	168.2 %	19.6 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	-34.8 cps	66.1 cps	1.9 cps	-4.3 cps	9.4 cps
Intensity per Run 2	-35.2 cps	63.6 cps	-0.1 cps	-4.1 cps	9.9 cps
Intensity per Run 3	-35.3 cps	65.5 cps	2.1 cps	-5.4 cps	6.9 cps
Intensity average 1	-35 cps	65 cps	1 cps	-5 cps	9 cps
Concentration per Run 1	0.001 ppm	0.008 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 2	0.001 ppm	0.008 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	0.001 ppm	0.008 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.001 ppm	0.008 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	31.3 %	2.3 %	58.3 %	109.0 %	59.0 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	-5.0 cps	-0.5 cps	3.3 cps	3.8 cps	811,894.4 cps
Intensity per Run 2	-3.8 cps	-1.0 cps	4.4 cps	4.1 cps	809,708.2 cps
Intensity per Run 3	-5.8 cps	0.7 cps	6.1 cps	5.8 cps	812,531.0 cps
Intensity average 1	-5 cps	0 cps	5 cps	5 cps	811,378 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.001 ppm	0.000 ppm	97.180 %
Concentration per Run 2	0.000 ppm	0.000 ppm	0.005 ppm	0.000 ppm	96.918 %
Concentration per Run 3	0.000 ppm	0.001 ppm	0.012 ppm	0.000 ppm	97.256 %
Concentration average 1	0.000 ppm	0.000 ppm	0.006 ppm	0.000 ppm	97.118 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.2 %
Concentration RSD 1	25.6 %	152.0 %	92.5 %	36.4 %	0.2 %

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 1	135,899.2 cps	82.4 cps	1,576.4 cps	2,726.3 cps	5.6 cps
Intensity per Run 2	134,418.3 cps	80.5 cps	1,573.6 cps	2,680.3 cps	6.0 cps

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 3	133,786.6 cps	80.7 cps	1,566.0 cps	2,664.7 cps	3.1 cps
Intensity average 1	134,701 cps	81 cps	1,572 cps	2,690 cps	5 cps
Concentration per Run 1	95.647 %	0.002 ppm	0.011 ppm	1.517 ppm	0.001 ppm
Concentration per Run 2	94.605 %	0.002 ppm	0.012 ppm	1.509 ppm	0.001 ppm
Concentration per Run 3	94.161 %	0.002 ppm	0.011 ppm	1.508 ppm	0.000 ppm
Concentration average 1	94.804 %	0.002 ppm	0.011 ppm	1.511 ppm	0.001 ppm
Concentration SD 1	0.8 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.8 %	0.7 %	0.5 %	0.3 %	54.8 %

	K 766.490 (Aqueous- Radial-iFR)
Intensity per Run 1	-8.7 cps
Intensity per Run 2	-10.8 cps
Intensity per Run 3	-7.7 cps
Intensity average 1	-9 cps
Concentration per Run 1	-0.005 ppm
Concentration per Run 2	-0.016 ppm
Concentration per Run 3	-0.001 ppm
Concentration average 1	-0.008 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	99.7 %

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Sample Type: UNKNOWN
Analysis started at: 6/5/2024 12:59:38 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.1 cps	1.8 cps	-0.1 cps	473.0 cps	0.3 cps
Intensity per Run 2	-0.1 cps	2.2 cps	0.0 cps	470.9 cps	0.1 cps
Intensity per Run 3	-0.2 cps	2.2 cps	-0.2 cps	470.6 cps	0.1 cps
Intensity average 1	0 cps	2 cps	0 cps	471 cps	0 cps
Concentration per Run 1	0.001 ppm	-0.003 ppm	0.000 ppm	3.626 ppm	0.002 ppm
Concentration per Run 2	0.001 ppm	0.006 ppm	0.000 ppm	3.628 ppm	0.001 ppm
Concentration per Run 3	0.000 ppm	0.004 ppm	-0.001 ppm	3.634 ppm	0.001 ppm
Concentration average 1	0.001 ppm	0.002 ppm	0.000 ppm	3.630 ppm	0.001 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	68.1 %	229.9 %	83.7 %	0.1 %	56.5 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.5 cps	3.8 cps	1.3 cps	27.3 cps	6.5 cps
Intensity per Run 2	-0.2 cps	3.7 cps	1.2 cps	27.2 cps	6.6 cps
Intensity per Run 3	-0.4 cps	3.2 cps	1.2 cps	26.6 cps	6.9 cps
Intensity average 1	0 cps	4 cps	1 cps	27 cps	7 cps
Concentration per Run 1	0.000 ppm	0.002 ppm	0.002 ppm	-0.003 ppm	0.041 ppm
Concentration per Run 2	0.000 ppm	0.002 ppm	0.002 ppm	-0.003 ppm	0.042 ppm
Concentration per Run 3	0.000 ppm	0.001 ppm	0.002 ppm	-0.004 ppm	0.044 ppm
Concentration average 1	0.000 ppm	0.002 ppm	0.002 ppm	-0.003 ppm	0.042 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	3,036.5 %	12.2 %	4.2 %	20.2 %	3.3 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	751.9 cps	-1.0 cps	-0.3 cps	14,062.3 cps	-0.7 cps
Intensity per Run 2	745.9 cps	-0.7 cps	-0.4 cps	13,963.5 cps	-0.2 cps
Intensity per Run 3	745.8 cps	-1.1 cps	-0.2 cps	13,891.6 cps	-0.1 cps
Intensity average 1	748 cps	-1 cps	0 cps	13,972 cps	0 cps
Concentration per Run 1	2.906 ppm	0.000 ppm	0.001 ppm	3.373 ppm	0.000 ppm
Concentration per Run 2	2.896 ppm	0.000 ppm	-0.001 ppm	3.366 ppm	0.000 ppm
Concentration per Run 3	2.902 ppm	0.000 ppm	0.006 ppm	3.356 ppm	0.000 ppm
Concentration average 1	2.901 ppm	0.000 ppm	0.002 ppm	3.365 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.2 %	104.5 %	166.0 %	0.3 %	327.9 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	1.1 cps	0.3 cps	0.8 cps	8,407.3 cps	-0.4 cps
Intensity per Run 2	2.1 cps	1.4 cps	-0.5 cps	8,388.7 cps	-0.6 cps
Intensity per Run 3	1.5 cps	0.9 cps	1.2 cps	8,354.9 cps	0.1 cps
Intensity average 1	2 cps	1 cps	1 cps	8,384 cps	0 cps
Concentration per Run 1	0.008 ppm	0.000 ppm	-0.004 ppm	3.189 ppm	-0.003 ppm
Concentration per Run 2	0.014 ppm	0.000 ppm	-0.022 ppm	3.198 ppm	-0.005 ppm
Concentration per Run 3	0.010 ppm	0.000 ppm	0.003 ppm	3.192 ppm	0.001 ppm
Concentration average 1	0.011 ppm	0.000 ppm	-0.008 ppm	3.193 ppm	-0.003 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration RSD 1	31.5 %	178.4 %	168.1 %	0.1 %	130.6 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	1,058.8 cps	-20.9 cps	26.6 cps	-14.6 cps	6.8 cps
Intensity per Run 2	1,048.3 cps	-21.3 cps	22.5 cps	-16.0 cps	7.6 cps
Intensity per Run 3	1,034.9 cps	-20.3 cps	22.4 cps	-15.7 cps	7.5 cps
Intensity average 1	1,047 cps	-21 cps	24 cps	-15 cps	7 cps
Concentration per Run 1	-0.173 ppm	0.001 ppm	0.004 ppm	0.000 ppm	-0.018 ppm
Concentration per Run 2	-0.178 ppm	0.001 ppm	0.000 ppm	0.000 ppm	-0.016 ppm
Concentration per Run 3	-0.189 ppm	0.001 ppm	0.000 ppm	0.000 ppm	-0.016 ppm
Concentration average 1	-0.180 ppm	0.001 ppm	0.001 ppm	0.000 ppm	-0.017 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	4.5 %	10.2 %	165.4 %	134.7 %	6.9 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	-35.0 cps	63.4 cps	2.0 cps	-6.5 cps	6.0 cps
Intensity per Run 2	-33.6 cps	65.0 cps	0.0 cps	-5.7 cps	8.9 cps
Intensity per Run 3	-35.6 cps	64.0 cps	0.8 cps	-2.5 cps	7.3 cps
Intensity average 1	-35 cps	64 cps	1 cps	-5 cps	7 cps
Concentration per Run 1	0.001 ppm	0.008 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 2	0.003 ppm	0.008 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	0.000 ppm	0.008 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.001 ppm	0.008 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	127.9 %	1.9 %	56.1 %	777.4 %	38.6 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	-2.1 cps	-1.8 cps	1.1 cps	2.4 cps	812,147.2 cps
Intensity per Run 2	-5.5 cps	-2.3 cps	3.3 cps	4.5 cps	808,181.5 cps
Intensity per Run 3	-3.5 cps	-1.4 cps	4.1 cps	3.9 cps	806,375.8 cps
Intensity average 1	-4 cps	-2 cps	3 cps	4 cps	808,901 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	-0.008 ppm	0.000 ppm	97.210 %
Concentration per Run 2	0.000 ppm	-0.001 ppm	0.001 ppm	0.000 ppm	96.736 %
Concentration per Run 3	0.000 ppm	0.000 ppm	0.004 ppm	0.000 ppm	96.520 %
Concentration average 1	0.000 ppm	0.000 ppm	-0.001 ppm	0.000 ppm	96.822 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.4 %
Concentration RSD 1	53.3 %	53.4 %	601.0 %	55.2 %	0.4 %

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 1	134,728.2 cps	77.3 cps	1,524.0 cps	2,617.2 cps	6.0 cps
Intensity per Run 2	134,318.6 cps	79.2 cps	1,525.8 cps	2,615.3 cps	3.4 cps

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 3	134,788.5 cps	79.3 cps	1,525.5 cps	2,630.0 cps	4.1 cps
Intensity average 1	134,612 cps	79 cps	1,525 cps	2,621 cps	4 cps
Concentration per Run 1	94.823 %	0.002 ppm	0.011 ppm	1.475 ppm	0.001 ppm
Concentration per Run 2	94.535 %	0.002 ppm	0.011 ppm	1.478 ppm	0.000 ppm
Concentration per Run 3	94.866 %	0.002 ppm	0.011 ppm	1.481 ppm	0.001 ppm
Concentration average 1	94.741 %	0.002 ppm	0.011 ppm	1.478 ppm	0.001 ppm
Concentration SD 1	0.2 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.2 %	1.5 %	0.4 %	0.2 %	55.4 %

	K 766.490 (Aqueous- Radial-iFR)
Intensity per Run 1	-8.3 cps
Intensity per Run 2	-10.3 cps
Intensity per Run 3	-10.1 cps
Intensity average 1	-10 cps
Concentration per Run 1	-0.004 ppm
Concentration per Run 2	-0.013 ppm
Concentration per Run 3	-0.012 ppm
Concentration average 1	-0.010 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	51.9 %

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Label: 720195L DF2500
Sample Type: UNKNOWN
Analysis started at: 6/5/2024 1:01:59 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.6 cps	1.9 cps	-0.6 cps	97.1 cps	0.4 cps
Intensity per Run 2	-0.5 cps	1.7 cps	-0.4 cps	96.9 cps	0.6 cps
Intensity per Run 3	0.0 cps	1.5 cps	-0.4 cps	97.5 cps	0.2 cps
Intensity average 1	0 cps	2 cps	0 cps	97 cps	0 cps
Concentration per Run 1	-0.003 ppm	-0.002 ppm	-0.002 ppm	0.756 ppm	0.003 ppm
Concentration per Run 2	-0.002 ppm	-0.005 ppm	-0.001 ppm	0.753 ppm	0.006 ppm
Concentration per Run 3	0.002 ppm	-0.009 ppm	-0.001 ppm	0.748 ppm	0.002 ppm
Concentration average 1	-0.001 ppm	-0.005 ppm	-0.001 ppm	0.752 ppm	0.004 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	210.8 %	75.1 %	22.7 %	0.5 %	57.1 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.4 cps	1.3 cps	1.7 cps	25.9 cps	1.7 cps
Intensity per Run 2	-0.3 cps	1.3 cps	0.7 cps	26.8 cps	1.4 cps
Intensity per Run 3	-0.1 cps	1.4 cps	0.8 cps	26.1 cps	1.9 cps
Intensity average 1	0 cps	1 cps	1 cps	26 cps	2 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.003 ppm	-0.005 ppm	0.013 ppm
Concentration per Run 2	0.000 ppm	0.000 ppm	0.001 ppm	-0.003 ppm	0.011 ppm
Concentration per Run 3	0.000 ppm	0.000 ppm	0.001 ppm	-0.005 ppm	0.014 ppm
Concentration average 1	0.000 ppm	0.000 ppm	0.001 ppm	-0.005 ppm	0.013 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	157.7 %	14.1 %	92.4 %	26.8 %	10.3 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	156.8 cps	1.3 cps	0.0 cps	2,911.3 cps	-0.1 cps
Intensity per Run 2	156.5 cps	1.6 cps	0.1 cps	2,912.1 cps	0.0 cps
Intensity per Run 3	157.3 cps	1.1 cps	-0.2 cps	2,930.3 cps	-0.6 cps
Intensity average 1	157 cps	1 cps	0 cps	2,918 cps	0 cps
Concentration per Run 1	0.614 ppm	0.000 ppm	0.016 ppm	0.708 ppm	0.000 ppm
Concentration per Run 2	0.611 ppm	0.000 ppm	0.021 ppm	0.707 ppm	0.000 ppm
Concentration per Run 3	0.607 ppm	0.000 ppm	0.010 ppm	0.703 ppm	0.000 ppm
Concentration average 1	0.610 ppm	0.000 ppm	0.016 ppm	0.706 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.6 %	60.6 %	37.7 %	0.4 %	730.9 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	0.5 cps	1.5 cps	-0.1 cps	1,720.1 cps	-0.2 cps
Intensity per Run 2	0.8 cps	2.5 cps	0.4 cps	1,721.7 cps	-0.3 cps
Intensity per Run 3	0.3 cps	1.7 cps	-0.2 cps	1,733.0 cps	-0.3 cps
Intensity average 1	1 cps	2 cps	0 cps	1,725 cps	0 cps
Concentration per Run 1	0.003 ppm	0.000 ppm	-0.013 ppm	0.661 ppm	-0.001 ppm
Concentration per Run 2	0.005 ppm	0.000 ppm	-0.005 ppm	0.660 ppm	-0.002 ppm
Concentration per Run 3	0.002 ppm	0.000 ppm	-0.014 ppm	0.656 ppm	-0.002 ppm
Concentration average 1	0.004 ppm	0.000 ppm	-0.011 ppm	0.659 ppm	-0.002 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration RSD 1	46.0 %	72.4 %	45.7 %	0.4 %	23.2 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	1,037.3 cps	-4.1 cps	21.2 cps	-16.9 cps	6.3 cps
Intensity per Run 2	1,042.3 cps	-5.8 cps	20.5 cps	-16.1 cps	7.5 cps
Intensity per Run 3	1,047.4 cps	-5.2 cps	21.0 cps	-14.9 cps	8.0 cps
Intensity average 1	1,042 cps	-5 cps	21 cps	-16 cps	7 cps
Concentration per Run 1	-0.199 ppm	0.000 ppm	-0.001 ppm	0.000 ppm	-0.019 ppm
Concentration per Run 2	-0.196 ppm	0.000 ppm	-0.002 ppm	0.000 ppm	-0.016 ppm
Concentration per Run 3	-0.203 ppm	0.000 ppm	-0.002 ppm	0.000 ppm	-0.015 ppm
Concentration average 1	-0.199 ppm	0.000 ppm	-0.002 ppm	0.000 ppm	-0.017 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	1.8 %	72.9 %	18.6 %	72.5 %	13.1 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	-30.9 cps	26.0 cps	-1.2 cps	-4.9 cps	-2.8 cps
Intensity per Run 2	-31.3 cps	23.6 cps	-1.2 cps	-3.6 cps	-1.2 cps
Intensity per Run 3	-32.1 cps	25.4 cps	-1.5 cps	-5.0 cps	0.4 cps
Intensity average 1	-31 cps	25 cps	-1 cps	-5 cps	-1 cps
Concentration per Run 1	0.000 ppm	0.002 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 2	0.000 ppm	0.002 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	-0.001 ppm	0.002 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.000 ppm	0.002 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	156.4 %	10.9 %	28.1 %	134.3 %	132.6 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	-1.6 cps	-1.3 cps	4.3 cps	2.9 cps	800,807.5 cps
Intensity per Run 2	-4.1 cps	0.3 cps	4.1 cps	4.1 cps	802,818.7 cps
Intensity per Run 3	-5.9 cps	0.7 cps	5.3 cps	4.9 cps	812,446.5 cps
Intensity average 1	-4 cps	0 cps	5 cps	4 cps	805,358 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.004 ppm	0.000 ppm	95.853 %
Concentration per Run 2	0.000 ppm	0.000 ppm	0.003 ppm	0.000 ppm	96.094 %
Concentration per Run 3	0.000 ppm	0.001 ppm	0.007 ppm	0.000 ppm	97.246 %
Concentration average 1	0.000 ppm	0.000 ppm	0.005 ppm	0.000 ppm	96.398 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.7 %
Concentration RSD 1	204.7 %	235.5 %	49.1 %	39.5 %	0.8 %

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 1	134,582.3 cps	18.7 cps	347.4 cps	246.2 cps	2.9 cps
Intensity per Run 2	133,910.6 cps	16.3 cps	342.1 cps	237.7 cps	1.8 cps

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 3	134,633.4 cps	16.1 cps	340.6 cps	242.5 cps	1.0 cps
Intensity average 1	134,375 cps	17 cps	343 cps	242 cps	2 cps
Concentration per Run 1	94.721 %	0.001 ppm	0.002 ppm	0.298 ppm	0.000 ppm
Concentration per Run 2	94.248 %	0.000 ppm	0.002 ppm	0.295 ppm	0.000 ppm
Concentration per Run 3	94.757 %	0.000 ppm	0.002 ppm	0.297 ppm	0.000 ppm
Concentration average 1	94.575 %	0.000 ppm	0.002 ppm	0.297 ppm	0.000 ppm
Concentration SD 1	0.3 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.3 %	9.5 %	1.9 %	0.6 %	409.1 %

	K 766.490 (Aqueous- Radial-iFR)
Intensity per Run 1	-6.2 cps
Intensity per Run 2	-9.4 cps
Intensity per Run 3	-12.3 cps
Intensity average 1	-9 cps
Concentration per Run 1	0.006 ppm
Concentration per Run 2	-0.009 ppm
Concentration per Run 3	-0.022 ppm
Concentration average 1	-0.009 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	165.7 %

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Label: 720195A DF500
Sample Type: UNKNOWN
Analysis started at: 6/5/2024 1:04:21 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	0.0 cps	2.2 cps	-0.2 cps	720.6 cps	199.7 cps
Intensity per Run 2	-0.5 cps	2.0 cps	-0.5 cps	723.7 cps	201.1 cps
Intensity per Run 3	0.0 cps	2.2 cps	0.2 cps	721.2 cps	200.3 cps
Intensity average 1	0 cps	2 cps	0 cps	722 cps	200 cps
Concentration per Run 1	0.001 ppm	0.004 ppm	-0.001 ppm	5.838 ppm	2.004 ppm
Concentration per Run 2	-0.004 ppm	0.000 ppm	-0.002 ppm	5.870 ppm	2.020 ppm
Concentration per Run 3	0.000 ppm	0.005 ppm	0.001 ppm	5.849 ppm	2.012 ppm
Concentration average 1	-0.001 ppm	0.003 ppm	-0.001 ppm	5.852 ppm	2.012 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	239.8 %	74.8 %	193.8 %	0.3 %	0.4 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	0.1 cps	695.3 cps	2.4 cps	24.5 cps	87.7 cps
Intensity per Run 2	-0.7 cps	694.3 cps	2.8 cps	25.2 cps	88.1 cps
Intensity per Run 3	-0.3 cps	701.0 cps	1.8 cps	25.2 cps	87.9 cps
Intensity average 1	0 cps	697 cps	2 cps	25 cps	88 cps
Concentration per Run 1	0.001 ppm	0.496 ppm	0.000 ppm	-0.006 ppm	0.536 ppm
Concentration per Run 2	0.000 ppm	0.496 ppm	0.001 ppm	-0.004 ppm	0.540 ppm
Concentration per Run 3	0.000 ppm	0.501 ppm	-0.001 ppm	-0.004 ppm	0.538 ppm
Concentration average 1	0.000 ppm	0.497 ppm	0.000 ppm	-0.005 ppm	0.538 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	326.0 %	0.5 %	1,921.7 %	20.2 %	0.3 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	819.8 cps	781.3 cps	-0.1 cps	13,511.2 cps	529.3 cps
Intensity per Run 2	822.0 cps	786.0 cps	-0.2 cps	13,537.0 cps	528.2 cps
Intensity per Run 3	821.9 cps	782.3 cps	0.4 cps	13,500.2 cps	533.0 cps
Intensity average 1	821 cps	783 cps	0 cps	13,516 cps	530 cps
Concentration per Run 1	3.344 ppm	0.470 ppm	0.013 ppm	3.421 ppm	0.471 ppm
Concentration per Run 2	3.357 ppm	0.474 ppm	0.009 ppm	3.431 ppm	0.470 ppm
Concentration per Run 3	3.356 ppm	0.472 ppm	0.030 ppm	3.422 ppm	0.475 ppm
Concentration average 1	3.352 ppm	0.472 ppm	0.017 ppm	3.425 ppm	0.472 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.2 %	0.4 %	65.0 %	0.2 %	0.5 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	137.8 cps	13,642.3 cps	-0.2 cps	8,491.5 cps	2,126.9 cps
Intensity per Run 2	138.3 cps	13,654.4 cps	1.8 cps	8,535.8 cps	2,137.5 cps
Intensity per Run 3	138.4 cps	13,645.9 cps	0.0 cps	8,612.5 cps	2,147.2 cps
Intensity average 1	138 cps	13,648 cps	1 cps	8,547 cps	2,137 cps
Concentration per Run 1	0.988 ppm	0.501 ppm	-0.024 ppm	3.400 ppm	20.810 ppm
Concentration per Run 2	0.983 ppm	0.502 ppm	0.007 ppm	3.422 ppm	20.736 ppm
Concentration per Run 3	0.984 ppm	0.501 ppm	-0.022 ppm	3.452 ppm	20.824 ppm
Concentration average 1	0.985 ppm	0.501 ppm	-0.013 ppm	3.425 ppm	20.790 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm

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	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration RSD 1	0.3 %	0.1 %	131.1 %	0.8 %	0.2 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	986.5 cps	2,903.8 cps	2,057.3 cps	3,410.5 cps	7,864.6 cps
Intensity per Run 2	985.0 cps	2,908.1 cps	2,069.8 cps	3,426.2 cps	7,877.2 cps
Intensity per Run 3	980.5 cps	2,904.8 cps	2,060.9 cps	3,417.9 cps	7,878.8 cps
Intensity average 1	984 cps	2,906 cps	2,063 cps	3,418 cps	7,874 cps
Concentration per Run 1	-0.188 ppm	0.494 ppm	1.980 ppm	0.049 ppm	21.232 ppm
Concentration per Run 2	-0.189 ppm	0.495 ppm	1.994 ppm	0.049 ppm	21.084 ppm
Concentration per Run 3	-0.193 ppm	0.495 ppm	1.985 ppm	0.049 ppm	21.083 ppm
Concentration average 1	-0.190 ppm	0.495 ppm	1.986 ppm	0.049 ppm	21.133 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.1 ppm
Concentration RSD 1	1.4 %	0.1 %	0.4 %	0.3 %	0.4 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	-47.5 cps	1,514.5 cps	286.6 cps	-5.8 cps	8.4 cps
Intensity per Run 2	-47.4 cps	1,529.0 cps	286.7 cps	-4.9 cps	7.4 cps
Intensity per Run 3	-46.3 cps	1,523.4 cps	287.3 cps	-6.2 cps	9.0 cps
Intensity average 1	-47 cps	1,522 cps	287 cps	-6 cps	8 cps
Concentration per Run 1	0.002 ppm	0.239 ppm	0.049 ppm	0.000 ppm	0.000 ppm
Concentration per Run 2	0.002 ppm	0.242 ppm	0.049 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	0.004 ppm	0.241 ppm	0.049 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.003 ppm	0.241 ppm	0.049 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	42.0 %	0.5 %	0.2 %	234.2 %	25.7 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	12.8 cps	-1.1 cps	492.8 cps	3.3 cps	769,410.4 cps
Intensity per Run 2	9.3 cps	-0.4 cps	496.4 cps	5.0 cps	768,473.5 cps
Intensity per Run 3	6.9 cps	-4.3 cps	493.3 cps	6.2 cps	768,571.7 cps
Intensity average 1	10 cps	-2 cps	494 cps	5 cps	768,819 cps
Concentration per Run 1	0.002 ppm	0.001 ppm	1.995 ppm	0.000 ppm	92.095 %
Concentration per Run 2	0.002 ppm	0.001 ppm	2.011 ppm	0.000 ppm	91.983 %
Concentration per Run 3	0.002 ppm	-0.001 ppm	1.999 ppm	0.000 ppm	91.995 %
Concentration average 1	0.002 ppm	0.000 ppm	2.002 ppm	0.000 ppm	92.024 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.1 %
Concentration RSD 1	9.9 %	704.5 %	0.4 %	55.9 %	0.1 %

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 1	130,294.5 cps	87.7 cps	256,793.8 cps	42,215.5 cps	0.6 cps
Intensity per Run 2	131,415.3 cps	87.0 cps	258,881.3 cps	42,782.9 cps	4.2 cps

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 3	131,452.1 cps	84.5 cps	258,209.1 cps	42,883.5 cps	2.8 cps
Intensity average 1	131,054 cps	86 cps	257,961 cps	42,627 cps	3 cps
Concentration per Run 1	91.703 %	0.002 ppm	2.016 ppm	21.835 ppm	0.000 ppm
Concentration per Run 2	92.492 %	0.002 ppm	2.035 ppm	21.939 ppm	0.001 ppm
Concentration per Run 3	92.518 %	0.002 ppm	2.029 ppm	21.984 ppm	0.000 ppm
Concentration average 1	92.237 %	0.002 ppm	2.026 ppm	21.920 ppm	0.000 ppm
Concentration SD 1	0.5 %	0.0 ppm	0.0 ppm	0.1 ppm	0.0 ppm
Concentration RSD 1	0.5 %	2.5 %	0.5 %	0.3 %	426.9 %

	K 766.490 (Aqueous- Radial-iFR)
Intensity per Run 1	4,188.9 cps
Intensity per Run 2	4,210.3 cps
Intensity per Run 3	4,204.6 cps
Intensity average 1	4,201 cps
Concentration per Run 1	20.262 ppm
Concentration per Run 2	20.192 ppm
Concentration per Run 3	20.159 ppm
Concentration average 1	20.204 ppm
Concentration SD 1	0.1 ppm
Concentration RSD 1	0.3 %

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Label: CCV
Sample Type: QC
Analysis started at: 6/5/2024 1:06:43 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Recovery Percentage 1	105.481 %	104.277 %	98.539 %	103.424 %	101.458 %
Intensity per Run 1	678.7 cps	48.2 cps	1,576.9 cps	516.6 cps	410.5 cps
Intensity per Run 2	684.2 cps	48.0 cps	1,586.4 cps	517.5 cps	412.1 cps
Intensity per Run 3	681.1 cps	47.7 cps	1,579.4 cps	514.7 cps	411.0 cps
Intensity average 1	681 cps	48 cps	1,581 cps	516 cps	411 cps
Concentration per Run 1	5.252 ppm	1.047 ppm	4.913 ppm	4.139 ppm	4.050 ppm
Concentration per Run 2	5.290 ppm	1.043 ppm	4.938 ppm	4.142 ppm	4.062 ppm
Concentration per Run 3	5.280 ppm	1.038 ppm	4.930 ppm	4.130 ppm	4.063 ppm
Concentration average 1	5.274 ppm	1.043 ppm	4.927 ppm	4.137 ppm	4.058 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.4 %	0.4 %	0.3 %	0.1 %	0.2 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Recovery Percentage 1	101.272 %	99.935 %	99.754 %	101.508 %	101.202 %
Intensity per Run 1	4,279.1 cps	1,419.5 cps	408.9 cps	2,256.6 cps	170.2 cps
Intensity per Run 2	4,309.9 cps	1,431.5 cps	412.5 cps	2,264.9 cps	171.8 cps
Intensity per Run 3	4,282.8 cps	1,418.6 cps	409.8 cps	2,262.0 cps	171.0 cps
Intensity average 1	4,291 cps	1,423 cps	410 cps	2,261 cps	171 cps
Concentration per Run 1	5.048 ppm	0.996 ppm	0.994 ppm	5.063 ppm	1.007 ppm
Concentration per Run 2	5.080 ppm	1.004 ppm	1.001 ppm	5.077 ppm	1.016 ppm
Concentration per Run 3	5.062 ppm	0.998 ppm	0.998 ppm	5.085 ppm	1.013 ppm
Concentration average 1	5.064 ppm	0.999 ppm	0.998 ppm	5.075 ppm	1.012 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.3 %	0.4 %	0.4 %	0.2 %	0.4 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Recovery Percentage 1	95.438 %	95.475 %	99.988 %	99.367 %	95.604 %
Intensity per Run 1	235.5 cps	1,616.8 cps	130.7 cps	397.6 cps	1,102.1 cps
Intensity per Run 2	237.1 cps	1,629.7 cps	130.1 cps	402.6 cps	1,107.3 cps
Intensity per Run 3	236.5 cps	1,611.1 cps	130.0 cps	396.8 cps	1,099.8 cps
Intensity average 1	236 cps	1,619 cps	130 cps	399 cps	1,103 cps
Concentration per Run 1	0.951 ppm	0.953 ppm	4.992 ppm	0.099 ppm	0.955 ppm
Concentration per Run 2	0.956 ppm	0.960 ppm	5.007 ppm	0.100 ppm	0.959 ppm
Concentration per Run 3	0.956 ppm	0.951 ppm	4.999 ppm	0.099 ppm	0.955 ppm
Concentration average 1	0.954 ppm	0.955 ppm	4.999 ppm	0.099 ppm	0.956 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.3 %	0.5 %	0.2 %	0.7 %	0.2 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Recovery Percentage 1	99.378 %	101.594 %	99.660 %	98.105 %	105.198 %
Intensity per Run 1	287.1 cps	28,026.8 cps	340.2 cps	998.9 cps	2,218.3 cps
Intensity per Run 2	285.7 cps	28,180.6 cps	338.8 cps	1,008.8 cps	2,217.1 cps
Intensity per Run 3	285.7 cps	28,054.0 cps	339.4 cps	999.9 cps	2,201.0 cps
Intensity average 1	286 cps	28,087 cps	339 cps	1,003 cps	2,212 cps
Concentration per Run 1	1.984 ppm	1.013 ppm	4.993 ppm	0.391 ppm	20.998 ppm

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 2	1.990 ppm	1.018 ppm	4.967 ppm	0.394 ppm	21.148 ppm
Concentration per Run 3	1.988 ppm	1.016 ppm	4.990 ppm	0.392 ppm	20.973 ppm
Concentration average 1	1.988 ppm	1.016 ppm	4.983 ppm	0.392 ppm	21.040 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.1 ppm
Concentration RSD 1	0.1 %	0.2 %	0.3 %	0.5 %	0.4 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Recovery Percentage 1	97.901 %	101.465 %	102.342 %	99.297 %	106.600 %
Intensity per Run 1	6,097.2 cps	6,042.6 cps	4,370.1 cps	70,129.6 cps	8,215.4 cps
Intensity per Run 2	6,124.6 cps	6,069.3 cps	4,363.3 cps	70,579.7 cps	8,228.0 cps
Intensity per Run 3	6,126.3 cps	6,057.6 cps	4,374.9 cps	70,136.0 cps	8,163.5 cps
Intensity average 1	6,116 cps	6,057 cps	4,369 cps	70,282 cps	8,202 cps
Concentration per Run 1	4.874 ppm	1.012 ppm	4.093 ppm	0.991 ppm	21.252 ppm
Concentration per Run 2	4.896 ppm	1.016 ppm	4.083 ppm	0.996 ppm	21.450 ppm
Concentration per Run 3	4.914 ppm	1.016 ppm	4.105 ppm	0.992 ppm	21.258 ppm
Concentration average 1	4.895 ppm	1.015 ppm	4.094 ppm	0.993 ppm	21.320 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.1 ppm
Concentration RSD 1	0.4 %	0.2 %	0.3 %	0.3 %	0.5 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Recovery Percentage 1	100.058 %	95.650 %	103.466 %	100.516 %	103.324 %
Intensity per Run 1	642.3 cps	3,097.5 cps	595.4 cps	38,456.1 cps	115,056.4 cps
Intensity per Run 2	645.3 cps	3,110.7 cps	600.3 cps	38,613.8 cps	115,291.9 cps
Intensity per Run 3	640.1 cps	3,104.4 cps	598.8 cps	38,452.7 cps	114,678.8 cps
Intensity average 1	643 cps	3,104 cps	598 cps	38,508 cps	115,009 cps
Concentration per Run 1	1.000 ppm	0.477 ppm	0.103 ppm	5.017 ppm	5.167 ppm
Concentration per Run 2	1.004 ppm	0.479 ppm	0.104 ppm	5.034 ppm	5.173 ppm
Concentration per Run 3	0.998 ppm	0.479 ppm	0.104 ppm	5.026 ppm	5.159 ppm
Concentration average 1	1.001 ppm	0.478 ppm	0.103 ppm	5.026 ppm	5.166 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.3 %	0.2 %	0.5 %	0.2 %	0.1 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Recovery Percentage 1	98.684 %	96.212 %	102.027 %	104.632 %	
Intensity per Run 1	84,961.4 cps	2,199.1 cps	1,022.5 cps	165,232.1 cps	780,821.3 cps
Intensity per Run 2	85,265.3 cps	2,205.8 cps	1,027.3 cps	166,083.1 cps	781,478.7 cps
Intensity per Run 3	84,936.0 cps	2,200.2 cps	1,026.4 cps	165,504.4 cps	779,409.1 cps
Intensity average 1	85,054 cps	2,202 cps	1,025 cps	165,607 cps	780,570 cps
Concentration per Run 1	4.927 ppm	0.961 ppm	4.068 ppm	5.218 ppm	93.461 %
Concentration per Run 2	4.941 ppm	0.963 ppm	4.084 ppm	5.241 ppm	93.540 %
Concentration per Run 3	4.935 ppm	0.963 ppm	4.091 ppm	5.236 ppm	93.292 %
Concentration average 1	4.934 ppm	0.962 ppm	4.081 ppm	5.232 ppm	93.431 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.1 %

	Zr 339.198 (Aqueous-Axial-iFR)	Pd 340.458 (Aqueous-Axial-iFR)	Tl 351.924 (Aqueous-Axial-iFR)	Y 360.073 (Aqueous-Axial-iFR)	Sc 361.384 (Aqueous-Axial-iFR)
Concentration RSD 1	0.1 %	0.1 %	0.3 %	0.2 %	0.1 %

	Sc 361.384 (Aqueous-Radial-iFR)	Sr 421.552 (Aqueous-Radial-iFR)	Ba 493.409 (Aqueous-Axial-iFR)	Na 588.995 (Aqueous-Radial-iFR)	Li 670.784 (Aqueous-Radial-iFR)
Recovery Percentage 1		102.899 %	100.400 %	104.162 %	103.285 %
Intensity per Run 1	135,286.1 cps	174,129.6 cps	519,817.6 cps	62,797.5 cps	19,153.1 cps
Intensity per Run 2	134,253.2 cps	172,964.2 cps	518,510.5 cps	62,626.6 cps	19,063.0 cps
Intensity per Run 3	134,394.1 cps	172,544.2 cps	518,727.5 cps	62,343.7 cps	19,014.8 cps
Intensity average 1	134,644 cps	173,213 cps	519,019 cps	62,589 cps	19,077 cps
Concentration per Run 1	95.216 %	5.148 ppm	4.021 ppm	31.204 ppm	5.160 ppm
Concentration per Run 2	94.489 %	5.153 ppm	4.007 ppm	31.358 ppm	5.175 ppm
Concentration per Run 3	94.588 %	5.135 ppm	4.020 ppm	31.184 ppm	5.157 ppm
Concentration average 1	94.764 %	5.145 ppm	4.016 ppm	31.249 ppm	5.164 ppm
Concentration SD 1	0.4 %	0.0 ppm	0.0 ppm	0.1 ppm	0.0 ppm
Concentration RSD 1	0.4 %	0.2 %	0.2 %	0.3 %	0.2 %

	K 766.490 (Aqueous-Radial-iFR)
Recovery Percentage 1	103.489 %
Intensity per Run 1	4,445.2 cps
Intensity per Run 2	4,417.0 cps
Intensity per Run 3	4,406.7 cps
Intensity average 1	4,423 cps
Concentration per Run 1	20.703 ppm
Concentration per Run 2	20.730 ppm
Concentration per Run 3	20.660 ppm
Concentration average 1	20.698 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	0.2 %

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Label: CCB
Sample Type: QC
Analysis started at: 6/5/2024 1:09:04 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Recovery Percentage 1	-0.001 %	-0.791 %	-0.037 %	0.178 %	0.083 %
Intensity per Run 1	-0.4 cps	1.4 cps	-0.1 cps	0.2 cps	-0.1 cps
Intensity per Run 2	-0.1 cps	1.8 cps	0.1 cps	-0.1 cps	0.6 cps
Intensity per Run 3	-0.1 cps	1.7 cps	-0.3 cps	0.2 cps	-0.2 cps
Intensity average 1	0 cps	2 cps	0 cps	0 cps	0 cps
Concentration per Run 1	-0.001 ppm	-0.012 ppm	0.000 ppm	0.003 ppm	-0.001 ppm
Concentration per Run 2	0.001 ppm	-0.005 ppm	0.000 ppm	0.000 ppm	0.005 ppm
Concentration per Run 3	0.001 ppm	-0.006 ppm	-0.001 ppm	0.002 ppm	-0.002 ppm
Concentration average 1	0.000 ppm	-0.008 ppm	0.000 ppm	0.002 ppm	0.001 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	7,515.3 %	45.7 %	166.9 %	68.8 %	482.0 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Recovery Percentage 1	0.010 %	-0.081 %	0.245 %	0.200 %	0.350 %
Intensity per Run 1	0.0 cps	0.6 cps	1.8 cps	30.5 cps	0.5 cps
Intensity per Run 2	-0.4 cps	1.1 cps	1.3 cps	30.0 cps	0.2 cps
Intensity per Run 3	-0.5 cps	0.8 cps	1.4 cps	29.5 cps	-0.2 cps
Intensity average 1	0 cps	1 cps	2 cps	30 cps	0 cps
Concentration per Run 1	0.000 ppm	-0.001 ppm	0.003 ppm	0.003 ppm	0.005 ppm
Concentration per Run 2	0.000 ppm	-0.001 ppm	0.002 ppm	0.002 ppm	0.004 ppm
Concentration per Run 3	0.000 ppm	-0.001 ppm	0.002 ppm	0.001 ppm	0.001 ppm
Concentration average 1	0.000 ppm	-0.001 ppm	0.002 ppm	0.002 ppm	0.004 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	337.8 %	18.1 %	23.6 %	38.1 %	54.6 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Recovery Percentage 1	-0.061 %	-0.001 %	1.182 %	0.012 %	0.000 %
Intensity per Run 1	0.1 cps	2.0 cps	-0.1 cps	1.0 cps	0.1 cps
Intensity per Run 2	0.5 cps	0.7 cps	-0.2 cps	0.1 cps	-0.8 cps
Intensity per Run 3	-0.2 cps	1.6 cps	-0.2 cps	0.5 cps	0.0 cps
Intensity average 1	0 cps	1 cps	0 cps	1 cps	0 cps
Concentration per Run 1	-0.001 ppm	0.000 ppm	0.016 ppm	0.000 ppm	0.000 ppm
Concentration per Run 2	0.001 ppm	0.000 ppm	0.010 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	-0.002 ppm	0.000 ppm	0.009 ppm	0.000 ppm	0.000 ppm
Concentration average 1	-0.001 ppm	0.000 ppm	0.012 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	197.8 %	3,475.2 %	29.3 %	88.7 %	15,755.5 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Recovery Percentage 1	0.247 %	0.001 %	-1.527 %	0.008 %	0.074 %
Intensity per Run 1	0.4 cps	2.1 cps	0.3 cps	3.6 cps	-0.4 cps
Intensity per Run 2	0.0 cps	0.8 cps	-0.2 cps	3.3 cps	0.4 cps
Intensity per Run 3	0.7 cps	1.1 cps	-1.2 cps	3.7 cps	0.1 cps
Intensity average 1	0 cps	1 cps	0 cps	4 cps	0 cps
Concentration per Run 1	0.003 ppm	0.000 ppm	-0.005 ppm	0.000 ppm	-0.003 ppm

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 2	0.000 ppm	0.000 ppm	-0.013 ppm	0.000 ppm	0.004 ppm
Concentration per Run 3	0.005 ppm	0.000 ppm	-0.027 ppm	0.000 ppm	0.001 ppm
Concentration average 1	0.002 ppm	0.000 ppm	-0.015 ppm	0.000 ppm	0.001 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	94.7 %	373.4 %	72.1 %	118.3 %	510.3 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Recovery Percentage 1	-25.189 %	-0.004 %	-0.114 %	0.002 %	-1.440 %
Intensity per Run 1	1,022.0 cps	-1.2 cps	24.5 cps	-11.0 cps	8.3 cps
Intensity per Run 2	1,026.3 cps	-2.0 cps	21.3 cps	-13.6 cps	8.1 cps
Intensity per Run 3	1,019.4 cps	-1.0 cps	21.2 cps	-14.0 cps	8.5 cps
Intensity average 1	1,023 cps	-1 cps	22 cps	-13 cps	8 cps
Concentration per Run 1	-0.256 ppm	0.000 ppm	0.001 ppm	0.000 ppm	-0.014 ppm
Concentration per Run 2	-0.250 ppm	0.000 ppm	-0.002 ppm	0.000 ppm	-0.015 ppm
Concentration per Run 3	-0.250 ppm	0.000 ppm	-0.002 ppm	0.000 ppm	-0.014 ppm
Concentration average 1	-0.252 ppm	0.000 ppm	-0.001 ppm	0.000 ppm	-0.014 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	1.5 %	205.4 %	148.5 %	111.2 %	2.7 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Recovery Percentage 1	0.082 %	0.005 %	0.017 %	0.020 %	0.004 %
Intensity per Run 1	-31.0 cps	14.8 cps	0.6 cps	-3.5 cps	-1.2 cps
Intensity per Run 2	-30.4 cps	14.0 cps	-0.5 cps	-3.5 cps	-1.5 cps
Intensity per Run 3	-30.1 cps	13.0 cps	0.8 cps	-3.6 cps	-3.7 cps
Intensity average 1	-30 cps	14 cps	0 cps	-4 cps	-2 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 2	0.001 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	0.001 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.001 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	66.6 %	248.0 %	67.0 %	3.2 %	143.3 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Recovery Percentage 1	0.003 %	0.046 %	-0.273 %	0.010 %	
Intensity per Run 1	-0.8 cps	-2.3 cps	2.6 cps	6.6 cps	832,009.2 cps
Intensity per Run 2	-1.3 cps	1.3 cps	4.1 cps	3.8 cps	830,149.0 cps
Intensity per Run 3	-3.2 cps	2.8 cps	1.8 cps	3.7 cps	824,473.1 cps
Intensity average 1	-2 cps	1 cps	3 cps	5 cps	828,877 cps
Concentration per Run 1	0.000 ppm	-0.001 ppm	-0.004 ppm	0.000 ppm	99.588 %
Concentration per Run 2	0.000 ppm	0.001 ppm	0.002 ppm	0.000 ppm	99.365 %
Concentration per Run 3	0.000 ppm	0.001 ppm	-0.007 ppm	0.000 ppm	98.686 %
Concentration average 1	0.000 ppm	0.000 ppm	-0.003 ppm	0.000 ppm	99.213 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.5 %
Concentration RSD 1	317.1 %	237.1 %	161.6 %	48.7 %	0.5 %

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Recovery Percentage 1		0.000 %	0.008 %	-0.911 %	0.014 %
Intensity per Run 1	137,603.0 cps	3.4 cps	46.0 cps	-387.1 cps	4.3 cps
Intensity per Run 2	137,882.3 cps	1.5 cps	41.7 cps	-383.1 cps	1.6 cps
Intensity per Run 3	138,254.4 cps	0.2 cps	42.8 cps	-376.4 cps	2.3 cps
Intensity average 1	137,913 cps	2 cps	44 cps	-382 cps	3 cps
Concentration per Run 1	96.847 %	0.000 ppm	0.000 ppm	-0.012 ppm	0.001 ppm
Concentration per Run 2	97.043 %	0.000 ppm	0.000 ppm	-0.010 ppm	0.000 ppm
Concentration per Run 3	97.305 %	0.000 ppm	0.000 ppm	-0.006 ppm	0.000 ppm
Concentration average 1	97.065 %	0.000 ppm	0.000 ppm	-0.009 ppm	0.000 ppm
Concentration SD 1	0.2 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.2 %	2,991.4 %	21.2 %	33.6 %	259.0 %

	K 766.490 (Aqueous- Radial-iFR)
Recovery Percentage 1	0.027 %
Intensity per Run 1	-5.5 cps
Intensity per Run 2	-8.2 cps
Intensity per Run 3	-9.0 cps
Intensity average 1	-8 cps
Concentration per Run 1	0.010 ppm
Concentration per Run 2	-0.003 ppm
Concentration per Run 3	-0.006 ppm
Concentration average 1	0.000 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	3,093.9 %

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Southwest Research Institute

- ☒ 6010D TAP No. 01-0413-004
- ☐ SWRI TAP No. 01-0406-166D
- ☐ OTHER _____

QC STD. ID's		ICP CAL. STD. ID's	
ICV/CCV	259723	STD0	263679
CRI	260474	STD1	260475
ICSA	256412	STD2	256207
ICSAB	262545	STD3	256211
UCL1	260476	STD4	260479
UCL2	260477	STD5	262310
Dilution Solution	259046	STD6	260481

IDL run date: 02/09/24

QC Earliest Expiration Date

6/6/2024

IEC run date: 02/09/24

Pipettes

200- 1C

1000- 1

5000- 18

PROJ. NO.	CLIENT	TO#	DATE	PREP BATCH
<u>28407.06.005</u>	<u>Perma-Fix</u> <u>of Florida, Inc</u>	<u>240520-2</u>	<u>6/5/24</u>	<u>20240603-P005</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
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_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

INSTRUMENT: STEVE ROGERS (iCAP PRO XP)

Brit Per 6/5/24
ANALYST/DATE

FILENAME: P240605B

Analytical Batch # 20240610-A018
14
RE 12
6/10/24

☒ PDF

JSR
6/10/24

SwRI - ICP Dilution Sheet

Client(s): Perma-Fox of Florida, Inc
 Task Order(s): 240520-2
 Prep Batch: 20240603-PO05
 Prepared By/Date: Berita Perez 6/5/24
 CIMS ID for SO/DS: 263679

Pipettes: 5000- 18
 1000- 1
 200- 12

- | | | | |
|-------------------------------------|-----------------|--|--|
| <input type="checkbox"/> | DF2 | 2.5mL sample | + 2.5mL <input type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution (DS) |
| <input type="checkbox"/> | DF2 (for DF500) | 0.1mL sample | + 0.1mL <input type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |
| <input type="checkbox"/> | DF5 | 1.0mL sample | + 4.0mL <input type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |
| <input checked="" type="checkbox"/> | DF10 | 0.5mL sample | + 4.5mL <input checked="" type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |
| <input type="checkbox"/> | DF20 | 0.25mL sample | + 4.75mL <input type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |
| <input type="checkbox"/> | DF25 | 0.2mL sample | + 4.8mL <input type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |
| <input checked="" type="checkbox"/> | DF50 | 0.1mL sample | + 4.9mL <input checked="" type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |
| <input type="checkbox"/> | DF100 | 0.05mL sample | + 4.95mL <input type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |
| <input type="checkbox"/> | DF200 | 0.025mL sample | + 4.975mL <input type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |
| <input type="checkbox"/> | DF250 | 0.020mL sample | + 4.98mL <input type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |
| <input type="checkbox"/> | DF500 | 0.020mL DF2 (for DF500) + 4.98mL <input type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution | |
| <input checked="" type="checkbox"/> | DF <u>500</u> | <u>0.1</u> mL sample ^{DF10} | + <u>4.9</u> mL <input checked="" type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |
| <input checked="" type="checkbox"/> | DF <u>2500</u> | <u>0.1</u> mL sample ^{DF50} | + <u>4.9</u> mL <input checked="" type="checkbox"/> SO or <input type="checkbox"/> Dilution Solution |

☒ Internal Standard @10ppm (Sc) 255976

☒ 5mL Final Volume Sample Spiked With (A)

- ☒ 50µL Spike Sample Standard I 256177
☒ 20µL ICAL-I 248757
☐ 20µL Li 258985
☐ 20µL B 239901
☐ 20µL P 244300
☐ 20µL S 239903
☐ 20µL Mo 244296
☐ 20µL Si 241704
☐ 20µL Sr 244302
☐ 20µL Bi 244291
☐ 20µL Sn 258993
☐ 20µL Ti 240515
☐ 20µL U 240519
☐ 20µL Zr 258996
☐ 20µL _____
☐ 20µL _____
☐ 20µL _____

for P240605B
 ✓ 40µL Pb 258984
 ✓ 40µL As 244289
 ✓ 40µL Cd 238572
 ✓ 40µL Cr 240509

JR
 6/10/24

for P240605
 JR
 6/10/24

ThermoScientific iCAP Pro XP
Nickname: "Steve Rogers"



Report Date/Time: 6/5/2024 4:55:33 PM

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LabBook Summary

LabBook: P240605B.imexp

Acquired by: CAX3-NIDELL Analysis started at: 6/5/2024 3:25:49 PM

Configuration: iCAP PRO + iSC 65
Template: 6010 Daily - iFR Only
Evaluation: eQuant

Sample List

Label	Sample Type	Start time
STD0	BLK	6/5/2024 3:25:54 PM
STD1	STD	6/5/2024 3:28:49 PM
STD2	STD	6/5/2024 3:31:40 PM
STD3	STD	6/5/2024 3:34:02 PM
STD4	STD	6/5/2024 3:36:24 PM
STD5	STD	6/5/2024 3:38:46 PM
STD6	STD	6/5/2024 3:41:09 PM
ICV	QC	6/5/2024 3:43:32 PM
ICB	QC	6/5/2024 3:45:53 PM
CRI	QC	6/5/2024 3:48:14 PM
ICSA	QC	6/5/2024 3:50:36 PM
ICSAB	QC	6/5/2024 3:52:58 PM
UCL1	QC	6/5/2024 3:55:20 PM
UCL2	QC	6/5/2024 3:57:42 PM
CCV	QC	6/5/2024 4:00:04 PM
CCB	QC	6/5/2024 4:02:26 PM
720195A DF500	UNKNOWN	6/5/2024 4:04:47 PM
CCV	QC	6/5/2024 4:07:10 PM
CCB	QC	6/5/2024 4:09:31 PM

Calibration Details

Analyte (Measure Mode)	STD1	STD2	STD3	STD4
P 177.495 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
S 182.034 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
Sn 189.989 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
As 193.759 (Aqueous-Axial-iFR)	N/A	N/A	10.000 ppm	N/A
Se 196.090 (Aqueous-Axial-iFR)	N/A	N/A	N/A	10.000 ppm
Mo 202.030 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
Zn 206.200 (Aqueous-Axial-iFR)	N/A	N/A	10.000 ppm	N/A
W 207.911 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
B 208.959 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
Sb 217.581 (Aqueous-Axial-iFR)	N/A	N/A	N/A	10.000 ppm
Pb 220.353 (Aqueous-Axial-iFR)	N/A	N/A	N/A	10.000 ppm
Ni 221.647 (Aqueous-Axial-iFR)	N/A	10.000 ppm	N/A	N/A
Bi 223.061 (Aqueous-Radial-iFR)	N/A	N/A	N/A	N/A
Cd 226.502 (Aqueous-Axial-iFR)	N/A	N/A	10.000 ppm	N/A
Co 228.616 (Aqueous-Axial-iFR)	N/A	N/A	10.000 ppm	N/A
Fe 233.280 (Aqueous-Radial-iFR)	50.000 ppm	N/A	N/A	N/A
Mn 257.610 (Aqueous-Axial-iFR)	N/A	N/A	10.000 ppm	N/A
U 263.553 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
Cr 267.716 (Aqueous-Axial-iFR)	N/A	10.000 ppm	N/A	N/A
Mg 279.079 (Aqueous-Radial-iFR)	25.000 ppm	N/A	N/A	N/A
Si 288.158 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
V 292.402 (Aqueous-Axial-iFR)	N/A	N/A	10.000 ppm	N/A
Al 308.215 (Aqueous-Axial-iFR)	50.000 ppm	N/A	N/A	N/A
Be 313.107 (Aqueous-Axial-iFR)	N/A	1.000 ppm	N/A	N/A
Ca 317.933 (Aqueous-Radial-iFR)	50.000 ppm	N/A	N/A	N/A
Th 318.019 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
Cu 324.754 (Aqueous-Axial-iFR)	N/A	10.000 ppm	N/A	N/A
Ag 328.068 (Aqueous-Axial-iFR)	N/A	N/A	N/A	2.000 ppm
La 333.749 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
Ti 334.941 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
Zr 339.198 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
Pd 340.458 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
Tl 351.924 (Aqueous-Axial-iFR)	N/A	N/A	N/A	10.000 ppm
Y 360.073 (Aqueous-Axial-iFR)	N/A	N/A	N/A	N/A
Sr 421.552 (Aqueous-Radial-iFR)	N/A	N/A	N/A	N/A
Ba 493.409 (Aqueous-Axial-iFR)	N/A	10.000 ppm	N/A	N/A
Na 588.995 (Aqueous-Radial-iFR)	50.000 ppm	N/A	N/A	N/A
Li 670.784 (Aqueous-Radial-iFR)	10.000 ppm	N/A	N/A	N/A
K 766.490 (Aqueous-Radial-iFR)	50.000 ppm	N/A	N/A	N/A

Analyte (Measure Mode)	STD5	STD6
P 177.495 (Aqueous-Axial-iFR)	10.000 ppm	N/A
S 182.034 (Aqueous-Axial-iFR)	N/A	10.000 ppm
Sn 189.989 (Aqueous-Axial-iFR)	10.000 ppm	N/A
As 193.759 (Aqueous-Axial-iFR)	N/A	N/A
Se 196.090 (Aqueous-Axial-iFR)	N/A	N/A
Mo 202.030 (Aqueous-Axial-iFR)	10.000 ppm	N/A
Zn 206.200 (Aqueous-Axial-iFR)	N/A	N/A
W 207.911 (Aqueous-Axial-iFR)	N/A	5.000 ppm
B 208.959 (Aqueous-Axial-iFR)	10.000 ppm	N/A
Sb 217.581 (Aqueous-Axial-iFR)	N/A	N/A
Pb 220.353 (Aqueous-Axial-iFR)	N/A	N/A
Ni 221.647 (Aqueous-Axial-iFR)	N/A	N/A
Bi 223.061 (Aqueous-Radial-iFR)	5.000 ppm	N/A
Cd 226.502 (Aqueous-Axial-iFR)	N/A	N/A
Co 228.616 (Aqueous-Axial-iFR)	N/A	N/A

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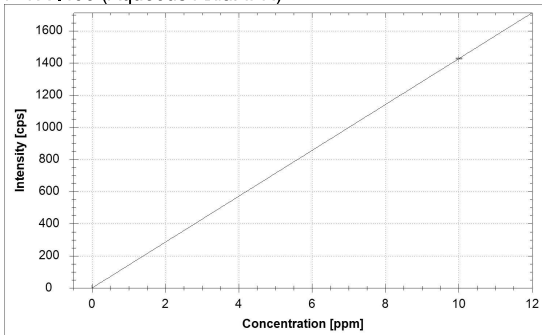
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Analyte (Measure Mode)	STD5	STD6
Fe 233.280 (Aqueous-Radial-iFR)	N/A	N/A
Mn 257.610 (Aqueous-Axial-iFR)	N/A	N/A
U 263.553 (Aqueous-Axial-iFR)	N/A	10.000 ppm
Cr 267.716 (Aqueous-Axial-iFR)	N/A	N/A
Mg 279.079 (Aqueous-Radial-iFR)	N/A	N/A
Si 288.158 (Aqueous-Axial-iFR)	10.000 ppm	N/A
V 292.402 (Aqueous-Axial-iFR)	N/A	N/A
Al 308.215 (Aqueous-Axial-iFR)	N/A	N/A
Be 313.107 (Aqueous-Axial-iFR)	N/A	N/A
Ca 317.933 (Aqueous-Radial-iFR)	N/A	N/A
Th 318.019 (Aqueous-Axial-iFR)	N/A	10.000 ppm
Cu 324.754 (Aqueous-Axial-iFR)	N/A	N/A
Ag 328.068 (Aqueous-Axial-iFR)	N/A	N/A
La 333.749 (Aqueous-Axial-iFR)	N/A	10.000 ppm
Ti 334.941 (Aqueous-Axial-iFR)	10.000 ppm	N/A
Zr 339.198 (Aqueous-Axial-iFR)	N/A	10.000 ppm
Pd 340.458 (Aqueous-Axial-iFR)	N/A	10.000 ppm
Tl 351.924 (Aqueous-Axial-iFR)	N/A	N/A
Y 360.073 (Aqueous-Axial-iFR)	N/A	10.000 ppm
Sr 421.552 (Aqueous-Radial-iFR)	10.000 ppm	N/A
Ba 493.409 (Aqueous-Axial-iFR)	N/A	N/A
Na 588.995 (Aqueous-Radial-iFR)	N/A	N/A
Li 670.784 (Aqueous-Radial-iFR)	N/A	N/A
K 766.490 (Aqueous-Radial-iFR)	N/A	N/A

Analyte (Measure Mode)	Fit Type	Weighting	Forcing
P 177.495 (Aqueous-Axial-iFR)	Linear	None	Blank
S 182.034 (Aqueous-Axial-iFR)	Linear	None	Blank
Sn 189.989 (Aqueous-Axial-iFR)	Linear	None	Blank
As 193.759 (Aqueous-Axial-iFR)	Linear	None	Blank
Se 196.090 (Aqueous-Axial-iFR)	Linear	None	Blank
Mo 202.030 (Aqueous-Axial-iFR)	Linear	None	Blank
Zn 206.200 (Aqueous-Axial-iFR)	Linear	None	Blank
W 207.911 (Aqueous-Axial-iFR)	Linear	None	Blank
B 208.959 (Aqueous-Axial-iFR)	Linear	None	Blank
Sb 217.581 (Aqueous-Axial-iFR)	Linear	None	Blank
Pb 220.353 (Aqueous-Axial-iFR)	Linear	None	Blank
Ni 221.647 (Aqueous-Axial-iFR)	Linear	None	Blank
Bi 223.061 (Aqueous-Radial-iFR)	Linear	None	Blank
Cd 226.502 (Aqueous-Axial-iFR)	Linear	None	Blank
Co 228.616 (Aqueous-Axial-iFR)	Linear	None	Blank
Fe 233.280 (Aqueous-Radial-iFR)	Linear	None	Blank
Mn 257.610 (Aqueous-Axial-iFR)	Linear	None	Blank
U 263.553 (Aqueous-Axial-iFR)	Linear	None	Blank
Cr 267.716 (Aqueous-Axial-iFR)	Linear	None	Blank
Mg 279.079 (Aqueous-Radial-iFR)	Linear	None	Blank
Si 288.158 (Aqueous-Axial-iFR)	Linear	None	Blank
V 292.402 (Aqueous-Axial-iFR)	Linear	None	Blank
Al 308.215 (Aqueous-Axial-iFR)	Linear	None	Blank
Be 313.107 (Aqueous-Axial-iFR)	Linear	None	Blank
Ca 317.933 (Aqueous-Radial-iFR)	Linear	None	Blank
Th 318.019 (Aqueous-Axial-iFR)	Linear	None	Blank
Cu 324.754 (Aqueous-Axial-iFR)	Linear	None	Blank
Ag 328.068 (Aqueous-Axial-iFR)	Linear	None	Blank
La 333.749 (Aqueous-Axial-iFR)	Linear	None	Blank
Ti 334.941 (Aqueous-Axial-iFR)	Linear	None	Blank

Analyte (Measure Mode)	Fit Type	Weighting	Forcing
Zr 339.198 (Aqueous-Axial-iFR)	Linear	None	Blank
Pd 340.458 (Aqueous-Axial-iFR)	Linear	None	Blank
Tl 351.924 (Aqueous-Axial-iFR)	Linear	None	Blank
Y 360.073 (Aqueous-Axial-iFR)	Linear	None	Blank
Sr 421.552 (Aqueous-Radial-iFR)	Linear	None	Blank
Ba 493.409 (Aqueous-Axial-iFR)	Linear	None	Blank
Na 588.995 (Aqueous-Radial-iFR)	Linear	None	Blank
Li 670.784 (Aqueous-Radial-iFR)	Linear	None	Blank
K 766.490 (Aqueous-Radial-iFR)	Linear	None	Blank

P 177.495 (Aqueous-Axial-iFR)



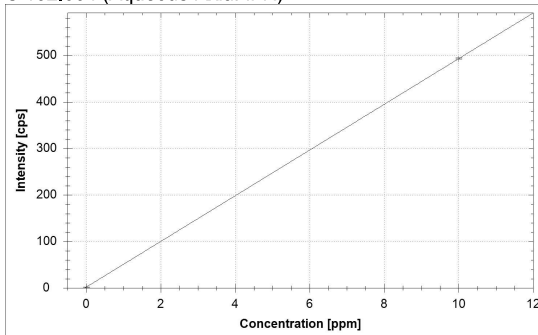
$$f(x) = 142.7221 \cdot x + 0.1000$$

$$R^2 = 1.0000$$

$$BEC = 0.001 \text{ ppm}$$

$$LoD = 0.0030 \text{ ppm}$$

S 182.034 (Aqueous-Axial-iFR)



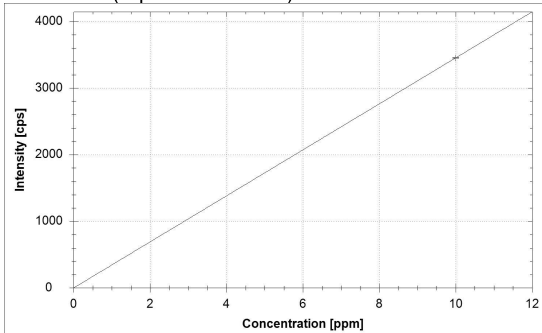
$$f(x) = 49.1247 \cdot x + 1.9399$$

$$R^2 = 1.0000$$

$$BEC = 0.039 \text{ ppm}$$

$$LoD = 0.0186 \text{ ppm}$$

Sn 189.989 (Aqueous-Axial-iFR)



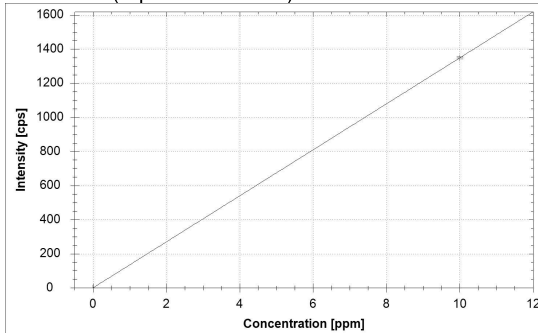
$$f(x) = 345.4958 \cdot x + -0.2880$$

$$R^2 = 1.0000$$

$$BEC = -0.001 \text{ ppm}$$

$$LoD = 0.0013 \text{ ppm}$$

As 193.759 (Aqueous-Axial-iFR)



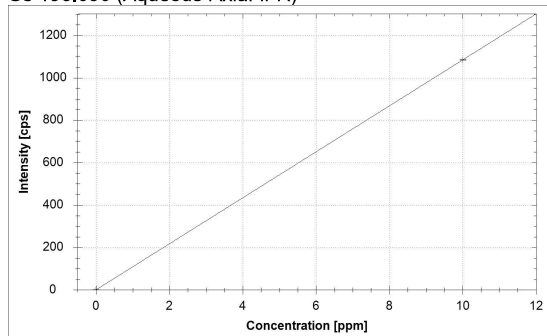
$$f(x) = 134.8841 \cdot x + 0.1199$$

$$R^2 = 1.0000$$

$$BEC = 0.001 \text{ ppm}$$

$$LoD = 0.0027 \text{ ppm}$$

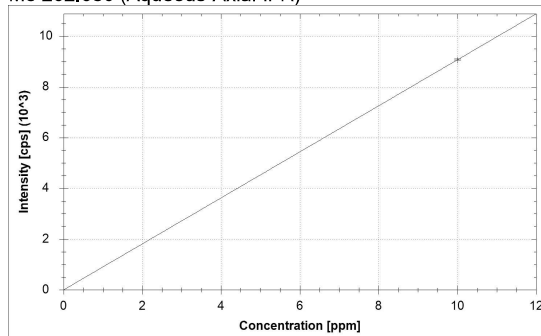
Se 196.090 (Aqueous-Axial-iFR)



$$f(x) = 108.4390 \cdot x + 0.3270$$

$R^2 = 1.0000$
BEC = 0.003 ppm
LoD = 0.0079 ppm

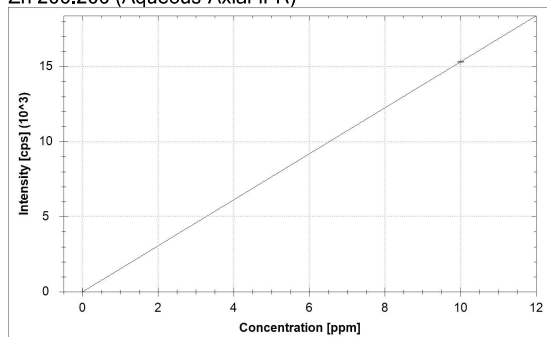
Mo 202.030 (Aqueous-Axial-iFR)



$$f(x) = 906.8726 \cdot x + -0.3306$$

$R^2 = 1.0000$
BEC = 0.000 ppm
LoD = 0.0012 ppm

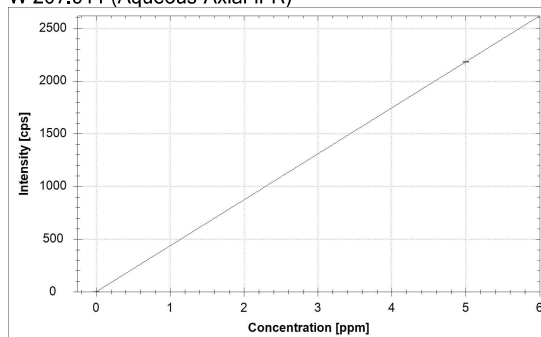
Zn 206.200 (Aqueous-Axial-iFR)



$$f(x) = 1531.2037 \cdot x + 1.9231$$

$R^2 = 1.0000$
BEC = 0.001 ppm
LoD = 0.0005 ppm

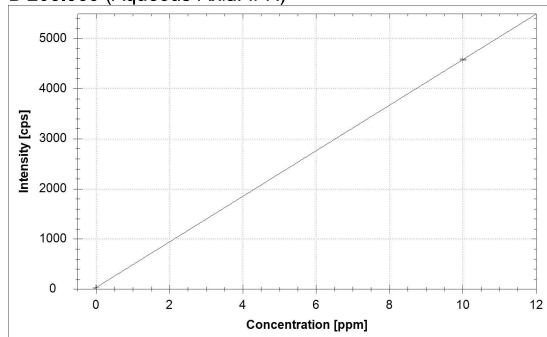
W 207.911 (Aqueous-Axial-iFR)



$$f(x) = 436.2074 \cdot x + 0.6607$$

$R^2 = 1.0000$
BEC = 0.002 ppm
LoD = 0.0047 ppm

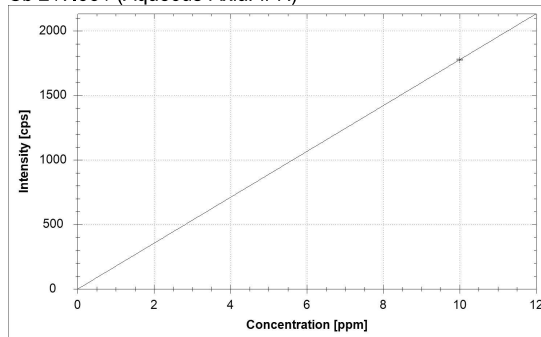
B 208.959 (Aqueous-Axial-iFR)



$$f(x) = 454.9326 \cdot x + 29.3292$$

$R^2 = 1.0000$
BEC = 0.064 ppm
LoD = 0.0010 ppm

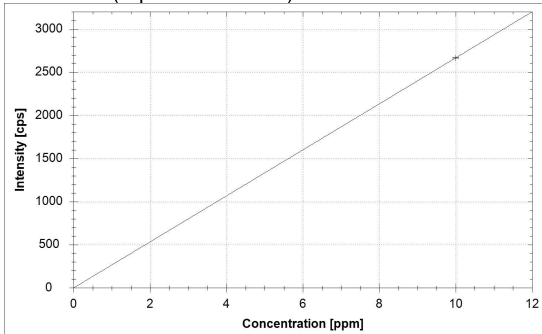
Sb 217.581 (Aqueous-Axial-iFR)



$$f(x) = 177.7178 \cdot x + -0.3560$$

$R^2 = 1.0000$
BEC = -0.002 ppm
LoD = 0.0059 ppm

Pb 220.353 (Aqueous-Axial-iFR)



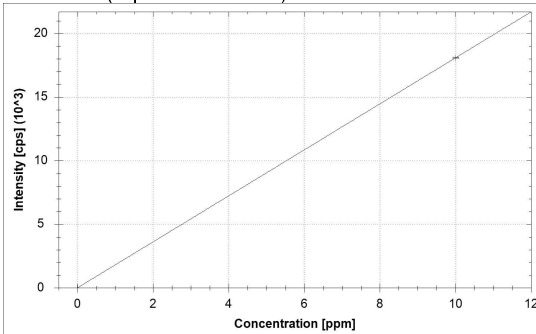
$$f(x) = 266.7662 \cdot x + -0.1373$$

$$R^2 = 1.0000$$

$$BEC = -0.001 \text{ ppm}$$

$$LoD = 0.0034 \text{ ppm}$$

Ni 221.647 (Aqueous-Axial-iFR)



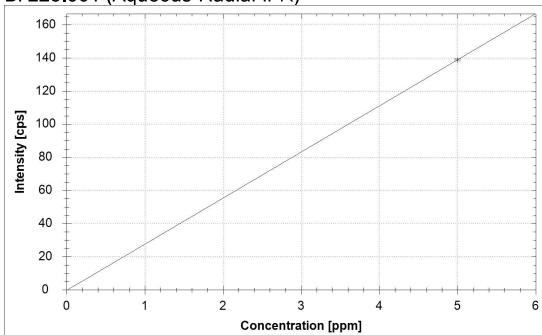
$$f(x) = 1808.0859 \cdot x + 1.1543$$

$$R^2 = 1.0000$$

$$BEC = 0.001 \text{ ppm}$$

$$LoD = 0.0002 \text{ ppm}$$

Bi 223.061 (Aqueous-Radial-iFR)



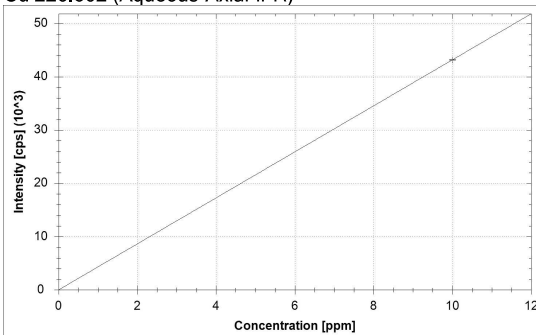
$$f(x) = 27.8364 \cdot x + -0.3071$$

$$R^2 = 1.0000$$

$$BEC = -0.011 \text{ ppm}$$

$$LoD = 0.0362 \text{ ppm}$$

Cd 226.502 (Aqueous-Axial-iFR)



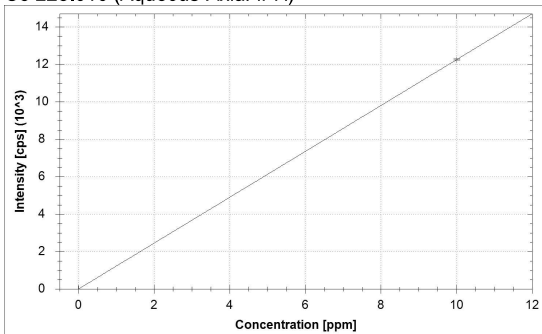
$$f(x) = 4317.9002 \cdot x + -0.2493$$

$$R^2 = 1.0000$$

$$BEC = 0.000 \text{ ppm}$$

$$LoD = 0.0001 \text{ ppm}$$

Co 228.616 (Aqueous-Axial-iFR)



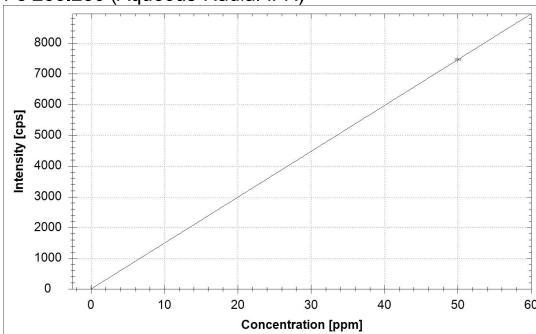
$$f(x) = 1225.2455 \cdot x + 0.0245$$

$$R^2 = 1.0000$$

$$BEC = 0.000 \text{ ppm}$$

$$LoD = 0.0012 \text{ ppm}$$

Fe 233.280 (Aqueous-Radial-iFR)



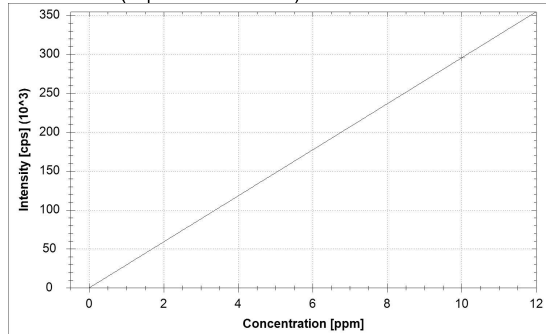
$$f(x) = 149.2283 \cdot x + 0.4587$$

$$R^2 = 1.0000$$

$$BEC = 0.003 \text{ ppm}$$

$$LoD = 0.0030 \text{ ppm}$$

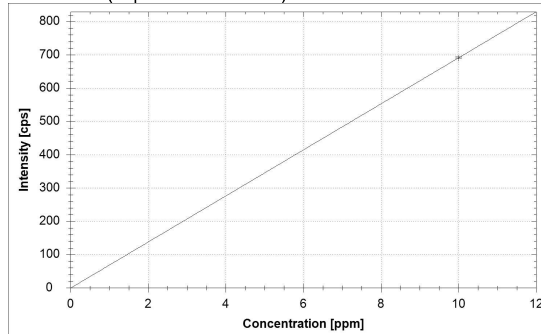
Mn 257.610 (Aqueous-Axial-iFR)



$$f(x) = 29551.4523 \cdot x + 2.5098$$

$R^2 = 1.0000$
BEC = 0.000 ppm
LoD = 0.0000 ppm

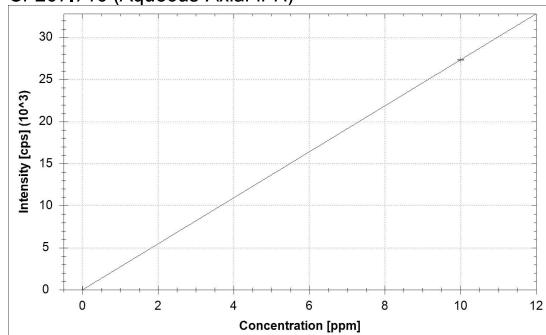
U 263.553 (Aqueous-Axial-iFR)



$$f(x) = 69.1695 \cdot x + -0.5213$$

$R^2 = 1.0000$
BEC = -0.008 ppm
LoD = 0.0197 ppm

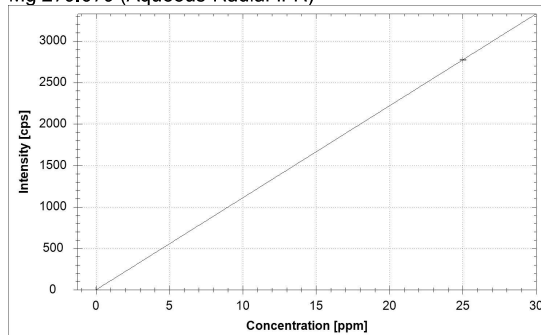
Cr 267.716 (Aqueous-Axial-iFR)



$$f(x) = 2733.9097 \cdot x + 3.6816$$

$R^2 = 1.0000$
BEC = 0.001 ppm
LoD = 0.0005 ppm

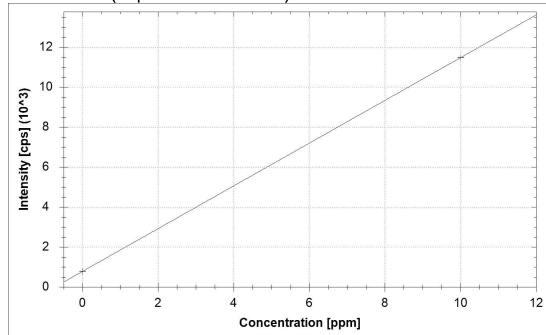
Mg 279.079 (Aqueous-Radial-iFR)



$$f(x) = 110.9531 \cdot x + 0.3205$$

$R^2 = 1.0000$
BEC = 0.003 ppm
LoD = 0.0014 ppm

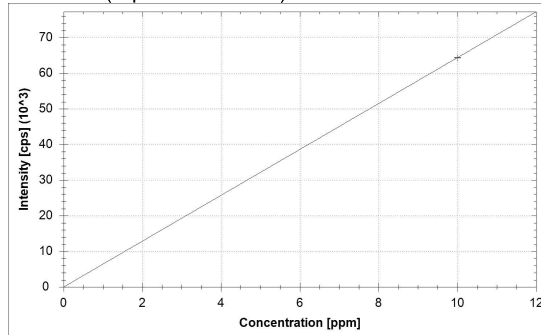
Si 288.158 (Aqueous-Axial-iFR)



$$f(x) = 1069.3884 \cdot x + 782.4916$$

$R^2 = 1.0000$
BEC = 0.732 ppm
LoD = 0.0207 ppm

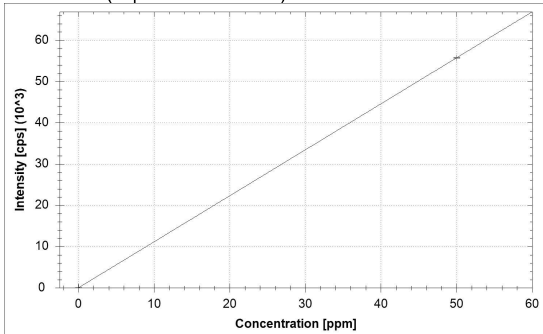
V 292.402 (Aqueous-Axial-iFR)



$$f(x) = 6436.7023 \cdot x + -0.7732$$

$R^2 = 1.0000$
BEC = 0.000 ppm
LoD = 0.0002 ppm

Al 308.215 (Aqueous-Axial-iFR)



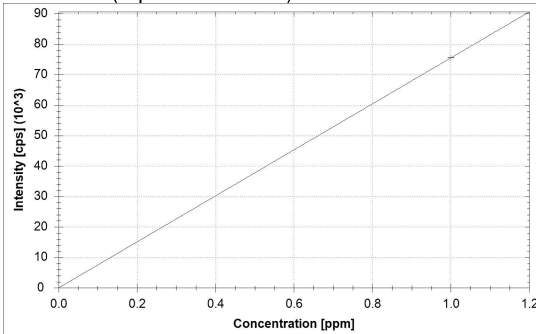
$$f(x) = 1114.3718 \cdot x + 23.6456$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.021 \text{ ppm}$$

$$\text{LoD} = 0.0042 \text{ ppm}$$

Be 313.107 (Aqueous-Axial-iFR)



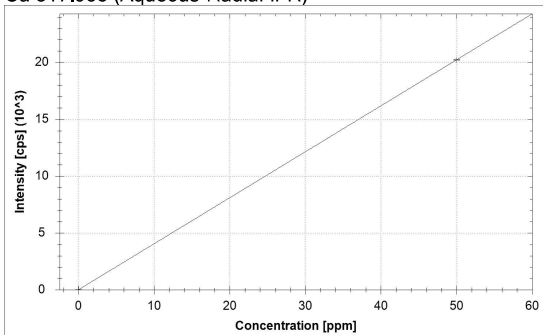
$$f(x) = 75541.3585 \cdot x + -15.5143$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.000 \text{ ppm}$$

$$\text{LoD} = 0.0000 \text{ ppm}$$

Ca 317.933 (Aqueous-Radial-iFR)



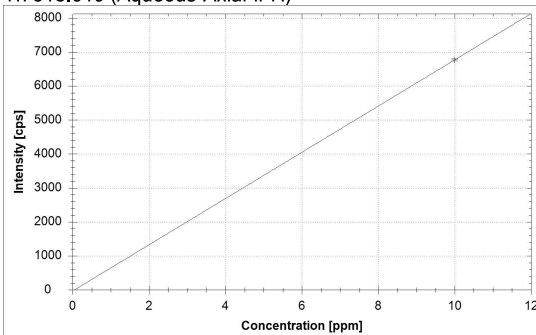
$$f(x) = 404.2842 \cdot x + 13.0441$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.032 \text{ ppm}$$

$$\text{LoD} = 0.0014 \text{ ppm}$$

Th 318.019 (Aqueous-Axial-iFR)



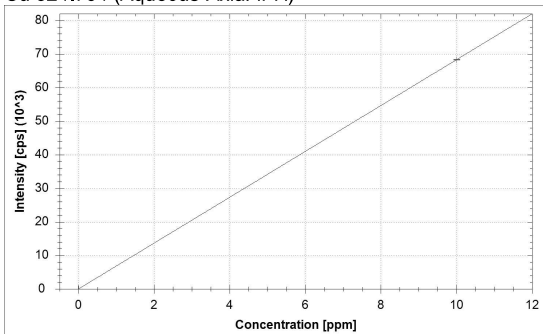
$$f(x) = 680.1037 \cdot x + -32.2581$$

$$R^2 = 1.0000$$

$$\text{BEC} = -0.047 \text{ ppm}$$

$$\text{LoD} = 0.0044 \text{ ppm}$$

Cu 324.754 (Aqueous-Axial-iFR)



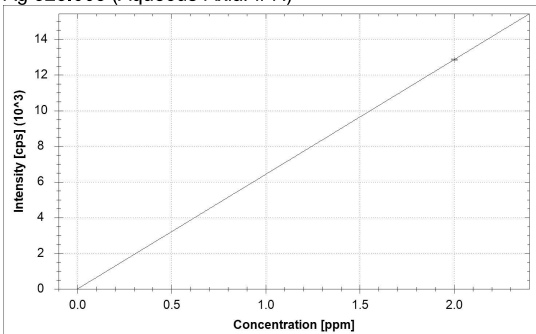
$$f(x) = 6831.5521 \cdot x + 13.5088$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.002 \text{ ppm}$$

$$\text{LoD} = 0.0002 \text{ ppm}$$

Ag 328.068 (Aqueous-Axial-iFR)



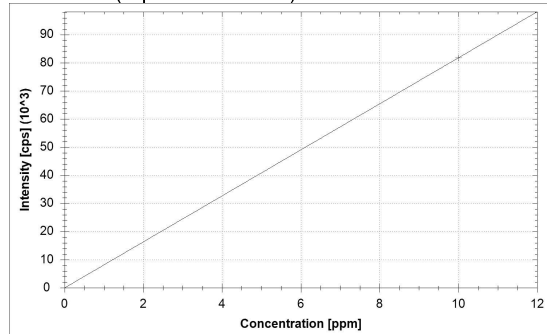
$$f(x) = 6428.6632 \cdot x + 0.3360$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.000 \text{ ppm}$$

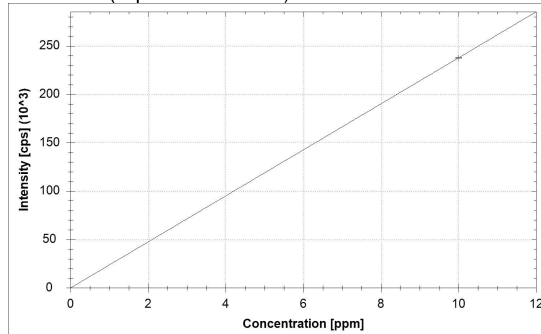
$$\text{LoD} = 0.0009 \text{ ppm}$$

La 333.749 (Aqueous-Axial-iFR)



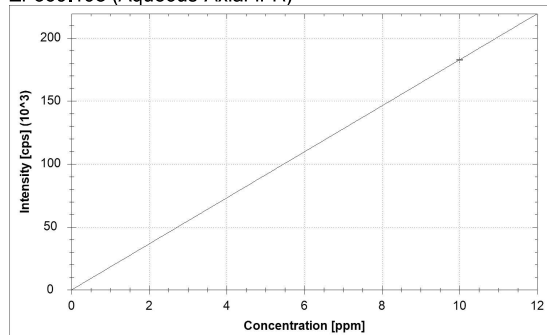
$f(x) = 8179.3439 \cdot x + -5.4013$
 $R^2 = 1.0000$
 $BEC = -0.001 \text{ ppm}$
 $LoD = 0.0001 \text{ ppm}$

Ti 334.941 (Aqueous-Axial-iFR)



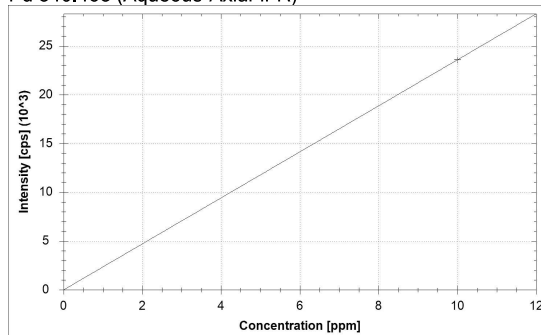
$f(x) = 23771.6799 \cdot x + -2.7346$
 $R^2 = 1.0000$
 $BEC = 0.000 \text{ ppm}$
 $LoD = 0.0002 \text{ ppm}$

Zr 339.198 (Aqueous-Axial-iFR)



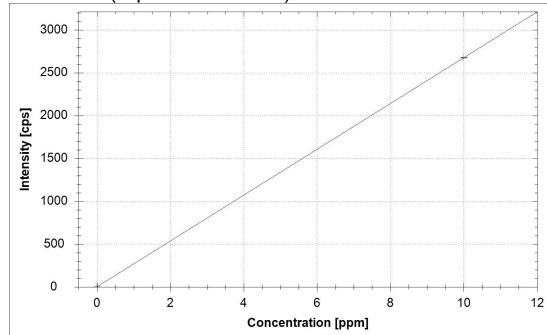
$f(x) = 18277.7942 \cdot x + -1.3058$
 $R^2 = 1.0000$
 $BEC = 0.000 \text{ ppm}$
 $LoD = 0.0000 \text{ ppm}$

Pd 340.458 (Aqueous-Axial-iFR)



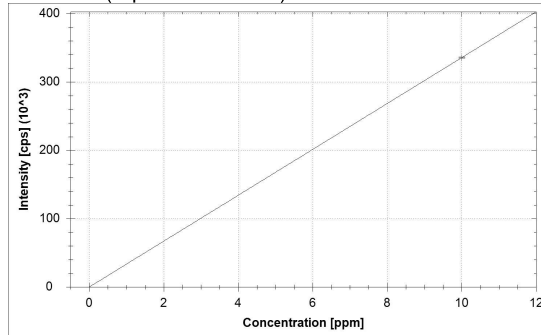
$f(x) = 2359.4173 \cdot x + -0.9427$
 $R^2 = 1.0000$
 $BEC = 0.000 \text{ ppm}$
 $LoD = 0.0009 \text{ ppm}$

Tl 351.924 (Aqueous-Axial-iFR)



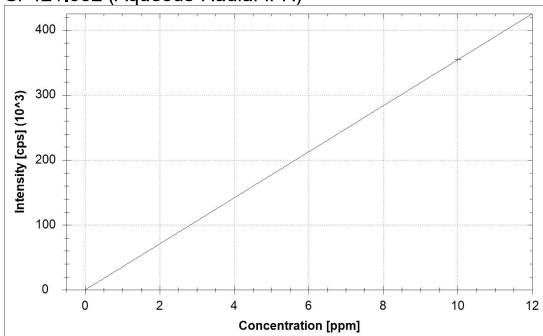
$f(x) = 267.4303 \cdot x + 2.6363$
 $R^2 = 1.0000$
 $BEC = 0.010 \text{ ppm}$
 $LoD = 0.0093 \text{ ppm}$

Y 360.073 (Aqueous-Axial-iFR)



$f(x) = 33551.1306 \cdot x + 2.1996$
 $R^2 = 1.0000$
 $BEC = 0.000 \text{ ppm}$
 $LoD = 0.0001 \text{ ppm}$

Sr 421.552 (Aqueous-Radial-iFR)



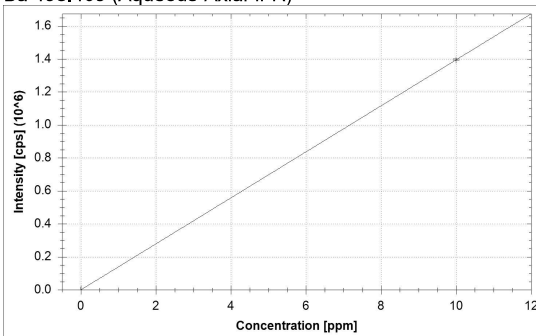
$$f(x) = 35426.7264 \cdot x + 2.4128$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.000 \text{ ppm}$$

$$\text{LoD} = 0.0000 \text{ ppm}$$

Ba 493.409 (Aqueous-Axial-iFR)



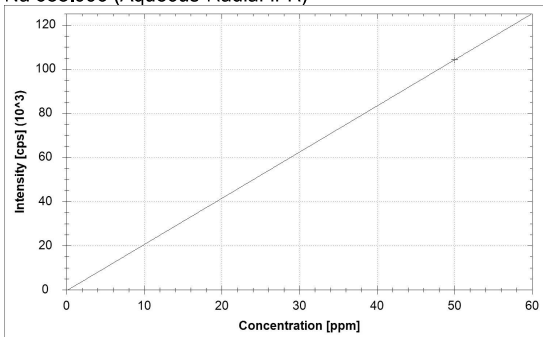
$$f(x) = 139494.2296 \cdot x + 36.9512$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.000 \text{ ppm}$$

$$\text{LoD} = 0.0000 \text{ ppm}$$

Na 588.995 (Aqueous-Radial-iFR)



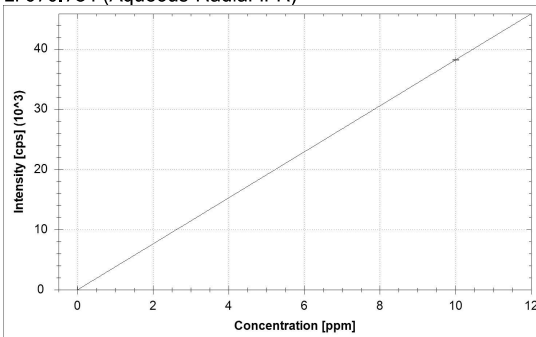
$$f(x) = 2091.9360 \cdot x + -384.2511$$

$$R^2 = 1.0000$$

$$\text{BEC} = -0.184 \text{ ppm}$$

$$\text{LoD} = 0.0088 \text{ ppm}$$

Li 670.784 (Aqueous-Radial-iFR)



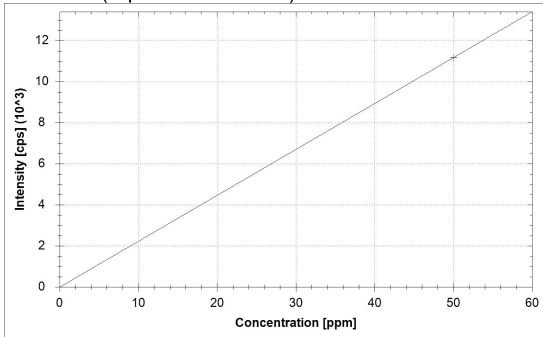
$$f(x) = 3822.0268 \cdot x + 0.5469$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.000 \text{ ppm}$$

$$\text{LoD} = 0.0012 \text{ ppm}$$

K 766.490 (Aqueous-Radial-iFR)



$$f(x) = 223.5780 \cdot x + -10.7620$$

$$R^2 = 1.0000$$

$$\text{BEC} = -0.048 \text{ ppm}$$

$$\text{LoD} = 0.0456 \text{ ppm}$$

ThermoScientific iCAP Pro XP
Nickname: "Steve Rogers"



Report Date/Time: 6/5/2024 4:55:33 PM

SOUTHWEST RESEARCH INSTITUTE

Standard Readbacks

Analyte (Measure Mode)	STD1 Concentration average 1
P 177.495 (Aqueous-Axial-iFR)	N/A
S 182.034 (Aqueous-Axial-iFR)	N/A
Sn 189.989 (Aqueous-Axial-iFR)	N/A
As 193.759 (Aqueous-Axial-iFR)	N/A
Se 196.090 (Aqueous-Axial-iFR)	N/A
Mo 202.030 (Aqueous-Axial-iFR)	N/A
Zn 206.200 (Aqueous-Axial-iFR)	N/A
W 207.911 (Aqueous-Axial-iFR)	N/A
B 208.959 (Aqueous-Axial-iFR)	N/A
Sb 217.581 (Aqueous-Axial-iFR)	N/A
Pb 220.353 (Aqueous-Axial-iFR)	N/A
Ni 221.647 (Aqueous-Axial-iFR)	N/A
Bi 223.061 (Aqueous-Radial-iFR)	N/A
Cd 226.502 (Aqueous-Axial-iFR)	N/A
Co 228.616 (Aqueous-Axial-iFR)	N/A
Fe 233.280 (Aqueous-Radial-iFR)	50.000 ppm
Mn 257.610 (Aqueous-Axial-iFR)	N/A
U 263.553 (Aqueous-Axial-iFR)	N/A
Cr 267.716 (Aqueous-Axial-iFR)	N/A
Mg 279.079 (Aqueous-Radial-iFR)	25.000 ppm
Si 288.158 (Aqueous-Axial-iFR)	N/A
V 292.402 (Aqueous-Axial-iFR)	N/A
Al 308.215 (Aqueous-Axial-iFR)	50.000 ppm
Be 313.107 (Aqueous-Axial-iFR)	N/A
Ca 317.933 (Aqueous-Radial-iFR)	50.000 ppm
Th 318.019 (Aqueous-Axial-iFR)	N/A
Cu 324.754 (Aqueous-Axial-iFR)	N/A
Ag 328.068 (Aqueous-Axial-iFR)	N/A
La 333.749 (Aqueous-Axial-iFR)	N/A
Ti 334.941 (Aqueous-Axial-iFR)	N/A
Zr 339.198 (Aqueous-Axial-iFR)	N/A
Pd 340.458 (Aqueous-Axial-iFR)	N/A
Tl 351.924 (Aqueous-Axial-iFR)	N/A
Y 360.073 (Aqueous-Axial-iFR)	N/A
Sc 361.384 (Aqueous-Axial-iFR)	95.518 %
Sc 361.384 (Aqueous-Radial-iFR)	99.773 %
Sr 421.552 (Aqueous-Radial-iFR)	N/A
Ba 493.409 (Aqueous-Axial-iFR)	N/A
Na 588.995 (Aqueous-Radial-iFR)	50.000 ppm
Li 670.784 (Aqueous-Radial-iFR)	10.000 ppm
K 766.490 (Aqueous-Radial-iFR)	50.000 ppm

Analyte (Measure Mode)	STD2 Concentration average 1
P 177.495 (Aqueous-Axial-iFR)	N/A
S 182.034 (Aqueous-Axial-iFR)	N/A
Sn 189.989 (Aqueous-Axial-iFR)	N/A
As 193.759 (Aqueous-Axial-iFR)	N/A
Se 196.090 (Aqueous-Axial-iFR)	N/A
Mo 202.030 (Aqueous-Axial-iFR)	N/A
Zn 206.200 (Aqueous-Axial-iFR)	N/A
W 207.911 (Aqueous-Axial-iFR)	N/A
B 208.959 (Aqueous-Axial-iFR)	N/A
Sb 217.581 (Aqueous-Axial-iFR)	N/A
Pb 220.353 (Aqueous-Axial-iFR)	N/A

ThermoScientific iCAP Pro XP
Nickname: "Steve Rogers"



Report Date/Time: 6/5/2024 4:55:33 PM

SOUTHWEST RESEARCH INSTITUTE

	STD2
Ni 221.647 (Aqueous-Axial-iFR)	10.000 ppm
Bi 223.061 (Aqueous-Radial-iFR)	N/A
Cd 226.502 (Aqueous-Axial-iFR)	N/A
Co 228.616 (Aqueous-Axial-iFR)	N/A
Fe 233.280 (Aqueous-Radial-iFR)	N/A
Mn 257.610 (Aqueous-Axial-iFR)	N/A
U 263.553 (Aqueous-Axial-iFR)	N/A
Cr 267.716 (Aqueous-Axial-iFR)	10.000 ppm
Mg 279.079 (Aqueous-Radial-iFR)	N/A
Si 288.158 (Aqueous-Axial-iFR)	N/A
V 292.402 (Aqueous-Axial-iFR)	N/A
Al 308.215 (Aqueous-Axial-iFR)	N/A
Be 313.107 (Aqueous-Axial-iFR)	1.000 ppm
Ca 317.933 (Aqueous-Radial-iFR)	N/A
Th 318.019 (Aqueous-Axial-iFR)	N/A
Cu 324.754 (Aqueous-Axial-iFR)	10.000 ppm
Ag 328.068 (Aqueous-Axial-iFR)	N/A
La 333.749 (Aqueous-Axial-iFR)	N/A
Ti 334.941 (Aqueous-Axial-iFR)	N/A
Zr 339.198 (Aqueous-Axial-iFR)	N/A
Pd 340.458 (Aqueous-Axial-iFR)	N/A
Tl 351.924 (Aqueous-Axial-iFR)	N/A
Y 360.073 (Aqueous-Axial-iFR)	N/A
Sc 361.384 (Aqueous-Axial-iFR)	99.459 %
Sc 361.384 (Aqueous-Radial-iFR)	98.199 %
Sr 421.552 (Aqueous-Radial-iFR)	N/A
Ba 493.409 (Aqueous-Axial-iFR)	10.000 ppm
Na 588.995 (Aqueous-Radial-iFR)	N/A
Li 670.784 (Aqueous-Radial-iFR)	N/A
K 766.490 (Aqueous-Radial-iFR)	N/A

	STD3
Analyte (Measure Mode)	Concentration average 1
P 177.495 (Aqueous-Axial-iFR)	N/A
S 182.034 (Aqueous-Axial-iFR)	N/A
Sn 189.989 (Aqueous-Axial-iFR)	N/A
As 193.759 (Aqueous-Axial-iFR)	10.000 ppm
Se 196.090 (Aqueous-Axial-iFR)	N/A
Mo 202.030 (Aqueous-Axial-iFR)	N/A
Zn 206.200 (Aqueous-Axial-iFR)	10.000 ppm
W 207.911 (Aqueous-Axial-iFR)	N/A
B 208.959 (Aqueous-Axial-iFR)	N/A
Sb 217.581 (Aqueous-Axial-iFR)	N/A
Pb 220.353 (Aqueous-Axial-iFR)	N/A
Ni 221.647 (Aqueous-Axial-iFR)	N/A
Bi 223.061 (Aqueous-Radial-iFR)	N/A
Cd 226.502 (Aqueous-Axial-iFR)	10.000 ppm
Co 228.616 (Aqueous-Axial-iFR)	10.000 ppm
Fe 233.280 (Aqueous-Radial-iFR)	N/A
Mn 257.610 (Aqueous-Axial-iFR)	10.000 ppm
U 263.553 (Aqueous-Axial-iFR)	N/A
Cr 267.716 (Aqueous-Axial-iFR)	N/A
Mg 279.079 (Aqueous-Radial-iFR)	N/A
Si 288.158 (Aqueous-Axial-iFR)	N/A
V 292.402 (Aqueous-Axial-iFR)	10.000 ppm
Al 308.215 (Aqueous-Axial-iFR)	N/A

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	STD3
Be 313.107 (Aqueous-Axial-iFR)	N/A
Ca 317.933 (Aqueous-Radial-iFR)	N/A
Th 318.019 (Aqueous-Axial-iFR)	N/A
Cu 324.754 (Aqueous-Axial-iFR)	N/A
Ag 328.068 (Aqueous-Axial-iFR)	N/A
La 333.749 (Aqueous-Axial-iFR)	N/A
Ti 334.941 (Aqueous-Axial-iFR)	N/A
Zr 339.198 (Aqueous-Axial-iFR)	N/A
Pd 340.458 (Aqueous-Axial-iFR)	N/A
Tl 351.924 (Aqueous-Axial-iFR)	N/A
Y 360.073 (Aqueous-Axial-iFR)	N/A
Sc 361.384 (Aqueous-Axial-iFR)	99.889 %
Sc 361.384 (Aqueous-Radial-iFR)	98.092 %
Sr 421.552 (Aqueous-Radial-iFR)	N/A
Ba 493.409 (Aqueous-Axial-iFR)	N/A
Na 588.995 (Aqueous-Radial-iFR)	N/A
Li 670.784 (Aqueous-Radial-iFR)	N/A
K 766.490 (Aqueous-Radial-iFR)	N/A

	STD4
Analyte (Measure Mode)	Concentration average 1
P 177.495 (Aqueous-Axial-iFR)	N/A
S 182.034 (Aqueous-Axial-iFR)	N/A
Sn 189.989 (Aqueous-Axial-iFR)	N/A
As 193.759 (Aqueous-Axial-iFR)	N/A
Se 196.090 (Aqueous-Axial-iFR)	10.000 ppm
Mo 202.030 (Aqueous-Axial-iFR)	N/A
Zn 206.200 (Aqueous-Axial-iFR)	N/A
W 207.911 (Aqueous-Axial-iFR)	N/A
B 208.959 (Aqueous-Axial-iFR)	N/A
Sb 217.581 (Aqueous-Axial-iFR)	10.000 ppm
Pb 220.353 (Aqueous-Axial-iFR)	10.000 ppm
Ni 221.647 (Aqueous-Axial-iFR)	N/A
Bi 223.061 (Aqueous-Radial-iFR)	N/A
Cd 226.502 (Aqueous-Axial-iFR)	N/A
Co 228.616 (Aqueous-Axial-iFR)	N/A
Fe 233.280 (Aqueous-Radial-iFR)	N/A
Mn 257.610 (Aqueous-Axial-iFR)	N/A
U 263.553 (Aqueous-Axial-iFR)	N/A
Cr 267.716 (Aqueous-Axial-iFR)	N/A
Mg 279.079 (Aqueous-Radial-iFR)	N/A
Si 288.158 (Aqueous-Axial-iFR)	N/A
V 292.402 (Aqueous-Axial-iFR)	N/A
Al 308.215 (Aqueous-Axial-iFR)	N/A
Be 313.107 (Aqueous-Axial-iFR)	N/A
Ca 317.933 (Aqueous-Radial-iFR)	N/A
Th 318.019 (Aqueous-Axial-iFR)	N/A
Cu 324.754 (Aqueous-Axial-iFR)	N/A
Ag 328.068 (Aqueous-Axial-iFR)	2.000 ppm
La 333.749 (Aqueous-Axial-iFR)	N/A
Ti 334.941 (Aqueous-Axial-iFR)	N/A
Zr 339.198 (Aqueous-Axial-iFR)	N/A
Pd 340.458 (Aqueous-Axial-iFR)	N/A
Tl 351.924 (Aqueous-Axial-iFR)	10.000 ppm
Y 360.073 (Aqueous-Axial-iFR)	N/A
Sc 361.384 (Aqueous-Axial-iFR)	103.929 %

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	STD4
Sc 361.384 (Aqueous-Radial-iFR)	102.361 %
Sr 421.552 (Aqueous-Radial-iFR)	N/A
Ba 493.409 (Aqueous-Axial-iFR)	N/A
Na 588.995 (Aqueous-Radial-iFR)	N/A
Li 670.784 (Aqueous-Radial-iFR)	N/A
K 766.490 (Aqueous-Radial-iFR)	N/A

	STD5
Analyte (Measure Mode)	Concentration average 1
P 177.495 (Aqueous-Axial-iFR)	10.000 ppm
S 182.034 (Aqueous-Axial-iFR)	N/A
Sn 189.989 (Aqueous-Axial-iFR)	10.000 ppm
As 193.759 (Aqueous-Axial-iFR)	N/A
Se 196.090 (Aqueous-Axial-iFR)	N/A
Mo 202.030 (Aqueous-Axial-iFR)	10.000 ppm
Zn 206.200 (Aqueous-Axial-iFR)	N/A
W 207.911 (Aqueous-Axial-iFR)	N/A
B 208.959 (Aqueous-Axial-iFR)	10.000 ppm
Sb 217.581 (Aqueous-Axial-iFR)	N/A
Pb 220.353 (Aqueous-Axial-iFR)	N/A
Ni 221.647 (Aqueous-Axial-iFR)	N/A
Bi 223.061 (Aqueous-Radial-iFR)	5.000 ppm
Cd 226.502 (Aqueous-Axial-iFR)	N/A
Co 228.616 (Aqueous-Axial-iFR)	N/A
Fe 233.280 (Aqueous-Radial-iFR)	N/A
Mn 257.610 (Aqueous-Axial-iFR)	N/A
U 263.553 (Aqueous-Axial-iFR)	N/A
Cr 267.716 (Aqueous-Axial-iFR)	N/A
Mg 279.079 (Aqueous-Radial-iFR)	N/A
Si 288.158 (Aqueous-Axial-iFR)	10.000 ppm
V 292.402 (Aqueous-Axial-iFR)	N/A
Al 308.215 (Aqueous-Axial-iFR)	N/A
Be 313.107 (Aqueous-Axial-iFR)	N/A
Ca 317.933 (Aqueous-Radial-iFR)	N/A
Th 318.019 (Aqueous-Axial-iFR)	N/A
Cu 324.754 (Aqueous-Axial-iFR)	N/A
Ag 328.068 (Aqueous-Axial-iFR)	N/A
La 333.749 (Aqueous-Axial-iFR)	N/A
Ti 334.941 (Aqueous-Axial-iFR)	10.000 ppm
Zr 339.198 (Aqueous-Axial-iFR)	N/A
Pd 340.458 (Aqueous-Axial-iFR)	N/A
Tl 351.924 (Aqueous-Axial-iFR)	N/A
Y 360.073 (Aqueous-Axial-iFR)	N/A
Sc 361.384 (Aqueous-Axial-iFR)	98.054 %
Sc 361.384 (Aqueous-Radial-iFR)	96.646 %
Sr 421.552 (Aqueous-Radial-iFR)	10.000 ppm
Ba 493.409 (Aqueous-Axial-iFR)	N/A
Na 588.995 (Aqueous-Radial-iFR)	N/A
Li 670.784 (Aqueous-Radial-iFR)	N/A
K 766.490 (Aqueous-Radial-iFR)	N/A

	STD6
Analyte (Measure Mode)	Concentration average 1
P 177.495 (Aqueous-Axial-iFR)	N/A
S 182.034 (Aqueous-Axial-iFR)	10.000 ppm
Sn 189.989 (Aqueous-Axial-iFR)	N/A

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	STD6	
As 193.759 (Aqueous-Axial-iFR)		N/A
Se 196.090 (Aqueous-Axial-iFR)		N/A
Mo 202.030 (Aqueous-Axial-iFR)		N/A
Zn 206.200 (Aqueous-Axial-iFR)		N/A
W 207.911 (Aqueous-Axial-iFR)	5.000	ppm
B 208.959 (Aqueous-Axial-iFR)		N/A
Sb 217.581 (Aqueous-Axial-iFR)		N/A
Pb 220.353 (Aqueous-Axial-iFR)		N/A
Ni 221.647 (Aqueous-Axial-iFR)		N/A
Bi 223.061 (Aqueous-Radial-iFR)		N/A
Cd 226.502 (Aqueous-Axial-iFR)		N/A
Co 228.616 (Aqueous-Axial-iFR)		N/A
Fe 233.280 (Aqueous-Radial-iFR)		N/A
Mn 257.610 (Aqueous-Axial-iFR)		N/A
U 263.553 (Aqueous-Axial-iFR)	10.000	ppm
Cr 267.716 (Aqueous-Axial-iFR)		N/A
Mg 279.079 (Aqueous-Radial-iFR)		N/A
Si 288.158 (Aqueous-Axial-iFR)		N/A
V 292.402 (Aqueous-Axial-iFR)		N/A
Al 308.215 (Aqueous-Axial-iFR)		N/A
Be 313.107 (Aqueous-Axial-iFR)		N/A
Ca 317.933 (Aqueous-Radial-iFR)		N/A
Th 318.019 (Aqueous-Axial-iFR)	10.000	ppm
Cu 324.754 (Aqueous-Axial-iFR)		N/A
Ag 328.068 (Aqueous-Axial-iFR)		N/A
La 333.749 (Aqueous-Axial-iFR)	10.000	ppm
Ti 334.941 (Aqueous-Axial-iFR)		N/A
Zr 339.198 (Aqueous-Axial-iFR)	10.000	ppm
Pd 340.458 (Aqueous-Axial-iFR)	10.000	ppm
Tl 351.924 (Aqueous-Axial-iFR)		N/A
Y 360.073 (Aqueous-Axial-iFR)	10.000	ppm
Sc 361.384 (Aqueous-Axial-iFR)	103.574	%
Sc 361.384 (Aqueous-Radial-iFR)	102.147	%
Sr 421.552 (Aqueous-Radial-iFR)		N/A
Ba 493.409 (Aqueous-Axial-iFR)		N/A
Na 588.995 (Aqueous-Radial-iFR)		N/A
Li 670.784 (Aqueous-Radial-iFR)		N/A
K 766.490 (Aqueous-Radial-iFR)		N/A

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Sample Results

Label: STD0
Sample Type: BLK
Analysis started at: 6/5/2024 3:25:54 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	0.2 cps	1.6 cps	-0.5 cps	0.3 cps	0.0 cps
Intensity per Run 2	0.2 cps	2.2 cps	-0.2 cps	0.1 cps	0.5 cps
Intensity per Run 3	-0.1 cps	2.1 cps	-0.2 cps	0.0 cps	0.5 cps
Intensity average 1	0 cps	2 cps	0 cps	0 cps	0 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	1.4 %	0.2 %	-0.5 %	1.0 %	0.9 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.5 cps	2.0 cps	0.5 cps	29.3 cps	-0.1 cps
Intensity per Run 2	0.1 cps	1.6 cps	1.4 cps	29.5 cps	-0.8 cps
Intensity per Run 3	-0.6 cps	2.1 cps	0.1 cps	29.2 cps	-0.2 cps
Intensity average 1	0 cps	2 cps	1 cps	29 cps	0 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	-1.1 %	0.1 %	1.0 %	0.0 %	-1.0 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.4 cps	1.3 cps	-0.7 cps	-0.1 cps	0.5 cps
Intensity per Run 2	-0.2 cps	1.0 cps	0.0 cps	-0.2 cps	0.0 cps
Intensity per Run 3	0.2 cps	1.2 cps	-0.3 cps	-0.4 cps	-0.5 cps
Intensity average 1	0 cps	1 cps	0 cps	0 cps	0 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	-2.2 %	0.1 %	-1.1 %	-0.5 %	19.2 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	0.5 cps	2.4 cps	-0.1 cps	3.8 cps	0.4 cps
Intensity per Run 2	0.3 cps	2.8 cps	-0.4 cps	3.1 cps	0.3 cps
Intensity per Run 3	0.6 cps	2.4 cps	-1.0 cps	4.1 cps	0.3 cps
Intensity average 1	0 cps	3 cps	-1 cps	4 cps	0 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.3 %	0.1 %	-0.9 %	0.1 %	0.2 %

	Si 288.158 (Aqueous-Axial-iFR)	V 292.402 (Aqueous-Axial-iFR)	Al 308.215 (Aqueous-Axial-iFR)	Be 313.107 (Aqueous-Axial-iFR)	Ca 317.933 (Aqueous-Radial-iFR)
Intensity per Run 1	788.8 cps	-0.2 cps	23.3 cps	-16.3 cps	12.9 cps
Intensity per Run 2	780.7 cps	-1.1 cps	25.4 cps	-14.6 cps	13.1 cps

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	Si 288.158 (Aqueous-Axial-iFR)	V 292.402 (Aqueous-Axial-iFR)	Al 308.215 (Aqueous-Axial-iFR)	Be 313.107 (Aqueous-Axial-iFR)	Ca 317.933 (Aqueous-Radial-iFR)
Intensity per Run 3	778.0 cps	-1.1 cps	22.3 cps	-15.7 cps	13.2 cps
Intensity average 1	782 cps	-1 cps	24 cps	-16 cps	13 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.0 %	-0.7 %	0.1 %	-0.1 %	0.0 %

	Th 318.019 (Aqueous-Axial-iFR)	Cu 324.754 (Aqueous-Axial-iFR)	Ag 328.068 (Aqueous-Axial-iFR)	La 333.749 (Aqueous-Axial-iFR)	Ti 334.941 (Aqueous-Axial-iFR)
Intensity per Run 1	-31.1 cps	13.6 cps	2.6 cps	-5.5 cps	-1.4 cps
Intensity per Run 2	-33.2 cps	13.8 cps	-0.7 cps	-5.5 cps	-2.0 cps
Intensity per Run 3	-32.5 cps	13.1 cps	-1.0 cps	-5.2 cps	-4.8 cps
Intensity average 1	-32 cps	14 cps	0 cps	-5 cps	-3 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.0 %	0.0 %	5.9 %	0.0 %	-0.7 %

	Zr 339.198 (Aqueous-Axial-iFR)	Pd 340.458 (Aqueous-Axial-iFR)	Tl 351.924 (Aqueous-Axial-iFR)	Y 360.073 (Aqueous-Axial-iFR)	Sc 361.384 (Aqueous-Axial-iFR)
Intensity per Run 1	-1.1 cps	-0.9 cps	2.5 cps	1.6 cps	833,984.5 cps
Intensity per Run 2	-1.4 cps	-1.7 cps	1.9 cps	1.3 cps	837,551.8 cps
Intensity per Run 3	-1.4 cps	-0.2 cps	3.5 cps	3.7 cps	837,107.7 cps
Intensity average 1	-1 cps	-1 cps	3 cps	2 cps	836,215 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	100.000 %
Concentration average 1	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm	100.000 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 %
Concentration RSD 1	-0.1 %	-0.8 %	0.3 %	0.6 %	0.0 %

	Sc 361.384 (Aqueous-Radial-iFR)	Sr 421.552 (Aqueous-Radial-iFR)	Ba 493.409 (Aqueous-Axial-iFR)	Na 588.995 (Aqueous-Radial-iFR)	Li 670.784 (Aqueous-Radial-iFR)
Intensity per Run 1	141,025.1 cps	2.7 cps	37.8 cps	-377.8 cps	-0.1 cps
Intensity per Run 2	141,500.3 cps	2.5 cps	37.7 cps	-386.4 cps	2.2 cps
Intensity per Run 3	140,534.4 cps	2.0 cps	35.3 cps	-388.6 cps	-0.5 cps
Intensity average 1	141,020 cps	2 cps	37 cps	-384 cps	1 cps
Concentration per Run 1	100.000 %	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	100.000 %	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.0 %	0.1 %	0.0 %	0.0 %	2.7 %

	K 766.490 (Aqueous-Radial-iFR)
Intensity per Run 1	-7.1 cps
Intensity per Run 2	-13.8 cps
Intensity per Run 3	-11.4 cps

	K 766.490 (Aqueous- Radial-iFR)
Intensity average 1	-11 cps
Concentration per Run 1	0.000 ppm
Concentration average 1	0.000 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	-0.3 %

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Label: STD1
Sample Type: STD
Analysis started at: 6/5/2024 3:28:49 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.3 cps	2.1 cps	0.1 cps	0.7 cps	-1.4 cps
Intensity per Run 2	0.1 cps	2.0 cps	-0.4 cps	0.8 cps	-1.0 cps
Intensity per Run 3	0.2 cps	2.2 cps	-0.1 cps	-0.3 cps	-1.2 cps
Intensity average 1	0 cps	2 cps	0 cps	0 cps	-1 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.2 cps	0.5 cps	-0.3 cps	26.1 cps	-1.0 cps
Intensity per Run 2	-0.6 cps	0.4 cps	0.6 cps	26.1 cps	-1.4 cps
Intensity per Run 3	-0.7 cps	0.6 cps	0.2 cps	25.8 cps	-1.0 cps
Intensity average 1	0 cps	0 cps	0 cps	26 cps	-1 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	0.2 cps	3.3 cps	0.2 cps	18.8 cps	0.2 cps
Intensity per Run 2	-0.2 cps	2.7 cps	-0.7 cps	19.5 cps	0.7 cps
Intensity per Run 3	-0.1 cps	2.8 cps	-0.4 cps	19.1 cps	1.1 cps
Intensity average 1	0 cps	3 cps	0 cps	19 cps	1 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	7,414.2 cps	16.2 cps	0.3 cps	-0.1 cps	2,772.1 cps
Intensity per Run 2	7,460.5 cps	17.9 cps	1.9 cps	0.2 cps	2,756.4 cps
Intensity per Run 3	7,460.2 cps	16.5 cps	0.5 cps	-0.3 cps	2,775.0 cps
Intensity average 1	7,445 cps	17 cps	1 cps	0 cps	2,768 cps
Concentration per Run 1	49.772 ppm	N/A	N/A	N/A	25.028 ppm
Concentration per Run 2	50.123 ppm	N/A	N/A	N/A	24.906 ppm
Concentration per Run 3	50.105 ppm	N/A	N/A	N/A	25.066 ppm
Concentration average 1	50.000 ppm	N/A	N/A	N/A	25.000 ppm
Concentration SD 1	0.2 ppm	N/A	N/A	N/A	0.1 ppm

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	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration RSD 1	0.4 %	N/A	N/A	N/A	0.3 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	728.9 cps	-2.5 cps	53,266.7 cps	-17.3 cps	20,180.3 cps
Intensity per Run 2	724.3 cps	-1.6 cps	53,242.4 cps	-15.6 cps	20,128.3 cps
Intensity per Run 3	718.7 cps	-0.1 cps	53,222.8 cps	-19.3 cps	20,235.6 cps
Intensity average 1	724 cps	-1 cps	53,244 cps	-17 cps	20,181 cps
Concentration per Run 1	N/A	N/A	50.045 ppm	N/A	49.976 ppm
Concentration per Run 2	N/A	N/A	49.932 ppm	N/A	49.887 ppm
Concentration per Run 3	N/A	N/A	50.023 ppm	N/A	50.137 ppm
Concentration average 1	N/A	N/A	50.000 ppm	N/A	50.000 ppm
Concentration SD 1	N/A	N/A	0.1 ppm	N/A	0.1 ppm
Concentration RSD 1	N/A	N/A	0.1 %	N/A	0.3 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	43.7 cps	14.6 cps	0.4 cps	-2.9 cps	-14.2 cps
Intensity per Run 2	45.9 cps	14.5 cps	-1.0 cps	-5.4 cps	-12.5 cps
Intensity per Run 3	41.3 cps	12.4 cps	0.7 cps	-1.0 cps	-11.2 cps
Intensity average 1	44 cps	14 cps	0 cps	-3 cps	-13 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	-20.9 cps	-34.0 cps	2.3 cps	12.7 cps	798,357.5 cps
Intensity per Run 2	-19.4 cps	-36.9 cps	0.4 cps	10.7 cps	799,803.9 cps
Intensity per Run 3	-19.9 cps	-33.2 cps	-0.1 cps	14.3 cps	798,052.8 cps
Intensity average 1	-20 cps	-35 cps	1 cps	13 cps	798,738 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	95.473 %
Concentration per Run 2	N/A	N/A	N/A	N/A	95.646 %
Concentration per Run 3	N/A	N/A	N/A	N/A	95.436 %
Concentration average 1	N/A	N/A	N/A	N/A	95.518 %
Concentration SD 1	N/A	N/A	N/A	N/A	0.1 %
Concentration RSD 1	N/A	N/A	N/A	N/A	0.1 %

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 1	140,761.5 cps	16.4 cps	113.6 cps	104,148.7 cps	38,197.1 cps
Intensity per Run 2	140,647.5 cps	16.3 cps	112.8 cps	103,868.2 cps	38,030.5 cps

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 3	140,691.2 cps	14.6 cps	114.4 cps	103,911.6 cps	38,174.9 cps
Intensity average 1	140,700 cps	16 cps	114 cps	103,976 cps	38,134 cps
Concentration per Run 1	99.817 %	N/A	N/A	50.061 ppm	10.012 ppm
Concentration per Run 2	99.736 %	N/A	N/A	49.967 ppm	9.977 ppm
Concentration per Run 3	99.767 %	N/A	N/A	49.972 ppm	10.011 ppm
Concentration average 1	99.773 %	N/A	N/A	50.000 ppm	10.000 ppm
Concentration SD 1	0.0 %	N/A	N/A	0.1 ppm	0.0 ppm
Concentration RSD 1	0.0 %	N/A	N/A	0.1 %	0.2 %

	K 766.490 (Aqueous- Radial-iFR)
Intensity per Run 1	11,155.7 cps
Intensity per Run 2	11,139.4 cps
Intensity per Run 3	11,133.3 cps
Intensity average 1	11,143 cps
Concentration per Run 1	50.036 ppm
Concentration per Run 2	50.003 ppm
Concentration per Run 3	49.960 ppm
Concentration average 1	50.000 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	0.1 %

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Label: STD2
Sample Type: STD
Analysis started at: 6/5/2024 3:31:40 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	5.0 cps	1.4 cps	-0.6 cps	1.0 cps	0.2 cps
Intensity per Run 2	5.8 cps	1.9 cps	-0.3 cps	0.9 cps	0.7 cps
Intensity per Run 3	5.4 cps	1.7 cps	-0.3 cps	1.3 cps	-0.2 cps
Intensity average 1	5 cps	2 cps	0 cps	1 cps	0 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	0.3 cps	-2.5 cps	0.5 cps	27.5 cps	0.9 cps
Intensity per Run 2	0.0 cps	-3.1 cps	0.4 cps	27.2 cps	1.0 cps
Intensity per Run 3	0.4 cps	-3.1 cps	0.3 cps	27.6 cps	0.4 cps
Intensity average 1	0 cps	-3 cps	0 cps	27 cps	1 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	0.7 cps	18,021.1 cps	-0.2 cps	-1.6 cps	-4.4 cps
Intensity per Run 2	0.4 cps	17,860.5 cps	0.6 cps	-0.4 cps	-5.1 cps
Intensity per Run 3	0.3 cps	18,071.1 cps	0.6 cps	-0.4 cps	-5.4 cps
Intensity average 1	0 cps	17,984 cps	0 cps	-1 cps	-5 cps
Concentration per Run 1	N/A	10.021 ppm	N/A	N/A	N/A
Concentration per Run 2	N/A	9.968 ppm	N/A	N/A	N/A
Concentration per Run 3	N/A	10.011 ppm	N/A	N/A	N/A
Concentration average 1	N/A	10.000 ppm	N/A	N/A	N/A
Concentration SD 1	N/A	0.0 ppm	N/A	N/A	N/A
Concentration RSD 1	N/A	0.3 %	N/A	N/A	N/A

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	0.9 cps	-0.4 cps	-0.6 cps	27,225.4 cps	-1.0 cps
Intensity per Run 2	0.8 cps	0.0 cps	-1.6 cps	27,049.9 cps	-0.8 cps
Intensity per Run 3	0.5 cps	0.5 cps	0.6 cps	27,309.2 cps	0.1 cps
Intensity average 1	1 cps	0 cps	-1 cps	27,195 cps	-1 cps
Concentration per Run 1	N/A	N/A	N/A	10.012 ppm	N/A
Concentration per Run 2	N/A	N/A	N/A	9.983 ppm	N/A
Concentration per Run 3	N/A	N/A	N/A	10.005 ppm	N/A
Concentration average 1	N/A	N/A	N/A	10.000 ppm	N/A
Concentration SD 1	N/A	N/A	N/A	0.0 ppm	N/A

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	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration RSD 1	N/A	N/A	N/A	0.1 %	N/A

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	709.7 cps	-69.1 cps	24.7 cps	75,051.1 cps	3.0 cps
Intensity per Run 2	699.0 cps	-69.6 cps	24.7 cps	74,854.5 cps	3.5 cps
Intensity per Run 3	711.3 cps	-69.3 cps	21.0 cps	75,445.6 cps	3.9 cps
Intensity average 1	707 cps	-69 cps	23 cps	75,117 cps	3 cps
Concentration per Run 1	N/A	N/A	N/A	0.999 ppm	N/A
Concentration per Run 2	N/A	N/A	N/A	1.000 ppm	N/A
Concentration per Run 3	N/A	N/A	N/A	1.001 ppm	N/A
Concentration average 1	N/A	N/A	N/A	1.000 ppm	N/A
Concentration SD 1	N/A	N/A	N/A	0.0 ppm	N/A
Concentration RSD 1	N/A	N/A	N/A	0.1 %	N/A

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	-44.9 cps	67,835.3 cps	1.6 cps	-3.2 cps	40.4 cps
Intensity per Run 2	-44.8 cps	67,758.6 cps	2.6 cps	-3.2 cps	37.4 cps
Intensity per Run 3	-44.2 cps	68,283.8 cps	0.3 cps	-4.2 cps	37.5 cps
Intensity average 1	-45 cps	67,959 cps	1 cps	-4 cps	38 cps
Concentration per Run 1	N/A	9.983 ppm	N/A	N/A	N/A
Concentration per Run 2	N/A	10.007 ppm	N/A	N/A	N/A
Concentration per Run 3	N/A	10.010 ppm	N/A	N/A	N/A
Concentration average 1	N/A	10.000 ppm	N/A	N/A	N/A
Concentration SD 1	N/A	0.0 ppm	N/A	N/A	N/A
Concentration RSD 1	N/A	0.2 %	N/A	N/A	N/A

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	-4.2 cps	0.9 cps	-2.2 cps	2.8 cps	831,616.2 cps
Intensity per Run 2	-3.1 cps	0.1 cps	-1.6 cps	3.6 cps	828,644.8 cps
Intensity per Run 3	-5.5 cps	0.9 cps	-3.3 cps	4.4 cps	834,804.7 cps
Intensity average 1	-4 cps	1 cps	-2 cps	4 cps	831,689 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	99.450 %
Concentration per Run 2	N/A	N/A	N/A	N/A	99.095 %
Concentration per Run 3	N/A	N/A	N/A	N/A	99.831 %
Concentration average 1	N/A	N/A	N/A	N/A	99.459 %
Concentration SD 1	N/A	N/A	N/A	N/A	0.4 %
Concentration RSD 1	N/A	N/A	N/A	N/A	0.4 %

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 1	137,860.7 cps	0.7 cps	1,384,504.9 cps	-389.4 cps	3.9 cps
Intensity per Run 2	139,315.6 cps	-0.6 cps	1,388,679.3 cps	-391.1 cps	0.3 cps

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 3	138,265.3 cps	0.7 cps	1,389,065.8 cps	-391.5 cps	1.0 cps
Intensity average 1	138,481 cps	0 cps	1,387,417 cps	-391 cps	2 cps
Concentration per Run 1	97.760 %	N/A	9.980 ppm	N/A	N/A
Concentration per Run 2	98.791 %	N/A	10.046 ppm	N/A	N/A
Concentration per Run 3	98.047 %	N/A	9.974 ppm	N/A	N/A
Concentration average 1	98.199 %	N/A	10.000 ppm	N/A	N/A
Concentration SD 1	0.5 %	N/A	0.0 ppm	N/A	N/A
Concentration RSD 1	0.5 %	N/A	0.4 %	N/A	N/A

	K 766.490 (Aqueous- Radial-iFR)
Intensity per Run 1	-9.2 cps
Intensity per Run 2	-9.6 cps
Intensity per Run 3	-11.3 cps
Intensity average 1	-10 cps
Concentration per Run 1	N/A
Concentration per Run 2	N/A
Concentration per Run 3	N/A
Concentration average 1	N/A
Concentration SD 1	N/A
Concentration RSD 1	N/A

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Label: STD3
Sample Type: STD
Analysis started at: 6/5/2024 3:34:02 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.6 cps	2.4 cps	-0.6 cps	1,347.4 cps	0.6 cps
Intensity per Run 2	-0.8 cps	2.5 cps	-0.3 cps	1,344.8 cps	0.4 cps
Intensity per Run 3	-1.1 cps	2.9 cps	-0.4 cps	1,350.1 cps	0.1 cps
Intensity average 1	-1 cps	3 cps	0 cps	1,347 cps	0 cps
Concentration per Run 1	N/A	N/A	N/A	10.048 ppm	N/A
Concentration per Run 2	N/A	N/A	N/A	9.965 ppm	N/A
Concentration per Run 3	N/A	N/A	N/A	9.987 ppm	N/A
Concentration average 1	N/A	N/A	N/A	10.000 ppm	N/A
Concentration SD 1	N/A	N/A	N/A	0.0 ppm	N/A
Concentration RSD 1	N/A	N/A	N/A	0.4 %	N/A

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	-1.3 cps	15,257.7 cps	35.3 cps	26.6 cps	3.9 cps
Intensity per Run 2	-1.3 cps	15,285.7 cps	35.1 cps	26.7 cps	2.8 cps
Intensity per Run 3	-1.0 cps	15,347.3 cps	33.7 cps	27.0 cps	3.1 cps
Intensity average 1	-1 cps	15,297 cps	35 cps	27 cps	3 cps
Concentration per Run 1	N/A	10.022 ppm	N/A	N/A	N/A
Concentration per Run 2	N/A	9.977 ppm	N/A	N/A	N/A
Concentration per Run 3	N/A	10.000 ppm	N/A	N/A	N/A
Concentration average 1	N/A	10.000 ppm	N/A	N/A	N/A
Concentration SD 1	N/A	0.0 ppm	N/A	N/A	N/A
Concentration RSD 1	N/A	0.2 %	N/A	N/A	N/A

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.1 cps	0.6 cps	-1.2 cps	42,970.6 cps	12,226.5 cps
Intensity per Run 2	0.1 cps	-0.4 cps	-1.3 cps	43,216.5 cps	12,189.2 cps
Intensity per Run 3	-0.4 cps	-0.2 cps	-0.5 cps	43,205.1 cps	12,300.7 cps
Intensity average 1	0 cps	0 cps	-1 cps	43,131 cps	12,239 cps
Concentration per Run 1	N/A	N/A	N/A	10.011 ppm	10.038 ppm
Concentration per Run 2	N/A	N/A	N/A	10.004 ppm	9.944 ppm
Concentration per Run 3	N/A	N/A	N/A	9.985 ppm	10.018 ppm
Concentration average 1	N/A	N/A	N/A	10.000 ppm	10.000 ppm
Concentration SD 1	N/A	N/A	N/A	0.0 ppm	0.0 ppm
Concentration RSD 1	N/A	N/A	N/A	0.1 %	0.5 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	1.6 cps	293,902.9 cps	9.7 cps	1.7 cps	-2.5 cps
Intensity per Run 2	1.9 cps	295,608.0 cps	9.1 cps	1.2 cps	-1.6 cps
Intensity per Run 3	1.9 cps	296,055.6 cps	8.9 cps	1.7 cps	-1.6 cps
Intensity average 1	2 cps	295,189 cps	9 cps	2 cps	-2 cps
Concentration per Run 1	N/A	10.004 ppm	N/A	N/A	N/A
Concentration per Run 2	N/A	9.999 ppm	N/A	N/A	N/A

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 3	N/A	9.997 ppm	N/A	N/A	N/A
Concentration average 1	N/A	10.000 ppm	N/A	N/A	N/A
Concentration SD 1	N/A	0.0 ppm	N/A	N/A	N/A
Concentration RSD 1	N/A	0.0 %	N/A	N/A	N/A

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	749.9 cps	63,969.0 cps	115.2 cps	-17.2 cps	4.0 cps
Intensity per Run 2	746.3 cps	64,498.4 cps	123.0 cps	-18.5 cps	4.8 cps
Intensity per Run 3	752.4 cps	64,417.0 cps	114.5 cps	-19.0 cps	4.3 cps
Intensity average 1	750 cps	64,295 cps	118 cps	-18 cps	4 cps
Concentration per Run 1	N/A	9.997 ppm	N/A	N/A	N/A
Concentration per Run 2	N/A	10.016 ppm	N/A	N/A	N/A
Concentration per Run 3	N/A	9.987 ppm	N/A	N/A	N/A
Concentration average 1	N/A	10.000 ppm	N/A	N/A	N/A
Concentration SD 1	N/A	0.0 ppm	N/A	N/A	N/A
Concentration RSD 1	N/A	0.1 %	N/A	N/A	N/A

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	-31.3 cps	1.7 cps	7.5 cps	-4.9 cps	-4.3 cps
Intensity per Run 2	-32.0 cps	-1.2 cps	7.5 cps	-5.2 cps	-3.1 cps
Intensity per Run 3	-31.4 cps	0.8 cps	6.5 cps	-5.7 cps	-4.6 cps
Intensity average 1	-32 cps	0 cps	7 cps	-5 cps	-4 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	1.9 cps	2.8 cps	8.4 cps	5.6 cps	831,279.8 cps
Intensity per Run 2	0.9 cps	2.6 cps	6.3 cps	5.4 cps	836,579.1 cps
Intensity per Run 3	0.7 cps	3.2 cps	7.5 cps	6.1 cps	838,002.0 cps
Intensity average 1	1 cps	3 cps	7 cps	6 cps	835,287 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	99.410 %
Concentration per Run 2	N/A	N/A	N/A	N/A	100.044 %
Concentration per Run 3	N/A	N/A	N/A	N/A	100.214 %
Concentration average 1	N/A	N/A	N/A	N/A	99.889 %
Concentration SD 1	N/A	N/A	N/A	N/A	0.4 %
Concentration RSD 1	N/A	N/A	N/A	N/A	0.4 %

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 1	138,341.5 cps	0.9 cps	36.7 cps	-393.7 cps	1.7 cps

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 2	138,265.0 cps	-1.0 cps	32.0 cps	-389.2 cps	2.1 cps
Intensity per Run 3	138,379.6 cps	1.1 cps	30.2 cps	-386.2 cps	3.8 cps
Intensity average 1	138,329 cps	0 cps	33 cps	-390 cps	3 cps
Concentration per Run 1	98.101 %	N/A	N/A	N/A	N/A
Concentration per Run 2	98.046 %	N/A	N/A	N/A	N/A
Concentration per Run 3	98.128 %	N/A	N/A	N/A	N/A
Concentration average 1	98.092 %	N/A	N/A	N/A	N/A
Concentration SD 1	0.0 %	N/A	N/A	N/A	N/A
Concentration RSD 1	0.0 %	N/A	N/A	N/A	N/A

	K 766.490 (Aqueous- Radial-iFR)
Intensity per Run 1	-11.8 cps
Intensity per Run 2	-10.4 cps
Intensity per Run 3	-8.5 cps
Intensity average 1	-10 cps
Concentration per Run 1	N/A
Concentration per Run 2	N/A
Concentration per Run 3	N/A
Concentration average 1	N/A
Concentration SD 1	N/A
Concentration RSD 1	N/A

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Label: STD4
Sample Type: STD
Analysis started at: 6/5/2024 3:36:24 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	0.4 cps	1.8 cps	0.2 cps	0.9 cps	1,127.6 cps
Intensity per Run 2	-0.1 cps	1.9 cps	0.1 cps	0.6 cps	1,131.4 cps
Intensity per Run 3	0.3 cps	2.0 cps	-0.1 cps	0.8 cps	1,123.0 cps
Intensity average 1	0 cps	2 cps	0 cps	1 cps	1,127 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	10.018 ppm
Concentration per Run 2	N/A	N/A	N/A	N/A	10.016 ppm
Concentration per Run 3	N/A	N/A	N/A	N/A	9.967 ppm
Concentration average 1	N/A	N/A	N/A	N/A	10.000 ppm
Concentration SD 1	N/A	N/A	N/A	N/A	0.0 ppm
Concentration RSD 1	N/A	N/A	N/A	N/A	0.3 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.5 cps	1.7 cps	0.1 cps	26.4 cps	1,851.4 cps
Intensity per Run 2	-0.5 cps	1.1 cps	0.5 cps	25.6 cps	1,847.5 cps
Intensity per Run 3	0.4 cps	0.9 cps	0.3 cps	26.3 cps	1,841.0 cps
Intensity average 1	0 cps	1 cps	0 cps	26 cps	1,847 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	10.041 ppm
Concentration per Run 2	N/A	N/A	N/A	N/A	9.984 ppm
Concentration per Run 3	N/A	N/A	N/A	N/A	9.975 ppm
Concentration average 1	N/A	N/A	N/A	N/A	10.000 ppm
Concentration SD 1	N/A	N/A	N/A	N/A	0.0 ppm
Concentration RSD 1	N/A	N/A	N/A	N/A	0.4 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	2,777.5 cps	2.7 cps	0.2 cps	3.0 cps	1.0 cps
Intensity per Run 2	2,772.3 cps	2.2 cps	-0.3 cps	1.2 cps	-0.4 cps
Intensity per Run 3	2,767.2 cps	2.4 cps	-0.3 cps	0.3 cps	-0.2 cps
Intensity average 1	2,772 cps	2 cps	0 cps	2 cps	0 cps
Concentration per Run 1	10.034 ppm	N/A	N/A	N/A	N/A
Concentration per Run 2	9.979 ppm	N/A	N/A	N/A	N/A
Concentration per Run 3	9.987 ppm	N/A	N/A	N/A	N/A
Concentration average 1	10.000 ppm	N/A	N/A	N/A	N/A
Concentration SD 1	0.0 ppm	N/A	N/A	N/A	N/A
Concentration RSD 1	0.3 %	N/A	N/A	N/A	N/A

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	1.4 cps	11.9 cps	-0.4 cps	7.0 cps	-0.3 cps
Intensity per Run 2	0.1 cps	9.8 cps	-0.7 cps	6.9 cps	-0.3 cps
Intensity per Run 3	0.7 cps	9.4 cps	-0.9 cps	5.7 cps	-1.0 cps
Intensity average 1	1 cps	10 cps	-1 cps	7 cps	-1 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A

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	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	747.0 cps	1.8 cps	21.0 cps	-14.5 cps	3.7 cps
Intensity per Run 2	742.0 cps	-1.5 cps	20.8 cps	-16.4 cps	3.2 cps
Intensity per Run 3	741.7 cps	-0.1 cps	21.8 cps	-16.2 cps	2.8 cps
Intensity average 1	744 cps	0 cps	21 cps	-16 cps	3 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	-32.0 cps	16.0 cps	13,295.3 cps	-6.9 cps	-3.2 cps
Intensity per Run 2	-31.1 cps	14.6 cps	13,413.1 cps	-3.3 cps	-2.2 cps
Intensity per Run 3	-31.4 cps	13.6 cps	13,380.2 cps	-2.3 cps	-0.7 cps
Intensity average 1	-32 cps	15 cps	13,363 cps	-4 cps	-2 cps
Concentration per Run 1	N/A	N/A	1.993 ppm	N/A	N/A
Concentration per Run 2	N/A	N/A	2.003 ppm	N/A	N/A
Concentration per Run 3	N/A	N/A	2.004 ppm	N/A	N/A
Concentration average 1	N/A	N/A	2.000 ppm	N/A	N/A
Concentration SD 1	N/A	N/A	0.0 ppm	N/A	N/A
Concentration RSD 1	N/A	N/A	0.3 %	N/A	N/A

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	-0.5 cps	-1.2 cps	2,778.7 cps	4.0 cps	867,739.7 cps
Intensity per Run 2	-0.6 cps	-2.5 cps	2,792.0 cps	0.4 cps	870,879.1 cps
Intensity per Run 3	-2.3 cps	-1.4 cps	2,775.7 cps	0.0 cps	868,590.8 cps
Intensity average 1	-1 cps	-2 cps	2,782 cps	1 cps	869,070 cps
Concentration per Run 1	N/A	N/A	10.003 ppm	N/A	103.770 %
Concentration per Run 2	N/A	N/A	10.015 ppm	N/A	104.145 %
Concentration per Run 3	N/A	N/A	9.982 ppm	N/A	103.872 %
Concentration average 1	N/A	N/A	10.000 ppm	N/A	103.929 %
Concentration SD 1	N/A	N/A	0.0 ppm	N/A	0.2 %
Concentration RSD 1	N/A	N/A	0.2 %	N/A	0.2 %

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 1	144,343.5 cps	2.3 cps	37.8 cps	-381.9 cps	2.5 cps
Intensity per Run 2	144,296.2 cps	2.8 cps	37.8 cps	-388.8 cps	1.7 cps

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 3	144,409.1 cps	3.0 cps	39.8 cps	-386.3 cps	1.9 cps
Intensity average 1	144,350 cps	3 cps	38 cps	-386 cps	2 cps
Concentration per Run 1	102.357 %	N/A	N/A	N/A	N/A
Concentration per Run 2	102.323 %	N/A	N/A	N/A	N/A
Concentration per Run 3	102.403 %	N/A	N/A	N/A	N/A
Concentration average 1	102.361 %	N/A	N/A	N/A	N/A
Concentration SD 1	0.0 %	N/A	N/A	N/A	N/A
Concentration RSD 1	0.0 %	N/A	N/A	N/A	N/A

	K 766.490 (Aqueous- Radial-iFR)
Intensity per Run 1	-8.9 cps
Intensity per Run 2	-9.0 cps
Intensity per Run 3	-9.1 cps
Intensity average 1	-9 cps
Concentration per Run 1	N/A
Concentration per Run 2	N/A
Concentration per Run 3	N/A
Concentration average 1	N/A
Concentration SD 1	N/A
Concentration RSD 1	N/A

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Label: STD5
Sample Type: STD
Analysis started at: 6/5/2024 3:38:46 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	1,402.6 cps	-0.4 cps	3,392.6 cps	1.3 cps	1.4 cps
Intensity per Run 2	1,400.7 cps	-0.3 cps	3,392.6 cps	0.8 cps	0.7 cps
Intensity per Run 3	1,395.3 cps	-0.2 cps	3,377.1 cps	0.6 cps	1.0 cps
Intensity average 1	1,400 cps	0 cps	3,387 cps	1 cps	1 cps
Concentration per Run 1	10.014 ppm	N/A	10.008 ppm	N/A	N/A
Concentration per Run 2	9.973 ppm	N/A	9.981 ppm	N/A	N/A
Concentration per Run 3	10.012 ppm	N/A	10.012 ppm	N/A	N/A
Concentration average 1	10.000 ppm	N/A	10.000 ppm	N/A	N/A
Concentration SD 1	0.0 ppm	N/A	0.0 ppm	N/A	N/A
Concentration RSD 1	0.2 %	N/A	0.2 %	N/A	N/A

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	8,883.2 cps	3.3 cps	1.2 cps	4,497.1 cps	1.0 cps
Intensity per Run 2	8,899.6 cps	3.6 cps	1.4 cps	4,490.8 cps	-0.2 cps
Intensity per Run 3	8,892.7 cps	3.3 cps	1.0 cps	4,480.7 cps	-0.5 cps
Intensity average 1	8,892 cps	3 cps	1 cps	4,490 cps	0 cps
Concentration per Run 1	9.982 ppm	N/A	N/A	10.009 ppm	N/A
Concentration per Run 2	9.974 ppm	N/A	N/A	9.968 ppm	N/A
Concentration per Run 3	10.044 ppm	N/A	N/A	10.023 ppm	N/A
Concentration average 1	10.000 ppm	N/A	N/A	10.000 ppm	N/A
Concentration SD 1	0.0 ppm	N/A	N/A	0.0 ppm	N/A
Concentration RSD 1	0.4 %	N/A	N/A	0.3 %	N/A

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	-3.7 cps	10.4 cps	135.7 cps	1.7 cps	17.6 cps
Intensity per Run 2	-3.6 cps	11.1 cps	133.0 cps	2.5 cps	18.5 cps
Intensity per Run 3	-4.0 cps	10.1 cps	134.0 cps	2.1 cps	18.6 cps
Intensity average 1	-4 cps	11 cps	134 cps	2 cps	18 cps
Concentration per Run 1	N/A	N/A	5.022 ppm	N/A	N/A
Concentration per Run 2	N/A	N/A	4.977 ppm	N/A	N/A
Concentration per Run 3	N/A	N/A	5.001 ppm	N/A	N/A
Concentration average 1	N/A	N/A	5.000 ppm	N/A	N/A
Concentration SD 1	N/A	N/A	0.0 ppm	N/A	N/A
Concentration RSD 1	N/A	N/A	0.4 %	N/A	N/A

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	0.7 cps	-0.7 cps	24.8 cps	4.4 cps	4.0 cps
Intensity per Run 2	0.4 cps	-2.5 cps	24.7 cps	5.0 cps	3.6 cps
Intensity per Run 3	0.9 cps	-0.3 cps	25.8 cps	3.9 cps	3.6 cps
Intensity average 1	1 cps	-1 cps	25 cps	4 cps	4 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A

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	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	11,255.8 cps	-53.3 cps	112.0 cps	-247.3 cps	108.1 cps
Intensity per Run 2	11,289.4 cps	-50.3 cps	110.8 cps	-241.7 cps	107.9 cps
Intensity per Run 3	11,213.8 cps	-54.6 cps	112.2 cps	-246.2 cps	106.7 cps
Intensity average 1	11,253 cps	-53 cps	112 cps	-245 cps	108 cps
Concentration per Run 1	9.994 ppm	N/A	N/A	N/A	N/A
Concentration per Run 2	9.997 ppm	N/A	N/A	N/A	N/A
Concentration per Run 3	10.008 ppm	N/A	N/A	N/A	N/A
Concentration average 1	10.000 ppm	N/A	N/A	N/A	N/A
Concentration SD 1	0.0 ppm	N/A	N/A	N/A	N/A
Concentration RSD 1	0.1 %	N/A	N/A	N/A	N/A

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	-21.0 cps	29.9 cps	-13.4 cps	-2.6 cps	233,525.8 cps
Intensity per Run 2	-22.0 cps	29.9 cps	-17.9 cps	-4.0 cps	233,621.2 cps
Intensity per Run 3	-20.2 cps	28.7 cps	-17.0 cps	-1.7 cps	232,115.3 cps
Intensity average 1	-21 cps	30 cps	-16 cps	-3 cps	233,087 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	10.011 ppm
Concentration per Run 2	N/A	N/A	N/A	N/A	9.988 ppm
Concentration per Run 3	N/A	N/A	N/A	N/A	10.001 ppm
Concentration average 1	N/A	N/A	N/A	N/A	10.000 ppm
Concentration SD 1	N/A	N/A	N/A	N/A	0.0 ppm
Concentration RSD 1	N/A	N/A	N/A	N/A	0.1 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	488.3 cps	-19.5 cps	11.1 cps	5.7 cps	820,570.7 cps
Intensity per Run 2	373.4 cps	-19.5 cps	12.1 cps	6.6 cps	822,790.0 cps
Intensity per Run 3	297.0 cps	-20.2 cps	10.0 cps	3.7 cps	816,460.5 cps
Intensity average 1	386 cps	-20 cps	11 cps	5 cps	819,940 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	98.129 %
Concentration per Run 2	N/A	N/A	N/A	N/A	98.395 %
Concentration per Run 3	N/A	N/A	N/A	N/A	97.638 %
Concentration average 1	N/A	N/A	N/A	N/A	98.054 %
Concentration SD 1	N/A	N/A	N/A	N/A	0.4 %
Concentration RSD 1	N/A	N/A	N/A	N/A	0.4 %

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 1	137,166.1 cps	344,464.1 cps	66.6 cps	-312.7 cps	0.2 cps

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 2	135,648.7 cps	340,528.4 cps	65.5 cps	-321.9 cps	2.4 cps
Intensity per Run 3	136,056.2 cps	342,171.2 cps	64.1 cps	-312.8 cps	0.9 cps
Intensity average 1	136,290 cps	342,388 cps	65 cps	-316 cps	1 cps
Concentration per Run 1	97.267 %	9.996 ppm	N/A	N/A	N/A
Concentration per Run 2	96.191 %	9.993 ppm	N/A	N/A	N/A
Concentration per Run 3	96.480 %	10.011 ppm	N/A	N/A	N/A
Concentration average 1	96.646 %	10.000 ppm	N/A	N/A	N/A
Concentration SD 1	0.6 %	0.0 ppm	N/A	N/A	N/A
Concentration RSD 1	0.6 %	0.1 %	N/A	N/A	N/A

	K 766.490 (Aqueous- Radial-iFR)
Intensity per Run 1	-10.8 cps
Intensity per Run 2	-7.9 cps
Intensity per Run 3	-7.7 cps
Intensity average 1	-9 cps
Concentration per Run 1	N/A
Concentration per Run 2	N/A
Concentration per Run 3	N/A
Concentration average 1	N/A
Concentration SD 1	N/A
Concentration RSD 1	N/A

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Label: STD6
Sample Type: STD
Analysis started at: 6/5/2024 3:41:09 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	-3.9 cps	510.3 cps	0.4 cps	-2.6 cps	3.8 cps
Intensity per Run 2	-4.4 cps	510.1 cps	-0.3 cps	-2.5 cps	2.9 cps
Intensity per Run 3	-3.5 cps	512.0 cps	-0.3 cps	-2.7 cps	3.7 cps
Intensity average 1	-4 cps	511 cps	0 cps	-3 cps	3 cps
Concentration per Run 1	N/A	10.042 ppm	N/A	N/A	N/A
Concentration per Run 2	N/A	9.973 ppm	N/A	N/A	N/A
Concentration per Run 3	N/A	9.985 ppm	N/A	N/A	N/A
Concentration average 1	N/A	10.000 ppm	N/A	N/A	N/A
Concentration SD 1	N/A	0.0 ppm	N/A	N/A	N/A
Concentration RSD 1	N/A	0.4 %	N/A	N/A	N/A

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.8 cps	3.3 cps	2,245.7 cps	42.1 cps	10.2 cps
Intensity per Run 2	-1.7 cps	2.8 cps	2,261.8 cps	40.7 cps	9.6 cps
Intensity per Run 3	-1.5 cps	3.4 cps	2,271.6 cps	40.6 cps	10.7 cps
Intensity average 1	-1 cps	3 cps	2,260 cps	41 cps	10 cps
Concentration per Run 1	N/A	N/A	4.995 ppm	N/A	N/A
Concentration per Run 2	N/A	N/A	4.998 ppm	N/A	N/A
Concentration per Run 3	N/A	N/A	5.007 ppm	N/A	N/A
Concentration average 1	N/A	N/A	5.000 ppm	N/A	N/A
Concentration SD 1	N/A	N/A	0.0 ppm	N/A	N/A
Concentration RSD 1	N/A	N/A	0.1 %	N/A	N/A

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	1.8 cps	12.9 cps	-4.1 cps	1.5 cps	1.2 cps
Intensity per Run 2	1.5 cps	13.0 cps	-3.8 cps	1.9 cps	2.0 cps
Intensity per Run 3	0.9 cps	11.8 cps	-4.1 cps	0.6 cps	1.0 cps
Intensity average 1	1 cps	13 cps	-4 cps	1 cps	1 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	2.3 cps	-23.7 cps	709.0 cps	12.8 cps	-48.9 cps
Intensity per Run 2	3.0 cps	-25.1 cps	717.4 cps	13.7 cps	-48.7 cps
Intensity per Run 3	2.6 cps	-23.4 cps	721.3 cps	12.3 cps	-48.6 cps
Intensity average 1	3 cps	-24 cps	716 cps	13 cps	-49 cps
Concentration per Run 1	N/A	N/A	9.956 ppm	N/A	N/A
Concentration per Run 2	N/A	N/A	10.008 ppm	N/A	N/A
Concentration per Run 3	N/A	N/A	10.037 ppm	N/A	N/A
Concentration average 1	N/A	N/A	10.000 ppm	N/A	N/A
Concentration SD 1	N/A	N/A	0.0 ppm	N/A	N/A

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	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration RSD 1	N/A	N/A	0.4 %	N/A	N/A

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	1,070.0 cps	40.3 cps	620.5 cps	562.4 cps	-11.6 cps
Intensity per Run 2	1,082.6 cps	36.9 cps	620.3 cps	569.4 cps	-10.4 cps
Intensity per Run 3	1,096.2 cps	37.8 cps	621.4 cps	569.7 cps	-10.2 cps
Intensity average 1	1,083 cps	38 cps	621 cps	567 cps	-11 cps
Concentration per Run 1	N/A	N/A	N/A	N/A	N/A
Concentration per Run 2	N/A	N/A	N/A	N/A	N/A
Concentration per Run 3	N/A	N/A	N/A	N/A	N/A
Concentration average 1	N/A	N/A	N/A	N/A	N/A
Concentration SD 1	N/A	N/A	N/A	N/A	N/A
Concentration RSD 1	N/A	N/A	N/A	N/A	N/A

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	7,003.9 cps	198.3 cps	-44.4 cps	84,232.8 cps	100.9 cps
Intensity per Run 2	7,022.7 cps	203.5 cps	-35.3 cps	84,854.6 cps	99.1 cps
Intensity per Run 3	7,005.2 cps	204.6 cps	-30.8 cps	85,045.4 cps	99.3 cps
Intensity average 1	7,011 cps	202 cps	-37 cps	84,711 cps	100 cps
Concentration per Run 1	10.042 ppm	N/A	N/A	9.996 ppm	N/A
Concentration per Run 2	10.004 ppm	N/A	N/A	10.004 ppm	N/A
Concentration per Run 3	9.954 ppm	N/A	N/A	10.001 ppm	N/A
Concentration average 1	10.000 ppm	N/A	N/A	10.000 ppm	N/A
Concentration SD 1	0.0 ppm	N/A	N/A	0.0 ppm	N/A
Concentration RSD 1	0.4 %	N/A	N/A	0.0 %	N/A

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	188,535.7 cps	24,295.8 cps	-5.7 cps	346,877.3 cps	861,583.5 cps
Intensity per Run 2	189,566.5 cps	24,470.7 cps	-1.5 cps	347,871.5 cps	867,257.2 cps
Intensity per Run 3	189,820.9 cps	24,542.7 cps	-5.3 cps	347,750.9 cps	869,452.5 cps
Intensity average 1	189,308 cps	24,436 cps	-4 cps	347,500 cps	866,098 cps
Concentration per Run 1	10.011 ppm	9.995 ppm	N/A	10.034 ppm	103.034 %
Concentration per Run 2	10.000 ppm	10.001 ppm	N/A	9.997 ppm	103.712 %
Concentration per Run 3	9.988 ppm	10.005 ppm	N/A	9.969 ppm	103.975 %
Concentration average 1	10.000 ppm	10.000 ppm	N/A	10.000 ppm	103.574 %
Concentration SD 1	0.0 ppm	0.0 ppm	N/A	0.0 ppm	0.5 %
Concentration RSD 1	0.1 %	0.1 %	N/A	0.3 %	0.5 %

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 1	143,152.5 cps	8.7 cps	391.2 cps	1,803.9 cps	6.2 cps
Intensity per Run 2	144,521.9 cps	8.0 cps	383.3 cps	1,829.0 cps	4.5 cps

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 3	144,466.7 cps	10.4 cps	381.4 cps	1,818.5 cps	2.6 cps
Intensity average 1	144,047 cps	9 cps	385 cps	1,817 cps	4 cps
Concentration per Run 1	101.512 %	N/A	N/A	N/A	N/A
Concentration per Run 2	102.483 %	N/A	N/A	N/A	N/A
Concentration per Run 3	102.444 %	N/A	N/A	N/A	N/A
Concentration average 1	102.147 %	N/A	N/A	N/A	N/A
Concentration SD 1	0.5 %	N/A	N/A	N/A	N/A
Concentration RSD 1	0.5 %	N/A	N/A	N/A	N/A

	K 766.490 (Aqueous- Radial-iFR)
Intensity per Run 1	-9.0 cps
Intensity per Run 2	-12.2 cps
Intensity per Run 3	-9.6 cps
Intensity average 1	-10 cps
Concentration per Run 1	N/A
Concentration per Run 2	N/A
Concentration per Run 3	N/A
Concentration average 1	N/A
Concentration SD 1	N/A
Concentration RSD 1	N/A

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Label: ICV
Sample Type: QC
Analysis started at: 6/5/2024 3:43:32 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Recovery Percentage 1	105.270 %	104.210 %	98.090 %	104.099 %	102.152 %
Intensity per Run 1	704.7 cps	48.4 cps	1,578.4 cps	520.7 cps	414.1 cps
Intensity per Run 2	698.5 cps	47.5 cps	1,571.2 cps	519.7 cps	412.6 cps
Intensity per Run 3	697.5 cps	48.1 cps	1,573.4 cps	523.2 cps	415.0 cps
Intensity average 1	700 cps	48 cps	1,574 cps	521 cps	414 cps
Concentration per Run 1	5.291 ppm	1.049 ppm	4.911 ppm	4.155 ppm	4.084 ppm
Concentration per Run 2	5.248 ppm	1.031 ppm	4.893 ppm	4.150 ppm	4.071 ppm
Concentration per Run 3	5.251 ppm	1.046 ppm	4.909 ppm	4.186 ppm	4.103 ppm
Concentration average 1	5.264 ppm	1.042 ppm	4.905 ppm	4.164 ppm	4.086 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.5 %	0.9 %	0.2 %	0.5 %	0.4 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Recovery Percentage 1	101.225 %	99.181 %	99.155 %	101.439 %	101.265 %
Intensity per Run 1	4,277.2 cps	1,415.4 cps	407.0 cps	2,252.4 cps	170.0 cps
Intensity per Run 2	4,274.9 cps	1,418.2 cps	407.2 cps	2,241.6 cps	170.4 cps
Intensity per Run 3	4,272.5 cps	1,421.3 cps	407.8 cps	2,254.7 cps	169.2 cps
Intensity average 1	4,275 cps	1,418 cps	407 cps	2,250 cps	170 cps
Concentration per Run 1	5.058 ppm	0.989 ppm	0.990 ppm	5.072 ppm	1.012 ppm
Concentration per Run 2	5.059 ppm	0.991 ppm	0.991 ppm	5.051 ppm	1.016 ppm
Concentration per Run 3	5.066 ppm	0.995 ppm	0.994 ppm	5.092 ppm	1.010 ppm
Concentration average 1	5.061 ppm	0.992 ppm	0.992 ppm	5.072 ppm	1.013 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.1 %	0.3 %	0.2 %	0.4 %	0.3 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Recovery Percentage 1	95.336 %	94.964 %	99.566 %	98.850 %	95.219 %
Intensity per Run 1	235.9 cps	1,610.5 cps	128.5 cps	398.7 cps	1,094.7 cps
Intensity per Run 2	234.8 cps	1,604.9 cps	129.6 cps	398.5 cps	1,092.6 cps
Intensity per Run 3	236.1 cps	1,605.5 cps	127.9 cps	397.2 cps	1,098.2 cps
Intensity average 1	236 cps	1,607 cps	129 cps	398 cps	1,095 cps
Concentration per Run 1	0.953 ppm	0.951 ppm	4.980 ppm	0.099 ppm	0.951 ppm
Concentration per Run 2	0.950 ppm	0.948 ppm	4.980 ppm	0.099 ppm	0.950 ppm
Concentration per Run 3	0.957 ppm	0.950 ppm	4.975 ppm	0.099 ppm	0.956 ppm
Concentration average 1	0.953 ppm	0.950 ppm	4.978 ppm	0.099 ppm	0.952 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.4 %	0.1 %	0.1 %	0.1 %	0.4 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Recovery Percentage 1	100.947 %	101.224 %	100.580 %	97.009 %	104.592 %
Intensity per Run 1	285.0 cps	27,874.5 cps	341.4 cps	997.6 cps	2,183.4 cps
Intensity per Run 2	289.3 cps	27,917.2 cps	340.1 cps	997.0 cps	2,201.0 cps
Intensity per Run 3	281.3 cps	27,834.4 cps	338.6 cps	997.1 cps	2,168.2 cps
Intensity average 1	285 cps	27,875 cps	340 cps	997 cps	2,184 cps
Concentration per Run 1	2.021 ppm	1.011 ppm	5.044 ppm	0.388 ppm	20.948 ppm

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 2	2.034 ppm	1.013 ppm	5.028 ppm	0.388 ppm	20.934 ppm
Concentration per Run 3	2.002 ppm	1.012 ppm	5.015 ppm	0.389 ppm	20.873 ppm
Concentration average 1	2.019 ppm	1.012 ppm	5.029 ppm	0.388 ppm	20.918 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.8 %	0.1 %	0.3 %	0.1 %	0.2 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Recovery Percentage 1	101.718 %	101.204 %	102.355 %	99.397 %	105.131 %
Intensity per Run 1	5,837.1 cps	6,025.2 cps	4,359.8 cps	69,737.5 cps	8,069.8 cps
Intensity per Run 2	5,825.5 cps	6,030.2 cps	4,351.1 cps	69,947.7 cps	8,129.9 cps
Intensity per Run 3	5,811.1 cps	6,008.6 cps	4,340.7 cps	69,774.8 cps	8,067.3 cps
Intensity average 1	5,825 cps	6,021 cps	4,351 cps	69,820 cps	8,089 cps
Concentration per Run 1	5.092 ppm	1.011 ppm	4.098 ppm	0.992 ppm	21.013 ppm
Concentration per Run 2	5.085 ppm	1.013 ppm	4.093 ppm	0.995 ppm	20.987 ppm
Concentration per Run 3	5.081 ppm	1.011 ppm	4.091 ppm	0.995 ppm	21.079 ppm
Concentration average 1	5.086 ppm	1.012 ppm	4.094 ppm	0.994 ppm	21.026 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.1 %	0.1 %	0.1 %	0.2 %	0.2 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Recovery Percentage 1	99.700 %	95.322 %	103.657 %	100.393 %	103.241 %
Intensity per Run 1	632.0 cps	3,087.9 cps	599.4 cps	38,323.6 cps	114,427.4 cps
Intensity per Run 2	628.6 cps	3,087.0 cps	599.5 cps	38,288.7 cps	114,333.6 cps
Intensity per Run 3	631.3 cps	3,096.2 cps	598.2 cps	38,206.0 cps	114,273.5 cps
Intensity average 1	631 cps	3,090 cps	599 cps	38,273 cps	114,345 cps
Concentration per Run 1	0.998 ppm	0.476 ppm	0.104 ppm	5.020 ppm	5.160 ppm
Concentration per Run 2	0.993 ppm	0.476 ppm	0.104 ppm	5.020 ppm	5.160 ppm
Concentration per Run 3	1.000 ppm	0.478 ppm	0.104 ppm	5.019 ppm	5.167 ppm
Concentration average 1	0.997 ppm	0.477 ppm	0.104 ppm	5.020 ppm	5.162 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.3 %	0.3 %	0.0 %	0.0 %	0.1 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Recovery Percentage 1	98.335 %	96.167 %	101.460 %	104.452 %	
Intensity per Run 1	84,526.0 cps	2,195.9 cps	1,020.0 cps	163,154.1 cps	779,875.4 cps
Intensity per Run 2	84,702.4 cps	2,187.6 cps	1,016.1 cps	163,226.7 cps	779,233.7 cps
Intensity per Run 3	84,533.4 cps	2,184.8 cps	1,019.8 cps	162,805.5 cps	777,730.2 cps
Intensity average 1	84,587 cps	2,189 cps	1,019 cps	163,062 cps	778,946 cps
Concentration per Run 1	4.907 ppm	0.963 ppm	4.059 ppm	5.219 ppm	93.263 %
Concentration per Run 2	4.922 ppm	0.961 ppm	4.047 ppm	5.226 ppm	93.186 %
Concentration per Run 3	4.921 ppm	0.961 ppm	4.069 ppm	5.223 ppm	93.006 %
Concentration average 1	4.917 ppm	0.962 ppm	4.058 ppm	5.223 ppm	93.151 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.1 %

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	Zr 339.198 (Aqueous-Axial-iFR)	Pd 340.458 (Aqueous-Axial-iFR)	Tl 351.924 (Aqueous-Axial-iFR)	Y 360.073 (Aqueous-Axial-iFR)	Sc 361.384 (Aqueous-Axial-iFR)
Concentration RSD 1	0.2 %	0.2 %	0.3 %	0.1 %	0.1 %

	Sc 361.384 (Aqueous-Radial-iFR)	Sr 421.552 (Aqueous-Radial-iFR)	Ba 493.409 (Aqueous-Axial-iFR)	Na 588.995 (Aqueous-Radial-iFR)	Li 670.784 (Aqueous-Radial-iFR)
Recovery Percentage 1		102.038 %	99.378 %	103.915 %	104.079 %
Intensity per Run 1	133,061.0 cps	170,254.0 cps	513,903.6 cps	61,053.4 cps	18,674.5 cps
Intensity per Run 2	134,219.0 cps	171,844.2 cps	516,431.5 cps	61,775.0 cps	18,881.1 cps
Intensity per Run 3	132,606.6 cps	170,452.6 cps	519,332.7 cps	61,024.3 cps	18,845.5 cps
Intensity average 1	133,296 cps	170,850 cps	516,556 cps	61,284 cps	18,800 cps
Concentration per Run 1	94.356 %	5.093 ppm	3.950 ppm	31.112 ppm	5.178 ppm
Concentration per Run 2	95.177 %	5.096 ppm	3.973 ppm	31.208 ppm	5.190 ppm
Concentration per Run 3	94.034 %	5.116 ppm	4.003 ppm	31.203 ppm	5.243 ppm
Concentration average 1	94.522 %	5.102 ppm	3.975 ppm	31.174 ppm	5.204 ppm
Concentration SD 1	0.6 %	0.0 ppm	0.0 ppm	0.1 ppm	0.0 ppm
Concentration RSD 1	0.6 %	0.2 %	0.7 %	0.2 %	0.7 %

	K 766.490 (Aqueous-Radial-iFR)
Recovery Percentage 1	103.099 %
Intensity per Run 1	4,331.1 cps
Intensity per Run 2	4,367.8 cps
Intensity per Run 3	4,345.9 cps
Intensity average 1	4,348 cps
Concentration per Run 1	20.574 ppm
Concentration per Run 2	20.570 ppm
Concentration per Run 3	20.715 ppm
Concentration average 1	20.620 ppm
Concentration SD 1	0.1 ppm
Concentration RSD 1	0.4 %

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Label: ICB
Sample Type: QC
Analysis started at: 6/5/2024 3:45:53 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Recovery Percentage 1	-0.113 %	-0.480 %	-0.011 %	0.117 %	-0.167 %
Intensity per Run 1	0.1 cps	1.8 cps	-0.4 cps	0.5 cps	-0.1 cps
Intensity per Run 2	-0.2 cps	1.8 cps	-0.2 cps	0.3 cps	0.0 cps
Intensity per Run 3	0.0 cps	1.6 cps	-0.3 cps	0.0 cps	0.6 cps
Intensity average 1	0 cps	2 cps	0 cps	0 cps	0 cps
Concentration per Run 1	0.000 ppm	-0.004 ppm	0.000 ppm	0.003 ppm	-0.004 ppm
Concentration per Run 2	-0.002 ppm	-0.004 ppm	0.000 ppm	0.002 ppm	-0.003 ppm
Concentration per Run 3	-0.001 ppm	-0.007 ppm	0.000 ppm	-0.001 ppm	0.002 ppm
Concentration average 1	-0.001 ppm	-0.005 ppm	0.000 ppm	0.001 ppm	-0.002 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	102.3 %	34.4 %	328.8 %	139.8 %	203.8 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Recovery Percentage 1	0.038 %	-0.088 %	0.155 %	-0.200 %	0.233 %
Intensity per Run 1	0.3 cps	1.2 cps	1.8 cps	29.7 cps	0.3 cps
Intensity per Run 2	-0.1 cps	0.5 cps	1.0 cps	28.4 cps	-0.1 cps
Intensity per Run 3	-0.1 cps	0.0 cps	1.2 cps	28.0 cps	0.0 cps
Intensity average 1	0 cps	1 cps	1 cps	29 cps	0 cps
Concentration per Run 1	0.001 ppm	0.000 ppm	0.003 ppm	0.000 ppm	0.003 ppm
Concentration per Run 2	0.000 ppm	-0.001 ppm	0.001 ppm	-0.003 ppm	0.002 ppm
Concentration per Run 3	0.000 ppm	-0.001 ppm	0.001 ppm	-0.003 ppm	0.002 ppm
Concentration average 1	0.000 ppm	-0.001 ppm	0.002 ppm	-0.002 ppm	0.002 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	65.3 %	44.4 %	62.6 %	100.9 %	41.5 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Recovery Percentage 1	0.046 %	-0.018 %	-0.472 %	0.010 %	-0.032 %
Intensity per Run 1	0.2 cps	0.7 cps	-0.5 cps	0.4 cps	-0.1 cps
Intensity per Run 2	-0.4 cps	0.9 cps	-0.6 cps	0.4 cps	-0.2 cps
Intensity per Run 3	0.1 cps	0.9 cps	-0.2 cps	-0.2 cps	-0.8 cps
Intensity average 1	0 cps	1 cps	0 cps	0 cps	0 cps
Concentration per Run 1	0.001 ppm	0.000 ppm	-0.005 ppm	0.000 ppm	0.000 ppm
Concentration per Run 2	-0.001 ppm	0.000 ppm	-0.012 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	0.001 ppm	0.000 ppm	0.003 ppm	0.000 ppm	-0.001 ppm
Concentration average 1	0.000 ppm	0.000 ppm	-0.005 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	298.7 %	39.8 %	152.3 %	86.3 %	100.4 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Recovery Percentage 1	0.197 %	-0.001 %	0.378 %	-0.018 %	-0.189 %
Intensity per Run 1	0.8 cps	2.9 cps	-0.2 cps	3.2 cps	-0.1 cps
Intensity per Run 2	0.8 cps	1.8 cps	-0.3 cps	3.3 cps	0.0 cps
Intensity per Run 3	0.6 cps	2.4 cps	-0.3 cps	3.2 cps	0.4 cps
Intensity average 1	1 cps	2 cps	0 cps	3 cps	0 cps
Concentration per Run 1	0.002 ppm	0.000 ppm	0.005 ppm	0.000 ppm	-0.004 ppm

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	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 2	0.003 ppm	0.000 ppm	0.004 ppm	0.000 ppm	-0.003 ppm
Concentration per Run 3	0.001 ppm	0.000 ppm	0.003 ppm	0.000 ppm	0.001 ppm
Concentration average 1	0.002 ppm	0.000 ppm	0.004 ppm	0.000 ppm	-0.002 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	43.8 %	296.0 %	28.8 %	9.7 %	126.4 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Recovery Percentage 1	-3.682 %	-0.003 %	0.119 %	0.002 %	-1.883 %
Intensity per Run 1	758.6 cps	-1.0 cps	25.5 cps	-13.2 cps	5.5 cps
Intensity per Run 2	745.7 cps	-0.9 cps	25.8 cps	-14.5 cps	4.7 cps
Intensity per Run 3	745.5 cps	-1.0 cps	24.9 cps	-15.0 cps	5.8 cps
Intensity average 1	750 cps	-1 cps	25 cps	-14 cps	5 cps
Concentration per Run 1	-0.028 ppm	0.000 ppm	0.001 ppm	0.000 ppm	-0.018 ppm
Concentration per Run 2	-0.043 ppm	0.000 ppm	0.001 ppm	0.000 ppm	-0.020 ppm
Concentration per Run 3	-0.039 ppm	0.000 ppm	0.001 ppm	0.000 ppm	-0.018 ppm
Concentration average 1	-0.037 ppm	0.000 ppm	0.001 ppm	0.000 ppm	-0.019 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	21.7 %	26.1 %	27.3 %	70.6 %	7.5 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Recovery Percentage 1	0.254 %	-0.002 %	0.005 %	0.027 %	0.000 %
Intensity per Run 1	-31.0 cps	13.5 cps	0.5 cps	-1.5 cps	-3.1 cps
Intensity per Run 2	-30.3 cps	13.0 cps	0.9 cps	-4.5 cps	-2.0 cps
Intensity per Run 3	-31.0 cps	14.1 cps	0.6 cps	-3.5 cps	-3.2 cps
Intensity average 1	-31 cps	14 cps	1 cps	-3 cps	-3 cps
Concentration per Run 1	0.002 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 2	0.003 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	0.002 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.003 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	30.5 %	410.4 %	65.4 %	67.1 %	1,335.4 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Recovery Percentage 1	-0.015 %	-0.036 %	0.347 %	0.004 %	
Intensity per Run 1	0.2 cps	-0.9 cps	4.6 cps	5.4 cps	842,914.4 cps
Intensity per Run 2	-1.3 cps	-2.1 cps	2.5 cps	2.6 cps	847,184.3 cps
Intensity per Run 3	-3.7 cps	-2.1 cps	3.7 cps	2.5 cps	841,552.2 cps
Intensity average 1	-2 cps	-2 cps	4 cps	3 cps	843,884 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.007 ppm	0.000 ppm	100.801 %
Concentration per Run 2	0.000 ppm	-0.001 ppm	-0.001 ppm	0.000 ppm	101.312 %
Concentration per Run 3	0.000 ppm	-0.001 ppm	0.004 ppm	0.000 ppm	100.638 %
Concentration average 1	0.000 ppm	0.000 ppm	0.003 ppm	0.000 ppm	100.917 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.4 %
Concentration RSD 1	74.2 %	85.8 %	109.5 %	120.0 %	0.3 %

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Recovery Percentage 1		-0.004 %	0.002 %	-0.409 %	0.057 %
Intensity per Run 1	138,967.4 cps	2.1 cps	43.3 cps	-385.3 cps	1.8 cps
Intensity per Run 2	137,919.7 cps	0.9 cps	39.7 cps	-385.0 cps	4.2 cps
Intensity per Run 3	139,922.6 cps	-0.5 cps	36.7 cps	-390.7 cps	2.0 cps
Intensity average 1	138,937 cps	1 cps	40 cps	-387 cps	3 cps
Concentration per Run 1	98.545 %	0.000 ppm	0.000 ppm	-0.003 ppm	0.000 ppm
Concentration per Run 2	97.802 %	0.000 ppm	0.000 ppm	-0.005 ppm	0.001 ppm
Concentration per Run 3	99.222 %	0.000 ppm	0.000 ppm	-0.005 ppm	0.000 ppm
Concentration average 1	98.523 %	0.000 ppm	0.000 ppm	-0.004 ppm	0.001 ppm
Concentration SD 1	0.7 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.7 %	86.8 %	131.5 %	18.2 %	61.9 %

	K 766.490 (Aqueous- Radial-iFR)
Recovery Percentage 1	-0.317 %
Intensity per Run 1	-11.5 cps
Intensity per Run 2	-12.2 cps
Intensity per Run 3	-10.2 cps
Intensity average 1	-11 cps
Concentration per Run 1	-0.004 ppm
Concentration per Run 2	-0.008 ppm
Concentration per Run 3	0.002 ppm
Concentration average 1	-0.003 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	159.7 %

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Label: CRI
Sample Type: QC
Analysis started at: 6/5/2024 3:48:14 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Recovery Percentage 1	103.201 %	102.460 %	103.413 %	104.688 %	102.303 %
Intensity per Run 1	70.5 cps	16.7 cps	50.9 cps	13.0 cps	16.5 cps
Intensity per Run 2	69.8 cps	15.9 cps	50.8 cps	13.6 cps	16.6 cps
Intensity per Run 3	70.6 cps	16.1 cps	50.7 cps	13.9 cps	15.7 cps
Intensity average 1	70 cps	16 cps	51 cps	13 cps	16 cps
Concentration per Run 1	0.519 ppm	0.319 ppm	0.156 ppm	0.101 ppm	0.156 ppm
Concentration per Run 2	0.512 ppm	0.301 ppm	0.155 ppm	0.106 ppm	0.157 ppm
Concentration per Run 3	0.517 ppm	0.303 ppm	0.155 ppm	0.107 ppm	0.147 ppm
Concentration average 1	0.516 ppm	0.307 ppm	0.155 ppm	0.105 ppm	0.153 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.6 %	3.3 %	0.4 %	3.2 %	3.4 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Recovery Percentage 1	103.402 %	99.371 %	102.143 %	94.013 %	105.922 %
Intensity per Run 1	26.8 cps	46.3 cps	43.6 cps	109.8 cps	18.2 cps
Intensity per Run 2	26.1 cps	44.2 cps	43.2 cps	110.1 cps	17.4 cps
Intensity per Run 3	26.6 cps	45.7 cps	42.7 cps	110.0 cps	17.7 cps
Intensity average 1	26 cps	45 cps	43 cps	110 cps	18 cps
Concentration per Run 1	0.031 ppm	0.030 ppm	0.103 ppm	0.188 ppm	0.108 ppm
Concentration per Run 2	0.031 ppm	0.029 ppm	0.102 ppm	0.188 ppm	0.104 ppm
Concentration per Run 3	0.031 ppm	0.030 ppm	0.101 ppm	0.188 ppm	0.105 ppm
Concentration average 1	0.031 ppm	0.030 ppm	0.102 ppm	0.188 ppm	0.106 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	1.4 %	2.5 %	1.3 %	0.2 %	2.2 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Recovery Percentage 1	113.373 %	99.443 %	104.861 %	105.003 %	97.747 %
Intensity per Run 1	5.6 cps	27.3 cps	5.1 cps	43.5 cps	11.1 cps
Intensity per Run 2	5.9 cps	27.9 cps	5.0 cps	42.7 cps	11.2 cps
Intensity per Run 3	5.7 cps	26.7 cps	5.2 cps	43.0 cps	12.2 cps
Intensity average 1	6 cps	27 cps	5 cps	43 cps	12 cps
Concentration per Run 1	0.022 ppm	0.015 ppm	0.209 ppm	0.011 ppm	0.009 ppm
Concentration per Run 2	0.023 ppm	0.015 ppm	0.205 ppm	0.010 ppm	0.010 ppm
Concentration per Run 3	0.022 ppm	0.015 ppm	0.215 ppm	0.010 ppm	0.010 ppm
Concentration average 1	0.023 ppm	0.015 ppm	0.210 ppm	0.011 ppm	0.010 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	2.2 %	2.6 %	2.3 %	1.0 %	5.0 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Recovery Percentage 1	104.916 %	107.873 %	104.157 %	91.543 %	103.915 %
Intensity per Run 1	36.6 cps	459.5 cps	40.7 cps	28.6 cps	9.9 cps
Intensity per Run 2	36.8 cps	458.2 cps	40.4 cps	28.1 cps	10.2 cps
Intensity per Run 3	37.9 cps	460.3 cps	41.1 cps	27.3 cps	10.6 cps
Intensity average 1	37 cps	459 cps	41 cps	28 cps	10 cps
Concentration per Run 1	0.258 ppm	0.016 ppm	0.626 ppm	0.009 ppm	0.100 ppm

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 2	0.260 ppm	0.016 ppm	0.620 ppm	0.009 ppm	0.103 ppm
Concentration per Run 3	0.269 ppm	0.016 ppm	0.629 ppm	0.009 ppm	0.108 ppm
Concentration average 1	0.262 ppm	0.016 ppm	0.625 ppm	0.009 ppm	0.104 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	2.2 %	0.2 %	0.7 %	3.2 %	3.8 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Recovery Percentage 1	105.077 %	98.416 %	101.975 %	100.113 %	97.916 %
Intensity per Run 1	1,010.5 cps	58.0 cps	242.8 cps	705.4 cps	105.5 cps
Intensity per Run 2	1,011.2 cps	58.6 cps	246.3 cps	703.3 cps	102.5 cps
Intensity per Run 3	1,023.3 cps	59.9 cps	242.2 cps	705.7 cps	103.9 cps
Intensity average 1	1,015 cps	59 cps	244 cps	705 cps	104 cps
Concentration per Run 1	0.260 ppm	0.010 ppm	0.203 ppm	0.010 ppm	0.248 ppm
Concentration per Run 2	0.259 ppm	0.010 ppm	0.207 ppm	0.010 ppm	0.241 ppm
Concentration per Run 3	0.268 ppm	0.010 ppm	0.202 ppm	0.010 ppm	0.245 ppm
Concentration average 1	0.263 ppm	0.010 ppm	0.204 ppm	0.010 ppm	0.245 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	1.9 %	1.3 %	1.2 %	0.2 %	1.5 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Recovery Percentage 1	98.146 %	101.945 %	103.122 %	103.935 %	107.257 %
Intensity per Run 1	38.3 cps	116.9 cps	130.5 cps	402.7 cps	245.1 cps
Intensity per Run 2	35.7 cps	116.8 cps	130.6 cps	403.1 cps	243.5 cps
Intensity per Run 3	38.8 cps	116.3 cps	130.0 cps	404.7 cps	246.8 cps
Intensity average 1	38 cps	117 cps	130 cps	404 cps	245 cps
Concentration per Run 1	0.099 ppm	0.015 ppm	0.021 ppm	0.052 ppm	0.011 ppm
Concentration per Run 2	0.095 ppm	0.015 ppm	0.021 ppm	0.052 ppm	0.011 ppm
Concentration per Run 3	0.100 ppm	0.015 ppm	0.021 ppm	0.052 ppm	0.011 ppm
Concentration average 1	0.098 ppm	0.015 ppm	0.021 ppm	0.052 ppm	0.011 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	2.5 %	0.6 %	0.5 %	0.1 %	0.5 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Recovery Percentage 1	99.829 %	98.924 %	104.177 %	111.940 %	
Intensity per Run 1	781.1 cps	110.8 cps	108.1 cps	353.9 cps	795,398.8 cps
Intensity per Run 2	784.0 cps	112.8 cps	108.0 cps	354.5 cps	796,768.5 cps
Intensity per Run 3	786.5 cps	117.4 cps	110.7 cps	357.4 cps	798,951.8 cps
Intensity average 1	784 cps	114 cps	109 cps	355 cps	797,040 cps
Concentration per Run 1	0.040 ppm	0.048 ppm	0.415 ppm	0.011 ppm	95.119 %
Concentration per Run 2	0.040 ppm	0.049 ppm	0.413 ppm	0.011 ppm	95.283 %
Concentration per Run 3	0.040 ppm	0.051 ppm	0.423 ppm	0.011 ppm	95.544 %
Concentration average 1	0.040 ppm	0.049 ppm	0.417 ppm	0.011 ppm	95.315 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.2 %
Concentration RSD 1	0.4 %	2.8 %	1.2 %	0.3 %	0.2 %

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Report Date/Time: 6/5/2024 4:55:33 PM

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Recovery Percentage 1		103.541 %	112.326 %	100.957 %	104.439 %
Intensity per Run 1	132,354.2 cps	344.5 cps	1,526.4 cps	236.2 cps	113.5 cps
Intensity per Run 2	131,970.8 cps	346.7 cps	1,533.0 cps	231.8 cps	110.9 cps
Intensity per Run 3	131,575.8 cps	345.6 cps	1,520.3 cps	232.4 cps	113.3 cps
Intensity average 1	131,967 cps	346 cps	1,527 cps	233 cps	113 cps
Concentration per Run 1	93.855 %	0.010 ppm	0.011 ppm	0.304 ppm	0.031 ppm
Concentration per Run 2	93.583 %	0.010 ppm	0.011 ppm	0.302 ppm	0.031 ppm
Concentration per Run 3	93.303 %	0.010 ppm	0.011 ppm	0.303 ppm	0.032 ppm
Concentration average 1	93.580 %	0.010 ppm	0.011 ppm	0.303 ppm	0.031 ppm
Concentration SD 1	0.3 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.3 %	0.5 %	0.6 %	0.3 %	1.3 %

	K 766.490 (Aqueous- Radial-iFR)
Recovery Percentage 1	103.600 %
Intensity per Run 1	55.4 cps
Intensity per Run 2	56.7 cps
Intensity per Run 3	52.8 cps
Intensity average 1	55 cps
Concentration per Run 1	0.312 ppm
Concentration per Run 2	0.319 ppm
Concentration per Run 3	0.301 ppm
Concentration average 1	0.311 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	2.9 %

ThermoScientific iCAP Pro XP
Nickname: "Steve Rogers"



Report Date/Time: 6/5/2024 4:55:33 PM

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Label: ICSA
Sample Type: QC
Analysis started at: 6/5/2024 3:50:36 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.1 cps	1.5 cps	-0.1 cps	4.1 cps	-4.9 cps
Intensity per Run 2	0.2 cps	1.5 cps	0.6 cps	2.1 cps	-4.9 cps
Intensity per Run 3	0.6 cps	2.5 cps	-0.7 cps	2.3 cps	-5.0 cps
Intensity average 1	0 cps	2 cps	0 cps	3 cps	-5 cps
Concentration per Run 1	-0.020 ppm	-0.002 ppm	0.001 ppm	0.037 ppm	-0.011 ppm
Concentration per Run 2	-0.018 ppm	-0.002 ppm	0.003 ppm	0.018 ppm	-0.011 ppm
Concentration per Run 3	-0.015 ppm	0.023 ppm	-0.002 ppm	0.020 ppm	-0.013 ppm
Concentration average 1	-0.018 ppm	0.006 ppm	0.001 ppm	0.025 ppm	-0.012 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	15.9 %	229.6 %	412.6 %	41.0 %	8.5 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	0.1 cps	6.5 cps	1.7 cps	19.3 cps	-2.4 cps
Intensity per Run 2	-0.3 cps	8.8 cps	0.7 cps	18.5 cps	-4.8 cps
Intensity per Run 3	-1.6 cps	7.1 cps	1.4 cps	18.9 cps	-4.9 cps
Intensity average 1	-1 cps	7 cps	1 cps	19 cps	-4 cps
Concentration per Run 1	0.000 ppm	0.004 ppm	0.003 ppm	-0.012 ppm	0.001 ppm
Concentration per Run 2	0.000 ppm	0.006 ppm	0.000 ppm	-0.014 ppm	-0.015 ppm
Concentration per Run 3	-0.002 ppm	0.004 ppm	0.002 ppm	-0.013 ppm	-0.016 ppm
Concentration average 1	-0.001 ppm	0.005 ppm	0.002 ppm	-0.013 ppm	-0.010 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	242.0 %	20.3 %	77.7 %	9.3 %	96.6 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	-3.5 cps	6.6 cps	0.2 cps	71.4 cps	1.1 cps
Intensity per Run 2	-2.6 cps	5.3 cps	-0.1 cps	71.8 cps	1.6 cps
Intensity per Run 3	-2.6 cps	5.9 cps	-0.1 cps	71.2 cps	1.6 cps
Intensity average 1	-3 cps	6 cps	0 cps	71 cps	1 cps
Concentration per Run 1	-0.003 ppm	0.004 ppm	0.022 ppm	0.002 ppm	0.001 ppm
Concentration per Run 2	0.001 ppm	0.003 ppm	0.008 ppm	0.002 ppm	0.002 ppm
Concentration per Run 3	0.001 ppm	0.003 ppm	0.007 ppm	0.001 ppm	0.002 ppm
Concentration average 1	0.000 ppm	0.003 ppm	0.012 ppm	0.002 ppm	0.001 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	2,814.8 %	12.4 %	65.0 %	8.0 %	18.2 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	25,420.4 cps	23.7 cps	2.8 cps	-2.0 cps	53,271.0 cps
Intensity per Run 2	25,482.5 cps	25.2 cps	0.8 cps	-2.5 cps	52,991.5 cps
Intensity per Run 3	25,545.8 cps	24.2 cps	1.4 cps	-1.6 cps	53,058.9 cps
Intensity average 1	25,483 cps	24 cps	2 cps	-2 cps	53,107 cps
Concentration per Run 1	195.995 ppm	0.001 ppm	0.062 ppm	-0.002 ppm	552.427 ppm
Concentration per Run 2	196.386 ppm	0.001 ppm	0.026 ppm	-0.002 ppm	549.282 ppm

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 3	197.798 ppm	0.001 ppm	0.037 ppm	-0.002 ppm	552.564 ppm
Concentration average 1	196.726 ppm	0.001 ppm	0.041 ppm	-0.002 ppm	551.424 ppm
Concentration SD 1	0.9 ppm	0.0 ppm	0.0 ppm	0.0 ppm	1.9 ppm
Concentration RSD 1	0.5 %	3.6 %	44.3 %	8.9 %	0.3 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	647.8 cps	-1.6 cps	442,436.1 cps	-16.9 cps	168,435.5 cps
Intensity per Run 2	647.9 cps	-0.4 cps	444,031.2 cps	-17.4 cps	167,544.1 cps
Intensity per Run 3	643.1 cps	-0.3 cps	442,163.1 cps	-18.6 cps	167,138.2 cps
Intensity average 1	646 cps	-1 cps	442,877 cps	-18 cps	167,706 cps
Concentration per Run 1	0.018 ppm	0.000 ppm	491.535 ppm	0.000 ppm	479.337 ppm
Concentration per Run 2	0.018 ppm	0.000 ppm	493.024 ppm	0.000 ppm	476.587 ppm
Concentration per Run 3	0.015 ppm	0.000 ppm	492.448 ppm	0.000 ppm	477.665 ppm
Concentration average 1	0.017 ppm	0.000 ppm	492.336 ppm	0.000 ppm	477.863 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.8 ppm	0.0 ppm	1.4 ppm
Concentration RSD 1	11.7 %	55.0 %	0.2 %	7.3 %	0.3 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	85.7 cps	29.7 cps	-0.8 cps	-12.9 cps	-74.0 cps
Intensity per Run 2	92.4 cps	26.5 cps	-0.5 cps	-17.7 cps	-70.0 cps
Intensity per Run 3	87.3 cps	25.5 cps	-0.2 cps	-17.6 cps	-74.2 cps
Intensity average 1	88 cps	27 cps	-1 cps	-16 cps	-73 cps
Concentration per Run 1	0.054 ppm	0.003 ppm	0.000 ppm	-0.002 ppm	-0.004 ppm
Concentration per Run 2	0.061 ppm	0.002 ppm	0.000 ppm	-0.003 ppm	-0.004 ppm
Concentration per Run 3	0.049 ppm	0.002 ppm	0.000 ppm	-0.003 ppm	-0.004 ppm
Concentration average 1	0.055 ppm	0.002 ppm	0.000 ppm	-0.002 ppm	-0.004 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	11.8 %	16.4 %	195.0 %	17.9 %	3.5 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	-81.8 cps	-120.7 cps	-12.2 cps	45.3 cps	675,393.6 cps
Intensity per Run 2	-79.1 cps	-117.0 cps	-11.2 cps	46.2 cps	675,779.6 cps
Intensity per Run 3	-78.1 cps	-120.6 cps	-11.0 cps	44.2 cps	673,725.1 cps
Intensity average 1	-80 cps	-119 cps	-11 cps	45 cps	674,966 cps
Concentration per Run 1	-0.010 ppm	-0.002 ppm	0.028 ppm	0.002 ppm	80.768 %
Concentration per Run 2	-0.011 ppm	0.000 ppm	0.032 ppm	0.002 ppm	80.814 %
Concentration per Run 3	-0.010 ppm	-0.001 ppm	0.034 ppm	0.002 ppm	80.568 %

	Zr 339.198 (Aqueous-Axial-iFR)	Pd 340.458 (Aqueous-Axial-iFR)	Tl 351.924 (Aqueous-Axial-iFR)	Y 360.073 (Aqueous-Axial-iFR)	Sc 361.384 (Aqueous-Axial-iFR)
Concentration average 1	-0.010 ppm	-0.001 ppm	0.031 ppm	0.002 ppm	80.717 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.1 %
Concentration RSD 1	2.6 %	85.7 %	10.5 %	2.1 %	0.2 %

	Sc 361.384 (Aqueous-Radial-iFR)	Sr 421.552 (Aqueous-Radial-iFR)	Ba 493.409 (Aqueous-Axial-iFR)	Na 588.995 (Aqueous-Radial-iFR)	Li 670.784 (Aqueous-Radial-iFR)
Intensity per Run 1	122,563.4 cps	283.0 cps	698.3 cps	-365.4 cps	6.0 cps
Intensity per Run 2	122,618.3 cps	282.3 cps	703.4 cps	-364.8 cps	3.8 cps
Intensity per Run 3	122,045.1 cps	282.8 cps	707.2 cps	-365.9 cps	4.2 cps
Intensity average 1	122,409 cps	283 cps	703 cps	-365 cps	5 cps
Concentration per Run 1	86.912 %	0.005 ppm	0.002 ppm	-0.017 ppm	0.002 ppm
Concentration per Run 2	86.951 %	0.005 ppm	0.002 ppm	-0.017 ppm	0.001 ppm
Concentration per Run 3	86.545 %	0.005 ppm	0.002 ppm	-0.019 ppm	0.001 ppm
Concentration average 1	86.803 %	0.005 ppm	0.002 ppm	-0.018 ppm	0.001 ppm
Concentration SD 1	0.2 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.3 %	0.5 %	1.8 %	4.5 %	27.6 %

	K 766.490 (Aqueous-Radial-iFR)
Intensity per Run 1	-10.7 cps
Intensity per Run 2	-10.2 cps
Intensity per Run 3	-8.1 cps
Intensity average 1	-10 cps
Concentration per Run 1	-0.007 ppm
Concentration per Run 2	-0.004 ppm
Concentration per Run 3	0.006 ppm
Concentration average 1	-0.002 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	447.2 %

ThermoScientific iCAP Pro XP
Nickname: "Steve Rogers"



Report Date/Time: 6/5/2024 4:55:33 PM

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Label: ICSAB
Sample Type: QC
Analysis started at: 6/5/2024 3:52:58 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	116.7 cps	2.4 cps	242.8 cps	115.9 cps	77.0 cps
Intensity per Run 2	117.8 cps	2.0 cps	244.7 cps	113.0 cps	80.7 cps
Intensity per Run 3	118.3 cps	2.0 cps	243.9 cps	115.0 cps	79.4 cps
Intensity average 1	118 cps	2 cps	244 cps	115 cps	79 cps
Concentration per Run 1	0.974 ppm	0.024 ppm	0.860 ppm	1.052 ppm	0.909 ppm
Concentration per Run 2	0.987 ppm	0.013 ppm	0.869 ppm	1.029 ppm	0.953 ppm
Concentration per Run 3	0.987 ppm	0.014 ppm	0.863 ppm	1.044 ppm	0.936 ppm
Concentration average 1	0.983 ppm	0.017 ppm	0.864 ppm	1.042 ppm	0.933 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.8 %	34.6 %	0.6 %	1.1 %	2.4 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	717.5 cps	1,075.0 cps	3.7 cps	355.6 cps	146.0 cps
Intensity per Run 2	715.0 cps	1,071.3 cps	4.2 cps	357.1 cps	147.0 cps
Intensity per Run 3	717.6 cps	1,079.1 cps	3.5 cps	357.6 cps	145.7 cps
Intensity average 1	717 cps	1,075 cps	4 cps	357 cps	146 cps
Concentration per Run 1	0.965 ppm	0.854 ppm	0.001 ppm	0.856 ppm	1.018 ppm
Concentration per Run 2	0.964 ppm	0.854 ppm	0.002 ppm	0.863 ppm	1.028 ppm
Concentration per Run 3	0.965 ppm	0.857 ppm	0.000 ppm	0.861 ppm	1.016 ppm
Concentration average 1	0.965 ppm	0.855 ppm	0.001 ppm	0.860 ppm	1.021 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.0 %	0.2 %	115.3 %	0.4 %	0.6 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	178.9 cps	1,233.7 cps	-0.1 cps	3,200.0 cps	436.7 cps
Intensity per Run 2	176.9 cps	1,231.1 cps	-0.9 cps	3,173.5 cps	434.7 cps
Intensity per Run 3	179.8 cps	1,233.1 cps	-0.7 cps	3,206.2 cps	436.1 cps
Intensity average 1	179 cps	1,233 cps	-1 cps	3,193 cps	436 cps
Concentration per Run 1	0.831 ppm	0.831 ppm	0.018 ppm	0.885 ppm	0.433 ppm
Concentration per Run 2	0.824 ppm	0.832 ppm	-0.016 ppm	0.880 ppm	0.432 ppm
Concentration per Run 3	0.835 ppm	0.830 ppm	-0.007 ppm	0.886 ppm	0.432 ppm
Concentration average 1	0.830 ppm	0.831 ppm	-0.002 ppm	0.884 ppm	0.432 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.7 %	0.1 %	1,064.2 %	0.4 %	0.1 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	25,141.0 cps	11,920.7 cps	58.5 cps	1,033.0 cps	51,912.9 cps
Intensity per Run 2	25,015.6 cps	11,851.9 cps	57.8 cps	1,032.7 cps	52,001.7 cps
Intensity per Run 3	25,183.3 cps	11,934.8 cps	56.3 cps	1,034.0 cps	52,014.4 cps
Intensity average 1	25,113 cps	11,902 cps	58 cps	1,033 cps	51,976 cps
Concentration per Run 1	191.563 ppm	0.491 ppm	0.979 ppm	0.459 ppm	532.033 ppm
Concentration per Run 2	191.200 ppm	0.490 ppm	0.971 ppm	0.460 ppm	534.599 ppm

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 3	192.158 ppm	0.492 ppm	0.941 ppm	0.459 ppm	533.832 ppm
Concentration average 1	191.640 ppm	0.491 ppm	0.964 ppm	0.459 ppm	533.488 ppm
Concentration SD 1	0.5 ppm	0.0 ppm	0.0 ppm	0.0 ppm	1.3 ppm
Concentration RSD 1	0.3 %	0.2 %	2.1 %	0.2 %	0.2 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	1,545.6 cps	2,569.0 cps	438,565.9 cps	29,838.4 cps	165,286.0 cps
Intensity per Run 2	1,536.5 cps	2,558.8 cps	437,964.7 cps	29,648.4 cps	165,499.1 cps
Intensity per Run 3	1,541.4 cps	2,563.6 cps	439,546.6 cps	29,817.9 cps	165,876.3 cps
Intensity average 1	1,541 cps	2,564 cps	438,692 cps	29,768 cps	165,554 cps
Concentration per Run 1	1.034 ppm	0.488 ppm	479.609 ppm	0.482 ppm	464.851 ppm
Concentration per Run 2	1.030 ppm	0.488 ppm	480.495 ppm	0.480 ppm	466.897 ppm
Concentration per Run 3	1.029 ppm	0.487 ppm	480.590 ppm	0.481 ppm	467.175 ppm
Concentration average 1	1.031 ppm	0.488 ppm	480.231 ppm	0.481 ppm	466.308 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.5 ppm	0.0 ppm	1.3 ppm
Concentration RSD 1	0.3 %	0.1 %	0.1 %	0.2 %	0.3 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	97.9 cps	3,031.8 cps	5,790.0 cps	-13.4 cps	19,765.6 cps
Intensity per Run 2	95.8 cps	3,048.1 cps	5,799.9 cps	-13.9 cps	19,766.2 cps
Intensity per Run 3	98.0 cps	3,045.5 cps	5,780.8 cps	-15.8 cps	19,723.9 cps
Intensity average 1	97 cps	3,042 cps	5,790 cps	-14 cps	19,752 cps
Concentration per Run 1	0.061 ppm	0.538 ppm	1.093 ppm	-0.002 ppm	1.013 ppm
Concentration per Run 2	0.062 ppm	0.542 ppm	1.098 ppm	-0.002 ppm	1.016 ppm
Concentration per Run 3	0.062 ppm	0.540 ppm	1.091 ppm	-0.003 ppm	1.011 ppm
Concentration average 1	0.061 ppm	0.540 ppm	1.094 ppm	-0.002 ppm	1.013 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	1.0 %	0.4 %	0.3 %	7.9 %	0.3 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	14,787.0 cps	-113.4 cps	221.8 cps	45.7 cps	686,118.0 cps
Intensity per Run 2	14,682.0 cps	-119.1 cps	223.3 cps	43.5 cps	683,914.4 cps
Intensity per Run 3	14,765.7 cps	-115.1 cps	224.5 cps	45.9 cps	686,248.3 cps
Intensity average 1	14,745 cps	-116 cps	223 cps	45 cps	685,427 cps
Concentration per Run 1	0.980 ppm	-0.001 ppm	1.087 ppm	0.002 ppm	82.050 %
Concentration per Run 2	0.976 ppm	-0.005 ppm	1.097 ppm	0.002 ppm	81.787 %
Concentration per Run 3	0.979 ppm	-0.002 ppm	1.099 ppm	0.002 ppm	82.066 %

	Zr 339.198 (Aqueous-Axial-iFR)	Pd 340.458 (Aqueous-Axial-iFR)	Tl 351.924 (Aqueous-Axial-iFR)	Y 360.073 (Aqueous-Axial-iFR)	Sc 361.384 (Aqueous-Axial-iFR)
Concentration average 1	0.978 ppm	-0.003 ppm	1.095 ppm	0.002 ppm	81.968 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.2 %
Concentration RSD 1	0.2 %	62.2 %	0.6 %	2.6 %	0.2 %

	Sc 361.384 (Aqueous-Radial-iFR)	Sr 421.552 (Aqueous-Radial-iFR)	Ba 493.409 (Aqueous-Axial-iFR)	Na 588.995 (Aqueous-Radial-iFR)	Li 670.784 (Aqueous-Radial-iFR)
Intensity per Run 1	124,019.7 cps	32,129.9 cps	59,538.0 cps	-361.0 cps	3,717.2 cps
Intensity per Run 2	123,635.5 cps	31,876.8 cps	59,830.9 cps	-367.1 cps	3,680.8 cps
Intensity per Run 3	123,843.5 cps	31,928.8 cps	59,425.1 cps	-365.7 cps	3,671.0 cps
Intensity average 1	123,833 cps	31,978 cps	59,598 cps	-365 cps	3,690 cps
Concentration per Run 1	87.945 %	1.028 ppm	0.517 ppm	-0.013 ppm	1.106 ppm
Concentration per Run 2	87.672 %	1.023 ppm	0.521 ppm	-0.017 ppm	1.098 ppm
Concentration per Run 3	87.820 %	1.023 ppm	0.515 ppm	-0.016 ppm	1.094 ppm
Concentration average 1	87.812 %	1.024 ppm	0.518 ppm	-0.015 ppm	1.099 ppm
Concentration SD 1	0.1 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.2 %	0.3 %	0.5 %	13.2 %	0.6 %

	K 766.490 (Aqueous-Radial-iFR)
Intensity per Run 1	-12.0 cps
Intensity per Run 2	-8.6 cps
Intensity per Run 3	-11.9 cps
Intensity average 1	-11 cps
Concentration per Run 1	-0.014 ppm
Concentration per Run 2	0.003 ppm
Concentration per Run 3	-0.013 ppm
Concentration average 1	-0.008 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	120.5 %

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Label: UCL1
Sample Type: QC
Analysis started at: 6/5/2024 3:55:20 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Recovery Percentage 1					
Intensity per Run 1	-5.1 cps	1.5 cps	-1.2 cps	-0.6 cps	-15.1 cps
Intensity per Run 2	-6.2 cps	1.1 cps	-0.1 cps	1.7 cps	-14.4 cps
Intensity per Run 3	-4.9 cps	1.2 cps	-0.9 cps	1.9 cps	-16.0 cps
Intensity average 1	-5 cps	1 cps	-1 cps	1 cps	-15 cps
Concentration per Run 1	-0.025 ppm	-0.016 ppm	0.001 ppm	-0.010 ppm	-0.037 ppm
Concentration per Run 2	-0.034 ppm	-0.025 ppm	0.005 ppm	0.011 ppm	-0.030 ppm
Concentration per Run 3	-0.022 ppm	-0.023 ppm	0.002 ppm	0.013 ppm	-0.048 ppm
Concentration average 1	-0.027 ppm	-0.021 ppm	0.003 ppm	0.004 ppm	-0.038 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	22.5 %	22.1 %	71.7 %	273.2 %	24.7 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Recovery Percentage 1					
Intensity per Run 1	-3.3 cps	1.3 cps	1.1 cps	17.8 cps	-8.6 cps
Intensity per Run 2	-2.3 cps	-0.2 cps	0.8 cps	16.6 cps	-9.1 cps
Intensity per Run 3	-3.0 cps	-0.9 cps	0.9 cps	16.5 cps	-8.0 cps
Intensity average 1	-3 cps	0 cps	1 cps	17 cps	-9 cps
Concentration per Run 1	-0.004 ppm	0.000 ppm	0.001 ppm	-0.016 ppm	-0.012 ppm
Concentration per Run 2	-0.003 ppm	-0.001 ppm	0.001 ppm	-0.020 ppm	-0.015 ppm
Concentration per Run 3	-0.004 ppm	-0.002 ppm	0.001 ppm	-0.020 ppm	-0.008 ppm
Concentration average 1	-0.004 ppm	-0.001 ppm	0.001 ppm	-0.019 ppm	-0.012 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	19.2 %	74.2 %	28.1 %	10.5 %	31.0 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Recovery Percentage 1					
Intensity per Run 1	-1.6 cps	15.4 cps	-2.4 cps	211.7 cps	5.7 cps
Intensity per Run 2	-1.9 cps	15.5 cps	-2.2 cps	209.7 cps	4.6 cps
Intensity per Run 3	-2.3 cps	15.7 cps	-2.0 cps	214.3 cps	4.4 cps
Intensity average 1	-2 cps	16 cps	-2 cps	212 cps	5 cps
Concentration per Run 1	-0.009 ppm	0.010 ppm	0.011 ppm	0.006 ppm	0.006 ppm
Concentration per Run 2	-0.011 ppm	0.010 ppm	0.020 ppm	0.006 ppm	0.005 ppm
Concentration per Run 3	-0.013 ppm	0.010 ppm	0.027 ppm	0.008 ppm	0.004 ppm
Concentration average 1	-0.011 ppm	0.010 ppm	0.019 ppm	0.007 ppm	0.005 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	15.3 %	1.5 %	41.3 %	13.6 %	13.7 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Recovery Percentage 1	93.054 %				106.503 %
Intensity per Run 1	73,437.0 cps	37.7 cps	-8.7 cps	-0.5 cps	62,487.6 cps
Intensity per Run 2	73,586.2 cps	38.5 cps	-7.0 cps	-3.0 cps	62,595.8 cps
Intensity per Run 3	73,920.4 cps	40.6 cps	-7.5 cps	-1.0 cps	62,723.0 cps
Intensity average 1	73,648 cps	39 cps	-8 cps	-2 cps	62,602 cps

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 1	559.086 ppm	0.006 ppm	0.179 ppm	0.001 ppm	640.545 ppm
Concentration per Run 2	559.532 ppm	0.006 ppm	0.210 ppm	-0.001 ppm	640.869 ppm
Concentration per Run 3	556.348 ppm	0.006 ppm	0.200 ppm	0.000 ppm	635.636 ppm
Concentration average 1	558.322 ppm	0.006 ppm	0.196 ppm	0.000 ppm	639.017 ppm
Concentration SD 1	1.7 ppm	0.0 ppm	0.0 ppm	0.0 ppm	2.9 ppm
Concentration RSD 1	0.3 %	1.2 %	8.2 %	433.3 %	0.5 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Recovery Percentage 1			92.495 %		93.997 %
Intensity per Run 1	635.4 cps	83.4 cps	504,009.6 cps	949.4 cps	66,719.1 cps
Intensity per Run 2	632.9 cps	84.7 cps	504,971.6 cps	952.9 cps	67,035.2 cps
Intensity per Run 3	626.5 cps	83.5 cps	503,540.6 cps	954.7 cps	67,367.4 cps
Intensity average 1	632 cps	84 cps	504,174 cps	952 cps	67,041 cps
Concentration per Run 1	0.012 ppm	-0.005 ppm	553.985 ppm	-0.002 ppm	187.886 ppm
Concentration per Run 2	0.010 ppm	-0.005 ppm	555.499 ppm	-0.002 ppm	188.544 ppm
Concentration per Run 3	0.005 ppm	-0.005 ppm	555.423 ppm	-0.002 ppm	187.551 ppm
Concentration average 1	0.009 ppm	-0.005 ppm	554.969 ppm	-0.002 ppm	187.994 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.9 ppm	0.0 ppm	0.5 ppm
Concentration RSD 1	43.1 %	1.7 %	0.2 %	2.0 %	0.3 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Recovery Percentage 1	97.188 %				
Intensity per Run 1	11,749.8 cps	269.3 cps	-125.1 cps	307.1 cps	-0.4 cps
Intensity per Run 2	11,816.5 cps	272.9 cps	-126.3 cps	303.8 cps	-0.8 cps
Intensity per Run 3	11,774.3 cps	274.8 cps	-118.9 cps	305.3 cps	-3.0 cps
Intensity average 1	11,780 cps	272 cps	-123 cps	305 cps	-1 cps
Concentration per Run 1	19.349 ppm	-0.010 ppm	-0.008 ppm	-0.013 ppm	-0.001 ppm
Concentration per Run 2	19.486 ppm	-0.010 ppm	-0.008 ppm	-0.014 ppm	-0.002 ppm
Concentration per Run 3	19.478 ppm	-0.009 ppm	-0.007 ppm	-0.013 ppm	-0.002 ppm
Concentration average 1	19.438 ppm	-0.009 ppm	-0.008 ppm	-0.013 ppm	-0.002 ppm
Concentration SD 1	0.1 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.4 %	4.5 %	8.6 %	3.2 %	5.1 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Recovery Percentage 1					
Intensity per Run 1	13,029.4 cps	341.2 cps	-69.2 cps	-1,227.1 cps	680,976.2 cps

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	Zr 339.198 (Aqueous-Axial-iFR)	Pd 340.458 (Aqueous-Axial-iFR)	Tl 351.924 (Aqueous-Axial-iFR)	Y 360.073 (Aqueous-Axial-iFR)	Sc 361.384 (Aqueous-Axial-iFR)
Intensity per Run 2	13,070.6 cps	336.5 cps	-67.2 cps	-1,231.3 cps	680,411.4 cps
Intensity per Run 3	13,254.2 cps	342.7 cps	-66.2 cps	-1,247.3 cps	678,576.5 cps
Intensity average 1	13,118 cps	340 cps	-68 cps	-1,235 cps	679,988 cps
Concentration per Run 1	-0.173 ppm	-0.081 ppm	0.022 ppm	-0.023 ppm	81.436 %
Concentration per Run 2	-0.176 ppm	-0.086 ppm	0.032 ppm	-0.023 ppm	81.368 %
Concentration per Run 3	-0.161 ppm	-0.083 ppm	0.034 ppm	-0.024 ppm	81.149 %
Concentration average 1	-0.170 ppm	-0.083 ppm	0.029 ppm	-0.024 ppm	81.317 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.2 %
Concentration RSD 1	4.8 %	3.0 %	22.0 %	1.8 %	0.2 %

	Sc 361.384 (Aqueous-Radial-iFR)	Sr 421.552 (Aqueous-Radial-iFR)	Ba 493.409 (Aqueous-Axial-iFR)	Na 588.995 (Aqueous-Radial-iFR)	Li 670.784 (Aqueous-Radial-iFR)
Recovery Percentage 1		96.645 %		98.932 %	104.956 %
Intensity per Run 1	124,126.2 cps	360,632.2 cps	1,358.0 cps	456,229.5 cps	70,491.8 cps
Intensity per Run 2	124,279.3 cps	362,303.7 cps	1,360.6 cps	455,315.5 cps	70,785.6 cps
Intensity per Run 3	125,558.0 cps	366,746.2 cps	1,362.8 cps	459,598.7 cps	71,478.8 cps
Intensity average 1	124,655 cps	363,227 cps	1,360 cps	457,048 cps	70,919 cps
Concentration per Run 1	88.020 %	11.564 ppm	0.000 ppm	247.936 ppm	20.954 ppm
Concentration per Run 2	88.129 %	11.603 ppm	0.000 ppm	247.135 ppm	21.015 ppm
Concentration per Run 3	89.036 %	11.626 ppm	0.000 ppm	246.919 ppm	21.005 ppm
Concentration average 1	88.395 %	11.597 ppm	0.000 ppm	247.330 ppm	20.991 ppm
Concentration SD 1	0.6 %	0.0 ppm	0.0 ppm	0.5 ppm	0.0 ppm
Concentration RSD 1	0.6 %	0.3 %	6.8 %	0.2 %	0.2 %

	K 766.490 (Aqueous-Radial-iFR)
Recovery Percentage 1	105.655 %
Intensity per Run 1	20,724.1 cps
Intensity per Run 2	20,826.2 cps
Intensity per Run 3	21,074.4 cps
Intensity average 1	20,875 cps
Concentration per Run 1	105.340 ppm
Concentration per Run 2	105.728 ppm
Concentration per Run 3	105.898 ppm
Concentration average 1	105.655 ppm
Concentration SD 1	0.3 ppm
Concentration RSD 1	0.3 %

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Label: UCL2
Sample Type: QC
Analysis started at: 6/5/2024 3:57:42 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Recovery Percentage 1	98.331 %	99.337 %	97.264 %	101.345 %	99.318 %
Intensity per Run 1	2,638.8 cps	910.4 cps	6,258.6 cps	2,521.9 cps	2,039.6 cps
Intensity per Run 2	2,637.0 cps	910.4 cps	6,264.7 cps	2,507.8 cps	2,026.6 cps
Intensity per Run 3	2,658.1 cps	918.4 cps	6,305.2 cps	2,527.0 cps	2,037.9 cps
Intensity average 1	2,645 cps	913 cps	6,276 cps	2,519 cps	2,035 cps
Concentration per Run 1	19.553 ppm	19.740 ppm	19.330 ppm	20.222 ppm	19.842 ppm
Concentration per Run 2	19.676 ppm	19.877 ppm	19.483 ppm	20.248 ppm	19.851 ppm
Concentration per Run 3	19.769 ppm	19.986 ppm	19.545 ppm	20.337 ppm	19.897 ppm
Concentration average 1	19.666 ppm	19.867 ppm	19.453 ppm	20.269 ppm	19.864 ppm
Concentration SD 1	0.1 ppm	0.1 ppm	0.1 ppm	0.1 ppm	0.0 ppm
Concentration RSD 1	0.6 %	0.6 %	0.6 %	0.3 %	0.1 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Recovery Percentage 1	99.309 %	93.823 %	100.179 %	90.980 %	101.264 %
Intensity per Run 1	16,845.3 cps	26,856.5 cps	8,247.3 cps	8,091.6 cps	3,431.0 cps
Intensity per Run 2	16,808.1 cps	26,888.0 cps	8,227.6 cps	8,049.8 cps	3,404.0 cps
Intensity per Run 3	16,915.4 cps	26,991.4 cps	8,292.7 cps	8,082.4 cps	3,407.6 cps
Intensity average 1	16,856 cps	26,912 cps	8,256 cps	8,075 cps	3,414 cps
Concentration per Run 1	19.779 ppm	18.660 ppm	19.945 ppm	18.172 ppm	20.283 ppm
Concentration per Run 2	19.872 ppm	18.811 ppm	20.034 ppm	18.201 ppm	20.261 ppm
Concentration per Run 3	19.934 ppm	18.822 ppm	20.128 ppm	18.215 ppm	20.215 ppm
Concentration average 1	19.862 ppm	18.765 ppm	20.036 ppm	18.196 ppm	20.253 ppm
Concentration SD 1	0.1 ppm	0.1 ppm	0.1 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.4 %	0.5 %	0.5 %	0.1 %	0.2 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Recovery Percentage 1	97.244 %	94.579 %	101.724 %	95.261 %	96.640 %
Intensity per Run 1	4,843.3 cps	32,132.3 cps	526.6 cps	38,546.8 cps	22,199.8 cps
Intensity per Run 2	4,837.6 cps	31,944.5 cps	521.1 cps	38,424.9 cps	22,139.8 cps
Intensity per Run 3	4,853.5 cps	32,111.1 cps	516.8 cps	38,557.2 cps	22,267.6 cps
Intensity average 1	4,845 cps	32,063 cps	521 cps	38,510 cps	22,202 cps
Concentration per Run 1	19.374 ppm	18.890 ppm	20.496 ppm	9.502 ppm	19.258 ppm
Concentration per Run 2	19.486 ppm	18.910 ppm	20.296 ppm	9.537 ppm	19.339 ppm
Concentration per Run 3	19.487 ppm	18.947 ppm	20.243 ppm	9.539 ppm	19.387 ppm
Concentration average 1	19.449 ppm	18.916 ppm	20.345 ppm	9.526 ppm	19.328 ppm
Concentration SD 1	0.1 ppm	0.0 ppm	0.1 ppm	0.0 ppm	0.1 ppm
Concentration RSD 1	0.3 %	0.2 %	0.7 %	0.2 %	0.3 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Recovery Percentage 1		91.779 %	102.349 %	97.466 %	
Intensity per Run 1	15.8 cps	507,809.0 cps	1,432.8 cps	50,066.9 cps	-25.4 cps
Intensity per Run 2	15.5 cps	506,475.7 cps	1,410.7 cps	49,708.7 cps	-27.1 cps

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Intensity per Run 3	15.6 cps	509,460.4 cps	1,416.9 cps	50,032.7 cps	-26.0 cps
Intensity average 1	16 cps	507,915 cps	1,420 cps	49,936 cps	-26 cps
Concentration per Run 1	-0.003 ppm	18.287 ppm	20.592 ppm	19.476 ppm	0.044 ppm
Concentration per Run 2	-0.005 ppm	18.366 ppm	20.398 ppm	19.470 ppm	0.027 ppm
Concentration per Run 3	-0.004 ppm	18.414 ppm	20.419 ppm	19.534 ppm	0.036 ppm
Concentration average 1	-0.004 ppm	18.356 ppm	20.470 ppm	19.493 ppm	0.035 ppm
Concentration SD 1	0.0 ppm	0.1 ppm	0.1 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	31.1 %	0.3 %	0.5 %	0.2 %	23.8 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Recovery Percentage 1	96.299 %	99.586 %		97.454 %	
Intensity per Run 1	20,284.0 cps	119,976.7 cps	214.2 cps	68,212.9 cps	160.3 cps
Intensity per Run 2	20,175.4 cps	119,310.4 cps	203.3 cps	68,213.4 cps	160.1 cps
Intensity per Run 3	20,229.8 cps	119,792.0 cps	191.8 cps	68,342.8 cps	161.6 cps
Intensity average 1	20,230 cps	119,693 cps	203 cps	68,256 cps	161 cps
Concentration per Run 1	19.244 ppm	19.894 ppm	0.047 ppm	0.971 ppm	-0.099 ppm
Concentration per Run 2	19.274 ppm	19.921 ppm	0.036 ppm	0.977 ppm	-0.101 ppm
Concentration per Run 3	19.262 ppm	19.937 ppm	0.024 ppm	0.976 ppm	-0.096 ppm
Concentration average 1	19.260 ppm	19.917 ppm	0.035 ppm	0.975 ppm	-0.099 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.1 %	0.1 %	32.6 %	0.4 %	2.6 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Recovery Percentage 1		99.974 %	100.379 %	100.401 %	97.632 %
Intensity per Run 1	103.5 cps	128,424.6 cps	12,119.1 cps	154,246.5 cps	436,027.4 cps
Intensity per Run 2	103.3 cps	127,730.6 cps	11,993.0 cps	153,457.2 cps	432,777.2 cps
Intensity per Run 3	104.0 cps	127,806.6 cps	12,024.6 cps	153,733.8 cps	435,706.6 cps
Intensity average 1	104 cps	127,987 cps	12,046 cps	153,812 cps	434,837 cps
Concentration per Run 1	-0.009 ppm	19.993 ppm	2.012 ppm	20.066 ppm	19.511 ppm
Concentration per Run 2	-0.006 ppm	20.022 ppm	2.005 ppm	20.102 ppm	19.500 ppm
Concentration per Run 3	-0.006 ppm	19.969 ppm	2.005 ppm	20.073 ppm	19.568 ppm
Concentration average 1	-0.007 ppm	19.995 ppm	2.008 ppm	20.080 ppm	19.526 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	24.8 %	0.1 %	0.2 %	0.1 %	0.2 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Recovery Percentage 1	95.535 %	100.931 %	99.724 %	98.479 %	
Intensity per Run 1	327,704.0 cps	45,076.8 cps	5,030.3 cps	618,543.3 cps	785,655.7 cps
Intensity per Run 2	326,700.5 cps	44,504.4 cps	5,019.8 cps	616,070.0 cps	780,254.9 cps

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	Zr 339.198 (Aqueous-Axial-iFR)	Pd 340.458 (Aqueous-Axial-iFR)	Ti 351.924 (Aqueous-Axial-iFR)	Y 360.073 (Aqueous-Axial-iFR)	Sc 361.384 (Aqueous-Axial-iFR)
Intensity per Run 3	326,877.2 cps	44,570.6 cps	5,015.7 cps	619,851.0 cps	782,785.9 cps
Intensity average 1	327,094 cps	44,717 cps	5,022 cps	618,155 cps	782,899 cps
Concentration per Run 1	19.075 ppm	20.278 ppm	19.907 ppm	19.639 ppm	93.954 %
Concentration per Run 2	19.149 ppm	20.158 ppm	20.004 ppm	19.696 ppm	93.308 %
Concentration per Run 3	19.097 ppm	20.123 ppm	19.923 ppm	19.753 ppm	93.611 %
Concentration average 1	19.107 ppm	20.186 ppm	19.945 ppm	19.696 ppm	93.624 %
Concentration SD 1	0.0 ppm	0.1 ppm	0.1 ppm	0.1 ppm	0.3 %
Concentration RSD 1	0.2 %	0.4 %	0.3 %	0.3 %	0.3 %

	Sc 361.384 (Aqueous-Radial-iFR)	Sr 421.552 (Aqueous-Radial-iFR)	Ba 493.409 (Aqueous-Axial-iFR)	Na 588.995 (Aqueous-Radial-iFR)	Li 670.784 (Aqueous-Radial-iFR)
Recovery Percentage 1			90.894 %		
Intensity per Run 1	132,417.4 cps	62.5 cps	2,377,046.7 cps	-347.6 cps	6.8 cps
Intensity per Run 2	132,368.5 cps	60.0 cps	2,372,582.7 cps	-355.2 cps	8.3 cps
Intensity per Run 3	131,613.3 cps	60.1 cps	2,372,165.4 cps	-362.0 cps	5.9 cps
Intensity average 1	132,133 cps	61 cps	2,373,932 cps	-355 cps	7 cps
Concentration per Run 1	93.900 %	0.002 ppm	18.139 ppm	0.007 ppm	0.002 ppm
Concentration per Run 2	93.865 %	0.002 ppm	18.230 ppm	0.003 ppm	0.002 ppm
Concentration per Run 3	93.330 %	0.002 ppm	18.168 ppm	-0.002 ppm	0.002 ppm
Concentration average 1	93.698 %	0.002 ppm	18.179 ppm	0.002 ppm	0.002 ppm
Concentration SD 1	0.3 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.3 %	2.3 %	0.3 %	171.7 %	18.9 %

	K 766.490 (Aqueous-Radial-iFR)
Recovery Percentage 1	
Intensity per Run 1	-6.5 cps
Intensity per Run 2	-5.7 cps
Intensity per Run 3	-7.9 cps
Intensity average 1	-7 cps
Concentration per Run 1	0.017 ppm
Concentration per Run 2	0.021 ppm
Concentration per Run 3	0.010 ppm
Concentration average 1	0.016 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	32.9 %

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Report Date/Time: 6/5/2024 4:55:33 PM

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Label: CCV
Sample Type: QC
Analysis started at: 6/5/2024 4:00:04 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Recovery Percentage 1	105.672 %	104.305 %	98.044 %	103.708 %	101.628 %
Intensity per Run 1	702.7 cps	48.5 cps	1,576.2 cps	520.3 cps	411.7 cps
Intensity per Run 2	703.2 cps	48.0 cps	1,574.8 cps	519.3 cps	412.7 cps
Intensity per Run 3	702.0 cps	47.6 cps	1,567.9 cps	517.3 cps	410.6 cps
Intensity average 1	703 cps	48 cps	1,573 cps	519 cps	412 cps
Concentration per Run 1	5.270 ppm	1.051 ppm	4.899 ppm	4.148 ppm	4.055 ppm
Concentration per Run 2	5.292 ppm	1.043 ppm	4.911 ppm	4.154 ppm	4.078 ppm
Concentration per Run 3	5.289 ppm	1.035 ppm	4.896 ppm	4.143 ppm	4.062 ppm
Concentration average 1	5.284 ppm	1.043 ppm	4.902 ppm	4.148 ppm	4.065 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.2 %	0.8 %	0.2 %	0.1 %	0.3 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Recovery Percentage 1	101.044 %	99.310 %	102.546 %	101.272 %	100.561 %
Intensity per Run 1	4,269.6 cps	1,426.6 cps	420.6 cps	2,245.8 cps	170.4 cps
Intensity per Run 2	4,269.9 cps	1,419.7 cps	422.1 cps	2,250.0 cps	169.2 cps
Intensity per Run 3	4,257.3 cps	1,412.6 cps	420.3 cps	2,239.5 cps	166.5 cps
Intensity average 1	4,266 cps	1,420 cps	421 cps	2,245 cps	169 cps
Concentration per Run 1	5.044 ppm	0.995 ppm	1.022 ppm	5.052 ppm	1.013 ppm
Concentration per Run 2	5.061 ppm	0.994 ppm	1.029 ppm	5.079 ppm	1.009 ppm
Concentration per Run 3	5.052 ppm	0.990 ppm	1.026 ppm	5.061 ppm	0.994 ppm
Concentration average 1	5.052 ppm	0.993 ppm	1.025 ppm	5.064 ppm	1.006 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.2 %	0.3 %	0.3 %	0.3 %	1.0 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Recovery Percentage 1	95.368 %	95.233 %	100.867 %	99.162 %	95.348 %
Intensity per Run 1	235.0 cps	1,617.2 cps	130.7 cps	400.1 cps	1,097.9 cps
Intensity per Run 2	237.1 cps	1,608.7 cps	130.7 cps	397.7 cps	1,095.3 cps
Intensity per Run 3	234.5 cps	1,607.0 cps	127.7 cps	399.9 cps	1,095.6 cps
Intensity average 1	236 cps	1,611 cps	130 cps	399 cps	1,096 cps
Concentration per Run 1	0.949 ppm	0.953 ppm	5.054 ppm	0.099 ppm	0.952 ppm
Concentration per Run 2	0.961 ppm	0.952 ppm	5.093 ppm	0.099 ppm	0.953 ppm
Concentration per Run 3	0.951 ppm	0.952 ppm	4.983 ppm	0.100 ppm	0.955 ppm
Concentration average 1	0.954 ppm	0.952 ppm	5.043 ppm	0.099 ppm	0.953 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.1 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.6 %	0.1 %	1.1 %	0.3 %	0.1 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Recovery Percentage 1	100.994 %	101.399 %	100.058 %	97.092 %	105.064 %
Intensity per Run 1	284.8 cps	27,971.0 cps	338.5 cps	1,000.2 cps	2,182.2 cps
Intensity per Run 2	284.0 cps	27,910.5 cps	338.7 cps	997.4 cps	2,186.1 cps
Intensity per Run 3	282.7 cps	27,856.6 cps	337.5 cps	995.3 cps	2,179.5 cps
Intensity average 1	284 cps	27,913 cps	338 cps	998 cps	2,183 cps
Concentration per Run 1	2.015 ppm	1.013 ppm	4.994 ppm	0.388 ppm	20.893 ppm

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	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 2	2.026 ppm	1.015 ppm	5.013 ppm	0.389 ppm	21.099 ppm
Concentration per Run 3	2.018 ppm	1.014 ppm	5.002 ppm	0.388 ppm	21.047 ppm
Concentration average 1	2.020 ppm	1.014 ppm	5.003 ppm	0.388 ppm	21.013 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.1 ppm
Concentration RSD 1	0.3 %	0.1 %	0.2 %	0.0 %	0.5 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Recovery Percentage 1	101.893 %	101.402 %	102.581 %	99.394 %	105.775 %
Intensity per Run 1	5,847.0 cps	6,049.4 cps	4,378.0 cps	69,939.0 cps	8,114.7 cps
Intensity per Run 2	5,818.6 cps	6,031.6 cps	4,357.3 cps	69,846.8 cps	8,103.3 cps
Intensity per Run 3	5,829.1 cps	6,012.1 cps	4,338.3 cps	69,588.6 cps	8,069.0 cps
Intensity average 1	5,832 cps	6,031 cps	4,358 cps	69,791 cps	8,096 cps
Concentration per Run 1	5.095 ppm	1.014 ppm	4.112 ppm	0.993 ppm	21.086 ppm
Concentration per Run 2	5.086 ppm	1.015 ppm	4.105 ppm	0.995 ppm	21.229 ppm
Concentration per Run 3	5.104 ppm	1.013 ppm	4.092 ppm	0.993 ppm	21.150 ppm
Concentration average 1	5.095 ppm	1.014 ppm	4.103 ppm	0.994 ppm	21.155 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.1 ppm
Concentration RSD 1	0.2 %	0.1 %	0.2 %	0.1 %	0.3 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Recovery Percentage 1	99.265 %	95.235 %	103.448 %	100.464 %	103.157 %
Intensity per Run 1	626.4 cps	3,088.2 cps	598.8 cps	38,347.2 cps	114,213.3 cps
Intensity per Run 2	629.6 cps	3,090.1 cps	597.8 cps	38,300.4 cps	114,220.3 cps
Intensity per Run 3	626.1 cps	3,080.3 cps	595.2 cps	38,206.3 cps	114,188.4 cps
Intensity average 1	627 cps	3,086 cps	597 cps	38,285 cps	114,207 cps
Concentration per Run 1	0.989 ppm	0.475 ppm	0.103 ppm	5.018 ppm	5.145 ppm
Concentration per Run 2	0.997 ppm	0.477 ppm	0.104 ppm	5.029 ppm	5.162 ppm
Concentration per Run 3	0.993 ppm	0.476 ppm	0.103 ppm	5.023 ppm	5.167 ppm
Concentration average 1	0.993 ppm	0.476 ppm	0.103 ppm	5.023 ppm	5.158 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.4 %	0.2 %	0.1 %	0.1 %	0.2 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Recovery Percentage 1	98.451 %	96.414 %	101.541 %	104.677 %	
Intensity per Run 1	84,863.2 cps	2,194.3 cps	1,021.5 cps	164,093.6 cps	780,703.0 cps
Intensity per Run 2	84,654.7 cps	2,194.2 cps	1,017.5 cps	163,065.5 cps	778,094.8 cps
Intensity per Run 3	84,428.0 cps	2,193.2 cps	1,018.1 cps	162,893.6 cps	777,135.3 cps
Intensity average 1	84,649 cps	2,194 cps	1,019 cps	163,351 cps	778,644 cps
Concentration per Run 1	4.922 ppm	0.962 ppm	4.061 ppm	5.244 ppm	93.362 %
Concentration per Run 2	4.926 ppm	0.965 ppm	4.058 ppm	5.228 ppm	93.050 %
Concentration per Run 3	4.919 ppm	0.966 ppm	4.066 ppm	5.229 ppm	92.935 %
Concentration average 1	4.923 ppm	0.964 ppm	4.062 ppm	5.234 ppm	93.115 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.2 %

	Zr 339.198 (Aqueous-Axial-iFR)	Pd 340.458 (Aqueous-Axial-iFR)	Tl 351.924 (Aqueous-Axial-iFR)	Y 360.073 (Aqueous-Axial-iFR)	Sc 361.384 (Aqueous-Axial-iFR)
Concentration RSD 1	0.1 %	0.2 %	0.1 %	0.2 %	0.2 %

	Sc 361.384 (Aqueous-Radial-iFR)	Sr 421.552 (Aqueous-Radial-iFR)	Ba 493.409 (Aqueous-Axial-iFR)	Na 588.995 (Aqueous-Radial-iFR)	Li 670.784 (Aqueous-Radial-iFR)
Recovery Percentage 1		102.201 %	98.440 %	103.875 %	104.175 %
Intensity per Run 1	133,336.1 cps	171,049.3 cps	510,618.5 cps	61,141.8 cps	18,782.6 cps
Intensity per Run 2	132,264.2 cps	170,048.0 cps	512,376.8 cps	60,937.4 cps	18,760.5 cps
Intensity per Run 3	132,191.0 cps	169,582.0 cps	511,451.4 cps	60,738.5 cps	18,615.1 cps
Intensity average 1	132,597 cps	170,226 cps	511,482 cps	60,939 cps	18,719 cps
Concentration per Run 1	94.551 %	5.106 ppm	3.921 ppm	31.093 ppm	5.197 ppm
Concentration per Run 2	93.791 %	5.118 ppm	3.947 ppm	31.239 ppm	5.233 ppm
Concentration per Run 3	93.739 %	5.106 ppm	3.945 ppm	31.155 ppm	5.196 ppm
Concentration average 1	94.027 %	5.110 ppm	3.938 ppm	31.163 ppm	5.209 ppm
Concentration SD 1	0.5 %	0.0 ppm	0.0 ppm	0.1 ppm	0.0 ppm
Concentration RSD 1	0.5 %	0.1 %	0.4 %	0.2 %	0.4 %

	K 766.490 (Aqueous-Radial-iFR)
Recovery Percentage 1	103.299 %
Intensity per Run 1	4,363.1 cps
Intensity per Run 2	4,326.2 cps
Intensity per Run 3	4,312.5 cps
Intensity average 1	4,334 cps
Concentration per Run 1	20.684 ppm
Concentration per Run 2	20.675 ppm
Concentration per Run 3	20.621 ppm
Concentration average 1	20.660 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	0.2 %

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Label: CCB
Sample Type: QC
Analysis started at: 6/5/2024 4:02:26 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Recovery Percentage 1	-0.014 %	-0.833 %	0.027 %	0.403 %	0.181 %
Intensity per Run 1	0.2 cps	1.3 cps	-0.1 cps	0.1 cps	0.6 cps
Intensity per Run 2	-0.2 cps	2.0 cps	0.0 cps	0.9 cps	0.4 cps
Intensity per Run 3	0.2 cps	1.4 cps	-0.5 cps	1.0 cps	0.6 cps
Intensity average 1	0 cps	2 cps	0 cps	1 cps	1 cps
Concentration per Run 1	0.001 ppm	-0.014 ppm	0.001 ppm	0.000 ppm	0.002 ppm
Concentration per Run 2	-0.002 ppm	0.001 ppm	0.001 ppm	0.006 ppm	0.001 ppm
Concentration per Run 3	0.001 ppm	-0.012 ppm	-0.001 ppm	0.007 ppm	0.002 ppm
Concentration average 1	0.000 ppm	-0.008 ppm	0.000 ppm	0.004 ppm	0.002 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	1,147.0 %	94.2 %	295.9 %	93.1 %	46.1 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Recovery Percentage 1	0.045 %	-0.082 %	0.731 %	-0.460 %	0.133 %
Intensity per Run 1	0.2 cps	0.7 cps	4.1 cps	28.0 cps	0.2 cps
Intensity per Run 2	0.1 cps	0.7 cps	4.3 cps	27.6 cps	-0.3 cps
Intensity per Run 3	-0.1 cps	0.7 cps	3.2 cps	26.7 cps	-0.2 cps
Intensity average 1	0 cps	1 cps	4 cps	27 cps	0 cps
Concentration per Run 1	0.001 ppm	-0.001 ppm	0.008 ppm	-0.003 ppm	0.003 ppm
Concentration per Run 2	0.001 ppm	-0.001 ppm	0.008 ppm	-0.004 ppm	0.000 ppm
Concentration per Run 3	0.000 ppm	-0.001 ppm	0.006 ppm	-0.006 ppm	0.001 ppm
Concentration average 1	0.000 ppm	-0.001 ppm	0.007 ppm	-0.005 ppm	0.001 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	33.7 %	1.5 %	18.1 %	29.4 %	107.0 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Recovery Percentage 1	0.073 %	0.009 %	0.106 %	0.017 %	0.000 %
Intensity per Run 1	-0.1 cps	1.0 cps	-0.2 cps	0.8 cps	-0.5 cps
Intensity per Run 2	0.3 cps	1.8 cps	-0.5 cps	0.0 cps	0.1 cps
Intensity per Run 3	0.0 cps	1.1 cps	-0.1 cps	0.7 cps	0.5 cps
Intensity average 1	0 cps	1 cps	0 cps	0 cps	0 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.003 ppm	0.000 ppm	0.000 ppm
Concentration per Run 2	0.002 ppm	0.000 ppm	-0.006 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	0.001 ppm	0.000 ppm	0.006 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.001 ppm	0.000 ppm	0.001 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	99.8 %	276.4 %	599.5 %	56.1 %	11,503.6 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Recovery Percentage 1	-0.067 %	0.003 %	0.365 %	0.008 %	-0.107 %
Intensity per Run 1	0.6 cps	4.6 cps	0.1 cps	4.0 cps	0.2 cps
Intensity per Run 2	0.4 cps	2.3 cps	-0.7 cps	3.8 cps	0.6 cps
Intensity per Run 3	0.0 cps	3.5 cps	-0.3 cps	3.9 cps	-0.2 cps
Intensity average 1	0 cps	3 cps	0 cps	4 cps	0 cps
Concentration per Run 1	0.001 ppm	0.000 ppm	0.010 ppm	0.000 ppm	-0.001 ppm

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 2	0.000 ppm	0.000 ppm	-0.003 ppm	0.000 ppm	0.002 ppm
Concentration per Run 3	-0.003 ppm	0.000 ppm	0.004 ppm	0.000 ppm	-0.005 ppm
Concentration average 1	-0.001 ppm	0.000 ppm	0.004 ppm	0.000 ppm	-0.001 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	313.5 %	118.6 %	167.7 %	51.5 %	331.2 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Recovery Percentage 1	-1.732 %	0.008 %	-0.141 %	0.003 %	-1.765 %
Intensity per Run 1	782.4 cps	0.1 cps	21.8 cps	-10.8 cps	6.0 cps
Intensity per Run 2	764.8 cps	-1.6 cps	21.9 cps	-13.2 cps	5.5 cps
Intensity per Run 3	763.5 cps	0.8 cps	23.5 cps	-15.6 cps	5.9 cps
Intensity average 1	770 cps	0 cps	22 cps	-13 cps	6 cps
Concentration per Run 1	-0.005 ppm	0.000 ppm	-0.002 ppm	0.000 ppm	-0.017 ppm
Concentration per Run 2	-0.025 ppm	0.000 ppm	-0.002 ppm	0.000 ppm	-0.018 ppm
Concentration per Run 3	-0.022 ppm	0.000 ppm	0.000 ppm	0.000 ppm	-0.017 ppm
Concentration average 1	-0.017 ppm	0.000 ppm	-0.001 ppm	0.000 ppm	-0.018 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	60.4 %	226.0 %	68.2 %	99.9 %	4.1 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Recovery Percentage 1	0.195 %	0.006 %	0.005 %	0.011 %	0.005 %
Intensity per Run 1	-30.4 cps	14.2 cps	1.5 cps	-1.8 cps	0.1 cps
Intensity per Run 2	-31.4 cps	13.8 cps	-0.5 cps	-6.7 cps	-2.6 cps
Intensity per Run 3	-31.6 cps	14.3 cps	1.0 cps	-5.0 cps	-1.8 cps
Intensity average 1	-31 cps	14 cps	1 cps	-5 cps	-1 cps
Concentration per Run 1	0.003 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 2	0.002 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	0.001 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.002 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	48.0 %	76.4 %	343.2 %	279.8 %	101.2 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Recovery Percentage 1	-0.011 %	0.016 %	0.201 %	0.005 %	
Intensity per Run 1	0.2 cps	-0.8 cps	3.2 cps	5.9 cps	842,118.3 cps
Intensity per Run 2	-2.3 cps	-0.4 cps	3.0 cps	2.8 cps	845,881.2 cps
Intensity per Run 3	-2.4 cps	-0.3 cps	3.4 cps	3.3 cps	840,819.4 cps
Intensity average 1	-2 cps	0 cps	3 cps	4 cps	842,940 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.002 ppm	0.000 ppm	100.706 %
Concentration per Run 2	0.000 ppm	0.000 ppm	0.001 ppm	0.000 ppm	101.156 %
Concentration per Run 3	0.000 ppm	0.000 ppm	0.003 ppm	0.000 ppm	100.551 %
Concentration average 1	0.000 ppm	0.000 ppm	0.002 ppm	0.000 ppm	100.804 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.3 %
Concentration RSD 1	32.0 %	75.6 %	41.8 %	92.2 %	0.3 %

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Recovery Percentage 1		-0.003 %	0.008 %	-0.689 %	-0.006 %
Intensity per Run 1	138,053.7 cps	2.7 cps	52.2 cps	-393.6 cps	-0.9 cps
Intensity per Run 2	138,694.6 cps	1.2 cps	43.9 cps	-389.0 cps	1.1 cps
Intensity per Run 3	138,573.4 cps	0.5 cps	48.9 cps	-391.5 cps	0.7 cps
Intensity average 1	138,441 cps	1 cps	48 cps	-391 cps	0 cps
Concentration per Run 1	97.897 %	0.000 ppm	0.000 ppm	-0.008 ppm	0.000 ppm
Concentration per Run 2	98.351 %	0.000 ppm	0.000 ppm	-0.005 ppm	0.000 ppm
Concentration per Run 3	98.265 %	0.000 ppm	0.000 ppm	-0.007 ppm	0.000 ppm
Concentration average 1	98.171 %	0.000 ppm	0.000 ppm	-0.007 ppm	0.000 ppm
Concentration SD 1	0.2 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.2 %	120.6 %	39.4 %	22.4 %	452.3 %

	K 766.490 (Aqueous- Radial-iFR)
Recovery Percentage 1	0.774 %
Intensity per Run 1	-10.6 cps
Intensity per Run 2	-9.2 cps
Intensity per Run 3	-6.8 cps
Intensity average 1	-9 cps
Concentration per Run 1	0.000 ppm
Concentration per Run 2	0.006 ppm
Concentration per Run 3	0.017 ppm
Concentration average 1	0.008 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	115.0 %

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Label: 720195A DF500
Sample Type: UNKNOWN
Analysis started at: 6/5/2024 4:04:47 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Intensity per Run 1	-0.5 cps	1.5 cps	0.2 cps	1,483.5 cps	-0.2 cps
Intensity per Run 2	-0.5 cps	2.0 cps	-0.6 cps	1,481.7 cps	-0.4 cps
Intensity per Run 3	-0.2 cps	1.7 cps	-0.3 cps	1,481.2 cps	0.3 cps
Intensity average 1	0 cps	2 cps	0 cps	1,482 cps	0 cps
Concentration per Run 1	-0.003 ppm	-0.008 ppm	0.001 ppm	11.576 ppm	-0.005 ppm
Concentration per Run 2	-0.003 ppm	0.003 ppm	-0.001 ppm	11.539 ppm	-0.007 ppm
Concentration per Run 3	-0.001 ppm	-0.004 ppm	0.000 ppm	11.582 ppm	0.000 ppm
Concentration average 1	-0.002 ppm	-0.003 ppm	0.000 ppm	11.566 ppm	-0.004 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	61.8 %	202.6 %	1,008.0 %	0.2 %	86.2 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Intensity per Run 1	0.3 cps	0.9 cps	2.5 cps	22.8 cps	5.7 cps
Intensity per Run 2	0.5 cps	1.6 cps	2.5 cps	23.1 cps	6.1 cps
Intensity per Run 3	-0.3 cps	2.1 cps	2.4 cps	23.0 cps	6.1 cps
Intensity average 1	0 cps	2 cps	2 cps	23 cps	6 cps
Concentration per Run 1	0.001 ppm	0.002 ppm	0.005 ppm	-0.012 ppm	0.040 ppm
Concentration per Run 2	0.001 ppm	0.002 ppm	0.004 ppm	-0.011 ppm	0.043 ppm
Concentration per Run 3	0.000 ppm	0.002 ppm	0.004 ppm	-0.011 ppm	0.043 ppm
Concentration average 1	0.001 ppm	0.002 ppm	0.004 ppm	-0.011 ppm	0.042 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	78.4 %	19.5 %	3.2 %	3.2 %	3.3 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Intensity per Run 1	2,815.7 cps	-6.3 cps	0.6 cps	45,838.2 cps	-0.4 cps
Intensity per Run 2	2,812.8 cps	-4.7 cps	0.2 cps	45,738.9 cps	-1.2 cps
Intensity per Run 3	2,806.8 cps	-5.9 cps	0.4 cps	45,770.7 cps	-0.8 cps
Intensity average 1	2,812 cps	-6 cps	0 cps	45,783 cps	-1 cps
Concentration per Run 1	11.116 ppm	0.001 ppm	0.017 ppm	11.180 ppm	0.000 ppm
Concentration per Run 2	11.082 ppm	0.002 ppm	0.005 ppm	11.133 ppm	-0.001 ppm
Concentration per Run 3	11.104 ppm	0.001 ppm	0.013 ppm	11.186 ppm	-0.001 ppm
Concentration average 1	11.101 ppm	0.001 ppm	0.012 ppm	11.167 ppm	-0.001 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.2 %	42.9 %	52.0 %	0.3 %	51.3 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Intensity per Run 1	1.8 cps	-2.3 cps	1.4 cps	28,328.2 cps	0.5 cps
Intensity per Run 2	0.7 cps	-1.5 cps	-0.3 cps	28,261.5 cps	-0.9 cps
Intensity per Run 3	1.4 cps	-2.6 cps	-0.2 cps	28,347.1 cps	-0.7 cps
Intensity average 1	1 cps	-2 cps	0 cps	28,312 cps	0 cps
Concentration per Run 1	0.010 ppm	0.000 ppm	0.009 ppm	10.911 ppm	0.001 ppm
Concentration per Run 2	0.002 ppm	0.000 ppm	-0.017 ppm	10.863 ppm	-0.012 ppm
Concentration per Run 3	0.007 ppm	0.000 ppm	-0.015 ppm	10.941 ppm	-0.010 ppm
Concentration average 1	0.006 ppm	0.000 ppm	-0.007 ppm	10.905 ppm	-0.007 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm

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	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration RSD 1	58.6 %	12.1 %	196.2 %	0.4 %	101.5 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Intensity per Run 1	679.1 cps	-69.6 cps	27.7 cps	-16.6 cps	9.8 cps
Intensity per Run 2	686.5 cps	-68.4 cps	25.7 cps	-17.4 cps	9.8 cps
Intensity per Run 3	681.7 cps	-67.4 cps	27.0 cps	-17.2 cps	10.0 cps
Intensity average 1	682 cps	-68 cps	27 cps	-17 cps	10 cps
Concentration per Run 1	0.019 ppm	0.002 ppm	0.007 ppm	0.000 ppm	-0.007 ppm
Concentration per Run 2	0.025 ppm	0.002 ppm	0.005 ppm	0.000 ppm	-0.006 ppm
Concentration per Run 3	0.023 ppm	0.003 ppm	0.006 ppm	0.000 ppm	-0.006 ppm
Concentration average 1	0.022 ppm	0.002 ppm	0.006 ppm	0.000 ppm	-0.006 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	13.0 %	7.7 %	17.3 %	75.5 %	5.7 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Intensity per Run 1	-45.9 cps	67.3 cps	0.1 cps	-7.1 cps	42.7 cps
Intensity per Run 2	-46.5 cps	66.6 cps	2.4 cps	-5.6 cps	42.0 cps
Intensity per Run 3	-45.2 cps	65.9 cps	3.7 cps	-4.3 cps	41.2 cps
Intensity average 1	-46 cps	67 cps	2 cps	-6 cps	42 cps
Concentration per Run 1	0.004 ppm	0.008 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 2	0.003 ppm	0.008 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	0.005 ppm	0.008 ppm	0.001 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.004 ppm	0.008 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	23.1 %	1.1 %	120.7 %	2,686.9 %	27.8 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Intensity per Run 1	-3.4 cps	-3.2 cps	1.9 cps	3.3 cps	794,016.9 cps
Intensity per Run 2	-1.6 cps	-2.5 cps	1.7 cps	2.4 cps	795,642.9 cps
Intensity per Run 3	-3.8 cps	-4.0 cps	1.3 cps	3.7 cps	792,393.7 cps
Intensity average 1	-3 cps	-3 cps	2 cps	3 cps	794,018 cps
Concentration per Run 1	0.001 ppm	-0.001 ppm	0.002 ppm	0.000 ppm	94.954 %
Concentration per Run 2	0.001 ppm	0.000 ppm	0.002 ppm	0.000 ppm	95.148 %
Concentration per Run 3	0.001 ppm	-0.001 ppm	0.000 ppm	0.000 ppm	94.760 %
Concentration average 1	0.001 ppm	-0.001 ppm	0.002 ppm	0.000 ppm	94.954 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.2 %
Concentration RSD 1	9.4 %	65.3 %	73.9 %	272.2 %	0.2 %

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 1	131,117.1 cps	81.0 cps	1,542.9 cps	2,615.6 cps	4.9 cps
Intensity per Run 2	130,364.3 cps	81.5 cps	1,539.8 cps	2,596.8 cps	2.5 cps

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	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Intensity per Run 3	130,838.4 cps	82.3 cps	1,522.7 cps	2,620.0 cps	3.1 cps
Intensity average 1	130,773 cps	82 cps	1,535 cps	2,611 cps	4 cps
Concentration per Run 1	92.978 %	0.002 ppm	0.011 ppm	1.528 ppm	0.001 ppm
Concentration per Run 2	92.444 %	0.002 ppm	0.011 ppm	1.527 ppm	0.001 ppm
Concentration per Run 3	92.780 %	0.002 ppm	0.011 ppm	1.534 ppm	0.001 ppm
Concentration average 1	92.734 %	0.002 ppm	0.011 ppm	1.530 ppm	0.001 ppm
Concentration SD 1	0.3 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.3 %	1.0 %	0.6 %	0.2 %	42.4 %

	K 766.490 (Aqueous- Radial-iFR)
Intensity per Run 1	-10.0 cps
Intensity per Run 2	-6.0 cps
Intensity per Run 3	-9.7 cps
Intensity average 1	-9 cps
Concentration per Run 1	0.000 ppm
Concentration per Run 2	0.019 ppm
Concentration per Run 3	0.001 ppm
Concentration average 1	0.007 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	154.0 %

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Label: CCV
Sample Type: QC
Analysis started at: 6/5/2024 4:07:10 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Recovery Percentage 1	105.413 %	104.000 %	98.225 %	103.818 %	101.654 %
Intensity per Run 1	699.2 cps	48.2 cps	1,574.9 cps	518.6 cps	410.8 cps
Intensity per Run 2	693.7 cps	47.5 cps	1,565.9 cps	516.0 cps	409.8 cps
Intensity per Run 3	703.7 cps	47.5 cps	1,573.2 cps	519.5 cps	411.1 cps
Intensity average 1	699 cps	48 cps	1,571 cps	518 cps	411 cps
Concentration per Run 1	5.288 ppm	1.053 ppm	4.937 ppm	4.169 ppm	4.080 ppm
Concentration per Run 2	5.230 ppm	1.035 ppm	4.893 ppm	4.135 ppm	4.057 ppm
Concentration per Run 3	5.294 ppm	1.033 ppm	4.905 ppm	4.154 ppm	4.061 ppm
Concentration average 1	5.271 ppm	1.040 ppm	4.911 ppm	4.153 ppm	4.066 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.7 %	1.1 %	0.5 %	0.4 %	0.3 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Recovery Percentage 1	101.157 %	99.282 %	100.176 %	101.022 %	100.262 %
Intensity per Run 1	4,243.9 cps	1,420.2 cps	408.7 cps	2,232.5 cps	167.3 cps
Intensity per Run 2	4,254.3 cps	1,415.2 cps	409.4 cps	2,227.1 cps	167.5 cps
Intensity per Run 3	4,276.0 cps	1,410.0 cps	412.4 cps	2,240.6 cps	168.3 cps
Intensity average 1	4,258 cps	1,415 cps	410 cps	2,233 cps	168 cps
Concentration per Run 1	5.056 ppm	0.999 ppm	1.001 ppm	5.064 ppm	1.003 ppm
Concentration per Run 2	5.052 ppm	0.993 ppm	1.000 ppm	5.034 ppm	1.001 ppm
Concentration per Run 3	5.066 ppm	0.987 ppm	1.005 ppm	5.054 ppm	1.004 ppm
Concentration average 1	5.058 ppm	0.993 ppm	1.002 ppm	5.051 ppm	1.003 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.1 %	0.6 %	0.3 %	0.3 %	0.1 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Recovery Percentage 1	95.333 %	95.205 %	99.649 %	98.912 %	95.362 %
Intensity per Run 1	233.8 cps	1,608.9 cps	128.9 cps	395.9 cps	1,096.5 cps
Intensity per Run 2	235.1 cps	1,602.7 cps	128.6 cps	397.3 cps	1,093.4 cps
Intensity per Run 3	235.4 cps	1,605.7 cps	129.1 cps	398.0 cps	1,089.7 cps
Intensity average 1	235 cps	1,606 cps	129 cps	397 cps	1,093 cps
Concentration per Run 1	0.952 ppm	0.957 ppm	4.990 ppm	0.099 ppm	0.959 ppm
Concentration per Run 2	0.954 ppm	0.950 ppm	4.978 ppm	0.099 ppm	0.953 ppm
Concentration per Run 3	0.954 ppm	0.950 ppm	4.980 ppm	0.099 ppm	0.948 ppm
Concentration average 1	0.953 ppm	0.952 ppm	4.982 ppm	0.099 ppm	0.954 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.1 %	0.4 %	0.1 %	0.0 %	0.6 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Recovery Percentage 1	100.448 %	101.335 %	100.576 %	97.262 %	104.318 %
Intensity per Run 1	283.8 cps	27,813.6 cps	340.0 cps	999.3 cps	2,185.1 cps
Intensity per Run 2	284.0 cps	27,788.4 cps	336.9 cps	996.7 cps	2,173.4 cps
Intensity per Run 3	284.0 cps	27,842.9 cps	339.9 cps	993.5 cps	2,180.4 cps
Intensity average 1	284 cps	27,815 cps	339 cps	997 cps	2,180 cps
Concentration per Run 1	2.010 ppm	1.016 ppm	5.060 ppm	0.391 ppm	20.936 ppm

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 2	2.012 ppm	1.012 ppm	4.995 ppm	0.389 ppm	20.834 ppm
Concentration per Run 3	2.005 ppm	1.012 ppm	5.031 ppm	0.387 ppm	20.821 ppm
Concentration average 1	2.009 ppm	1.013 ppm	5.029 ppm	0.389 ppm	20.864 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.1 ppm
Concentration RSD 1	0.2 %	0.2 %	0.7 %	0.6 %	0.3 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Recovery Percentage 1	101.601 %	101.254 %	101.989 %	99.522 %	105.159 %
Intensity per Run 1	5,794.9 cps	5,982.4 cps	4,305.4 cps	69,518.3 cps	8,113.7 cps
Intensity per Run 2	5,802.8 cps	6,006.7 cps	4,318.4 cps	69,705.2 cps	8,110.9 cps
Intensity per Run 3	5,802.1 cps	6,025.2 cps	4,339.4 cps	69,817.2 cps	8,062.4 cps
Intensity average 1	5,800 cps	6,005 cps	4,321 cps	69,680 cps	8,096 cps
Concentration per Run 1	5.092 ppm	1.012 ppm	4.077 ppm	0.996 ppm	21.099 ppm
Concentration per Run 2	5.081 ppm	1.013 ppm	4.076 ppm	0.995 ppm	21.103 ppm
Concentration per Run 3	5.067 ppm	1.013 ppm	4.086 ppm	0.995 ppm	20.894 ppm
Concentration average 1	5.080 ppm	1.013 ppm	4.080 ppm	0.995 ppm	21.032 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.1 ppm
Concentration RSD 1	0.2 %	0.1 %	0.1 %	0.1 %	0.6 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Recovery Percentage 1	99.737 %	95.358 %	103.540 %	100.446 %	103.318 %
Intensity per Run 1	626.1 cps	3,064.4 cps	593.2 cps	38,126.3 cps	114,162.6 cps
Intensity per Run 2	627.3 cps	3,081.2 cps	599.6 cps	38,128.9 cps	113,980.3 cps
Intensity per Run 3	632.9 cps	3,098.8 cps	597.0 cps	38,248.7 cps	114,025.1 cps
Intensity average 1	629 cps	3,081 cps	597 cps	38,168 cps	114,056 cps
Concentration per Run 1	0.996 ppm	0.475 ppm	0.103 ppm	5.031 ppm	5.186 ppm
Concentration per Run 2	0.995 ppm	0.477 ppm	0.104 ppm	5.015 ppm	5.161 ppm
Concentration per Run 3	1.001 ppm	0.478 ppm	0.103 ppm	5.020 ppm	5.151 ppm
Concentration average 1	0.997 ppm	0.477 ppm	0.104 ppm	5.022 ppm	5.166 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.3 %	0.3 %	0.4 %	0.2 %	0.3 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Recovery Percentage 1	98.716 %	96.287 %	101.487 %	104.656 %	
Intensity per Run 1	84,353.1 cps	2,176.2 cps	1,011.2 cps	162,278.0 cps	774,158.0 cps
Intensity per Run 2	84,536.4 cps	2,184.9 cps	1,015.2 cps	162,704.9 cps	776,674.6 cps
Intensity per Run 3	85,016.0 cps	2,194.4 cps	1,020.3 cps	163,563.5 cps	778,380.4 cps
Intensity average 1	84,635 cps	2,185 cps	1,016 cps	162,849 cps	776,404 cps
Concentration per Run 1	4.934 ppm	0.962 ppm	4.054 ppm	5.230 ppm	92.579 %
Concentration per Run 2	4.928 ppm	0.962 ppm	4.057 ppm	5.226 ppm	92.880 %
Concentration per Run 3	4.945 ppm	0.964 ppm	4.068 ppm	5.242 ppm	93.084 %
Concentration average 1	4.936 ppm	0.963 ppm	4.059 ppm	5.233 ppm	92.847 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.3 %

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	Zr 339.198 (Aqueous-Axial-iFR)	Pd 340.458 (Aqueous-Axial-iFR)	Tl 351.924 (Aqueous-Axial-iFR)	Y 360.073 (Aqueous-Axial-iFR)	Sc 361.384 (Aqueous-Axial-iFR)
Concentration RSD 1	0.2 %	0.1 %	0.2 %	0.2 %	0.3 %

	Sc 361.384 (Aqueous-Radial-iFR)	Sr 421.552 (Aqueous-Radial-iFR)	Ba 493.409 (Aqueous-Axial-iFR)	Na 588.995 (Aqueous-Radial-iFR)	Li 670.784 (Aqueous-Radial-iFR)
Recovery Percentage 1		102.118 %	99.857 %	104.330 %	104.511 %
Intensity per Run 1	133,244.2 cps	170,553.6 cps	515,850.9 cps	61,394.5 cps	18,817.6 cps
Intensity per Run 2	133,171.9 cps	171,320.8 cps	516,735.8 cps	61,590.4 cps	18,925.3 cps
Intensity per Run 3	133,691.5 cps	171,361.1 cps	519,478.3 cps	61,707.9 cps	18,924.5 cps
Intensity average 1	133,369 cps	171,079 cps	517,355 cps	61,564 cps	18,889 cps
Concentration per Run 1	94.486 %	5.095 ppm	3.994 ppm	31.242 ppm	5.211 ppm
Concentration per Run 2	94.435 %	5.121 ppm	3.988 ppm	31.358 ppm	5.243 ppm
Concentration per Run 3	94.803 %	5.102 ppm	4.001 ppm	31.296 ppm	5.223 ppm
Concentration average 1	94.575 %	5.106 ppm	3.994 ppm	31.299 ppm	5.226 ppm
Concentration SD 1	0.2 %	0.0 ppm	0.0 ppm	0.1 ppm	0.0 ppm
Concentration RSD 1	0.2 %	0.3 %	0.2 %	0.2 %	0.3 %

	K 766.490 (Aqueous-Radial-iFR)
Recovery Percentage 1	103.292 %
Intensity per Run 1	4,350.6 cps
Intensity per Run 2	4,366.2 cps
Intensity per Run 3	4,359.9 cps
Intensity average 1	4,359 cps
Concentration per Run 1	20.638 ppm
Concentration per Run 2	20.723 ppm
Concentration per Run 3	20.613 ppm
Concentration average 1	20.658 ppm
Concentration SD 1	0.1 ppm
Concentration RSD 1	0.3 %

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Label: CCB
Sample Type: QC
Analysis started at: 6/5/2024 4:09:31 PM

	P 177.495 (Aqueous-Axial-iFR)	S 182.034 (Aqueous-Axial-iFR)	Sn 189.989 (Aqueous-Axial-iFR)	As 193.759 (Aqueous-Axial-iFR)	Se 196.090 (Aqueous-Axial-iFR)
Recovery Percentage 1	-0.074 %	-0.687 %	0.085 %	0.104 %	-0.401 %
Intensity per Run 1	-0.2 cps	1.3 cps	0.2 cps	0.5 cps	0.1 cps
Intensity per Run 2	0.0 cps	1.9 cps	-0.1 cps	0.2 cps	0.1 cps
Intensity per Run 3	0.2 cps	1.7 cps	-0.1 cps	0.2 cps	-0.5 cps
Intensity average 1	0 cps	2 cps	0 cps	0 cps	0 cps
Concentration per Run 1	-0.002 ppm	-0.013 ppm	0.001 ppm	0.002 ppm	-0.002 ppm
Concentration per Run 2	-0.001 ppm	-0.001 ppm	0.001 ppm	0.000 ppm	-0.003 ppm
Concentration per Run 3	0.000 ppm	-0.006 ppm	0.001 ppm	0.000 ppm	-0.007 ppm
Concentration average 1	-0.001 ppm	-0.007 ppm	0.001 ppm	0.001 ppm	-0.004 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	166.8 %	85.8 %	52.9 %	120.5 %	69.5 %

	Mo 202.030 (Aqueous-Axial-iFR)	Zn 206.200 (Aqueous-Axial-iFR)	W 207.911 (Aqueous-Axial-iFR)	B 208.959 (Aqueous-Axial-iFR)	Sb 217.581 (Aqueous-Axial-iFR)
Recovery Percentage 1	0.057 %	-0.075 %	0.327 %	-1.097 %	0.113 %
Intensity per Run 1	0.6 cps	0.7 cps	2.3 cps	25.2 cps	-0.3 cps
Intensity per Run 2	0.0 cps	1.1 cps	1.9 cps	24.1 cps	-0.3 cps
Intensity per Run 3	0.0 cps	0.5 cps	2.1 cps	24.2 cps	0.2 cps
Intensity average 1	0 cps	1 cps	2 cps	25 cps	0 cps
Concentration per Run 1	0.001 ppm	-0.001 ppm	0.004 ppm	-0.009 ppm	0.000 ppm
Concentration per Run 2	0.000 ppm	-0.001 ppm	0.003 ppm	-0.012 ppm	0.000 ppm
Concentration per Run 3	0.000 ppm	-0.001 ppm	0.003 ppm	-0.011 ppm	0.003 ppm
Concentration average 1	0.001 ppm	-0.001 ppm	0.003 ppm	-0.011 ppm	0.001 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	61.4 %	23.9 %	11.7 %	12.7 %	130.3 %

	Pb 220.353 (Aqueous-Axial-iFR)	Ni 221.647 (Aqueous-Axial-iFR)	Bi 223.061 (Aqueous-Radial-iFR)	Cd 226.502 (Aqueous-Axial-iFR)	Co 228.616 (Aqueous-Axial-iFR)
Recovery Percentage 1	0.135 %	0.014 %	0.215 %	0.007 %	0.002 %
Intensity per Run 1	-0.2 cps	1.0 cps	0.0 cps	-0.4 cps	0.1 cps
Intensity per Run 2	0.6 cps	1.5 cps	-0.1 cps	-0.2 cps	0.3 cps
Intensity per Run 3	0.3 cps	1.7 cps	-0.7 cps	0.6 cps	-0.2 cps
Intensity average 1	0 cps	1 cps	0 cps	0 cps	0 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	0.012 ppm	0.000 ppm	0.000 ppm
Concentration per Run 2	0.003 ppm	0.000 ppm	0.008 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	0.002 ppm	0.000 ppm	-0.013 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.001 ppm	0.000 ppm	0.002 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	106.7 %	154.3 %	617.0 %	184.4 %	837.0 %

	Fe 233.280 (Aqueous-Radial-iFR)	Mn 257.610 (Aqueous-Axial-iFR)	U 263.553 (Aqueous-Axial-iFR)	Cr 267.716 (Aqueous-Axial-iFR)	Mg 279.079 (Aqueous-Radial-iFR)
Recovery Percentage 1	0.094 %	0.001 %	0.401 %	0.012 %	-0.384 %
Intensity per Run 1	-0.2 cps	3.9 cps	0.4 cps	4.0 cps	-0.6 cps
Intensity per Run 2	1.0 cps	2.8 cps	0.2 cps	4.3 cps	-0.3 cps
Intensity per Run 3	1.0 cps	1.9 cps	-1.3 cps	3.8 cps	0.5 cps
Intensity average 1	1 cps	3 cps	0 cps	4 cps	0 cps
Concentration per Run 1	-0.004 ppm	0.000 ppm	0.013 ppm	0.000 ppm	-0.008 ppm

	Fe 233.280 (Aqueous- Radial-iFR)	Mn 257.610 (Aqueous- Axial-iFR)	U 263.553 (Aqueous- Axial-iFR)	Cr 267.716 (Aqueous- Axial-iFR)	Mg 279.079 (Aqueous- Radial-iFR)
Concentration per Run 2	0.003 ppm	0.000 ppm	0.010 ppm	0.000 ppm	-0.005 ppm
Concentration per Run 3	0.004 ppm	0.000 ppm	-0.011 ppm	0.000 ppm	0.001 ppm
Concentration average 1	0.001 ppm	0.000 ppm	0.004 ppm	0.000 ppm	-0.004 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	482.1 %	289.0 %	326.9 %	71.9 %	123.6 %

	Si 288.158 (Aqueous- Axial-iFR)	V 292.402 (Aqueous- Axial-iFR)	Al 308.215 (Aqueous- Axial-iFR)	Be 313.107 (Aqueous- Axial-iFR)	Ca 317.933 (Aqueous- Radial-iFR)
Recovery Percentage 1	-3.800 %	0.016 %	-0.077 %	0.002 %	-1.906 %
Intensity per Run 1	746.0 cps	0.4 cps	22.3 cps	-11.1 cps	5.5 cps
Intensity per Run 2	748.4 cps	0.4 cps	24.0 cps	-15.8 cps	5.1 cps
Intensity per Run 3	746.0 cps	-0.1 cps	22.8 cps	-15.2 cps	5.0 cps
Intensity average 1	747 cps	0 cps	23 cps	-14 cps	5 cps
Concentration per Run 1	-0.039 ppm	0.000 ppm	-0.001 ppm	0.000 ppm	-0.018 ppm
Concentration per Run 2	-0.039 ppm	0.000 ppm	0.000 ppm	0.000 ppm	-0.019 ppm
Concentration per Run 3	-0.036 ppm	0.000 ppm	-0.001 ppm	0.000 ppm	-0.020 ppm
Concentration average 1	-0.038 ppm	0.000 ppm	-0.001 ppm	0.000 ppm	-0.019 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	3.9 %	31.4 %	91.1 %	167.5 %	3.5 %

	Th 318.019 (Aqueous- Axial-iFR)	Cu 324.754 (Aqueous- Axial-iFR)	Ag 328.068 (Aqueous- Axial-iFR)	La 333.749 (Aqueous- Axial-iFR)	Ti 334.941 (Aqueous- Axial-iFR)
Recovery Percentage 1	0.160 %	-0.008 %	0.021 %	0.025 %	0.001 %
Intensity per Run 1	-31.1 cps	13.8 cps	1.0 cps	-0.9 cps	-1.3 cps
Intensity per Run 2	-31.1 cps	12.7 cps	1.9 cps	-3.9 cps	-3.5 cps
Intensity per Run 3	-31.8 cps	12.8 cps	2.1 cps	-5.2 cps	-2.8 cps
Intensity average 1	-31 cps	13 cps	2 cps	-3 cps	-3 cps
Concentration per Run 1	0.002 ppm	0.000 ppm	0.000 ppm	0.001 ppm	0.000 ppm
Concentration per Run 2	0.002 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration per Run 3	0.001 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration average 1	0.002 ppm	0.000 ppm	0.000 ppm	0.000 ppm	0.000 ppm
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	38.5 %	117.0 %	46.2 %	104.6 %	576.3 %

	Zr 339.198 (Aqueous- Axial-iFR)	Pd 340.458 (Aqueous- Axial-iFR)	Tl 351.924 (Aqueous- Axial-iFR)	Y 360.073 (Aqueous- Axial-iFR)	Sc 361.384 (Aqueous- Axial-iFR)
Recovery Percentage 1	-0.015 %	0.007 %	-0.599 %	0.005 %	
Intensity per Run 1	-0.2 cps	-1.7 cps	1.7 cps	6.1 cps	841,674.9 cps
Intensity per Run 2	-3.0 cps	-0.5 cps	1.5 cps	3.0 cps	844,780.8 cps
Intensity per Run 3	-4.7 cps	0.1 cps	0.0 cps	2.1 cps	838,836.9 cps
Intensity average 1	-3 cps	-1 cps	1 cps	4 cps	841,764 cps
Concentration per Run 1	0.000 ppm	0.000 ppm	-0.004 ppm	0.000 ppm	100.653 %
Concentration per Run 2	0.000 ppm	0.000 ppm	-0.004 ppm	0.000 ppm	101.024 %
Concentration per Run 3	0.000 ppm	0.000 ppm	-0.010 ppm	0.000 ppm	100.314 %
Concentration average 1	0.000 ppm	0.000 ppm	-0.006 ppm	0.000 ppm	100.664 %
Concentration SD 1	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm	0.4 %
Concentration RSD 1	66.7 %	580.8 %	58.0 %	132.8 %	0.4 %

ThermoScientific iCAP Pro XP
Nickname: "Steve Rogers"



Report Date/Time: 6/5/2024 4:55:33 PM

SOUTHWEST RESEARCH INSTITUTE

	Sc 361.384 (Aqueous- Radial-iFR)	Sr 421.552 (Aqueous- Radial-iFR)	Ba 493.409 (Aqueous- Axial-iFR)	Na 588.995 (Aqueous- Radial-iFR)	Li 670.784 (Aqueous- Radial-iFR)
Recovery Percentage 1		-0.004 %	0.004 %	-0.401 %	0.086 %
Intensity per Run 1	138,097.8 cps	0.6 cps	46.7 cps	-380.8 cps	1.5 cps
Intensity per Run 2	137,752.2 cps	1.2 cps	42.2 cps	-386.9 cps	6.2 cps
Intensity per Run 3	138,728.4 cps	1.0 cps	38.1 cps	-386.6 cps	3.6 cps
Intensity average 1	138,193 cps	1 cps	42 cps	-385 cps	4 cps
Concentration per Run 1	97.928 %	0.000 ppm	0.000 ppm	-0.002 ppm	0.000 ppm
Concentration per Run 2	97.683 %	0.000 ppm	0.000 ppm	-0.006 ppm	0.002 ppm
Concentration per Run 3	98.375 %	0.000 ppm	0.000 ppm	-0.004 ppm	0.001 ppm
Concentration average 1	97.995 %	0.000 ppm	0.000 ppm	-0.004 ppm	0.001 ppm
Concentration SD 1	0.4 %	0.0 ppm	0.0 ppm	0.0 ppm	0.0 ppm
Concentration RSD 1	0.4 %	20.2 %	85.6 %	43.2 %	74.4 %

	K 766.490 (Aqueous- Radial-iFR)
Recovery Percentage 1	0.702 %
Intensity per Run 1	-9.3 cps
Intensity per Run 2	-6.5 cps
Intensity per Run 3	-11.2 cps
Intensity average 1	-9 cps
Concentration per Run 1	0.005 ppm
Concentration per Run 2	0.018 ppm
Concentration per Run 3	-0.003 ppm
Concentration average 1	0.007 ppm
Concentration SD 1	0.0 ppm
Concentration RSD 1	150.4 %

**END OF REPORT
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SOUTHWEST RESEARCH INSTITUTE

CLIENT: Perma-Fix of Florida, Inc.

SwRI PROJECT#: 28407.06.005

SwRI Task Order: 240520-2

PO #: 718640

Appendix C

Bulk Density Report & Raw Data

SOUTHWEST RESEARCH INSTITUTE

WetChem Report

Cover Page

Client: Perma-Fix of Florida, Inc.
Task Order: 240520-2

SDG: 720195
SRR: 71145

Case: Spike
Project: 28407.06.005

Client Sample ID	Lab Sample ID
Organic Spike	720196

Comments:

SOUTHWEST RESEARCH INSTITUTE
WetChem Report - Form I
Certificate of Analysis

Client Sample ID

Organic Spike

Type: Unknown

Client: Perma-Fix of Florida, Inc.
Task Order: 240520-2
Lab ID: 720196
Result Units: g/mL

SDG: 720195
SRR: 71145
Matrix: Liquid
% Solids: NA

Case: Spike
Project: 28407.06.005
Receipt Date: 05/13/2024
Collection Date: 05/07/2024

CAS No.	Analyte	Result	Qual	M	RL	DF	Prep Batch	Analysis Date/Time
NA	Bulk Density	1.26		NA	NA	1	NA	06/11/2024 07:45

Data Reporting Qualifiers (Qual)	Columns	Instruments/Methods (M)
U - Result is less than the SwRI Reporting Limit (RL) N - Matrix spike and/or matrix spike duplicate criteria was not met X - Analytical spike criteria was not met E - Result is estimated due to interferences D - Result is reported from a dilution * - Duplicate criteria was not met & - See narrative	RL - SwRI Reporting Limit DF - Dilution Factor M - Instrument	NA - Not Applicable/Bulk Density ASTM 5057

SOUTHWEST RESEARCH INSTITUTE
WetChem Report - Form VI
Duplicates

Client Sample ID
Organic Spiked

Client: Perma-Fix of Florida, Inc.
Task Order: 240520-2
Lab ID: 720196D
Result Units: g/mL

SDG: 720195
SRR: 71145
Matrix: Liquid
% Solids: NA

Case: Spike
Project: 28407.06.005

Analyte	Parent Sample Result	Qual	Duplicate Result	Qual	RPD	RPD Limit	Control Limit	M	Note
Bulk Density	1.26		1.26		0.00%	20%	-	NA	

<i>Data Reporting Qualifiers (Qual)</i>	<i>Columns</i>	<i>Instruments/Method (M)</i>
U - Result is less than the SwRI Reporting Limit (RL) N - Matrix spike and/or matrix spike duplicate criteria was not met X - Analytical spike criteria was not met E - Result is estimated due to interferences D - Result is reported from a dilution * - Duplicate criteria was not met	M - Instrument RPD - Relative Percent Difference	NA - Not Applicable/Bulk Density ASTM 5057

SOUTHWEST RESEARCH INSTITUTE
WetChem Report - Form VII
Laboratory Control Sample

SwRI ID

LCS24F11JM1

Client: Perma-Fix of Florida, Inc.
Task Order: 240520-2
Lab ID: LCS24F11JM1
Result Units: g/mL

SDG: 720195
SRR: 71145
Matrix: Water
Associated Prep Batches: NA

Case: Spike
Project: 28407.06.005
LCS Source:

Analyte	True	Found	Qual	%Rec.	Limit	M	Analysis Date/Time
Bulk Density	0.998	1.00		100.2%	90%-110%	NA	06/11/2024 07:45

Instruments/Methods (M)

NA - Not Applicable/Bulk Density ASTM 5057

SOUTHWEST RESEARCH INSTITUTE

WetChem Report - Form XII

Analysis Run Log

Client: Perma-Fix of Florida, Inc.
Task Order: 240520-2
Analytical Batch: 20240611-A006
Analysis Method: Bulk Density ASTM 5057

SDG: 720195
SRR: 71145
Instrument:

Case: Spike
Project: 28407.06.005
Start Date: 06/11/2024
End Date: 06/11/2024

Lab Sample ID	Client Sample ID	Time	DF	B D
LCS24F11JM1	NA	07:45	1	X
720196	Organic Spike	07:45	1	X
720196D	Organic SpikeD	07:45	1	X

SOUTHWEST RESEARCH INSTITUTE
CLIENT: Perma-Fix of Florida, Inc.
SwRI PROJECT#: 28407.06.005
SwRI TASK ORDER: 240520-2

Sample Calculation

Sample calculation; 720196

$$\frac{30.6416\text{g} - 17.8443\text{g}}{28.0187\text{g} - 17.8443\text{g}} = 1.257 = \boxed{1.26 \text{ g/mL}}$$

✓
J. M.
6/11/24

SOUTHWEST RESEARCH INSTITUTE
CLIENT: Perma-Fix of Florida, Inc.
SwRI PROJECT#: 28407.06.005
SwRI TASK ORDER: 240520-2

ASTM 5057
Raw Data

Bulk Den ASTM 5057

Southwest Research Institute
San Antonio, Texas 78238

Batch: 20240611-A006 (Ver. 1)

Status: CONSUMED

Customer: Perma-Fix of Florida, Inc.
Task Order: 240520-2
SDG: 720195
Project: 28407.06.005
Analysis Method: Bulk Density (TAP: 01-0406-164)
Analyte Test: Bulk Den ASTM 5057
Balance: Bal #135 (AN:020014)
Matrix: Liquid
Equipment: Thermocouple (#029209 cal due 12/26/2024), Meter (#010838 cal due 04/05/2025)
Start Time: 06/11/2024 07:45:00
Batch Note: Sample and Water Temp 21.4C

		BD						
<u>Sample Identification</u>	<u>Client Identification</u>	<u>Container Initial Wt (g)</u>	<u>Container & DI Wt (g)</u>	<u>Container & Samp Wt (g)</u>	<u>Bulk Density (g/mL)</u>	<u>RPD (%)</u>	<u>Rec (%)</u>	
LCS24F11JM1 ①	NA	17.8443	28.0187	28.0174	1.00		100	
720196	Organic Spike	17.8443	28.0187	30.6416	1.26			
720196D	Organic Spike	17.8443	28.0187	30.6397	1.26	0.00		

① spiked mL of DI H2O Room Temp (Lot# UNDEFINED, Source: UNDEFINED, Exp: 04/21/2025) with BD at 0.998 g/ml

Comments:
Sample and water temperature was 21.4C.

Water density at 21.4C = 0.99790 = 0.998 g/mL

Procedure:
See TAP 01-0406-164 for details.

CGL - 06/11/2024

U - Result is less than the SwRI Reporting Limit (RL)

Prepared by: MOKEN, JAMES

Date: 06/11/2024

Reviewed by: NAVA, RAMIRO

Date: 06/11/2024

SOUTHWEST RESEARCH INSTITUTE

CLIENT: Perma-Fix of Florida, Inc.

SwRI PROJECT#: 28407.06.005

SwRI Task Order: 240520-2

PO #: 718640

Appendix D

VOC Data

Client: Perma-Fix of Florida, Inc.
SDG: 720195
SwRI Project Number: 28407.06.005
SwRI Task Order Number: 240520-2

VOLATILE ANALYSIS

One liquid sample under this SDG was received and analyzed for VOC analytes per SwRI TAP 01-0404-043 Rev.14. The samples were analyzed by using purged a seven-point standard calibration. If %RSDs for target compounds were less than 20% in the initial calibration, the compounds were quantitated using the average response factor from the initial calibration curve. If the %RSD was greater than 20%, a linear regression type curve was used ($R^2 > 0.990$). Calibration data is found on Form VI of the data package.

ICV was analyzed at 25ppb after calibration curve. All monitored compounds were recovered within the accepted limits. See Form 7FICV of the data package.

When required, mid-level standards at 25 ppb were analyzed after BFB tuning analysis at the beginning of new 12-hour clock. A continuing calibration standards met %D for all analytes. See Form VII of the data package.

Closing CCV at 25 ppb of the mid-level standard was analyzed at the end of analytical batch. The closing CCV met %D of 50% for analytes.

Due to the nature of the sample matrix, the samples were analyzed by using methanol extraction procedure due to high level of sample matrix. The sample was analyzed by different dilution factors in order to bring concentration of compounds into the calibration range. If detected, volatile analytes are reported on Form Is. Tentatively identified compounds (TICs) are not required. Concentrations of detected analytes are reported based on weight in units of $\mu\text{g/kg}$.

Surrogate compounds were monitored for recovery within the criteria in the blank, LCS, and the samples. Results are summarized on Form II of the data package.

LCS and LCSD were analyzed as quality controls. All spiked compounds were monitored for recovery within the acceptance QC limits and %RPDs were within the acceptance limit. See Form III of the data package.

MS/MSD analyses were unable to perform due to sample matrix.

No target analytes were detected in method blank above the reporting limit. All samples associated with the method blank are summarized on Form IV of the data package.

For Purge & Trap GC/MSD method (method 8260D.) with scan mode, a BFB tuning was performed prior to analyze all other QC samples and samples. All abundance criteria were achieved for BFB tuning. Samples were analyzed within 12 hours of injection of 25ng of p-bromofluorobenzene. See Form V of the data package.

Internal standard compound areas were monitored within the acceptance range of -50% to +100% of the midpoint calibration standard or daily continuing standard in the blank, QC samples, and samples. Internal standard retention times were monitored within the acceptance limit of +/- 0.50 minutes of those in the midpoint. Results are summarized on Form VIII of the data package.

Client: Perma-Fix of Florida, Inc.
SDG: 720195
SwRI Project Number: 28407.06.005
SwRI Task Order Number: 240520-2

Manual integration:

Several peaks required manual integration by the analyst to correct the automated integration in cases where a baseline was improperly integrated, a peak was misidentified, a partial peak was integrated, or a peak was missed. These manual integrations have been flagged with "m" on the raw data and initialed and dated by the analyst.

Sample calculation:

Calibration standard REVEILLE060724S04
Response of 10ppb Ethylbenzene = 140174
Response of 5ppb Chlorobenzene-d5 (IS3) = 190169

$$RRF = \frac{Area_{(analyte)}}{Area_{(IS)}} \times \frac{Conc_{(IS)}}{Conc_{(analyte)}}$$

$$RRF = \frac{140174}{190169} \times \frac{5ppb}{10ppb} = 0.369 \text{ (Form VI)}$$

Mean RRF = 0.372 (Form VI)


For sample Organic Spike (720196), Filename REVEILLE061424004
Response for Ethylbenzene = 355018
Response for Chlorobenzene-d5 (IS3) = 209894

$$\text{Concentration} = \frac{Area_{(analyte)}}{Area_{(IS)}} \times \frac{Conc_{(IS)}}{MeanRRF} \times \text{Extraction Factor} \times \text{Dilution Factor}$$

Where IS = Internal Standard

$$\begin{aligned} \text{Conc. of Ethylbenzene} &= (355018 / 209894) \times (5.0 \text{ ng/mL} / 0.372) \times (10\text{mL}/1.12\text{g}) \\ &\quad \times (44\text{mL}/0.001\text{mL}) \\ &= 8931246.3 \text{ ng/g} = 8931246.3 \text{ ug/kg} \end{aligned}$$

Concentration of Ethylbenzene reported on Form I = 8900000 ug/kg

 6/18/24
Prepared by

SOUTHWEST RESEARCH INSTITUTE
CLIENT: Perma-Fix of Florida, Inc.
SwRI PROJECT#: 28407.06.005
SwRI TASK ORDER: 240520-2

SW-846 Method 8260D
Sample Data

SOUTHWEST RESEARCH INSTITUTE
Method 8260D Oil Sample Data Reporting Form

Client: Perma-Fix of Florida, Inc.
Case: Spike
SDG: 720195
Sample Weight (g): 1.12
Extraction Dilution: 8.9

Client Sample ID: Organic Spike
System ID: 720196
Filename: REVEILLE061424004
Extract Volume (mL): 10
Sample dilution: 44000

Project Number: 28407.06.005
Instrument: REVEILLE
Date Received: May 13 2024 10:52AM
Date Analyzed: Jun 14 2024 1:18PM
Total Dilution Factor: 393000

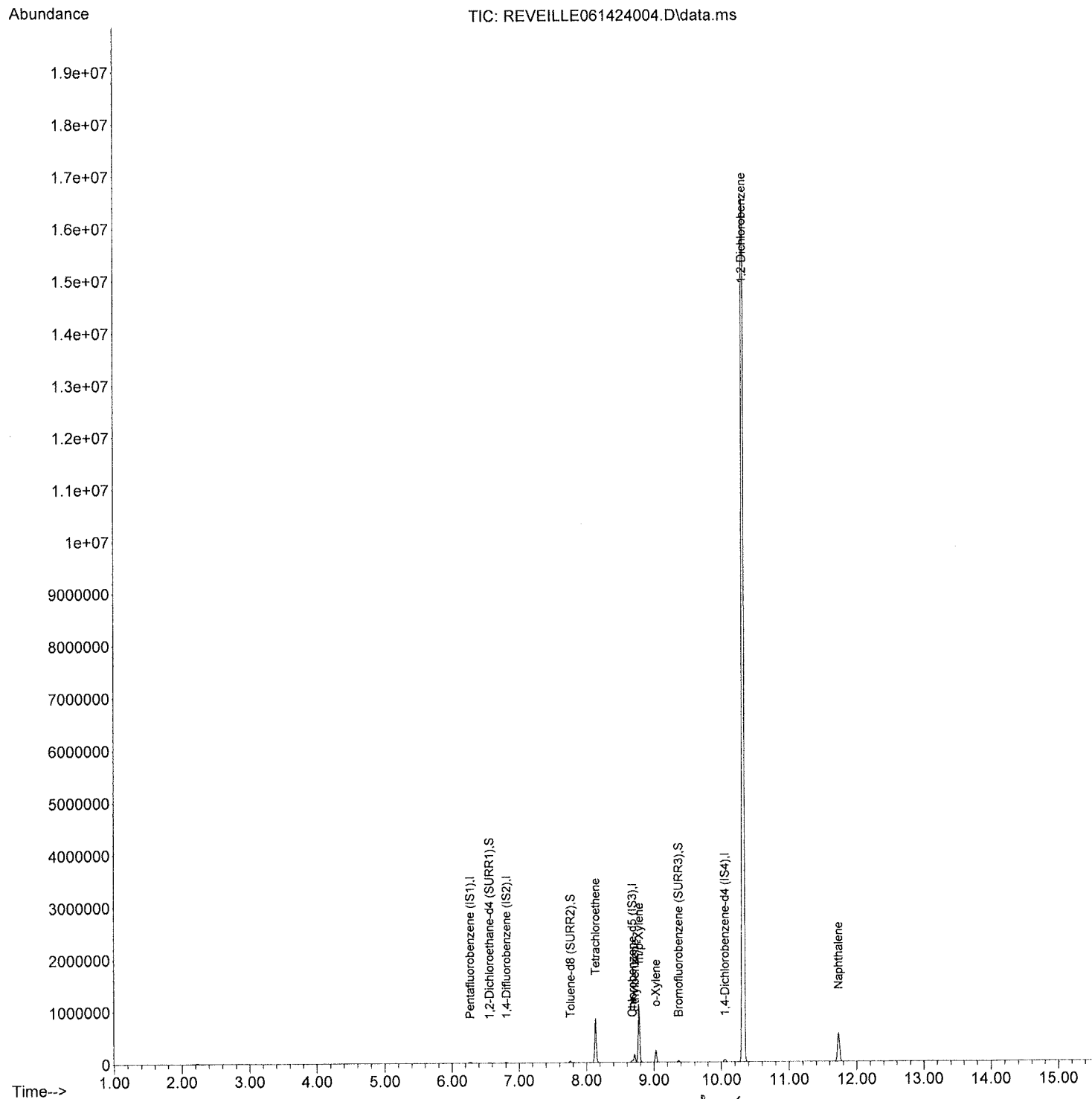
CAS No.	Compound	µg/kg
100-41-4	ETHYLBENZENE	8900000
179601-23-1	M/P-XYLENE	64000000
95-47-6	O-XYLENE	14000000
127-18-4	TETRACHLOROETHENE	80000000 E
95-50-1	1,2-DICHLOROBENZENE	1700000000 E
91-20-3	NAPHTHALENE	93000000 E

DATA REPORTING QUALIFIERS

- B This flag is used when the analyte is found in the blank as well as the sample.
E This flag indicates compounds whose concentrations exceed the calibration range.
J Indicates an estimated value.
U Indicates compound was analyzed for, but not detected. Report the minimum detection limit for the sample with U (e.g. 10U) based on necessary concentration dilution action (This is not necessarily the instrument detection limit).

Data Path : C:\MassHunter\GCMS\1\data\0624\061424\
 Data File : REVEILLE061424004.D
 Acq On : 14 Jun 2024 01:18 pm
 Operator : QP
 Sample : Organic Spike; 720196
 Misc : 1.0uL(1.12g/10mL)/44mL; IS/SS @ 5ppb
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 14 13:35:01 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
 Quant Title : EPA Method 8260B Calibration Curve
 QLast Update : Fri Jun 14 13:13:31 2024
 Response via : Initial Calibration



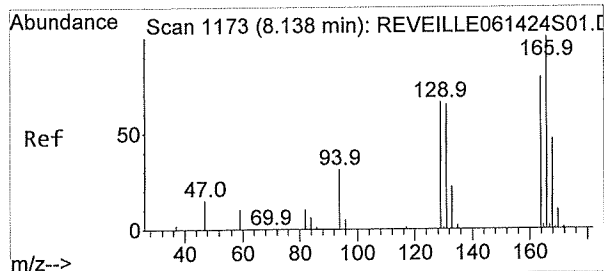
Data Path : C:\MassHunter\GCMS\1\data\0624\061424\
 Data File : REVEILLE061424004.D
 Acq On : 14 Jun 2024 01:18 pm
 Operator : QP
 Sample : Organic Spike; 720196
 Misc : 1.0uL(1.12g/10mL)/44mL; IS/SS @ 5ppb
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 14 13:35:01 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
 Quant Title : EPA Method 8260B Calibration Curve
 QLast Update : Fri Jun 14 13:13:31 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene (IS1)	6.273	168	121103	5.00	ppb	0.00
3) 1,4-Difluorobenzene (IS2)	6.807	114	184082	5.00	ppb	# 0.00
5) Chlorobenzene-d5 (IS3)	8.679	117	209894	5.00	ppb	0.00
11) 1,4-Dichlorobenzene-d4...	10.054	152	124113	5.00	ppb	# 0.00
System Monitoring Compounds						
2) 1,2-Dichloroethane-d4 ...	6.562	65	75859	5.40	ppb	0.00
4) Toluene-d8 (SURR2)	7.761	98	208328	4.69	ppb	0.00
10) Bromofluorobenzene (SU...	9.366	95	102081	4.65	ppb	0.00
Target Compounds						
6) Tetrachloroethene	8.135	164	2013453	203.76	ppb	Qvalue 95
7) Ethylbenzene	8.717	106	355018m	22.73	ppb	
8) m/p-Xylene	8.780	106	3277975	163.50	ppb	85
9) o-Xylene	9.031	106	676702	35.34	ppb	# 75
12) 1,2-Dichlorobenzene	10.322	146	114826623	4277.23	ppb	# 96
13) Naphthalene	11.731	128	6498065	236.53	ppb	99

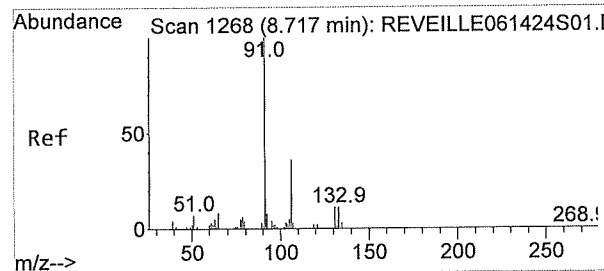
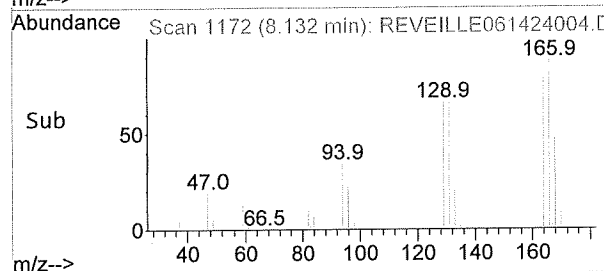
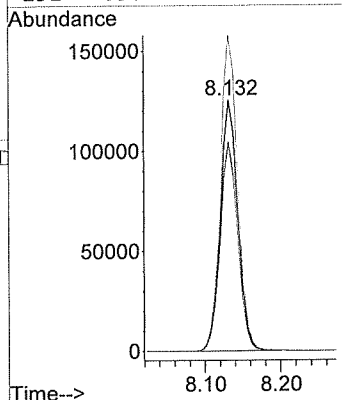
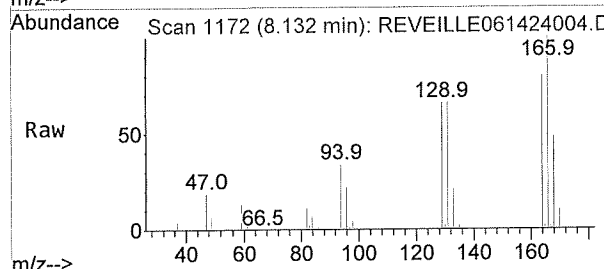
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#6
Tetrachloroethene
Concen: 203.76 ppb
RT: 8.135 min Scan# 1172
Delta R.T. -0.002 min
Lab File: REVEILLE061424004.D
Acq: 14 Jun 2024 01:18 pm

Tgt Ion:164 Resp: 2013453

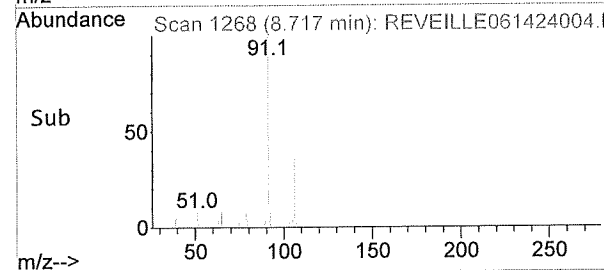
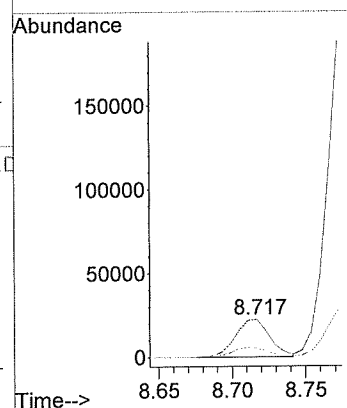
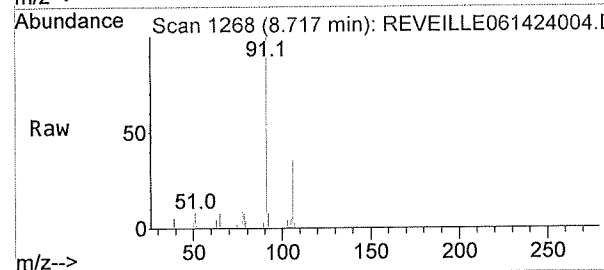
Ion	Ratio	Lower	Upper
164	100		
166	126.8	103.7	155.5
129	85.6	75.2	112.8
131	83.3	69.8	104.6

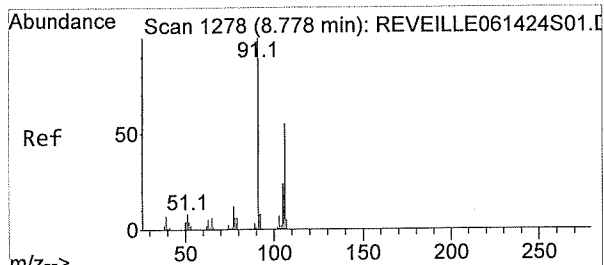


#7
Ethylbenzene
Concen: 22.73 ppb m
RT: 8.717 min Scan# 1268
Delta R.T. -0.002 min
Lab File: REVEILLE061424004.D
Acq: 14 Jun 2024 01:18 pm

Tgt Ion:106 Resp: 355018

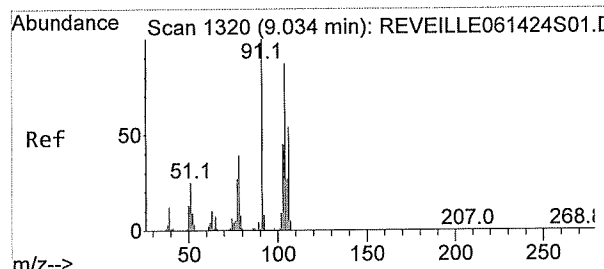
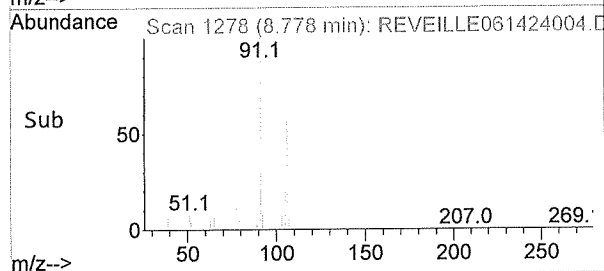
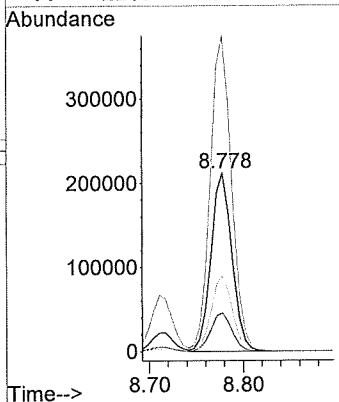
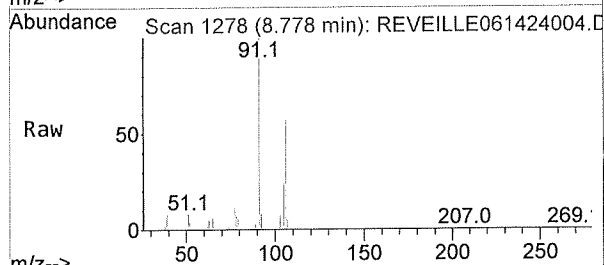
Ion	Ratio	Lower	Upper
106	100		
106	923.4	80.0	120.0#
51	135.8	31.0	46.4#





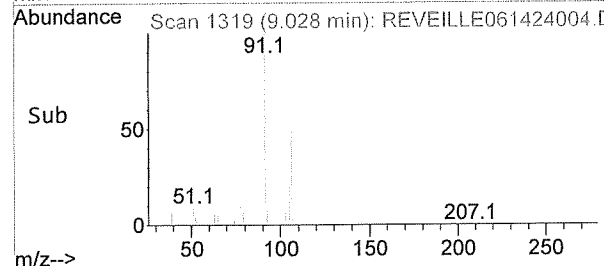
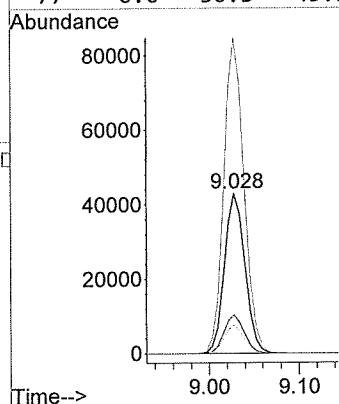
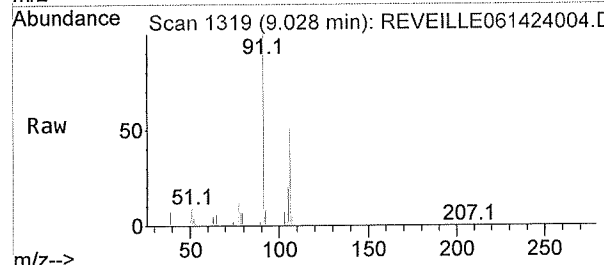
#8
m/p-Xylene
Concen: 163.50 ppb
RT: 8.780 min Scan# 1278
Delta R.T. -0.005 min
Lab File: REVEILLE061424004.D
Acq: 14 Jun 2024 01:18 pm

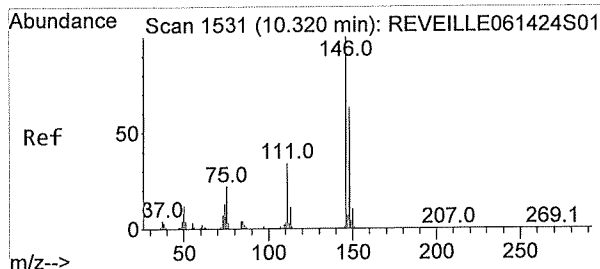
Tgt Ion:106 Resp: 3277975
Ion Ratio Lower Upper
106 100
91 179.8 166.3 249.5
105 42.5 35.5 53.3
77 21.9 20.7 31.1



#9
o-Xylene
Concen: 35.34 ppb
RT: 9.031 min Scan# 1319
Delta R.T. -0.003 min
Lab File: REVEILLE061424004.D
Acq: 14 Jun 2024 01:18 pm

Tgt Ion:106 Resp: 676702
Ion Ratio Lower Upper
106 100
91 193.9 166.4 249.6
51 0.0 36.2 54.4#
77 0.0 30.3 45.5#

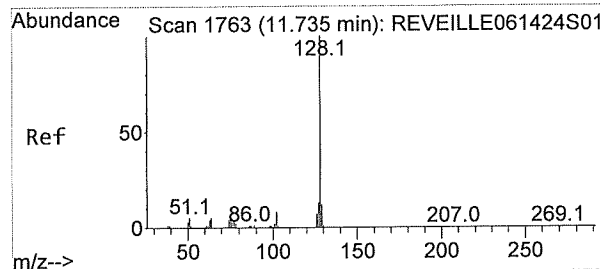
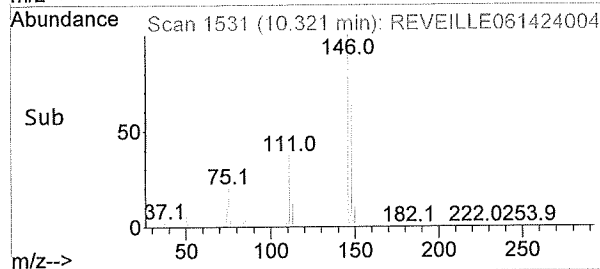
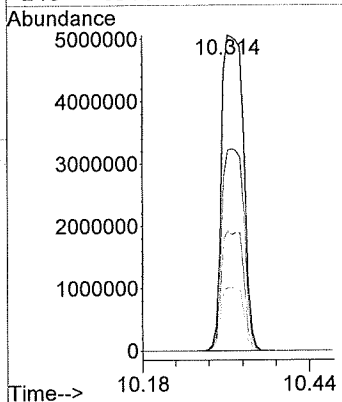
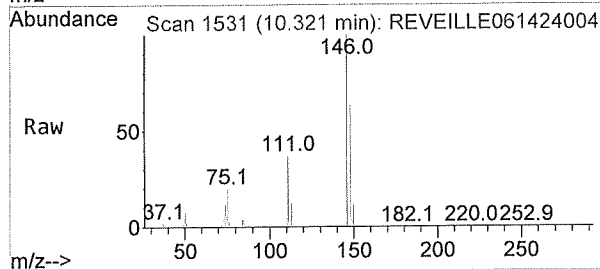




#12
1,2-Dichlorobenzene
Concen: 4277.23 ppb
RT: 10.322 min Scan# 1531
Delta R.T. -0.004 min
Lab File: REVEILLE061424004.D
Acq: 14 Jun 2024 01:18 pm

Tgt Ion:146 Resp:114826623

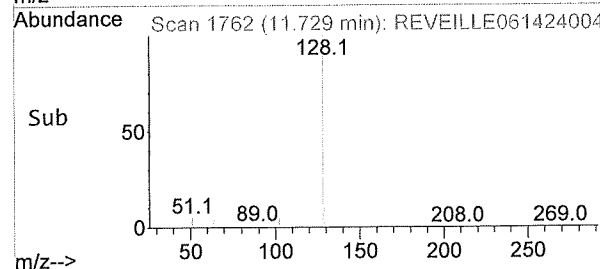
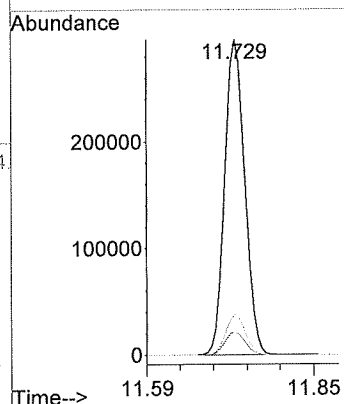
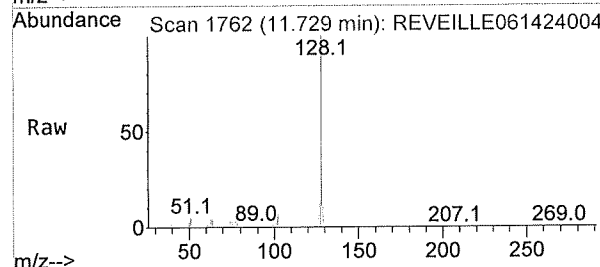
Ion	Ratio	Lower	Upper
146	100		
111	37.6	30.3	45.5
75	20.2	20.4	30.6
148	63.8	49.1	73.7



#13
Naphthalene
Concen: 236.53 ppb
RT: 11.731 min Scan# 1762
Delta R.T. -0.005 min
Lab File: REVEILLE061424004.D
Acq: 14 Jun 2024 01:18 pm

Tgt Ion:128 Resp: 6498065

Ion	Ratio	Lower	Upper
128	100		
102	7.4	6.0	9.0
127	12.5	9.5	14.3



SOUTHWEST RESEARCH INSTITUTE
Method 8260D Oil Sample Data Reporting Form

Client: Perma-Fix of Florida, Inc.
Case: Spike
SDG: 720195
Sample Weight (g): 1.12
Extraction Dilution: 8.9

Client Sample ID: Organic Spike DL
System ID: 720196
Filename: REVEILLE061424003
Extract Volume (mL): 10
Sample dilution: 1100000

Project Number: 28407.06.005
Instrument: REVEILLE
Date Received: May 13 2024 10:52AM
Date Analyzed: Jun 14 2024 12:53PM
Total Dilution Factor: 9820000

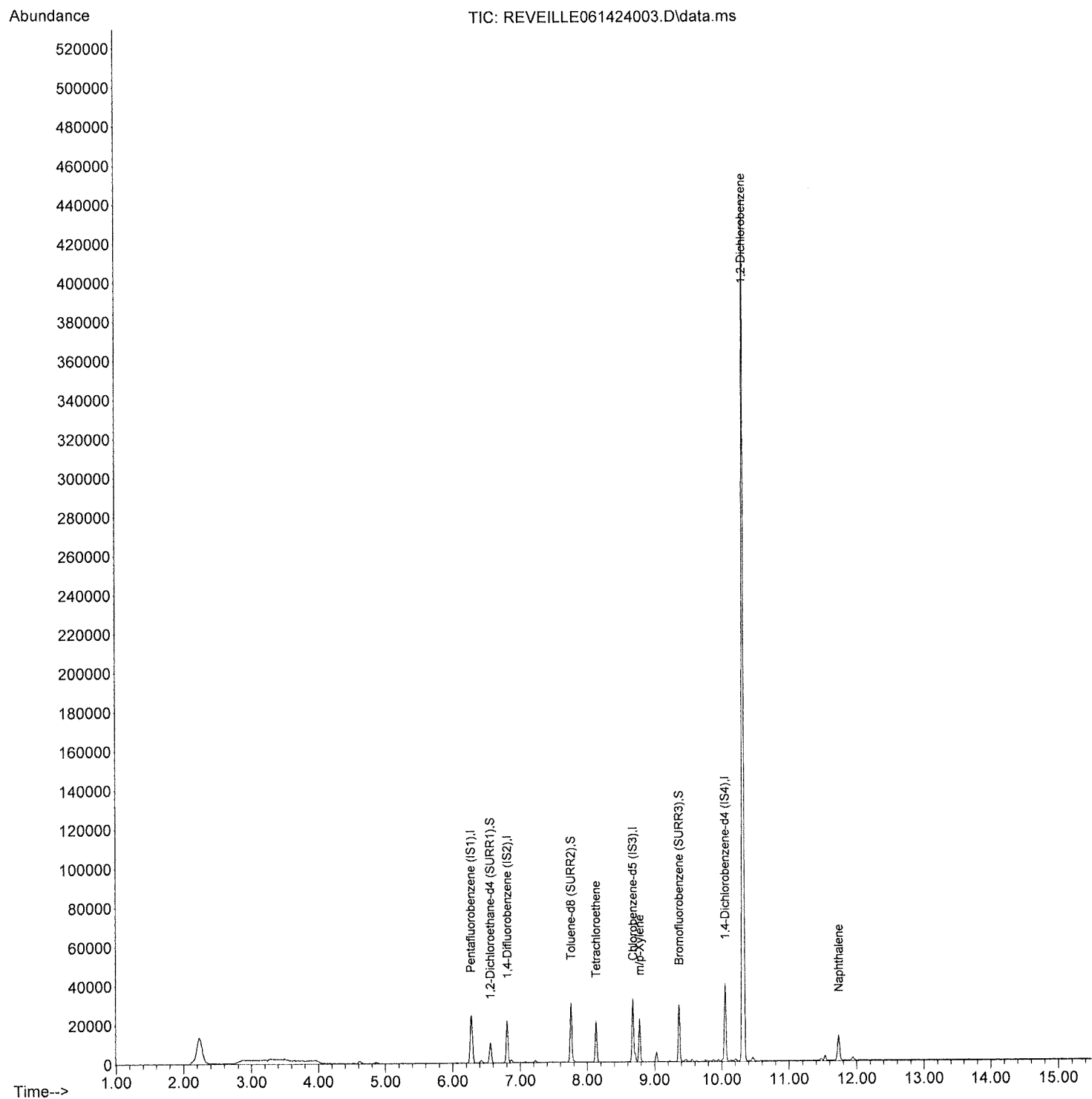
CAS No.	Compound	µg/kg
100-41-4	ETHYLBENZENE	9800000 U
179601-23-1	M/P-XYLENE	32000000 D
95-47-6	O-XYLENE	9800000 U
127-18-4	TETRACHLOROETHENE	56000000 D
95-50-1	1,2-DICHLOROBENZENE	830000000 D
91-20-3	NAPHTHALENE	50000000 D

DATA REPORTING QUALIFIERS

- B This flag is used when the analyte is found in the blank as well as the sample.
E This flag indicates compounds whose concentrations exceed the calibration range.
J Indicates an estimated value.
U Indicates compound was analyzed for, but not detected. Report the minimum detection limit for the sample with U (e.g. 10U) based on necessary concentration dilution action (This is not necessarily the instrument detection limit).

Data Path : C:\MassHunter\GCMS\1\data\0624\061424\
Data File : REVEILLE061424003.D
Acq On : 14 Jun 2024 12:53 pm
Operator : QP
Sample : Organic Spike; 720196 DL
Misc : 4.0uL[10uL(1.12g/10mL)1mL]/44mL; IS/SS @ 5pp
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 14 13:16:21 2024
Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
Quant Title : EPA Method 8260B Calibration Curve
QLast Update : Fri Jun 14 13:13:31 2024
Response via : Initial Calibration

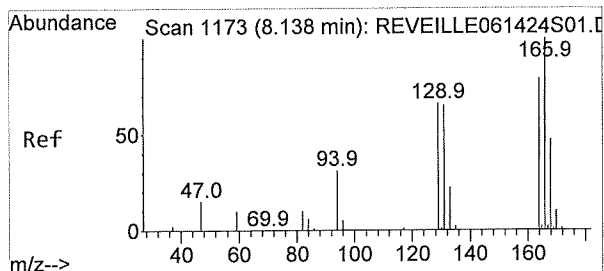


Data Path : C:\MassHunter\GCMS\1\data\0624\061424\
 Data File : REVEILLE061424003.D
 Acq On : 14 Jun 2024 12:53 pm
 Operator : QP
 Sample : Organic Spike; 720196 DL
 Misc : 4.0uL[10uL(1.12g/10mL)1mL]/44mL; IS/SS @ 5pp
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 14 13:16:21 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
 Quant Title : EPA Method 8260B Calibration Curve
 QLast Update : Fri Jun 14 13:13:31 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS1)	6.272	168	132384	5.00	ppb	# 0.00
3) 1,4-Difluorobenzene (IS2)	6.808	114	191847	5.00	ppb	# 0.00
5) Chlorobenzene-d5 (IS3)	8.679	117	201460	5.00	ppb	0.00
11) 1,4-Dichlorobenzene-d4...	10.054	152	121171	5.00	ppb	# 0.00
System Monitoring Compounds						
2) 1,2-Dichloroethane-d4 ...	6.560	65	77353	5.03	ppb	0.00
4) Toluene-d8 (SURR2)	7.762	98	210206	4.54	ppb	0.00
10) Bromofluorobenzene (SU...	9.367	95	92197	4.38	ppb	0.00
Target Compounds						
6) Tetrachloroethene	8.135	164	53607	5.65	ppb	Qvalue 96
7) Ethylbenzene	8.717	106	10575	N.D.		
8) m/p-Xylene	8.780	106	63438	3.30	ppb	# 90
9) o-Xylene	9.028	106	14942	N.D.		
12) 1,2-Dichlorobenzene	10.323	146	2202286	84.03	ppb	97
13) Naphthalene	11.735	128	154935	5.09	ppb	# 90

(#) = qualifier out of range (m) = manual integration (+) = signals summed



#6

Tetrachloroethene

Concen: 5.65 ppb

RT: 8.135 min Scan# 1172

Delta R.T. -0.002 min

Lab File: REVEILLE061424003.D

Acq: 14 Jun 2024 12:53 pm

Tgt Ion:164 Resp: 53607

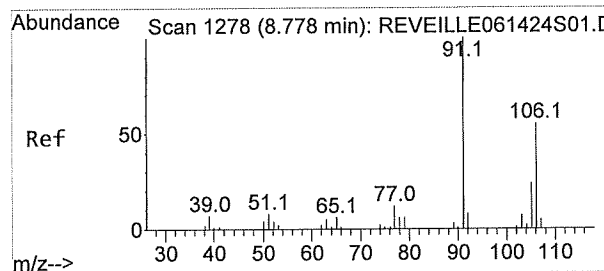
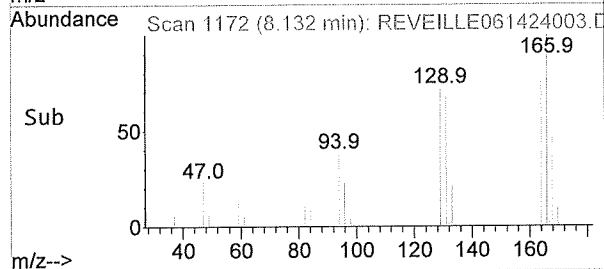
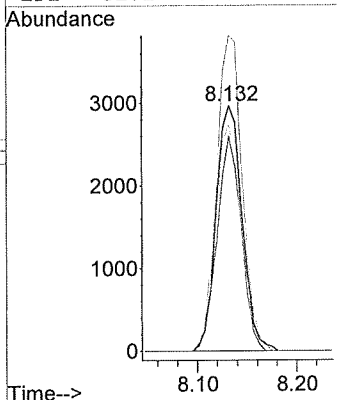
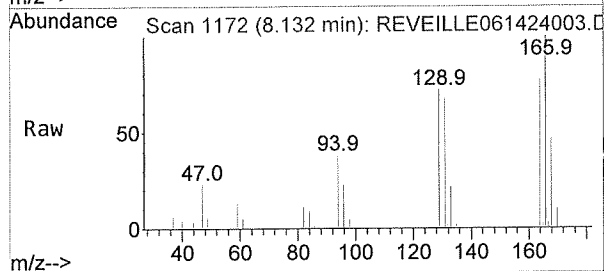
Ion Ratio Lower Upper

164 100

166 127.3 103.7 155.5

129 88.5 75.2 112.8

131 81.1 69.8 104.6



#8

m/p-Xylene

Concen: 3.30 ppb

RT: 8.780 min Scan# 1278

Delta R.T. -0.004 min

Lab File: REVEILLE061424003.D

Acq: 14 Jun 2024 12:53 pm

Tgt Ion:106 Resp: 63438

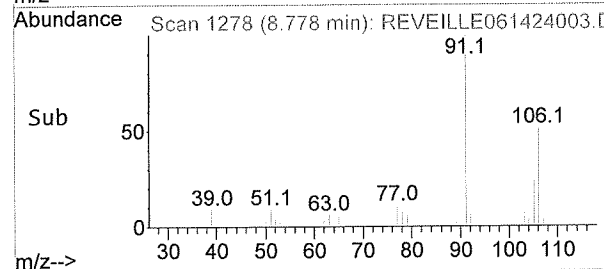
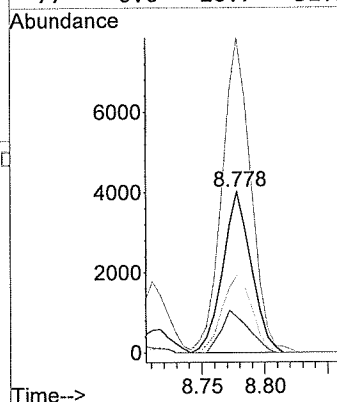
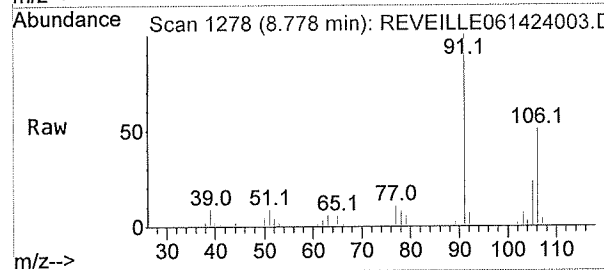
Ion Ratio Lower Upper

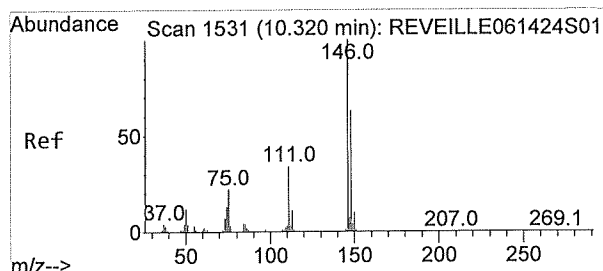
106 100

91 197.7 166.3 249.5

105 47.0 35.5 53.3

77 0.0 20.7 31.1#

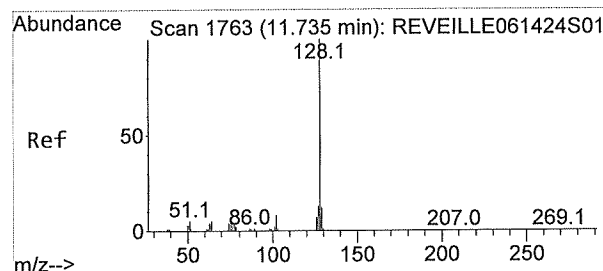
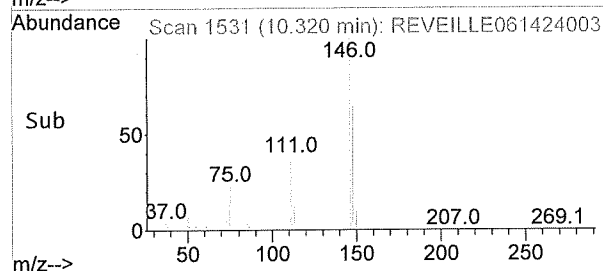
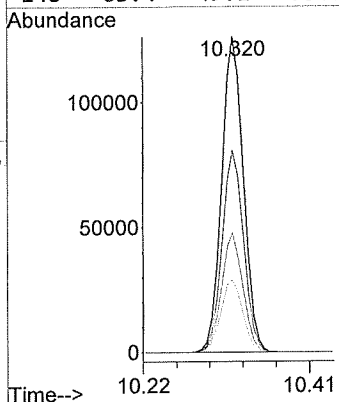
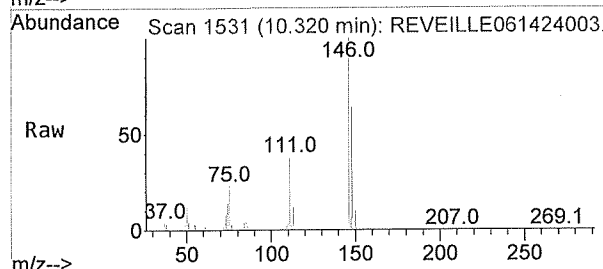




#12
1,2-Dichlorobenzene
Concen: 84.03 ppb
RT: 10.323 min Scan# 1531
Delta R.T. -0.003 min
Lab File: REVEILLE061424003.D
Acq: 14 Jun 2024 12:53 pm

Tgt Ion:146 Resp: 2202286

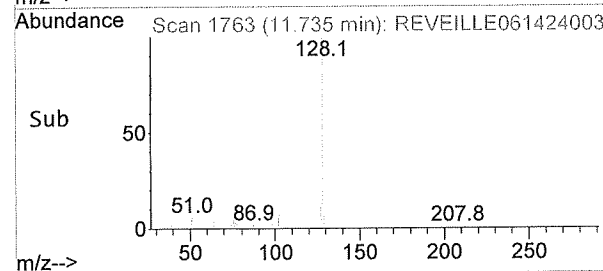
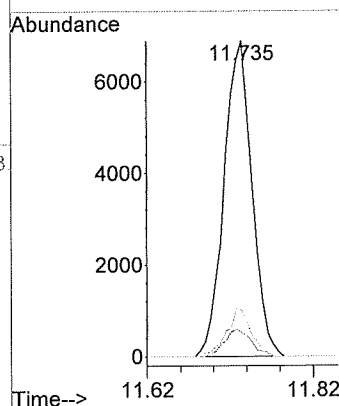
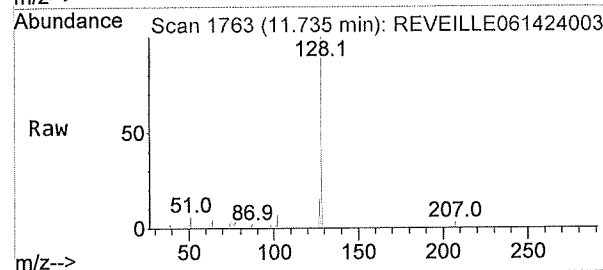
Ion	Ratio	Lower	Upper
146	100		
111	37.3	30.3	45.5
75	23.2	20.4	30.6
148	63.4	49.1	73.7



#13
Naphthalene
Concen: 5.09 ppb
RT: 11.735 min Scan# 1763
Delta R.T. -0.001 min
Lab File: REVEILLE061424003.D
Acq: 14 Jun 2024 12:53 pm

Tgt Ion:128 Resp: 154935

Ion	Ratio	Lower	Upper
128	100		
102	0.0	6.0	9.0#
127	13.2	9.5	14.3



SOUTHWEST RESEARCH INSTITUTE
Method 8260D Oil Sample Data Reporting Form

Client: Perma-Fix of Florida, Inc.
Case: Spike
SDG: 720195
Sample Weight (g): 10
Extraction Dilution: 1.0

Client Sample ID: VBLK001
System ID:
Filename: REVEILLE061424B01
Extract Volume (mL): 10
Sample dilution: 50

Project Number: 28407.06.005
Instrument: REVEILLE
Date Received: NA
Date Analyzed: Jun 14 2024 11:39AM
Total Dilution Factor: 50.0

CAS No.	Compound	µg/kg
100-41-4	ETHYLBENZENE	50 U
179601-23-1	M/P-XYLENE	50 U
95-47-6	O-XYLENE	50 U
127-18-4	TETRACHLOROETHENE	50 U
95-50-1	1,2-DICHLOROBENZENE	50 U
91-20-3	NAPHTHALENE	50 U

DATA REPORTING QUALIFIERS

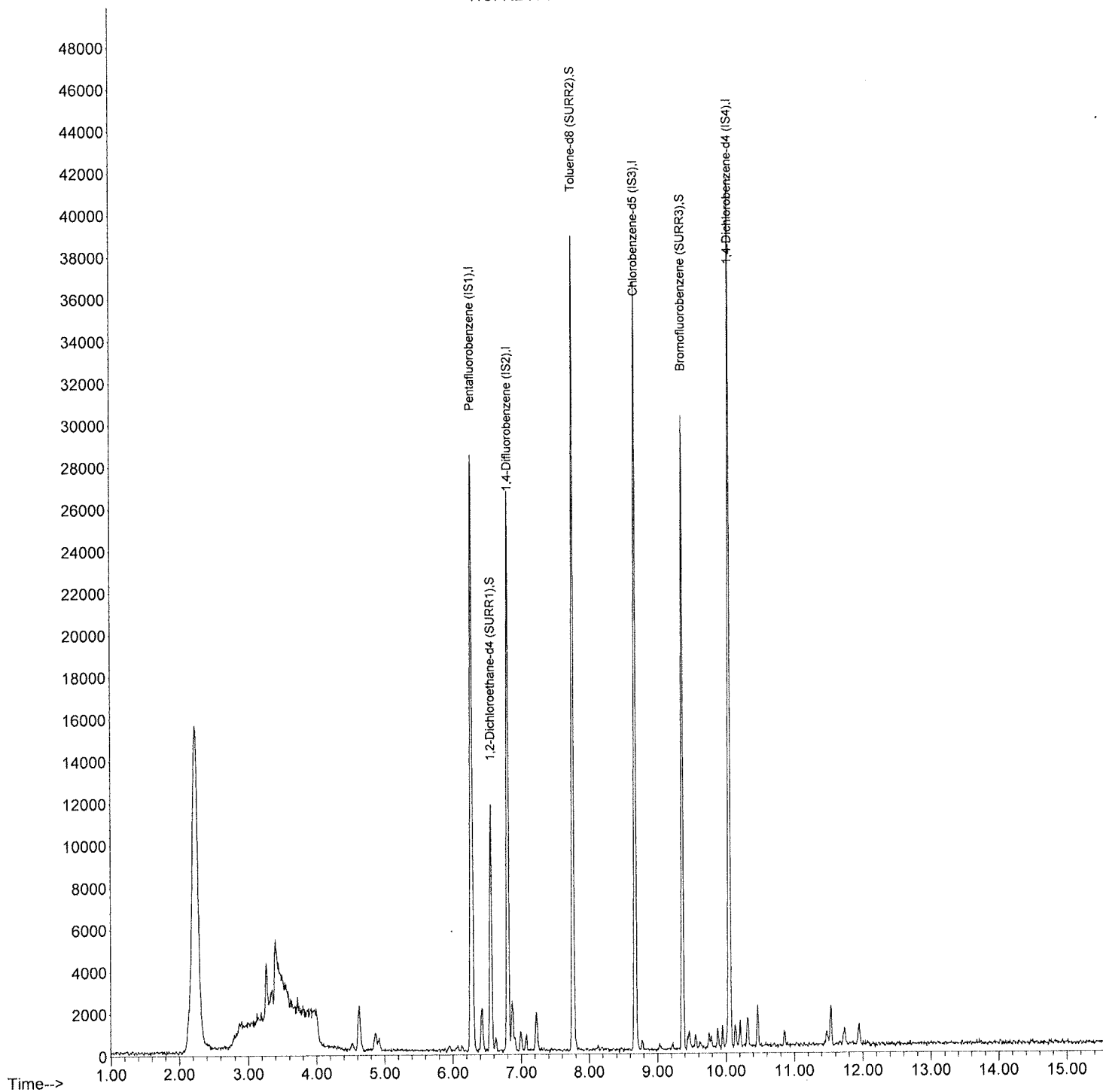
- B This flag is used when the analyte is found in the blank as well as the sample.
E This flag indicates compounds whose concentrations exceed the calibration range.
J Indicates an estimated value.
U Indicates compound was analyzed for, but not detected. Report the minimum detection limit for the sample with U (e.g. 10U) based on necessary concentration dilution action (This is not necessarily the instrument detection limit).

Data Path : C:\MassHunter\GCMS\1\data\0624\061424\
Data File : REVEILLE061424B01.D
Acq On : 14 Jun 2024 11:39 am
Operator : QP
Sample : VBLK001
Misc : 5mL Purge; IS/SS @ 5ppb
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 14 13:16:23 2024
Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
Quant Title : EPA Method 8260B Calibration Curve
QLast Update : Fri Jun 14 13:13:31 2024
Response via : Initial Calibration

Abundance

TIC: REVEILLE061424B01.D\data.ms



Data Path : C:\MassHunter\GCMS\1\data\0624\061424\
 Data File : REVEILLE061424B01.D
 Acq On : 14 Jun 2024 11:39 am
 Operator : QP
 Sample : VBLK001
 Misc : 5mL Purge; IS/SS @ 5ppb
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 14 13:16:23 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
 Quant Title : EPA Method 8260B Calibration Curve
 QLast Update : Fri Jun 14 13:13:31 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene (IS1)	6.271	168	160473	5.00	ppb	0.00
3) 1,4-Difluorobenzene (IS2)	6.807	114	234345	5.00	ppb	# 0.00
5) Chlorobenzene-d5 (IS3)	8.678	117	230560	5.00	ppb	0.00
11) 1,4-Dichlorobenzene-d4...	10.055	152	129258	5.00	ppb	# 0.00
System Monitoring Compounds						
2) 1,2-Dichloroethane-d4 ...	6.557	65	85045	4.57	ppb	0.00
4) Toluene-d8 (SURR2)	7.761	98	261742	4.63	ppb	0.00
10) Bromofluorobenzene (SU...	9.366	95	99396	4.12	ppb	0.00
Target Compounds						
						Qvalue
6) Tetrachloroethene	0.000		0		N.D.	
7) Ethylbenzene	0.000		0		N.D.	
8) m/p-Xylene	0.000		0		N.D.	
9) o-Xylene	0.000		0		N.D.	
12) 1,2-Dichlorobenzene	0.000		0		N.D.	
13) Naphthalene	0.000		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

SOUTHWEST RESEARCH INSTITUTE

Method 8260D Oil Sample Laboratory Control Spike/Duplicate Recovery

Project: 28407.06.005

Case: Spike

SDG: 720195

Sample ID: LCS061424

LCS File: REVEILLE061424001

LCSD File: REVEILLE061424002

Instrument: REVEILLE

Compound	LCS Conc (µg/kg)	LCS Recovery (µg/kg)	LCS %Rec	QC Limit Rec
ETHYLBENZENE	1300	1400	108	70-130
M/P-XYLENE	2500	2700	108	70-130
O-XYLENE	1300	1400	108	70-130
TETRACHLOROETHENE	1300	1300	100	70-130
1,2-DICHLOROBENZENE	1300	1100	85	70-130
NAPHTHALENE	1300	1100	85	70-130

Compound	LCSD Conc (µg/kg)	LCSD Recovery (µg/kg)	LCSD %Rec	%RPD	QC Limits	
					RPD	REC
ETHYLBENZENE	1300	1300	100	7	20	70-130
M/P-XYLENE	2500	2700	108	0	20	70-130
O-XYLENE	1300	1400	108	0	20	70-130
TETRACHLOROETHENE	1300	1200	92	8	50	70-130
1,2-DICHLOROBENZENE	1300	1100	85	0	30	70-130
NAPHTHALENE	1300	1100	85	0	30	70-130

* Values outside of QC Limits

RPD: 0 of 6 outside limits

Spike Recovery: 0 of 12 outside limits

SOUTHWEST RESEARCH INSTITUTE
Method 8260D Oil Sample Data Reporting Form

Client: Perma-Fix of Florida, Inc.
Case: Spike
SDG: 720195
Sample Weight (g): 5
Extraction Dilution: 1.0

Client Sample ID: LCS061424 LCS
System ID:
Filename: REVEILLE061424001
Extract Volume (mL): 5
Sample dilution: 50

Project Number: 28407.06.005
Instrument: REVEILLE
Date Received: NA
Date Analyzed: Jun 14 2024 12:02PM
Total Dilution Factor: 50.0

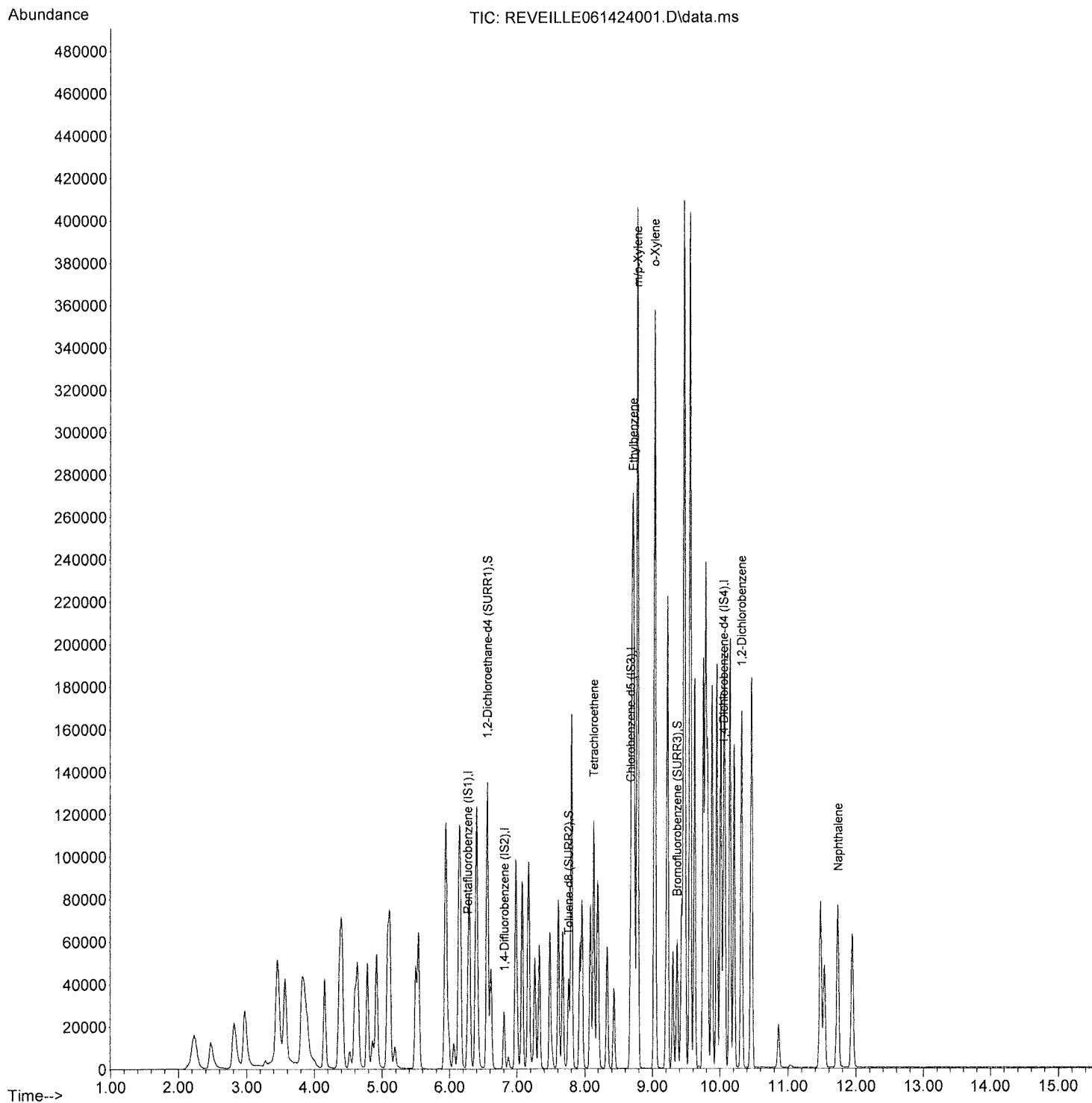
CAS No.	Compound	µg/kg
100-41-4	ETHYLBENZENE	1400
179601-23-1	M/P-XYLENE	2700
95-47-6	O-XYLENE	1400
127-18-4	TETRACHLOROETHENE	1300
95-50-1	1,2-DICHLOROBENZENE	1100
91-20-3	NAPHTHALENE	1100

DATA REPORTING QUALIFIERS

- B This flag is used when the analyte is found in the blank as well as the sample.
E This flag indicates compounds whose concentrations exceed the calibration range.
J Indicates an estimated value.
U Indicates compound was analyzed for, but not detected. Report the minimum detection limit for the sample with U (e.g. 10U) based on necessary concentration dilution action (This is not necessarily the instrument detection limit).

Data Path : C:\MassHunter\GCMS\1\data\0624\061424\
Data File : REVEILLE061424001.D
Acq On : 14 Jun 2024 12:02 pm
Operator : QP
Sample : LCS061424; LCS @ 25ppb
Misc : CIMS ID: 261336; IS/SS @ 5ppb
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 14 13:16:17 2024
Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
Quant Title : EPA Method 8260B Calibration Curve
QLast Update : Fri Jun 14 13:13:31 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\0624\061424\
 Data File : REVEILLE061424001.D
 Acq On : 14 Jun 2024 12:02 pm
 Operator : QP
 Sample : LCS061424; LCS @ 25ppb
 Misc : CIMS ID: 261336; IS/SS @ 5ppb
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 14 13:16:17 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
 Quant Title : EPA Method 8260B Calibration Curve
 Qlast Update : Fri Jun 14 13:13:31 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene (IS1)	6.273	168	187256	5.00	ppb	# 0.00
3) 1,4-Difluorobenzene (IS2)	6.807	114	238651	5.00	ppb	# 0.00
5) Chlorobenzene-d5 (IS3)	8.679	117	249891	5.00	ppb	# 0.00
11) 1,4-Dichlorobenzene-d4...	10.054	152	182804	5.00	ppb	# 0.00
System Monitoring Compounds						
2) 1,2-Dichloroethane-d4 ...	6.559	65	99268m	4.57	ppb	0.00
4) Toluene-d8 (SURR2)	7.761	98	294439	5.11	ppb	0.00
10) Bromofluorobenzene (SU...	9.366	95	129572	4.96	ppb	0.00
Target Compounds						
						Qvalue
6) Tetrachloroethene	8.134	164	297051	25.25	ppb	94
7) Ethylbenzene	8.716	106	506383	27.24	ppb	# 82
8) m/p-Xylene	8.781	106	1274461	53.39	ppb	86
9) o-Xylene	9.031	106	630987	27.68	ppb	# 88
12) 1,2-Dichlorobenzene	10.322	146	865871	21.90	ppb	96
13) Naphthalene	11.732	128	904894	21.73	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

SOUTHWEST RESEARCH INSTITUTE
Method 8260D Oil Sample Data Reporting Form

Client: Perma-Fix of Florida, Inc.
Case: Spike
SDG: 720195
Sample Weight (g): 10
Extraction Dilution: 1.0

Client Sample ID: LCS061424 LCSD
System ID:
Filename: REVEILLE061424002
Extract Volume (mL): 10
Sample dilution: 50

Project Number: 28407.06.005
Instrument: REVEILLE
Date Received: NA
Date Analyzed: Jun 14 2024 12:25PM
Total Dilution Factor: 50.0

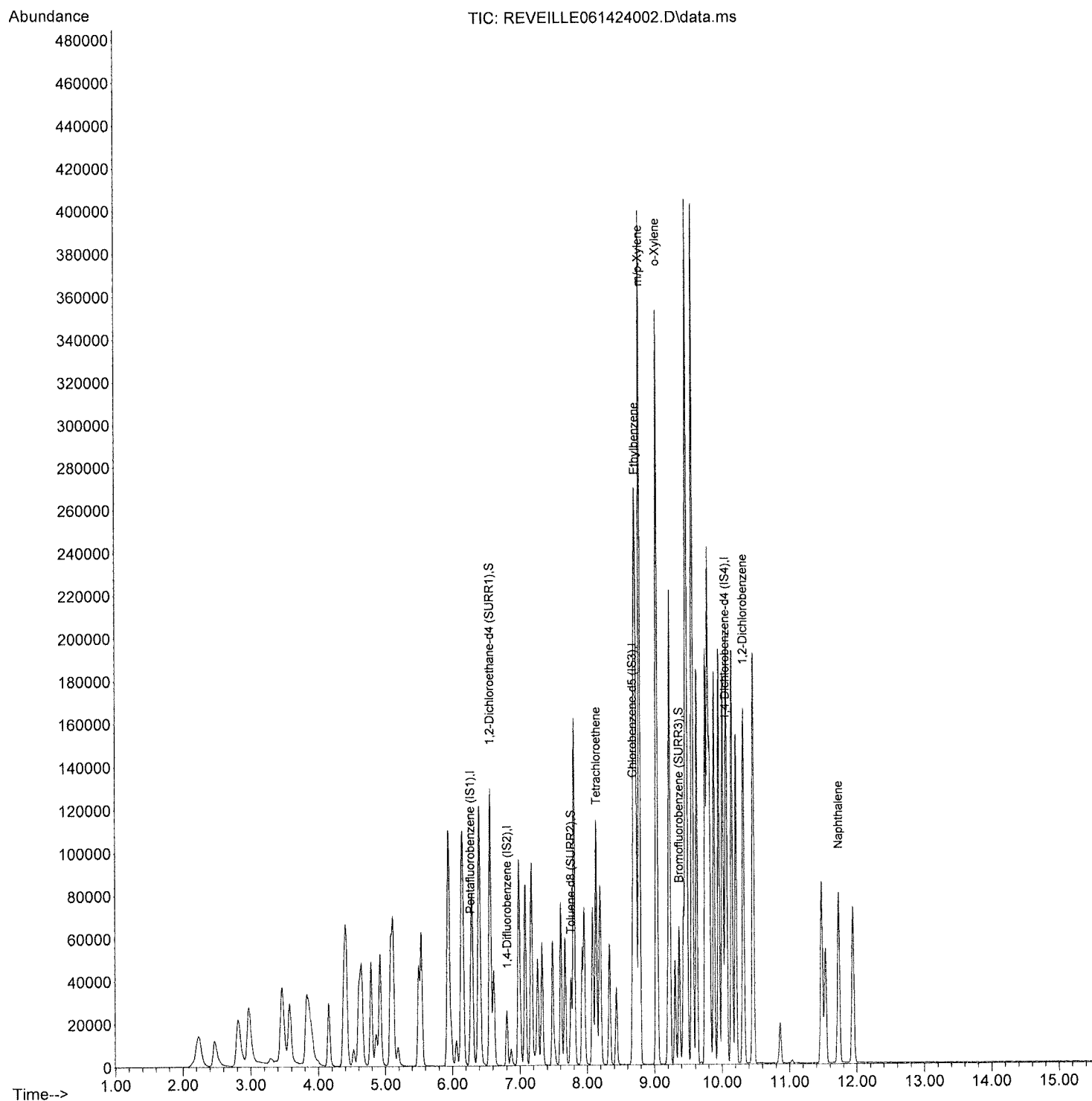
CAS No.	Compound	µg/kg
100-41-4	ETHYLBENZENE	1300
179601-23-1	M/P-XYLENE	2700
95-47-6	O-XYLENE	1400
127-18-4	TETRACHLOROETHENE	1200
95-50-1	1,2-DICHLOROBENZENE	1100
91-20-3	NAPHTHALENE	1100

DATA REPORTING QUALIFIERS

- B This flag is used when the analyte is found in the blank as well as the sample.
E This flag indicates compounds whose concentrations exceed the calibration range.
J Indicates an estimated value.
U Indicates compound was analyzed for, but not detected. Report the minimum detection limit for the sample with U (e.g. 10U) based on necessary concentration dilution action (This is not necessarily the instrument detection limit).

Data Path : C:\MassHunter\GCMS\1\data\0624\061424\
Data File : REVEILLE061424002.D
Acq On : 14 Jun 2024 12:25 pm
Operator : QP
Sample : LCS061424; LCSD @ 25ppb
Misc : CIMS ID: 261336; IS/SS @ 5ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 14 13:16:19 2024
Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
Quant Title : EPA Method 8260B Calibration Curve
QLast Update : Fri Jun 14 13:13:31 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\0624\061424\
 Data File : REVEILLE061424002.D
 Acq On : 14 Jun 2024 12:25 pm
 Operator : QP
 Sample : LCS061424; LCSD @ 25ppb
 Misc : CIMS ID: 261336; IS/SS @ 5ppb
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 14 13:16:19 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
 Quant Title : EPA Method 8260B Calibration Curve
 QLast Update : Fri Jun 14 13:13:31 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene (IS1)	6.273	168	183029	5.00	ppb	# 0.00
3) 1,4-Difluorobenzene (IS2)	6.808	114	235084	5.00	ppb	# 0.00
5) Chlorobenzene-d5 (IS3)	8.680	117	246509	5.00	ppb	# 0.00
11) 1,4-Dichlorobenzene-d4...	10.053	152	184807	5.00	ppb	# 0.00
System Monitoring Compounds						
2) 1,2-Dichloroethane-d4 ...	6.559	65	94784m	4.46	ppb	0.00
4) Toluene-d8 (SURR2)	7.761	98	283085	4.99	ppb	0.00
10) Bromofluorobenzene (SU...	9.365	95	131953	5.12	ppb	0.00
Target Compounds						
						Qvalue
6) Tetrachloroethene	8.135	164	285541	24.60	ppb	96
7) Ethylbenzene	8.716	106	484916	26.44	ppb	# 82
8) m/p-Xylene	8.781	106	1253376	53.23	ppb	86
9) o-Xylene	9.031	106	619181	27.53	ppb	# 89
12) 1,2-Dichlorobenzene	10.322	146	878791	21.98	ppb	96
13) Naphthalene	11.731	128	958251	22.79	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

SOUTHWEST RESEARCH INSTITUTE
CLIENT: Perma-Fix of Florida, Inc.
SwRI PROJECT#: 28407.06.005
SwRI TASK ORDER: 240520-2

SW-846 Method 8260D
Standard and QC Data
Injection Logs

Work continued from Page

SWIRI

Southwest Research Institute GC Injection Log

OPERATOR: QP SEQUENCE DATE: 06/07/2024 INSTRUMENT: REVEILLIE
COLUMN: Rtx-624 30m x 0.25mm x 1.4um
CARRIER GAS: Helium
METHOD FILE: VOC.M
CLIENT NAME: [REDACTED]
Task order: 280548
PROJECT NUMBER: 28445.01.202
SRR: 71210
SDG: 720606
Processing METHOD: C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260HVMS.m
MATRIX: Liquid
DATA PATH: C:\msdchem\1\DATA\0624\060724
MS Mode: SCAN MODE
Calibration std: CIMS #261331 @ 100ng/uL, EXP: 06/14/2024
Second source std: CIMS #261336 @ 100ng/uL, EXP: 06/14/2024
BFB Solution: CIMS #250548 @ 25ng/uL, EXP: 06/30/2024
IS/SS standard: CIMS #250548 @ 25ng/uL, EXP: 06/30/2024
IS/SS: Spiked @ 5ppb

OVEN PROGRAM

Initial temp: 35 °C (On) Maximum temp: 260 °C
Initial time: 2.00 min Equilibration time: 0.10 min
Ramps:
Rate Final temp Final time
1 20.00 120 0.00
2 30.00 220 6.00
3 0.0(Off)
Post temp: 70 °C
Post time: 0.00 min
Run time: 15.58 min

FILENAME	VIAL	DATE/TIME	METHOD	SAMPLE DESCRIPTION
REVEILLE060724T01	1	6/7/2024 11:57	VOC	BFB001
REVEILLE060724S01	2	6/7/2024 12:22	VOC	VSTD0100: CIMS ID: 261331 @ 100ppb
REVEILLE060724S02	3	6/7/2024 12:46	VOC	VSTD050: CIMS ID: 261331 @ 50ppb
REVEILLE060724S03	4	6/7/2024 13:09	VOC	VSTD025: CIMS ID: 261331 @ 25ppb
REVEILLE060724S04	5	6/7/2024 13:32	VOC	VSTD010: CIMS ID: 261331 @ 10ppb
REVEILLE060724S05	6	6/7/2024 13:56	VOC	VSTD005: CIMS ID: 261331 @ 5ppb
REVEILLE060724S06	7	6/7/2024 14:19	VOC	VSTD002: CIMS ID: 261331 @ 2ppb
REVEILLE060724S07	8	6/7/2024 14:42	VOC	VSTD001: CIMS ID: 261331 @ 1ppb
REVEILLE060724B01	9	6/7/2024 15:22	VOC	VBLK001
REVEILLE060724001	10	6/7/2024 15:50	VOC	ICV/LCS060724; ICV/LCS @ 25ppb
REVEILLE060724002	11	6/7/2024 16:13	VOC	28445-LP-035; 720606
REVEILLE060724003	12	6/7/2024 16:36	VOC	28445-LP-037-B; 720608
REVEILLE060724004	13	6/7/2024 17:00	VOC	28445-LP-038-B; 720609
REVEILLE060724005	14	6/7/2024 17:23	VOC	28445-LP-041; 720615
REVEILLE060724006	15	6/7/2024 17:46	VOC	28445-LP-035; 720606 DL
REVEILLE060724007	16	6/7/2024 18:09	VOC	28445-LP-037-B; 720608 DL
REVEILLE060724008	17	6/7/2024 18:32	VOC	28445-LP-038-B; 720609 DL
REVEILLE060724009	18	6/7/2024 18:55	VOC	28445-LP-041; 720615 DL
REVEILLE060724S08	19	6/7/2024 19:18	VOC	VSTD025CCV: CIMS ID: 261331 @ 25ppb

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

TITLE

PROJECT NO. 28407-06-005
BOOK NO. 23-0406-004

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Work continued from Page

Southwest Research Institute GC Injection Log

OPERATOR: QP SEQUENCE DATE: 06/14/2024 INSTRUMENT: REVEILLIE
COLUMN: Rtx-624 30m x 0.25mm x 1.4um
CARRIER GAS: Helium
METHOD FILE: VOC.M
CLIENT NAME: Perma-Fix of Florida, Inc
Task order: 240520-2
PROJECT NUMBER: 28407.06.005
SRR: 71145
SDG: 720195
Processing METHOD: C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
MATRIX: Liquid
DATA PATH: C:\msdchem\1\DATA\0624\061424
MS Mode: SCAN MODE
Calibration std: CIMS #261331 @ 100ng/uL, EXP: 06/14/2024
Second source std: CIMS #261336 @ 100ng/uL, EXP: 06/14/2024
BFB Solution: CIMS #250548 @ 25ng/uL, EXP: 06/30/2024
IS/SS standard: CIMS #250548 @ 25ng/uL, EXP: 06/30/2024
IS/SS: Spiked @ 5ppb

OVEN PROGRAM

Initial temp: 35 'C (On) Maximum temp: 260 'C
Initial time: 2.00 min Equilibration time: 0.10 min
Ramps:
Rate Final temp Final time
1 20.00 120 0.00
2 30.00 220 6.00
3 0.0(Off)
Post temp: 70 'C
Post time: 0.00 min
Run time: 15.58 min

FILENAME	VIAL	DATE/TIME	METHOD	SAMPLE DESCRIPTION
REVEILLE061424T01	1	6/14/2024 10:39	VOC	BFB001
REVEILLE061424S01	2	6/14/2024 11:04	VOC	VSTD025CCV: CIMS ID: 261331 @ 25ppb
REVEILLE061424B01	3	6/14/2024 11:39	VOC	VBLK001
REVEILLE061424001	4	6/14/2024 12:02	VOC	LCS061424; LCS @ 25ppb
REVEILLE061424002	5	6/14/2024 12:25	VOC	LCS061424; LCSD @ 25ppb
REVEILLE061424003	6	6/14/2024 12:53	VOC	Organic Spike; 720196 DL
REVEILLE061424004	7	6/14/2024 13:18	VOC	Organic Spike; 720196
REVEILLE061424R02	8	6/14/2024 13:42	VOC	Inst BLK
REVEILLE061424R03	9	6/14/2024 14:05	VOC	Inst BLK
REVEILLE061424R04	10	6/14/2024 14:28	VOC	Inst BLK
REVEILLE061424S02	11	6/14/2024 14:51	VOC	VSTD025CCV: CIMS ID: 261331 @ 25ppb

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Work continued to Page

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DATE

SOUTHWEST RESEARCH INSTITUTE

Blank Summary

Blank ID: VBLK001

Project: 28407.06.005

Instrument: REVEILLE

Case: Spike

Filename: REVEILLE061424B01

SDG: 720195

Analyzed: Jun 14 2024 11:39AM

This Blank Applies to the Following Samples

	Sample ID	SwRI ID	Lab File ID	Analyzed
1	LCS061424 LCS		REVEILLE061424001	Jun 14 2024 12:02PM
2	LCS061424 LCSD		REVEILLE061424002	Jun 14 2024 12:25PM
3	Organic Spike DL	720196	REVEILLE061424003	Jun 14 2024 12:53PM
4	Organic Spike	720196	REVEILLE061424004	Jun 14 2024 1:18PM

SOUTHWEST RESEARCH INSTITUTE
Instrument Performance Check
Bromofluorobenzene (BFB)

File ID: REVEILLE060724T01

BFB Injection Date: 06/07/24

BFB Injection Time: 11:57:00

Instrument: REVEILLE

GC Column: Rtx-624 30m x 0.25mm ID

m/e	Ion Abundance Criteria	% Relative Abundance	
50	15.0 - 40.0% of mass 95	19.0	
75	30.0 - 60.0% of mass 95	47.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	7.4	
173	Less than 2.0% of mass 174	0.0	0.0 (1)
174	Greater than 50.0% of mass 95	81.8	
175	5.0 - 9.0% of mass 174	4.5	5.5 (1)
176	95.0 - 105% of mass 174	80.2	98.1 (1)
177	5.0 - 9.0% of mass 176	5.5	6.8 (2)

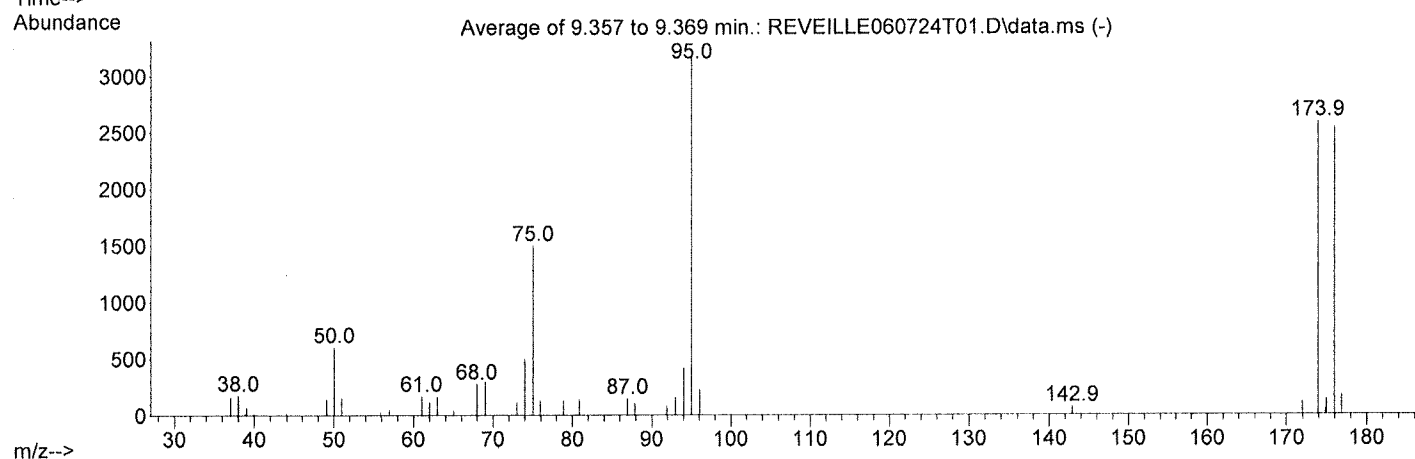
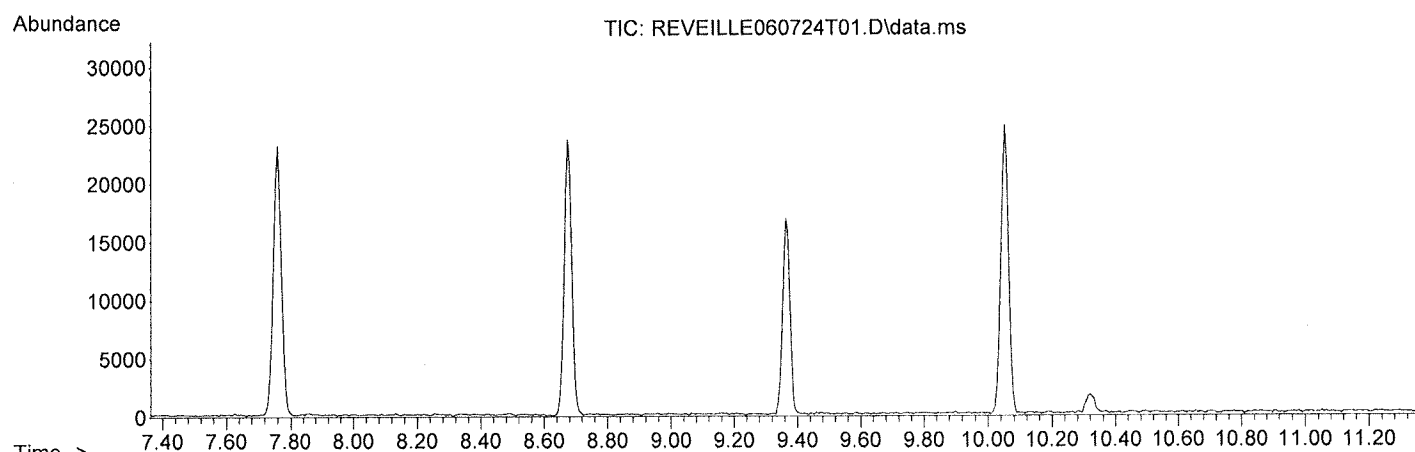
1. Value is % of Mass 174 2. Value is % of Mass 176

This check applies to the following samples				
Sample No.	SwRI ID	File ID	Date Analyzed	Time Analyzed
1 VSTD100		REVEILLE060724S01	06/07/24	12:22:00
2 VSTD050		REVEILLE060724S02	06/07/24	12:46:00
3 VSTD025		REVEILLE060724S03	06/07/24	13:09:00
4 VSTD010		REVEILLE060724S04	06/07/24	13:32:00
5 VSTD005		REVEILLE060724S05	06/07/24	13:56:00
6 VSTD002		REVEILLE060724S06	06/07/24	14:19:00
7 VSTD001		REVEILLE060724S07	06/07/24	14:42:00
8 ICV025		REVEILLE060724001	06/07/24	15:50:00

Data Path : C:\MassHunter\GCMS\1\data\0624\060724\
Data File : REVEILLE060724T01.D
Acq On : 07 Jun 2024 11:57 am
Operator : QP
Sample : BFB001
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e

Method : C:\MassHunter\GCMS\1\methods\BFB.m
Title :
Last Update : Mon Nov 20 15:48:49 1995



AutoFind: Scans 1373, 1374, 1375; Background Corrected with Scan 1367

AUTOFIND via AUTOINTEGRATE

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.0	602	PASS
75	95	30	60	47.5	1500	PASS
95	174	50	200	122.3	3161	PASS
96	95	5	9	7.4	233	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	81.8	2585	PASS
175	174	5	9	5.5	141	PASS
176	174	95	101	98.1	2536	PASS
177	176	5	9	6.8	173	PASS

SOUTHWEST RESEARCH INSTITUTE

Instrument Performance Check

Bromofluorobenzene (BFB)

File ID: REVEILLE061424T01

BFB Injection Date: 06/14/24

BFB Injection Time: 10:39:00

Instrument: REVEILLE

GC Column: Rtx-624 30m x 0.25mm ID

m/e	Ion Abundance Criteria	% Relative Abundance	
50	15.0 - 40.0% of mass 95	15.8	
75	30.0 - 60.0% of mass 95	45.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	6.6	
173	Less than 2.0% of mass 174	1.0	1.1 (1)
174	Greater than 50.0% of mass 95	97.1	
175	5.0 - 9.0% of mass 174	6.8	7.0 (1)
176	95.0 - 105% of mass 174	93.7	96.5 (1)
177	5.0 - 9.0% of mass 176	5.8	6.2 (2)

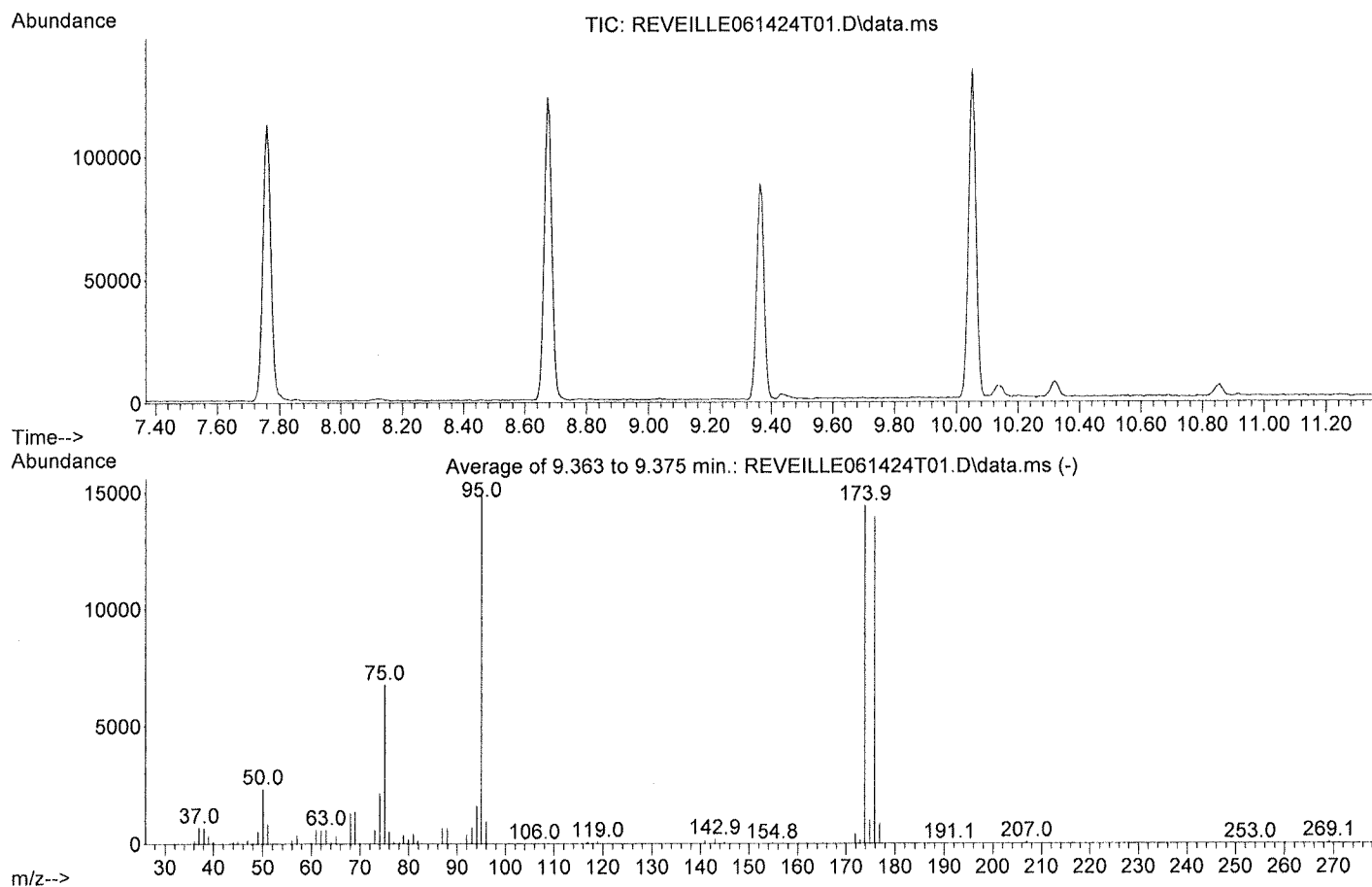
1. Value is % of Mass 174 2. Value is % of Mass 176

This check applies to the following samples				
Sample No.	SwRI ID	File ID	Date Analyzed	Time Analyzed
1 VSTD025CCV		REVEILLE061424S01	06/14/24	11:04:00
2 VBLK001		REVEILLE061424B01	06/14/24	11:39:00
3 LCS061424LCS		REVEILLE061424001	06/14/24	12:02:00
4 LCS061424LCSD		REVEILLE061424002	06/14/24	12:25:00
5 Organic SpikeDL	720196 DL	REVEILLE061424003	06/14/24	12:53:00
6 Organic Spike	720196	REVEILLE061424004	06/14/24	13:18:00
7 VSTD025CCV		REVEILLE061424S02	06/14/24	14:51:00

Data Path : C:\MassHunter\GCMS\1\data\0624\061424\
Data File : REVEILLE061424T01.D
Acq On : 14 Jun 2024 10:39 am
Operator : QP
Sample : BFB001
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e

Method : C:\MassHunter\GCMS\1\methods\BFB.m
Title :
Last Update : Mon Nov 20 15:48:49 1995



AutoFind: Scans 1374, 1375, 1376; Background Corrected with Scan 1367

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.8	2347	PASS
75	95	30	60	45.7	6788	PASS
95	174	50	200	103.0	14860	PASS
96	95	5	9	6.6	980	PASS
173	174	0.00	2	1.1	154	PASS
174	95	50	120	97.0	14421	PASS
175	174	5	9	7.0	1012	PASS
176	174	95	101	96.5	13919	PASS
177	176	5	9	6.2	869	PASS

SOUTHWEST RESEARCH INSTITUTE
Internal Standard Area and RT Summary

Project: 28407.06.005
Instrument: REVEILLE

Case: Spike
Filename: REVEILLE061424S01

SDG: 720195
Analyzed: Jun 14 2024 11:04AM

	IS1 (DFB) Area	RT	IS2 (CBZ) Area	RT	IS3 (DCB) Area	RT
12 Hour STD	232492	6.81	243681	8.68	182345	10.05
Upper Limit	464984	7.31	487362	9.18	364690	10.55
Lower Limit	116245	6.31	121840	8.18	91172	9.55
CLIENT SAMPLE NO.						
VBLK001	234345	6.81	230560	8.68	129258	10.06
LCS061424LCS	238651	6.81	249891	8.68	182804	10.05
LCS061424LCSD	235084	6.81	246509	8.68	184807	10.05
Organic SpikeDL	191847	6.81	201460	8.68	121171	10.05
Organic Spike	184082	6.81	209894	8.68	124113	10.05

IS1 (DFB) = 1,4-DIFLUOROBENZENE
IS2 (CBZ) = CHLOROBENZENE-D5
IS3 (DCB) = 1,4-DICHLOROBENZENE-D4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

* Values outside of QC limits

SOUTHWEST RESEARCH INSTITUTE
Internal Standard Area and RT Summary

Project: 28407.06.005

Case: Spike

SDG: 720195

Instrument: REVEILLE

Filename: REVEILLE061424S01

Analyzed: Jun 14 2024 11:04AM

	IS4 (PFB) Area	RT				
12 Hour STD	177053	6.27				
Upper Limit	354106	6.77				
Lower Limit	88526	5.77				
CLIENT SAMPLE NO.						
VBLK001	160473	6.27				
LCS061424LCS	187256	6.27				
LCS061424LCSD	183029	6.27				
Organic SpikeDL	132384	6.27				
Organic Spike	121103	6.27				

IS4 (PFB) = PENTAFLUOROBENZENE

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

* Values outside of QC limits

Southwest Research Institute
Method 8260D Oil Sample Initial Calibration Data

Project: 28407.06.005
Instrument: REVEILLE

Case: Spike
GC Column: Rtx-624 30m x 0.25mm ID

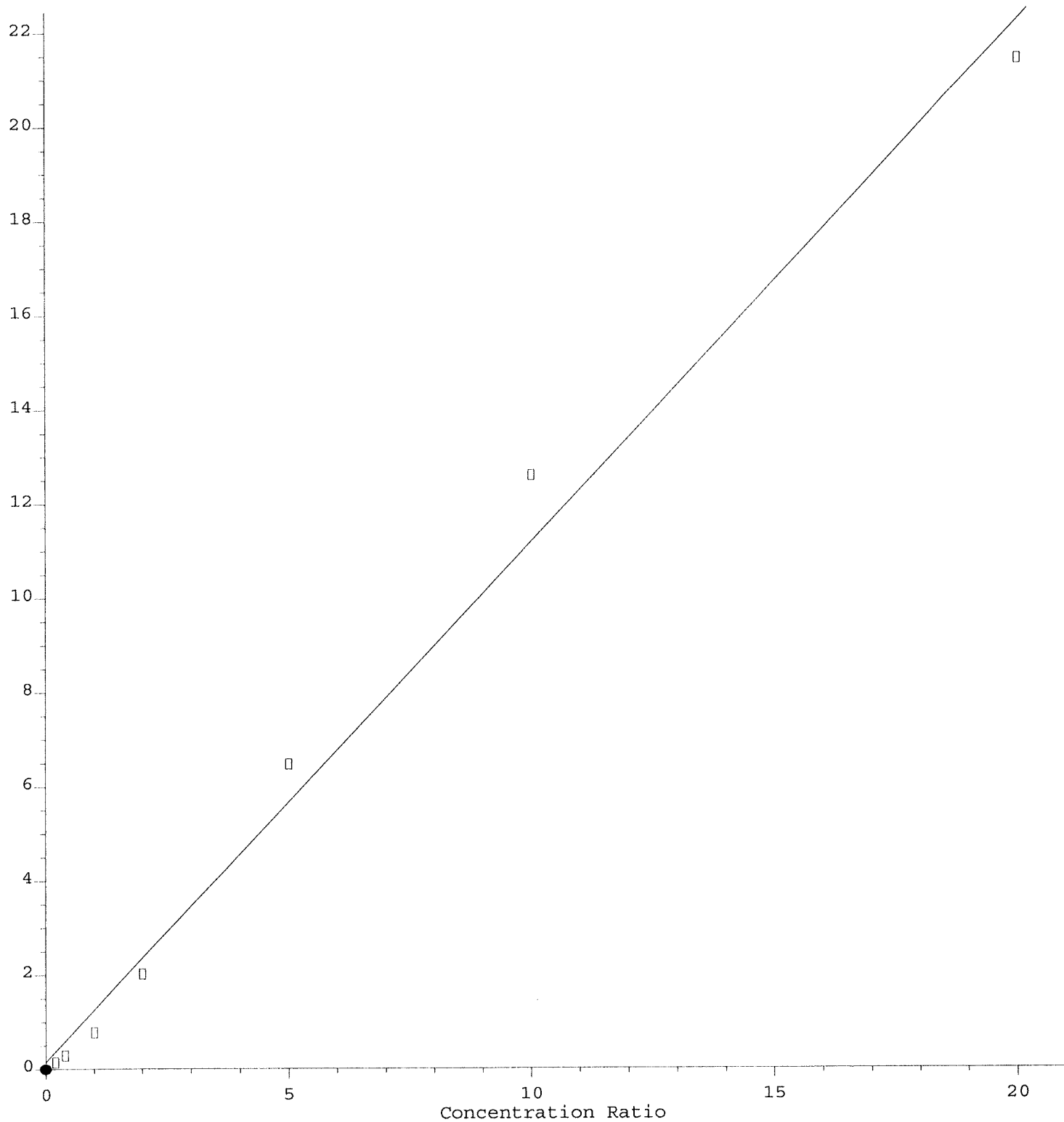
SDG: 720195

	RRF1	RRF2	RRF5	RRF10	RRF25	RRF50	RRF100		
Analysis Date	06/07/24	06/07/24	06/07/24	06/07/24	06/07/24	06/07/24	06/07/24		
Analysis Time	14:42:00	14:19:00	13:56:00	13:32:00	13:09:00	12:46:00	12:22:00		
Lab File ID	REVEILLE060724500	REVEILLE060724500	REVEILLE060724500	REVEILLE060724500	REVEILLE060724500	REVEILLE060724500	REVEILLE060724501		
Compound	RRF1	RRF2	RRF5	RRF10	RRF25	RRF50	RRF100	Mean	% RSD
ETHYLBENZENE	0.300	0.315	0.363	0.369	0.433	0.425	0.399	0.372	13.8
M/P-XYLENE	0.353	0.404	0.492	0.498	0.556	0.534	0.507	0.478	15.2
O-XYLENE	0.308	0.382	0.450	0.465	0.551	0.534	0.503	0.456	18.9
TETRACHLOROETHENE	0.251	0.244	0.238	0.234	0.249	0.232	0.200	0.235	7.3
1,2-DICHLOROENZENE	1.354	1.189	1.088	0.968	1.035	0.989	0.950	1.082	13.4
NAPHTHALENE	0.722	0.721	0.775	1.006	1.294	1.260	1.069	0.978	25.1
TOLUENE-D8	1.142	1.185	1.240	1.239	1.204	1.226	1.214	1.207	2.9
BROMOFLUOROBENZENE	0.501	0.507	0.549	0.562	0.552	0.525	0.464	0.523	6.7
1,2-DICHLOROETHANE-D4	0.680	0.628	0.594	0.561	0.530	0.543	0.525	0.580	9.9

Average %RSD: 12.6

Naphthalene

Response Ratio



$$\text{Response} = 1.103\text{e}+000 * \text{Amt} + 1.547\text{e}-001$$

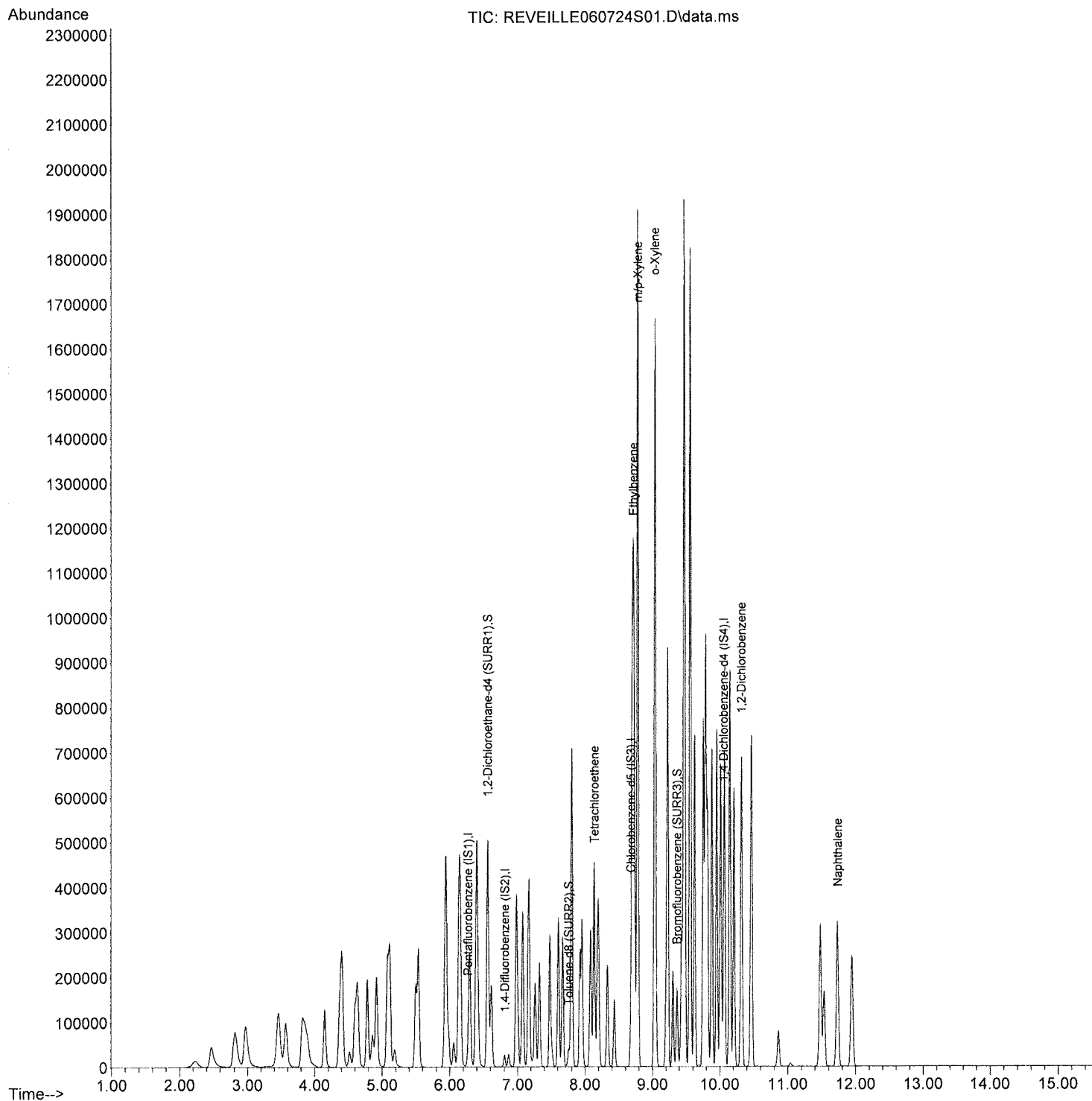
Coef of Det (r^2) = 0.990209 Curve Fit: Linear

Method Name: C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m

Calibration Table Last Updated: Wed Jun 12 15:39:35 2024

Data Path : C:\MassHunter\GCMS\1\data\0624\060724\
Data File : REVEILLE060724S01.D
Acq On : 07 Jun 2024 12:22 pm
Operator : QP
Sample : VSTD100: CIMS ID: 261331 @ 100ppb
Misc : CIMS ID: 261331; IS/SS @ 5ppb
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 12 15:30:52 2024
Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
Quant Title : EPA Method 8260B Calibration Curve
QLast Update : Wed Jun 12 15:30:38 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\0624\060724\
 Data File : REVEILLE060724S01.D
 Acq On : 07 Jun 2024 12:22 pm
 Operator : QP
 Sample : VSTD100: CIMS ID: 261331 @ 100ppb
 Misc : CIMS ID: 261331; IS/SS @ 5ppb
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 12 15:30:52 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
 Quant Title : EPA Method 8260B Calibration Curve
 Qlast Update : Wed Jun 12 15:30:38 2024
 Response via : Initial Calibration

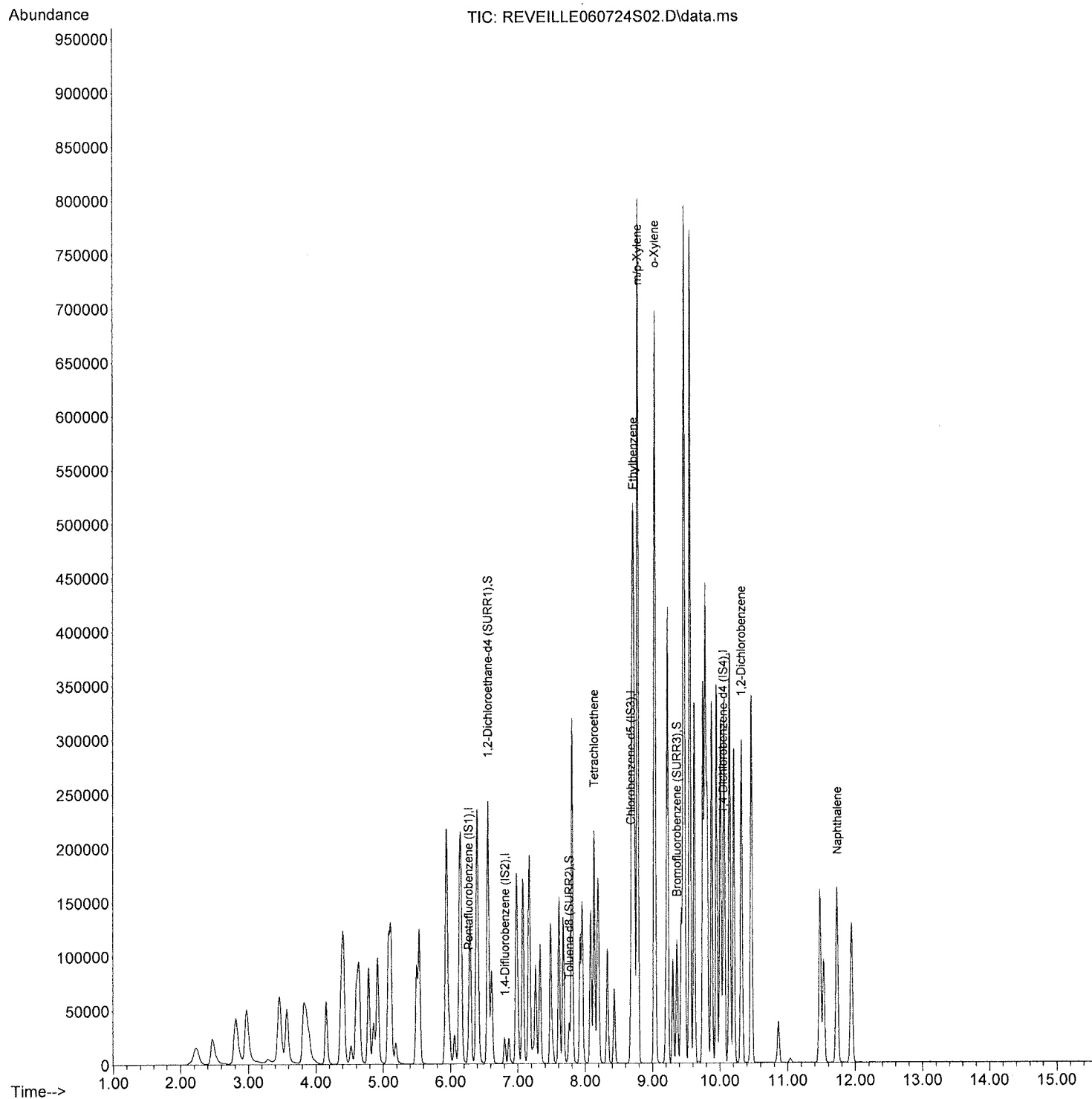
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene (IS1)	6.273	168	163818	5.00	ppb	# 0.00
3) 1,4-Difluorobenzene (IS2)	6.807	114	224164	5.00	ppb	# 0.00
5) Chlorobenzene-d5 (IS3)	8.680	117	268502	5.00	ppb	# 0.00
11) 1,4-Dichlorobenzene-d4...	10.056	152	177013	5.00	ppb	# 0.00
System Monitoring Compounds						
2) 1,2-Dichloroethane-d4 ...	6.562	65	86033	5.00	ppb	0.00
4) Toluene-d8 (SURR2)	7.761	98	272102	5.00	ppb	0.00
10) Bromofluorobenzene (SU...	9.366	95	124614	5.00	ppb	0.00
Target Compounds						
						Qvalue
6) Tetrachloroethene	8.135	164	1074223	100.00	ppb	98
7) Ethylbenzene	8.716	106	2141442	100.00	ppb	# 82
8) m/p-Xylene	8.781	106	5445452	200.00	ppb	87
9) o-Xylene	9.032	106	2703174	100.00	ppb	# 88
12) 1,2-Dichlorobenzene	10.323	146	3361926	100.00	ppb	98
13) Naphthalene	11.732	128	3786055	100.00	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MassHunter\GCMS\1\data\0624\060724\
Data File : REVEILLE060724S02.D
Acq On : 07 Jun 2024 12:46 pm
Operator : QP
Sample : VSTD050: CIMS ID: 261331 @ 50ppb
Misc : CIMS ID: 261331; IS/SS @ 5ppb
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 12 15:31:49 2024
Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
Quant Title : EPA Method 8260B Calibration Curve
QLast Update : Wed Jun 12 15:31:37 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\0624\060724\
 Data File : REVEILLE060724S02.D
 Acq On : 07 Jun 2024 12:46 pm
 Operator : QP
 Sample : VSTD050: CIMS ID: 261331 @ 50ppb
 Misc : CIMS ID: 261331; IS/SS @ 5ppb
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 12 15:31:49 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
 Quant Title : EPA Method 8260B Calibration Curve
 Qlast Update : Wed Jun 12 15:31:37 2024
 Response via : Initial Calibration

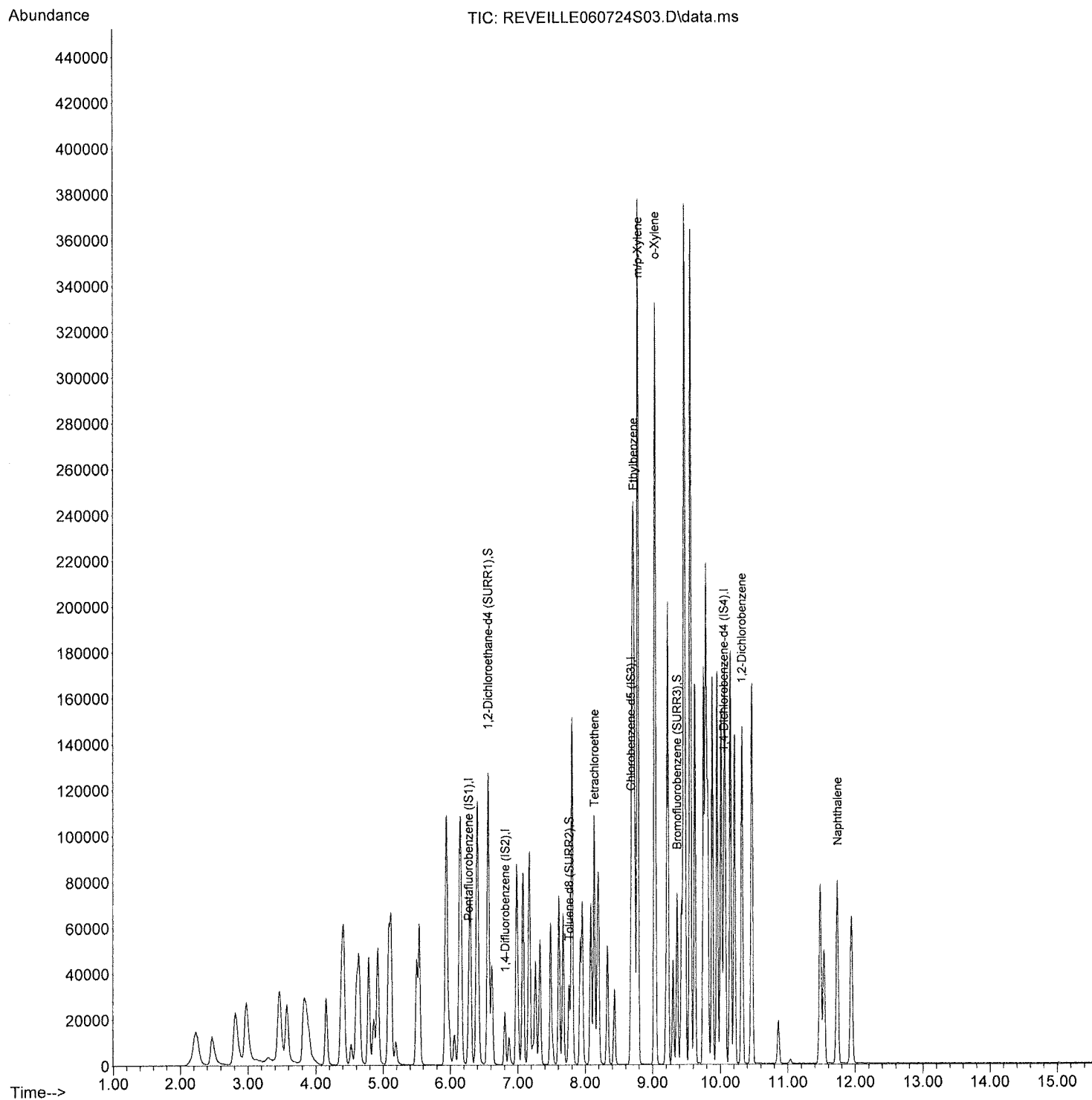
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene (IS1)	6.272	168	147612	5.00	ppb	# 0.00
3) 1,4-Difluorobenzene (IS2)	6.807	114	207100	5.00	ppb	# 0.00
5) Chlorobenzene-d5 (IS3)	8.679	117	220231	5.00	ppb	# 0.00
11) 1,4-Dichlorobenzene-d4...	10.054	152	150647	5.00	ppb	# 0.00
System Monitoring Compounds						
2) 1,2-Dichloroethane-d4 ...	6.562	65	80085	5.00	ppb	0.00
4) Toluene-d8 (SURR2)	7.761	98	253925	5.00	ppb	0.00
10) Bromofluorobenzene (SU...	9.366	95	115666	5.00	ppb	0.00
Target Compounds						
						Qvalue
6) Tetrachloroethene	8.134	164	510330	50.00	ppb	98
7) Ethylbenzene	8.716	106	935293	50.00	ppb	# 82
8) m/p-Xylene	8.781	106	2352951	100.00	ppb	90
9) o-Xylene	9.031	106	1176019	50.00	ppb	# 88
12) 1,2-Dichlorobenzene	10.322	146	1489919	50.00	ppb	99
13) Naphthalene	11.732	128	1897628	50.00	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MassHunter\GCMS\1\data\0624\060724\
Data File : REVEILLE060724S03.D
Acq On : 07 Jun 2024 01:09 pm
Operator : QP
Sample : VSTD025: CIMS ID: 261331 @ 25ppb
Misc : CIMS ID: 261331; IS/SS @ 5ppb
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 12 15:32:45 2024
Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
Quant Title : EPA Method 8260B Calibration Curve
QLast Update : Wed Jun 12 15:32:34 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\0624\060724\
 Data File : REVEILLE060724S03.D
 Acq On : 07 Jun 2024 01:09 pm
 Operator : QP
 Sample : VSTD025: CIMS ID: 261331 @ 25ppb
 Misc : CIMS ID: 261331; IS/SS @ 5ppb
 ALS Vial : 4 Sample Multiplier: 1

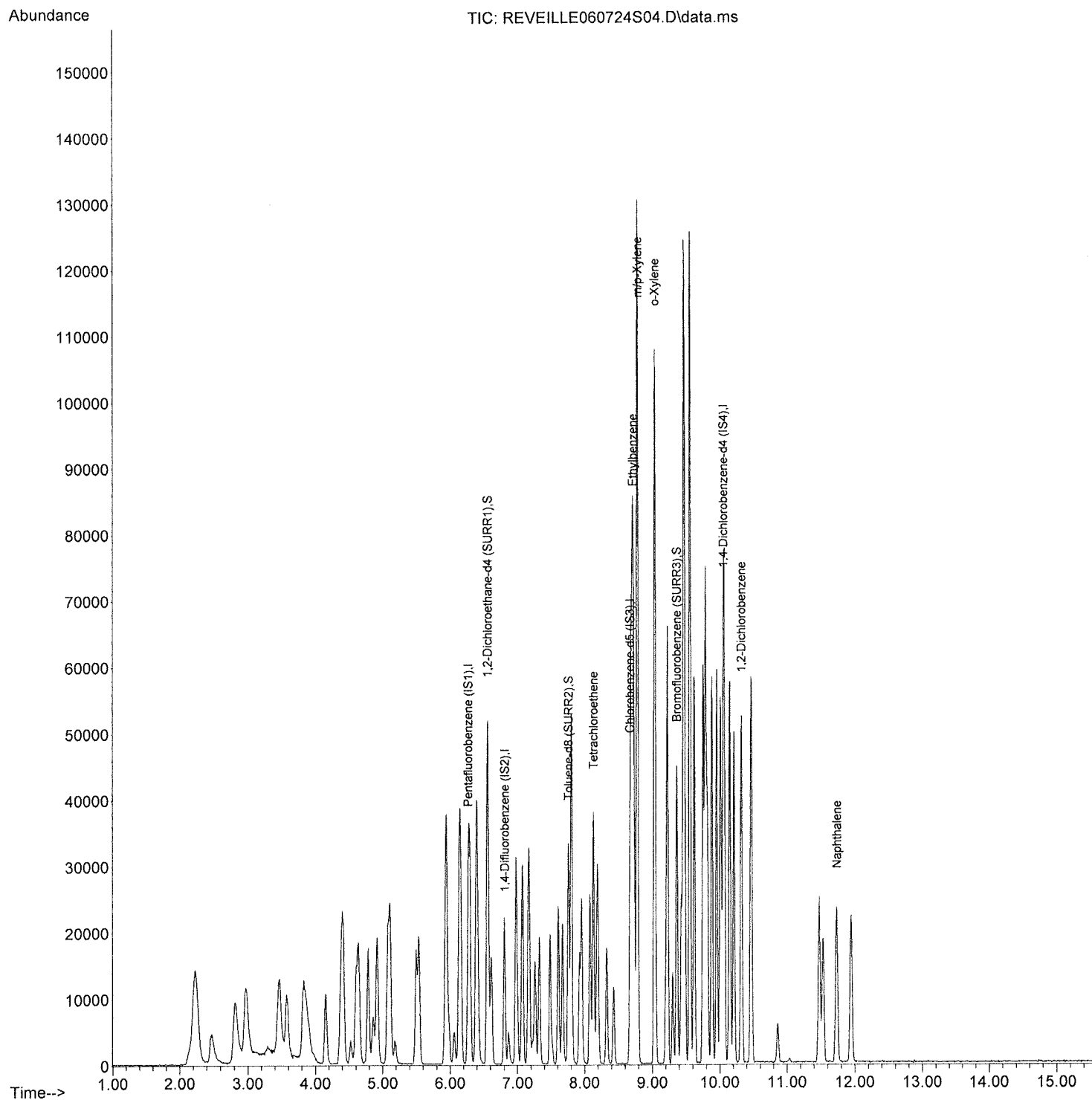
Quant Time: Jun 12 15:32:45 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
 Quant Title : EPA Method 8260B Calibration Curve
 QLast Update : Wed Jun 12 15:32:34 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS1)	6.272	168	142743	5.00	ppb	# 0.00
3) 1,4-Difluorobenzene (IS2)	6.807	114	199989	5.00	ppb	# 0.00
5) Chlorobenzene-d5 (IS3)	8.678	117	201601	5.00	ppb	# 0.00
11) 1,4-Dichlorobenzene-d4...	10.055	152	140943	5.00	ppb	# 0.00
System Monitoring Compounds						
2) 1,2-Dichloroethane-d4 ...	6.560	65	75708	5.00	ppb	0.00
4) Toluene-d8 (SURR2)	7.761	98	240777	5.00	ppb	0.00
10) Bromofluorobenzene (SU...	9.364	95	111333	5.00	ppb	0.00
Target Compounds						Qvalue
6) Tetrachloroethene	8.135	164	250832	25.00	ppb	98
7) Ethylbenzene	8.715	106	436721	25.00	ppb	# 82
8) m/p-Xylene	8.781	106	1120225	50.00	ppb	89
9) o-Xylene	9.031	106	555790	25.00	ppb	# 88
12) 1,2-Dichlorobenzene	10.322	146	729089	25.00	ppb	98
13) Naphthalene	11.733	128	912157	25.00	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MassHunter\GCMS\1\data\0624\060724\
Data File : REVEILLE060724S04.D
Acq On : 07 Jun 2024 01:32 pm
Operator : QP
Sample : VSTD010: CIMS ID: 261331 @ 10ppb
Misc : CIMS ID: 261331; IS/SS @ 5ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 12 15:33:49 2024
Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
Quant Title : EPA Method 8260B Calibration Curve
QLast Update : Wed Jun 12 15:33:38 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\0624\060724\
 Data File : REVEILLE060724S04.D
 Acq On : 07 Jun 2024 01:32 pm
 Operator : QP
 Sample : VSTD010: CIMS ID: 261331 @ 10ppb
 Misc : CIMS ID: 261331; IS/SS @ 5ppb
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 12 15:33:49 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
 Quant Title : EPA Method 8260B Calibration Curve
 QLast Update : Wed Jun 12 15:33:38 2024
 Response via : Initial Calibration

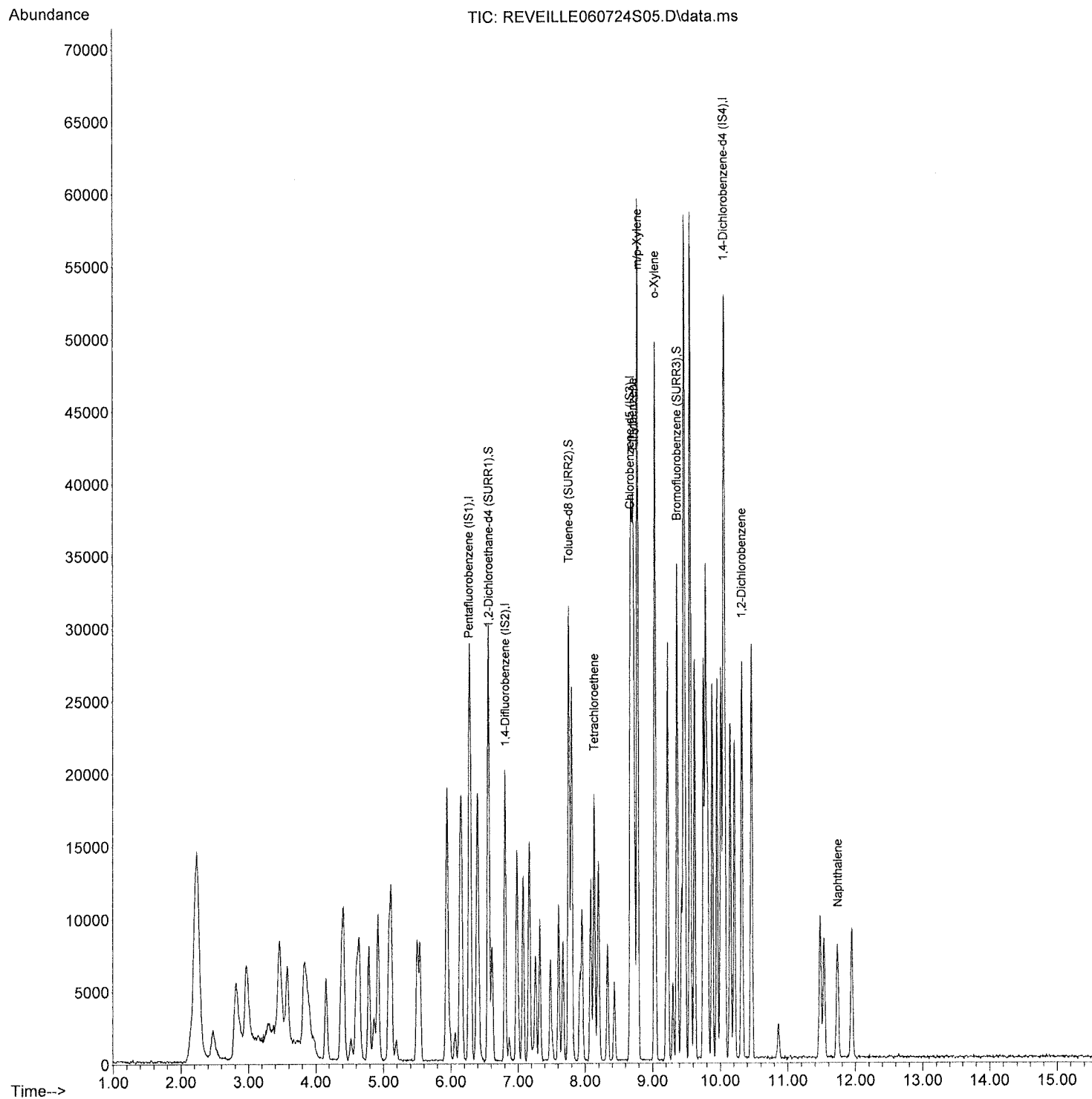
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene (IS1)	6.272	168	132492	5.00	ppb	# 0.00
3) 1,4-Difluorobenzene (IS2)	6.807	114	185312	5.00	ppb	# 0.00
5) Chlorobenzene-d5 (IS3)	8.674	117	190169m	5.00	ppb	0.00
11) 1,4-Dichlorobenzene-d4...	10.054	152	135056	5.00	ppb	# 0.00
System Monitoring Compounds						
2) 1,2-Dichloroethane-d4 ...	6.560	65	74381	5.00	ppb	0.00
4) Toluene-d8 (SURR2)	7.761	98	229519	5.00	ppb	0.00
10) Bromofluorobenzene (SU...	9.365	95	106913	5.00	ppb	0.00
Target Compounds						
						Qvalue
6) Tetrachloroethene	8.135	164	88943	10.00	ppb	98
7) Ethylbenzene	8.715	106	140174	10.00	ppb	# 82
8) m/p-Xylene	8.781	106	378691	20.00	ppb	91
9) o-Xylene	9.032	106	176857	10.00	ppb	# 90
12) 1,2-Dichlorobenzene	10.321	146	261342	10.00	ppb	99
13) Naphthalene	11.733	128	271856	10.00	ppb	# 91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MassHunter\GCMS\1\data\0624\060724\
Data File : REVEILLE060724S05.D
Acq On : 07 Jun 2024 01:56 pm
Operator : QP
Sample : VSTD005: CIMS ID: 261331 @ 5ppb
Misc : CIMS ID: 261331; IS/SS @ 5ppb
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 12 15:35:00 2024
Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
Quant Title : EPA Method 8260B Calibration Curve
QLast Update : Wed Jun 12 15:34:48 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\0624\060724\
 Data File : REVEILLE060724S05.D
 Acq On : 07 Jun 2024 01:56 pm
 Operator : QP
 Sample : VSTD005: CIMS ID: 261331 @ 5ppb
 Misc : CIMS ID: 261331; IS/SS @ 5ppb
 ALS Vial : 6 Sample Multiplier: 1

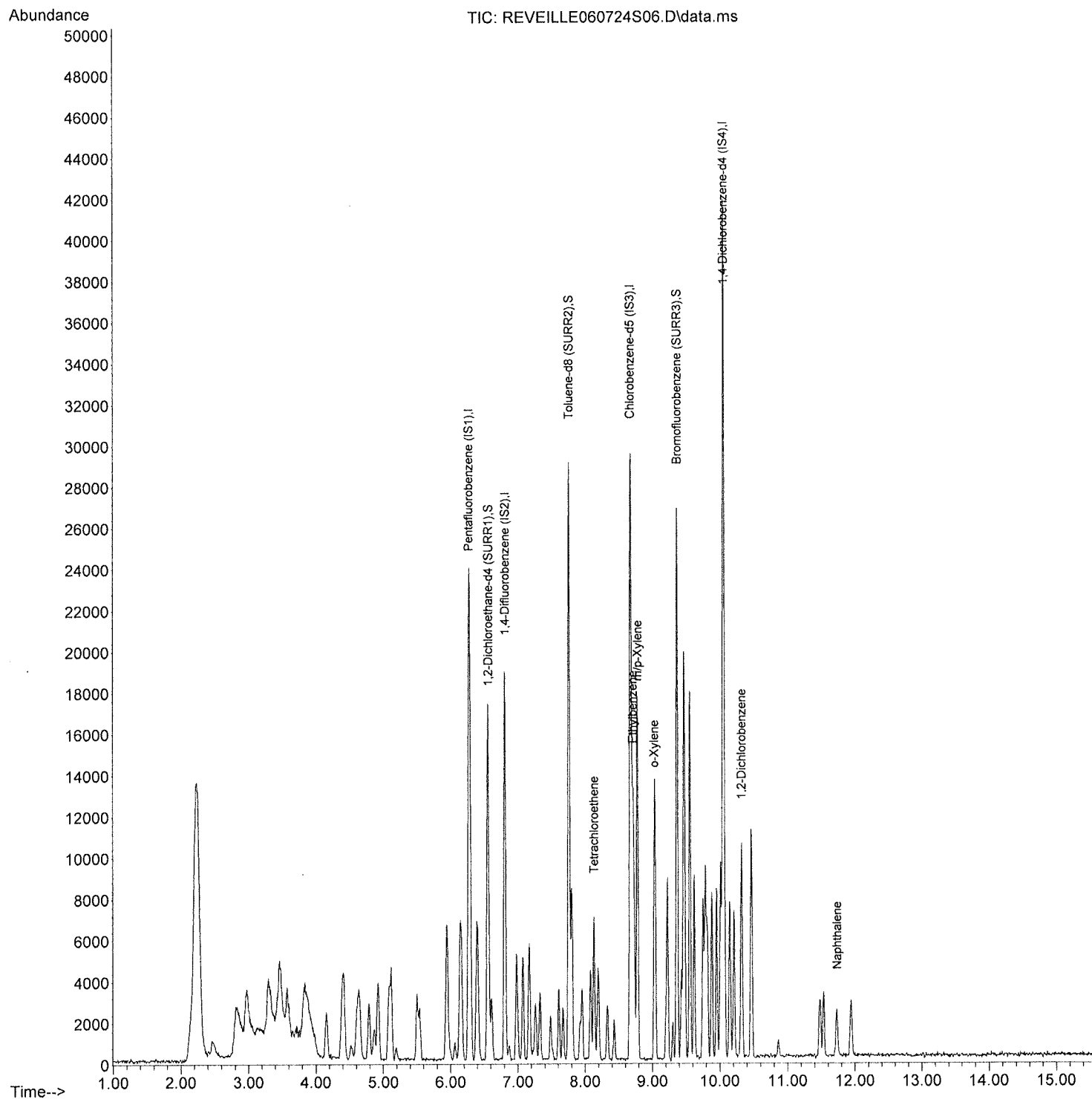
Quant Time: Jun 12 15:35:00 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
 Quant Title : EPA Method 8260B Calibration Curve
 Qlast Update : Wed Jun 12 15:34:48 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS1)	6.273	168	122448	5.00	ppb	# 0.00
3) 1,4-Difluorobenzene (IS2)	6.807	114	171584	5.00	ppb	0.00
5) Chlorobenzene-d5 (IS3)	8.674	117	176168m	5.00	ppb	0.00
11) 1,4-Dichlorobenzene-d4...	10.053	152	120742	5.00	ppb	0.00
System Monitoring Compounds						
2) 1,2-Dichloroethane-d4 ...	6.563	65	72747	5.00	ppb	0.00
4) Toluene-d8 (SURR2)	7.762	98	212688	5.00	ppb	0.00
10) Bromofluorobenzene (SU...	9.365	95	96723	5.00	ppb	0.00
Target Compounds						
6) Tetrachloroethene	8.134	164	42002	5.00	ppb	Qvalue 97
7) Ethylbenzene	8.711	106	64008m	5.00	ppb	
8) m/p-Xylene	8.782	106	173519	10.00	ppb	# 79
9) o-Xylene	9.033	106	79333	5.00	ppb	# 86
12) 1,2-Dichlorobenzene	10.322	146	131320	5.00	ppb	96
13) Naphthalene	11.732	128	93583	5.00	ppb	# 73

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MassHunter\GCMS\1\data\0624\060724\
Data File : REVEILLE060724S06.D
Acq On : 07 Jun 2024 02:19 pm
Operator : QP
Sample : VSTD002: CIMS ID: 261331 @ 2ppb
Misc : CIMS ID: 261331; IS/SS @ 5ppb
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 12 15:36:16 2024
Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
Quant Title : EPA Method 8260B Calibration Curve
QLast Update : Wed Jun 12 15:36:05 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\0624\060724\
 Data File : REVEILLE060724S06.D
 Acq On : 07 Jun 2024 02:19 pm
 Operator : QP
 Sample : VSTD002: CIMS ID: 261331 @ 2ppb
 Misc : CIMS ID: 261331; IS/SS @ 5ppb
 ALS Vial : 7 Sample Multiplier: 1

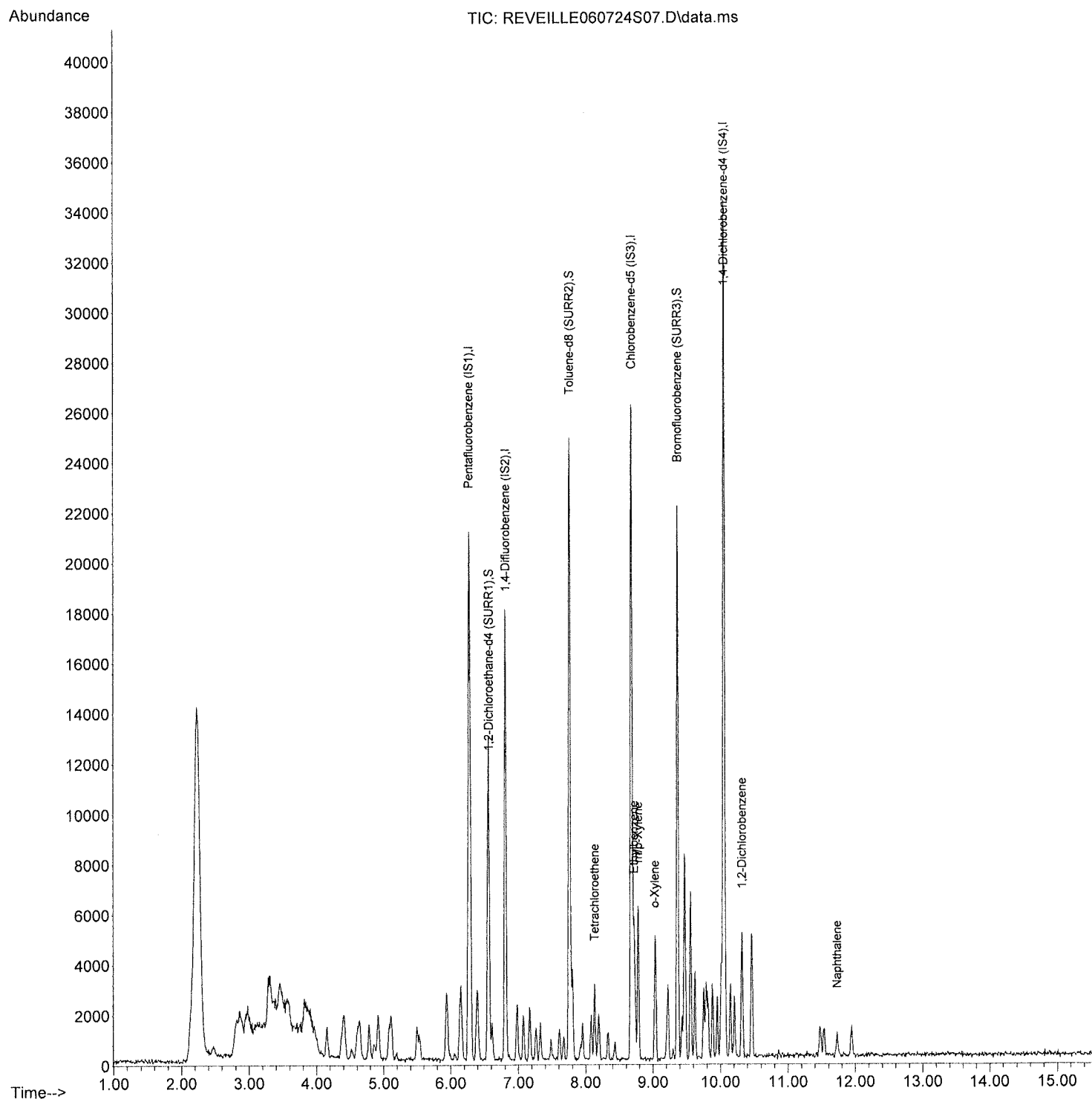
Quant Time: Jun 12 15:36:16 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
 Quant Title : EPA Method 8260B Calibration Curve
 QLast Update : Wed Jun 12 15:36:05 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS1)	6.273	168	111999	5.00	ppb	0.00
3) 1,4-Difluorobenzene (IS2)	6.809	114	164847	5.00	ppb	# 0.00
5) Chlorobenzene-d5 (IS3)	8.674	117	164010m	5.00	ppb	0.00
11) 1,4-Dichlorobenzene-d4...	10.054	152	107403	5.00	ppb	0.00
System Monitoring Compounds						
2) 1,2-Dichloroethane-d4 ...	6.563	65	70366	5.00	ppb	0.00
4) Toluene-d8 (SURR2)	7.763	98	195297	5.00	ppb	0.00
10) Bromofluorobenzene (SU...	9.366	95	83104	5.00	ppb	0.00
Target Compounds						
6) Tetrachloroethene	8.132	164	16028m	2.00	ppb	Qvalue
7) Ethylbenzene	8.711	106	20694m	2.00	ppb	
8) m/p-Xylene	8.782	106	52944	4.00	ppb	# 79
9) o-Xylene	9.028	106	25033m	2.00	ppb	
12) 1,2-Dichlorobenzene	10.323	146	51065	2.00	ppb	# 31
13) Naphthalene	11.734	128	30954	2.00	ppb	# 73

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MassHunter\GCMS\1\data\0624\060724\
Data File : REVEILLE060724S07.D
Acq On : 07 Jun 2024 02:42 pm
Operator : QP
Sample : VSTD001: CIMS ID: 261331 @ 1ppb
Misc : CIMS ID: 261331; IS/SS @ 5ppb
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 12 15:37:33 2024
Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
Quant Title : EPA Method 8260B Calibration Curve
QLast Update : Wed Jun 12 15:37:22 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\0624\060724\
 Data File : REVEILLE060724S07.D
 Acq On : 07 Jun 2024 02:42 pm
 Operator : QP
 Sample : VSTD001: CIMS ID: 261331 @ 1ppb
 Misc : CIMS ID: 261331; IS/SS @ 5ppb
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 12 15:37:33 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
 Quant Title : EPA Method 8260B Calibration Curve
 QLast Update : Wed Jun 12 15:37:22 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS1)	6.273	168	98468	5.00	ppb	0.00
3) 1,4-Difluorobenzene (IS2)	6.807	114	153566	5.00	ppb	# 0.00
5) Chlorobenzene-d5 (IS3)	8.679	117	146814	5.00	ppb	0.00
11) 1,4-Dichlorobenzene-d4...	10.053	152	96087	5.00	ppb	0.00
System Monitoring Compounds						
2) 1,2-Dichloroethane-d4 ...	6.562	65	66993	5.00	ppb	0.00
4) Toluene-d8 (SURR2)	7.762	98	175342	5.00	ppb	0.00
10) Bromofluorobenzene (SU...	9.366	95	73620	5.00	ppb	0.00
Target Compounds						
6) Tetrachloroethene	8.132	164	7356m	1.00	ppb	Qvalue
7) Ethylbenzene	8.717	106	8810m	1.00	ppb	
8) m/p-Xylene	8.778	106	20702m	2.00	ppb	
9) o-Xylene	9.028	106	9034m	1.00	ppb	
12) 1,2-Dichlorobenzene	10.320	146	26013m	1.00	ppb	
13) Naphthalene	11.729	128	13867m	1.00	ppb	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Southwest Research Institute
Method 8260D Oil Sample Initial Calibration Verification

Project: 28407.06.005
Instrument: REVEILLE
ID: ICV025

Case: Spike
GC Column: Rtx-624 30m x 0.25mm ID

SDG: 720195

Lab File ID: REVEILLE060724001

Analysis Date: 06/07/24

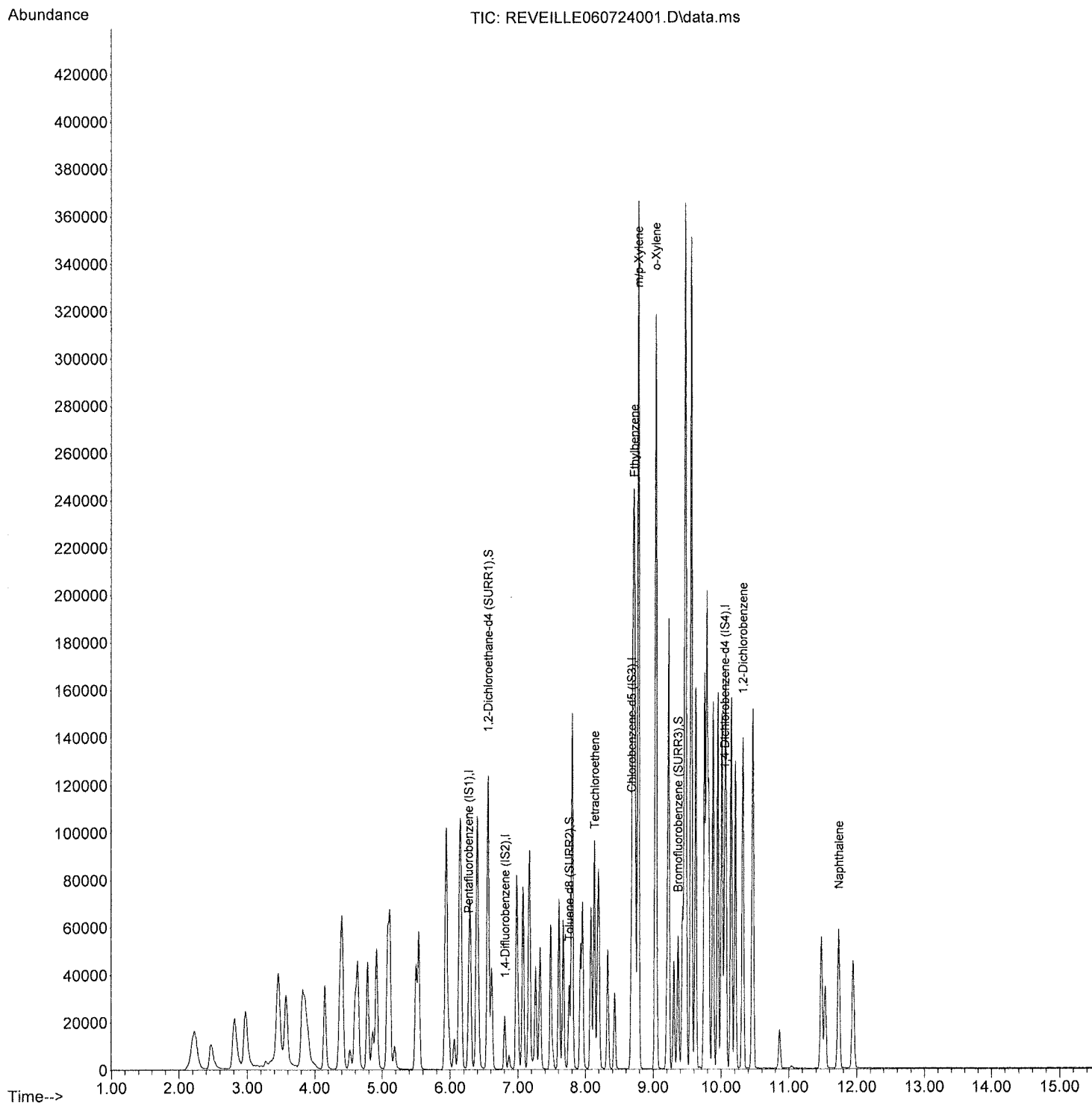
Analysis Time: 15:50:00

Compounds	Amount	Calculated		% Change	Max % Change
ETHYLBENZENE	25.000	28.220		12.9	25.0
M/P-XYLENE	50.000	55.697		11.4	25.0
O-XYLENE	25.000	28.971		15.9	25.0
TETRACHLOROETHENE	25.000	23.953		-4.2	25.0
1,2-DICHLOROBENZENE	25.000	22.455		-10.2	25.0
NAPHTHALENE	25.000	20.510		-18.0	25.0
TOLUENE-D8	5.000	5.228		4.6	30.0
BROMOFLUOROBENZENE	5.000	5.327		6.5	30.0
1,2-DICHLOROETHANE-D4	5.000	4.907		-1.9	30.0

9/6/24

Data Path : C:\MassHunter\GCMS\1\data\0624\060724\
Data File : REVEILLE060724001.D
Acq On : 07 Jun 2024 03:50 pm
Operator : QP
Sample : ICV/LCS060724; ICV/LCS @ 25ppb
Misc : CIMS ID: 261336; IS/SS @ 5ppb
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 12 15:40:18 2024
Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
Quant Title : EPA Method 8260B Calibration Curve
QLast Update : Wed Jun 12 15:39:35 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\0624\060724\
 Data File : REVEILLE060724001.D
 Acq On : 07 Jun 2024 03:50 pm
 Operator : QP
 Sample : ICV/LCS060724; ICV/LCS @ 25ppb
 Misc : CIMS ID: 261336; IS/SS @ 5ppb
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 12 15:40:18 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
 Quant Title : EPA Method 8260B Calibration Curve
 Qlast Update : Wed Jun 12 15:39:35 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene (IS1)	6.272	168	136605	5.00	ppb	# 0.00
3) 1,4-Difluorobenzene (IS2)	6.807	114	188904	5.00	ppb	# 0.00
5) Chlorobenzene-d5 (IS3)	8.679	117	202488	5.00	ppb	# 0.00
11) 1,4-Dichlorobenzene-d4...	10.054	152	139934	5.00	ppb	# 0.00
System Monitoring Compounds						
2) 1,2-Dichloroethane-d4 ...	6.557	65	77808	4.91	ppb	0.00
4) Toluene-d8 (SURR2)	7.761	98	238397	5.23	ppb	0.00
10) Bromofluorobenzene (SU...	9.366	95	112831	5.33	ppb	0.00
Target Compounds						
						Qvalue
6) Tetrachloroethene	8.136	164	228338	23.95	ppb	98
7) Ethylbenzene	8.716	106	425146	28.22	ppb	# 82
8) m/p-Xylene	8.781	106	1077282	55.70	ppb	90
9) o-Xylene	9.032	106	535233	28.97	ppb	# 88
12) 1,2-Dichlorobenzene	10.323	146	679682	22.46	ppb	98
13) Naphthalene	11.733	128	655054	20.51	ppb	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Southwest Research Institute
Method 8260D Oil Sample Continuing Calibration Check

Project: 28407.06.005
Instrument: REVEILLE
ID: VSTD025CCV

Case: Spike
GC Column: Rtx-624 30m x 0.25mm ID

SDG: 720195

Lab File ID: REVEILLE061424S01

Analysis Date: 06/14/24
Initial Date: 06/07/24 06/07/24

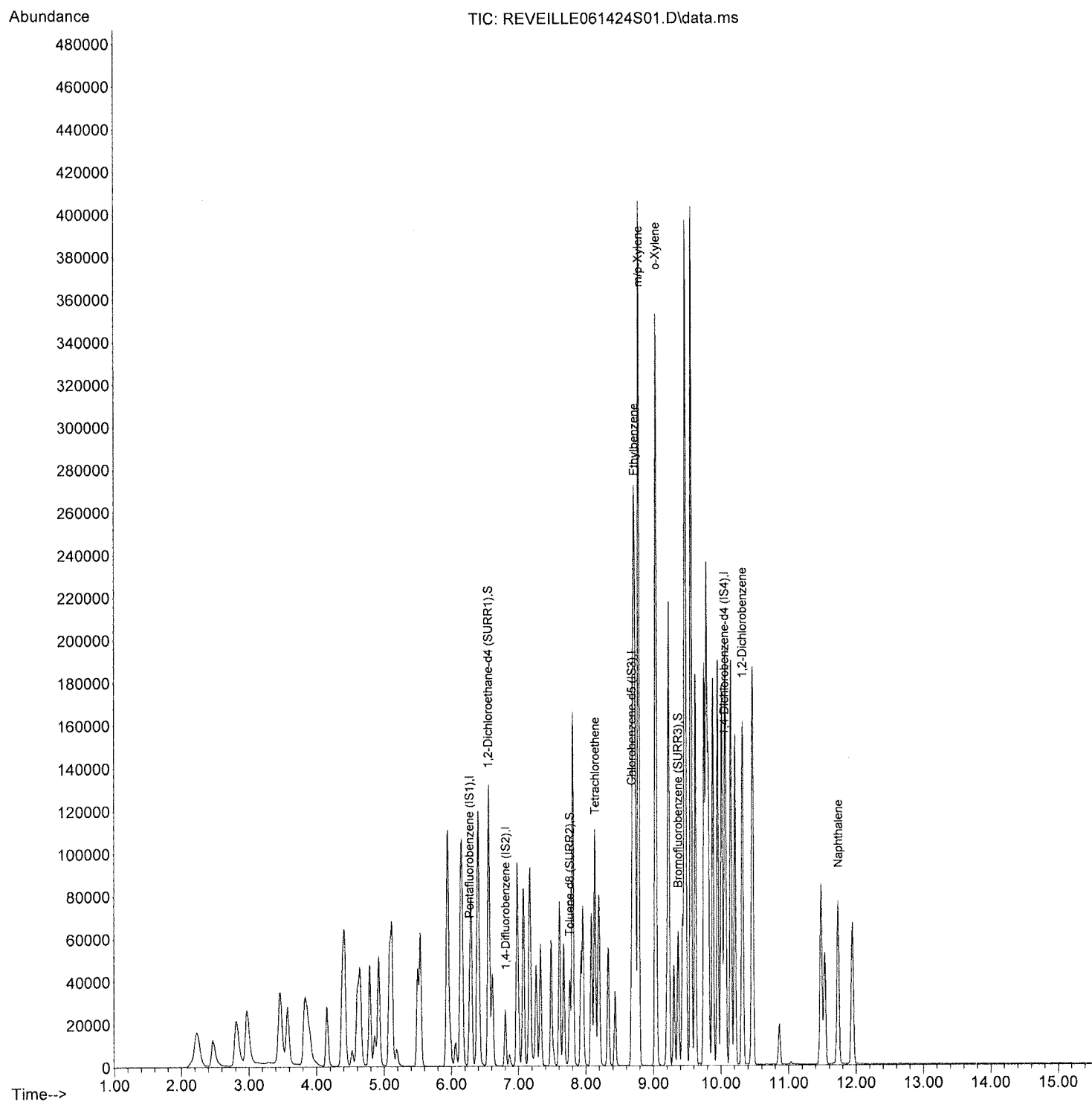
Analysis Time: 11:04:00
Initial Time: 12:22:00 15:50:00

Compounds	Mean RRF	RRF25	MIN RRF	%D	MAX %D
ETHYLBENZENE	0.372	0.397	0.100	6.7	20.0
M/P-XYLENE	0.478	0.511	0.100	6.9	20.0
O-XYLENE	0.456	0.507	0.100	11.2	20.0
TETRACHLOROETHENE	0.235	0.233	0.010	-0.9	20.0
1,2-DICHLOROBENZENE	1.082	0.939	0.010	-13.2	20.0
NAPHTHALENE	0.978	0.991	0.010	1.3	20.0
TOLUENE-D8	1.207	1.201	0.100	-0.5	20.0
BROMOFLUOROBENZENE	0.523	0.535	0.100	2.3	20.0
1,2-DICHLOROETHANE-D4	0.580	0.512	0.100	-11.7	20.0

Average %D: 6.1

Data Path : C:\MassHunter\GCMS\1\data\0624\061424\
Data File : REVEILLE061424S01.D
Acq On : 14 Jun 2024 11:04 am
Operator : QP
Sample : VSTD025: CIMS ID: 261331 @ 25ppb
Misc : CIMS ID: 261331; IS/SS @ 5ppb
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 14 13:13:43 2024
Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
Quant Title : EPA Method 8260B Calibration Curve
QLast Update : Fri Jun 14 13:13:19 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\0624\061424\
 Data File : REVEILLE061424S01.D
 Acq On : 14 Jun 2024 11:04 am
 Operator : QP
 Sample : VSTD025: CIMS ID: 261331 @ 25ppb
 Misc : CIMS ID: 261331; IS/SS @ 5ppb
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 14 13:13:43 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
 Quant Title : EPA Method 8260B Calibration Curve
 QLast Update : Fri Jun 14 13:13:19 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene (IS1)	6.271	168	177053	5.00	ppb	# 0.00
3) 1,4-Difluorobenzene (IS2)	6.807	114	232492	5.00	ppb	# 0.00
5) Chlorobenzene-d5 (IS3)	8.679	117	243681	5.00	ppb	# 0.00
11) 1,4-Dichlorobenzene-d4...	10.054	152	182345	5.00	ppb	# 0.00
System Monitoring Compounds						
2) 1,2-Dichloroethane-d4 ...	6.553	65	90613m	5.00	ppb	-0.01
4) Toluene-d8 (SURR2)	7.761	98	279157	5.00	ppb	0.00
10) Bromofluorobenzene (SU...	9.365	95	130360	5.00	ppb	0.00
Target Compounds						
						Qvalue
6) Tetrachloroethene	8.135	164	283708	25.00	ppb	96
7) Ethylbenzene	8.716	106	484232	25.00	ppb	# 82
8) m/p-Xylene	8.781	106	1245907	50.00	ppb	87
9) o-Xylene	9.032	106	617220	25.00	ppb	# 88
12) 1,2-Dichlorobenzene	10.322	146	855742	25.00	ppb	97
13) Naphthalene	11.732	128	903934	25.00	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Southwest Research Institute
Method 8260D Oil Sample Continuing Calibration Check

Project: 28407.06.005
Instrument: REVEILLE
ID: VSTD025CCV

Case: Spike
GC Column: Rtx-624 30m x 0.25mm ID

SDG: 720195

Lab File ID: REVEILLE061424S02

Analysis Date: 06/14/24
Initial Date: 06/07/24 06/07/24

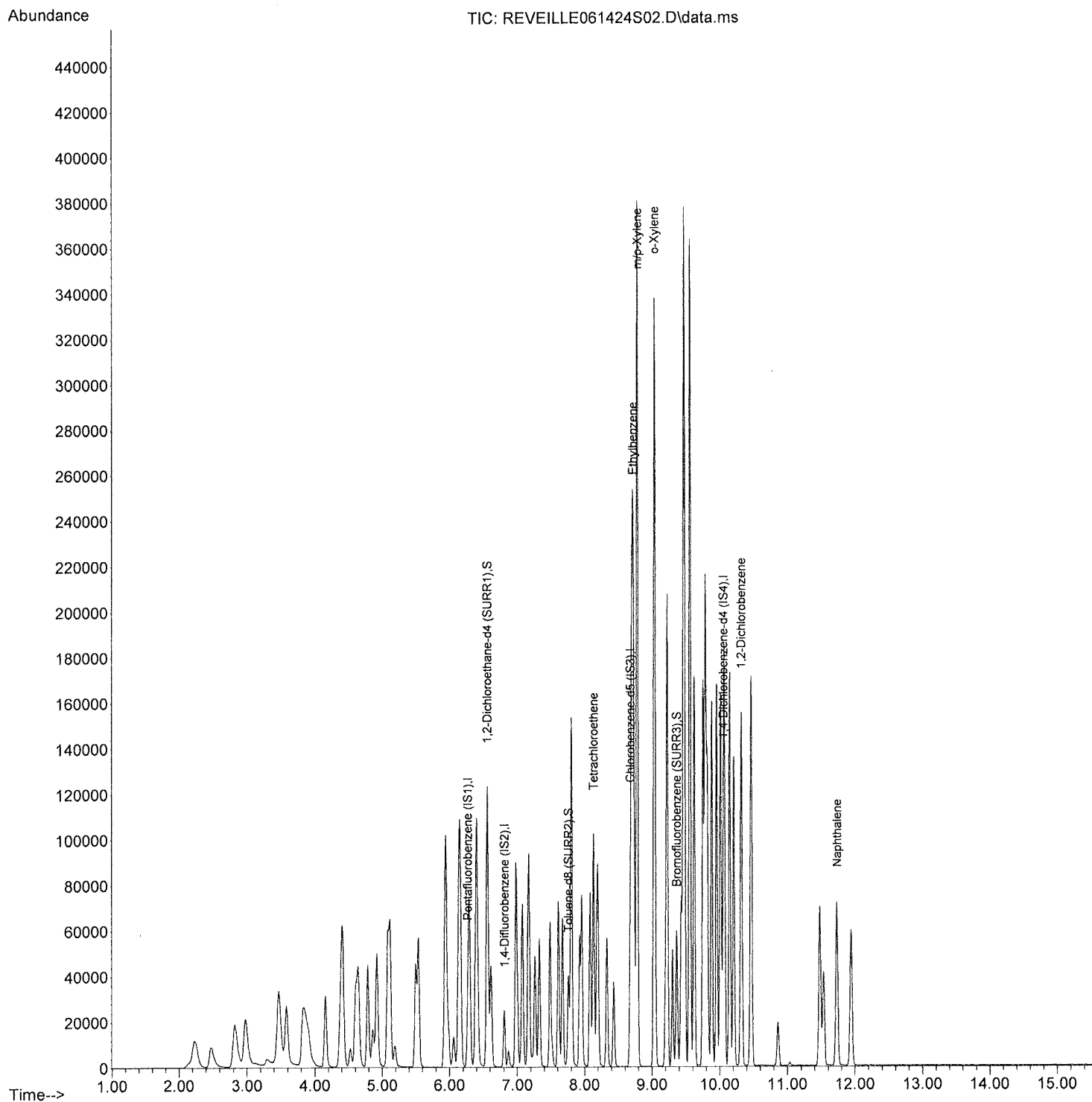
Analysis Time: 14:51:00
Initial Time: 12:22:00 15:50:00

Compounds	Mean RRF	RRF25	MIN RRF	%D	MAX %D
ETHYLBENZENE	0.372	0.383	0.100	3.0	50.0
M/P-XYLENE	0.478	0.501	0.100	4.8	50.0
O-XYLENE	0.456	0.484	0.100	6.1	50.0
TETRACHLOROETHENE	0.235	0.222	0.010	-5.5	50.0
1,2-DICHLOROBENZENE	1.082	0.951	0.010	-12.1	50.0
NAPHTHALENE	0.978	0.992	0.010	1.4	50.0
TOLUENE-D8	1.207	1.227	0.100	1.7	50.0
BROMOFLUOROBENZENE	0.523	0.524	0.100	0.2	50.0
1,2-DICHLOROETHANE-D4	0.580	0.551	0.100	-5.0	50.0

Average %D: 4.4

Data Path : C:\MassHunter\GCMS\1\data\0624\061424\
Data File : REVEILLE061424S02.D
Acq On : 14 Jun 2024 02:51 pm
Operator : QP
Sample : VSTD025CCV: CIMS ID: 261331 @ 25ppb
Misc : CIMS ID: 261331; IS/SS @ 5ppb
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 14 15:09:32 2024
Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
Quant Title : EPA Method 8260B Calibration Curve
QLast Update : Fri Jun 14 15:09:22 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\0624\061424\
 Data File : REVEILLE061424S02.D
 Acq On : 14 Jun 2024 02:51 pm
 Operator : QP
 Sample : VSTD025CCV: CIMS ID: 261331 @ 25ppb
 Misc : CIMS ID: 261331; IS/SS @ 5ppb
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 14 15:09:32 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\Calibration_2024\060724\8260D_Short.m
 Quant Title : EPA Method 8260B Calibration Curve
 QLast Update : Fri Jun 14 15:09:22 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS1)	6.274	168	170675	5.00	ppb	# 0.00
3) 1,4-Difluorobenzene (IS2)	6.810	114	223958	5.00	ppb	# 0.00
5) Chlorobenzene-d5 (IS3)	8.679	117	238142	5.00	ppb	# 0.00
11) 1,4-Dichlorobenzene-d4...	10.054	152	170191	5.00	ppb	# 0.00
System Monitoring Compounds						
2) 1,2-Dichloroethane-d4 ...	6.559	65	94028m	5.00	ppb	0.00
4) Toluene-d8 (SURR2)	7.761	98	274850	5.00	ppb	0.00
10) Bromofluorobenzene (SU...	9.365	95	124878	5.00	ppb	0.00
Target Compounds						
6) Tetrachloroethene	8.135	164	264707	25.00	ppb	Qvalue 94
7) Ethylbenzene	8.716	106	455963	25.00	ppb	# 82
8) m/p-Xylene	8.781	106	1192578	50.00	ppb	86
9) o-Xylene	9.032	106	576612	25.00	ppb	# 88
12) 1,2-Dichlorobenzene	10.322	146	809075	25.00	ppb	97
13) Naphthalene	11.733	128	844285	25.00	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Appendix C

VTD Discharge Batch Solids

Analysis Data and

EPA Sample Data

Pre-Test Batch Sample Analyses

Sample Identification: The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
660429001	MISC-12044-EPASplit
660429002	MISC-12045-EPASplit

Sample Identification: The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
660950001	12038.B2.Pre-Test.EPA
660950002	12043.B2.Pre-Test.EPA
660950003	12041.B3.Pre-Test.EPA
660950004	12042.B3.Pre-Test.EPA
660950005	12039.B4.Pre-Test.EPA
660950006	12040.B4.Pre-Test.EPA

Post-Test Treated Batch Sample Analyses - EPA

Sample Identification: The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
660771001	12045.B1.Top Front.EPA
660771002	12045.B1.Middle Front.EPA
660771003	12045.B1.Bottom Front.EPA
660771004	12044.B1.Top Back.EPA
660771005	12044.B1.Middle Back.EPA
660771006	12044.B1.Bottom Back.EPA
660771007	12038.B2.Top Front.EPA
660771008	12038.B2.Middle Front.EPA
660771009	12038.B2.Bottom Front.EPA
660771010	12043.B2.Top Back.EPA
660771011	12043.B2.Middle Back.EPA
660771012	12043.B2.Bottom Back.EPA
660771013	12041.B3.Top Front.EPA
660771014	12041.B3.Middle Front.EPA
660771015	12041.B3.Bottom Front.EPA
660771016	12042.B3.Top Back.EPA
660771017	12042.B3.Middle Back.EPA
660771018	12042.B3.Bottom Back.EPA

Post-Test Treated Batch Sample Analyses - EPA

Sample Identification: The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
660968001	12039.B4.Top Front.EPA
660968002	12039.B4.Middle Front.EPA
660968003	12039.B4.Bottom Front.EPA
660968004	12040.B4.Top Back.EPA
660968005	12040.B4.Middle Back.EPA
660968006	12040.B4.Bottom Back.EPA

Post-Test Treated Batch Sample Analyses - PFF

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
660770001	12045.B1.Top Front.PFF
660770002	12045.B1Middle. Front.PFF
660770003	12045.B1Bottom. Front.PFF
660770004	12044.B1.Top Back.PFF
660770005	12044.B1.Middle Back.PFF
660770006	12044.B1.Bottom Back.PFF
660770007	12038.B2.Top Front.PFF
660770008	12038.B2.Middle Front.PFF
660770009	12038.B2.Bottom Front.PFF
660770010	12043.B2.Top Back.PFF
660770011	12043.B2.Middle Back.PFF
660770012	12043.B2.Bottom Back.PFF
660770013	12041.B3.Top Front.PFF
660770014	12041.B3.Middle Front.PFF
660770015	12041.B3.Bottom Front.PFF
660770016	12042.B3.Top Back.PFF
660770017	12042.B3.Middle Back.PFF
660770018	12042.B3.Bottom Back.PFF

Sample Identification: The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
660974001	12039.B4.Top Front.PFF
660974002	12039.B4.Middle Front.PFF
660974003	12039.B4.Bottom Front.PFF
660974004	12040.B4.Top Back.PFF
660974005	12040.B4.Middle Back.PFF
660974006	12040.B4.Bottom Back.PFF

April 04, 2024

Sophia Barbour
Perma-Fix
1940 N.W. 67th Place
Gainesville, Florida 32653

Re: VTD TSCA TEST 2024 VTD_TSCA_Post Test_1-3_EPA
Work Order: 660771

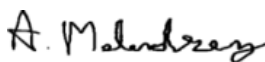
Dear Sophia Barbour:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on March 30, 2024. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4422.

Sincerely,



Adrian Melendrez for
Jacob Crook
Project Manager

Purchase Order: 718582
Enclosures



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Case Narrative

**Receipt Narrative
for
Perma-Fix of Florida
SDG: 660771**

April 04, 2024

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample receipt: The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 30, 2024 for analysis. The samples were delivered with proper chain of custody documentation and signatures. The samples were screened according to GEL Standard Operating Procedure. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C). Samples were received within the specified holding time. There are no additional comments concerning sample receipt.

Sample Identification: The laboratory received the following samples:

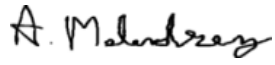
<u>Laboratory ID</u>	<u>Client ID</u>
660771001	12045.B1.Top Front.EPA
660771002	12045.B1.Middle Front.EPA
660771003	12045.B1.Bottom Front.EPA
660771004	12044.B1.Top Back.EPA
660771005	12044.B1.Middle Back.EPA
660771006	12044.B1.Bottom Back.EPA
660771007	12038.B2.Top Front.EPA
660771008	12038.B2.Middle Front.EPA
660771009	12038.B2.Bottom Front.EPA
660771010	12043.B2.Top Back.EPA
660771011	12043.B2.Middle Back.EPA
660771012	12043.B2.Bottom Back.EPA
660771013	12041.B3.Top Front.EPA
660771014	12041.B3.Middle Front.EPA
660771015	12041.B3.Bottom Front.EPA
660771016	12042.B3.Top Back.EPA
660771017	12042.B3.Middle Back.EPA
660771018	12042.B3.Bottom Back.EPA

Case Narrative:

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC/MS Volatile, GC/MS

Semivolatile and Metals.

A handwritten signature in black ink, appearing to read "A. Melendrez".

Adrian Melendrez for
Jacob Crook
Project Manager

Chain of Custody and Supporting Documentation

Page: 2 of 2

Project #: VTD_TSCA_TEST_2024

QCL Quote #: GEL_Perma-Fix_Environmental_Scoping

QCL Number: 2024VTD_POST_TEST_1-3_EPA

PO Number:

Client Name: Perma-Fix of Florida, Inc.

Copy

Chain of Custody and Analytical Request

GEL Work Order Number: GEL Project Manager:

Phone # 352 373 6066

Fax #

GEL Laboratories, LLC

2040 Savage Road

Charleston, SC 29407

Phone: (843) 556-8771

Fax: (843) 766-1178

Sample ID

* For composites - indicate start and stop date/time

12043.B2.Middle Back.EPA

12043.B2.Bottom Back.EPA

12041.B3.Top Front.EPA

12041.B3.Middle Front.EPA

12041.B3.Bottom Front.EPA

12042.B3.Top Front.EPA

12042.B3.Middle Front.EPA

12042.B3.Bottom Front.EPA

SDG: 660771

Send Results To: sophia.barbour@perma-fix.com

Relinquished By (Signed) Date Time

1 Jeffery Gonyea 3/29/24 0730

2 John Baier 3/29/24 1645

3

Sample Analysis Requested (S) (Fill in the number of containers for each test)

Should this sample be considered: (If yes, please supply isotopic info)

Total number of containers

Appendix IX VOCs (SW 846 8260B)

Appendix IX B/N/A (SW 846 8270C)

Mercury (SW 846 7471)

Preservative Type (6)

Comments

Note: extra sample is required for sample specific QC

Chain of Custody Signatures

TAT Requested: Normal: Rush: X Specify: 5-Day (Subject to Surcharge)

Fax Results: Yes No

Select Deliverable: X C of A X QC Summary Level 1 Level 2 Level 3 Level 4

Additional Remarks:

For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: °C

Sample Collection Time Zone: X Eastern Pacific Mountain Other:

For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Urine, F=Faecal, N=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B 7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

7.) KNOWN OR POSSIBLE HAZARDS

RCRA Metals

As = Arsenic Hg= Mercury

Ba = Barium Se= Selenium

Cd = Cadmium Ag= Silver

Cr = Chromium MR= Misc. RCRA metals

Pb = Lead

Characteristic Hazards

FL = Flammable/Ignitable

CO = Corrosive

RE = Reactive

TSCA Regulated

PCB = Polychlorinated biphenyls

Listed Waste

LW = Listed Waste

(F,K,P and U-listed wastes.)

Waste code(s):

Other

OT= Other / Unknown

(i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)

Description:

Please provide any additional details below regarding handling and/or disposal concerns, (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

**iSeries Smear
Activity Report**

Batch ID: POST SAMPLE

Unit ID: iMatic

Count Date: 03/29/2024 3:40:07PM

Unit Type: iMatic

Count Minutes: 2.00

Batch Key: 20584

Serial Number: 38990

Calibration Used: A/B w Tc-99

BATCH: 660771

Background (cpm)		Efficiency (%)	
Alpha Rate:	0.01 ±	Alpha:	28.98 ± 1.62
Beta Rate:	0.90 ±	Beta:	17.45 ± 1.05

<u>CARRIER NUMBER</u>	<u>USERSAMPLEID</u>	<u>Background (cpm)</u>		<u>Efficiency (%)</u>		<u>Uncompensated</u>		<u>Alpha MDA</u>	<u>Beta MDA</u>
		<u>Alpha CPM</u>	<u>Beta CPM</u>	<u>Alpha</u> (dpm)	<u>Beta</u> (dpm)	<u>Alpha</u> (dpm)	<u>Beta</u> (dpm)	(dpm)	(dpm)
41	BLANK	0.50	1.50	2.00	3.00	5.48	20.53		
46	EPA POST SAMPLES	0.00	1.00	0.00	1.00	5.48	20.53		
6	PFF POST SAMPLES	0.00	0.00	0.00	-5.00	5.48	20.53		

Reviewed by: _____



Batch ID: GEL COOLERS FOR VTD TEST SAMPLES

Count Date: 03/29/2024 11:44:30AM

Unit ID: iMatic

Count Minutes: 2.00

Unit Type: iMatic

Calibration Used: A/B w Tc-99

Batch Key: 20581

Serial Number: 38990

LOG: 660771

Background (cpm)
Alpha Rate: 0.01 ± 0.01 Alpha: 28.98 ± 1.62
Beta Rate: 0.90 ± 0.09 Beta: 17.45 ± 1.05
Efficiency (%)

<u>CARRIER NUMBER</u>	<u>USER</u> <u>SAMPLE</u> <u>ID</u>	<u>Alpha CPM</u>	<u>Beta CPM</u>	<u>Uncompensated Alpha</u> (dpm)	<u>Uncompensated Beta</u> (dpm)	<u>Alpha MDA</u> (dpm)	<u>Beta MDA</u> (dpm)
41	BLANK	0.00	1.00	0.00	1.00	5.48	20.53
28	COOLER 1 INTERIOR	0.00	0.50	0.00	-2.00	5.48	20.53
25	COOLER 1 EXTERIOR	0.00	2.00	0.00	6.00	5.48	20.53
48	COOLER 2 INTERIOR	0.00	0.00	0.00	-5.00	5.48	20.53
8	COOLER 2 EXTERIOR	0.00	3.00	0.00	12.00	5.48	20.53
30	COOLER 3 INTERIOR	0.00	0.50	0.00	-2.00	5.48	20.53
9	COOLER 3 EXTERIOR	0.00	2.00	0.00	6.00	5.48	20.53

Reviewed by: _____

Enal 369

Package Number:
2024VTD_TSCA_Post_Analysis
Sample Wgt:

Nuclide
U-Nat

grams 1206

Ci/g	uCi	Alpha	TRU	Beta/Gamma
2.22E-11	2.68E-02	2.68E-02	0.00E+00	0.00E+00
Total Package uCi		2.68E-02	0.00E+00	0.00E+00

Analyses Requested:

Mercury via Cold Vapor (SW 846 7471)

Appendix IX Volatile Compounds (SW 846 8260B)
Appendix IX B/N/A Compounds (SW 846 8270C)

Sample
Mass (g)

2

15

50

18 samples
Rad 1/2 / RCRA HAZ

Original Profile: VTD-SURROGATE, r:0

EPA Codes on Original Waste Form
N/A, Not A Waste

LDR Constituents
N/A, Not A Waste

Dose (uR/hr)
10 - 15

Hazardous Constituents

Arsenic
Cadmium
Chromium
Lead
Mercury
Xylenes
1,2-dichlorobenzene
Perchloroethylene
Naphthalene

Jc

SAMPLE RECEIPT & REVIEW FORM

Client: <u>PFFM</u>		SDG/AR/COC/Work Order: <u>660771</u>	
Received By: <u>CLM</u>		Date Received: <u>3/30/24</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express <input checked="" type="checkbox"/> FedEx Ground <input type="checkbox"/> UPS <input type="checkbox"/> Field Services <input type="checkbox"/> Courier <input type="checkbox"/> Other <input type="checkbox"/> <u>272796233464 (2°)</u> <u>272796233475 (2°)</u>	
Suspected Hazard Information	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes <input type="checkbox"/> No <input type="checkbox"/>	
B) Did the client designate the samples are to be received as radioactive?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>710</u> CPM/mR/Hr Classified as: Rad 1 <input checked="" type="checkbox"/> Rad 2 <input type="checkbox"/> Rad 3 <input type="checkbox"/> <u>12042.B3 middle back .PFF</u>	
D) Did the client designate samples are hazardous?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. PCBs <input type="checkbox"/> Flammable <input type="checkbox"/> Foreign Soil <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> Asbestos <input type="checkbox"/> Beryllium <input type="checkbox"/> Other: _____	

Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken <input type="checkbox"/> Damaged container <input type="checkbox"/> Leaking container <input type="checkbox"/> Other (describe) _____
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC <input type="checkbox"/> COC created upon receipt <input type="checkbox"/>
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: Wet Ice <input checked="" type="checkbox"/> Ice Packs <input type="checkbox"/> Dry ice <input type="checkbox"/> None <input type="checkbox"/> Other: _____ *all temperatures are recorded in Celsius
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR8-23</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken <input type="checkbox"/> Damaged container <input type="checkbox"/> Leaking container <input type="checkbox"/> Other (describe) _____
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: _____ If Preservation added, Lot#: _____
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA (If unknown, select No) Are liquid VOA vials free of headspace? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA Sample ID's and containers affected: _____
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected: _____
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected: <u>ID: 12042.B3. Top Front. PFF per COC says 12042.B3. Top Back. PFF</u>
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers <input type="checkbox"/> No times on containers <input type="checkbox"/> COC missing info <input type="checkbox"/> Other (describe) _____ <u>ID 12042.B3. Bottom Front. PFF has 7:35 on sample, COC states 7:</u>
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC <input type="checkbox"/> Other (describe) _____
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished <input type="checkbox"/> Other (describe) _____

Comments (Use Continuation Form if needed):

9.) on sample. Sample ID: 12042.B3. middle Front. PFF per COC has 12042.B3. middle Back. PFF on sample. Per COC ID: 12045.B1. Bottom Front. PFF has a "4" instead of a "2" in the ID. Per COC ID: 12042.B3. Bottom Front. PFF has "back" after Bottom on sample. ID: 12042.B3. Top Front. EPA per COC has "back"

PM (or PMA) review: Initials AM Date 4/1/24 Page 1 of 2



Client: Perm Received By: Cum Date Received: 3/30/24 SDG/AR/COC/Work Order: 660771

9.) after the "Top" on sample. ID: 12042.B3. Middle Front EPA
has "back" after "middle" on sample. ID: 12042.B3. Bottom Front. EPA
has "back" wrote behind "Bottom" on sample.

10.) ID: 12042.B3. Bottom Front. EPA per COC has 7:30,
sample has 7:35 wrote on it.

See Copy of COC for highlighted differences.

PM (or PMA) review: Initials AM Date 4/1/24 Page 2 of 2

Abigail Martin

From: Abigail Martin
Sent: Tuesday, April 2, 2024 11:25 AM
To: John Baier
Cc: Sophia Barbour
Subject: RE: [POTENTIAL SENDER IMPOSTER - SPF ERROR] Perma-Fix Sample ID/Collection time discrepancies

No problem at all – thanks for all your help!

Thanks,

Abigail Martin
Gel Laboratories LLC
Project Manager Assistant

From: John Baier <john.baier@perma-fix.com>
Sent: Tuesday, April 2, 2024 10:04 AM
To: Abigail Martin <Abigail.Martin@gel.com>
Cc: Sophia Barbour <sophia.barbour@perma-fix.com>
Subject: Re: [POTENTIAL SENDER IMPOSTER - SPF ERROR] Perma-Fix Sample ID/Collection time discrepancies

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Abigail,

The chain is correct, 12045. I apologize for the discrepancies, multiple hands in the project, all sleep-deprived. Don't hesitate to reach out if you need anything further.

John Baier

Get [Outlook for Android](#)

From: Abigail Martin <Abigail.Martin@gel.com>
Sent: Tuesday, April 2, 2024 9:00:25 AM
To: John Baier <john.baier@perma-fix.com>
Cc: Sophia Barbour <sophia.barbour@perma-fix.com>
Subject: RE: [POTENTIAL SENDER IMPOSTER - SPF ERROR] Perma-Fix Sample ID/Collection time discrepancies

John,

Thank you for the clarifications! The lid for this container reads B1.BF.PFF, NW: 71.7. Apologies, but that was a typo in my previous email – the COC reads **12045**.B1.Bottom Front.PFF and the container reads **14045**.B1.Bottom Front.PFF. The only difference is the second digit in the ID.

Thanks,

Abigail Martin
Gel Laboratories LLC
Project Manager Assistant

From: John Baier <john.baier@perma-fix.com>
Sent: Monday, April 1, 2024 4:03 PM
To: Abigail Martin <Abigail.Martin@gel.com>
Cc: Sophia Barbour <sophia.barbour@perma-fix.com>
Subject: RE: [POTENTIAL SENDER IMPOSTER - SPF ERROR] Perma-Fix Sample ID/Collection time discrepancies

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Abigail,

Corrections below in red. Transcription errors on the chain.

12045.B1.Bottom Front.PFF (COC) vs. 14042.B3.Bottom Front.PFF (Container) – Please clarify, what is marking on lid?

Thanks,
John Baier

From: Sophia Barbour <sophia.barbour@perma-fix.com>
Sent: Monday, April 1, 2024 3:21 PM
To: John Baier <john.baier@perma-fix.com>
Subject: FW: [POTENTIAL SENDER IMPOSTER - SPF ERROR] Perma-Fix Sample ID/Collection time discrepancies

Hey John,

See message below.

Sophia Barbour
Sophia Barbour
Laboratory Manager
sophia.barbour@perma-fix.com
(352) 373-6066 x1340



PermaFix[®]
environmental services
Experience You Can Trust

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From: Abigail Martin <Abigail.Martin@gel.com>
Sent: Monday, April 1, 2024 3:12 PM
To: Sophia Barbour <sophia.barbour@perma-fix.com>
Subject: [POTENTIAL SENDER IMPOSTER - SPF ERROR] Perma-Fix Sample ID/Collection time discrepancies

Hi Sophia,

The samples received on Saturday, March 30th with the COCs attached here had some discrepancies between the sample IDs and collection times on the chains of custody vs. that of their container label. Could you please clarify the correction information that we should report in our system for the following collection times:

12042.B3.Bottom Front.PFF:

COC collection time - **07:30 - incorrect**

Container collection time – **07:35 - correct**

12042.B3.Bottom Front.EPA:

COC collection time - **07:30 - incorrect**

Container collection time – **07:35 -correct**

And the following sample IDs:

12042.B3.Top **Front**.PFF (COC) - **Incorrect** vs. 12042.B3.Top **Back**.PFF (Container) - **correct**

12042.B3.Middle **Front**.PFF (COC) - **Incorrect** vs. 12042.B3.Middle **Back**.PFF (Container) - **correct**

12045.B1.Bottom Front.PFF (COC) vs. 14042.B3.Bottom Front.PFF (Container) – **Please clarify, what is marking on lid?**

12042.B3.Bottom **Front**.PFF (COC) - **Incorrect** vs. 12042.B3.Bottom **Back**.PFF (Container) - **correct**

12042.B3.Middle **Front**.EPA (COC) - **Incorrect** vs. 12042.B3.Middle **Back**.EPA (Container) - **correct**

12042.B3.Bottom **Front**.EPA (COC) - **Incorrect** vs. 12042.B3.Bottom **Back**.EPA (Container) - **correct**

A copy of both COCs with the samples in question highlighted is attached here. Let me know if there is anything I need to clarify, thank you!

Thanks,

Abigail Martin

Project Manager Assistant



2040 Savage Road, Charleston, SC 29407

Office Main: 843.556.8171 | Fax: 843.766.1178

E-Mail: Abigail.Martin@gel.com | Website: www.gel.com

Analytical Testing



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Laboratory Certifications

List of current GEL Certifications as of 04 April 2024

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122024-05
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235
Utah NELAP	SC000122024-39
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Volatile Analysis

Case Narrative

**GC/MS Volatile
Technical Case Narrative
Perma-Fix of Florida
SDG #: 660771**

Product: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Analytical Method: SW846 8260D

Analytical Procedure: GL-OA-E-038 REV# 29

Analytical Batch: 2590956

Preparation Method: SW846 5035

Preparation Procedure: GL-OA-E-039 REV# 13

Preparation Batch: 2590953

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
660771001	12045.B1.Top Front.EPA
660771002	12045.B1.Middle Front.EPA
660771003	12045.B1.Bottom Front.EPA
660771004	12044.B1.Top Back.EPA
660771005	12044.B1.Middle Back.EPA
660771006	12044.B1.Bottom Back.EPA
660771007	12038.B2.Top Front.EPA
660771008	12038.B2.Middle Front.EPA
660771009	12038.B2.Bottom Front.EPA
660771010	12043.B2.Top Back.EPA
660771011	12043.B2.Middle Back.EPA
660771012	12043.B2.Bottom Back.EPA
660771013	12041.B3.Top Front.EPA
660771014	12041.B3.Middle Front.EPA
660771015	12041.B3.Bottom Front.EPA
660771016	12042.B3.Top Back.EPA
660771017	12042.B3.Middle Back.EPA
660771018	12042.B3.Bottom Back.EPA
1205692480	Laboratory Control Sample (LCS)
1205692481	Method Blank (MB)
1205692482	High Blank (HB)
1205692483	660771001(12045.B1.Top Front.EPA) Post Spike (PS)
1205692484	660771001(12045.B1.Top Front.EPA) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

Continuing Calibration Verification Requirements

All Calibration Verification Standards (CCV) did not meet the acceptance criteria as outlined in Method 8260D for samples and the associated QC. However, the method allows for a designated number of outliers dependent on the requested analyte list. This SDG satisfied the 8260D outlier acceptance criteria. The results are reported.

Quality Control (QC) Information

Blank (MB) Statement

Target analytes were detected in the blank 1205692482 (HB) below the reporting limit. The associated data are qualified accordingly and reported.

Relative Percent Difference (RPD) Statement

The RPD between the matrix spike pair (See Below) were not all within the acceptance limits. However, the spike recoveries passed. The unacceptable RPD may be attributed to matrix interference and/or sample non-homogeneity.

Sample	Analyte	Value
1205692483PS and 1205692484PSD (12045.B1.Top Front.EPA)	1, 2, 4-Trichlorobenzene	RPD 26* (0%-20%)

Technical Information

Sample Dilutions/Methanol Dilutions

Samples were analyzed employing a methanol dilution extraction procedure because the sample matrices were not amenable to more concentrated analyses.

Analyte	660771									
	001	002	003	004	005	006	007	008	009	010
Several	50X	50X	50X	50X	50X	50X	50X	50X	50X	50X

Analyte	660771							
	011	012	013	014	015	016	017	018
Several	50X	50X	50X	50X	50X	50X	50X	50X

Miscellaneous Information

Additional Comments

Samples were characterized as miscellaneous solids.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report for

PERM001 Perma-Fix of Florida

Client SDG: 660771 GEL Work Order: 660771

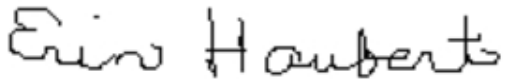
The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- B The target analyte was detected in the associated blank.
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- DL Indicates that sample is diluted.
- RA Indicates that sample is re-analyzed without re-extraction.
- RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: 

Name: Erin Haubert

Date: 04 APR 2024

Title: Data Validator

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:30	Matrix:	MISC SOLID
Lab Sample ID:	660771001	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Top Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 10:47	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:51	Aliquot:	5.7 g	Final Volume:	10 mL
Data File:	data\040324VC\CA307.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	87.7	ug/kg	29.2	87.7
74-87-3	Chloromethane	U	87.7	ug/kg	29.2	87.7
75-01-4	Vinyl chloride	U	87.7	ug/kg	29.2	87.7
74-83-9	Bromomethane	U	87.7	ug/kg	29.2	87.7
75-00-3	Chloroethane	U	87.7	ug/kg	29.2	87.7
75-69-4	Trichlorofluoromethane	U	87.7	ug/kg	29.2	87.7
67-64-1	Acetone	J	163	ug/kg	146	439
75-35-4	1,1-Dichloroethylene	U	87.7	ug/kg	29.2	87.7
74-88-4	Iodomethane	U	439	ug/kg	146	439
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	439	ug/kg	146	439
75-05-8	Acetonitrile	U	2190	ug/kg	731	2190
75-15-0	Carbon disulfide	U	439	ug/kg	146	439
75-09-2	Methylene chloride	U	439	ug/kg	146	439
156-60-5	trans-1,2-Dichloroethylene	U	87.7	ug/kg	29.2	87.7
108-05-4	Vinyl acetate	U	439	ug/kg	146	439
75-34-3	1,1-Dichloroethane	U	87.7	ug/kg	29.2	87.7
78-93-3	2-Butanone	JB	179	ug/kg	146	439
67-66-3	Chloroform	U	87.7	ug/kg	29.2	87.7
71-55-6	1,1,1-Trichloroethane	U	87.7	ug/kg	29.2	87.7
56-23-5	Carbon tetrachloride	U	87.7	ug/kg	29.2	87.7
107-06-2	1,2-Dichloroethane	U	87.7	ug/kg	29.2	87.7
71-43-2	Benzene	U	87.7	ug/kg	29.2	87.7
79-01-6	Trichloroethylene	U	87.7	ug/kg	29.2	87.7
78-87-5	1,2-Dichloropropane	U	87.7	ug/kg	29.2	87.7
74-95-3	Dibromomethane	U	87.7	ug/kg	29.2	87.7
75-27-4	Bromodichloromethane	U	87.7	ug/kg	29.2	87.7
10061-01-5	cis-1,3-Dichloropropylene	U	87.7	ug/kg	29.2	87.7
108-10-1	4-Methyl-2-pentanone	U	439	ug/kg	146	439
108-88-3	Toluene	U	87.7	ug/kg	29.2	87.7
10061-02-6	trans-1,3-Dichloropropylene	U	87.7	ug/kg	29.2	87.7
79-00-5	1,1,2-Trichloroethane	U	87.7	ug/kg	29.2	87.7
591-78-6	2-Hexanone	U	439	ug/kg	146	439
127-18-4	Tetrachloroethylene	U	87.7	ug/kg	29.2	87.7
124-48-1	Dibromochloromethane	U	87.7	ug/kg	29.2	87.7
106-93-4	1,2-Dibromoethane	U	87.7	ug/kg	29.2	87.7
108-90-7	Chlorobenzene	U	87.7	ug/kg	29.2	87.7
100-41-4	Ethylbenzene	U	87.7	ug/kg	29.2	87.7
100-42-5	Styrene	U	87.7	ug/kg	29.2	87.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771001

Client ID: 12045.B1.Top Front.EPA

Batch ID: 2590956

Run Date: 04/03/2024 10:47

Prep Date: 04/03/2024 07:51

Data File: data\040324VC\CA307.D

Date Collected: 03/27/2024 08:30

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 8260D

Inst: VOAC.I

Analyst: PXY1

Aliquot: 5.7 g

Column: DB-624

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-038

Dilution: 50

Purge Vol: 5 mL

Final Volume: 10 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	87.7	ug/kg	29.2	87.7
79-34-5	1,1,2,2-Tetrachloroethane	U	87.7	ug/kg	29.2	87.7
96-18-4	1,2,3-Trichloropropane	U	87.7	ug/kg	29.2	87.7
96-12-8	1,2-Dibromo-3-chloropropane	U	87.7	ug/kg	43.9	87.7
107-02-8	Acrolein	U	439	ug/kg	146	439
107-05-1	Allyl chloride	U	439	ug/kg	146	439
107-13-1	Acrylonitrile	U	439	ug/kg	146	439
126-99-8	2-Chloro-1,3-butadiene	U	87.7	ug/kg	29.2	87.7
107-12-0	Propionitrile	U	439	ug/kg	146	439
126-98-7	Methacrylonitrile	U	439	ug/kg	146	439
78-83-1	Isobutyl alcohol	U	4390	ug/kg	1460	4390
80-62-6	Methyl methacrylate	U	439	ug/kg	146	439
97-63-2	Ethyl methacrylate	U	439	ug/kg	146	439
76-01-7	Pentachloroethane	U	439	ug/kg	146	439
110-57-6	trans-1,4-Dichloro-2-butene	U	439	ug/kg	146	439
1330-20-7	Xylenes (total)	U	263	ug/kg	87.7	263
630-20-6	1,1,1,2-Tetrachloroethane	U	87.7	ug/kg	29.2	87.7
120-82-1	1,2,4-Trichlorobenzene	U	87.7	ug/kg	29.2	87.7

Volatiles
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:40	Matrix:	MISC SOLID
Lab Sample ID:	660771002	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Middle Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 11:15	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:52	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA308.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	90.9	ug/kg	30.3	90.9
74-87-3	Chloromethane	U	90.9	ug/kg	30.3	90.9
75-01-4	Vinyl chloride	U	90.9	ug/kg	30.3	90.9
74-83-9	Bromomethane	U	90.9	ug/kg	30.3	90.9
75-00-3	Chloroethane	U	90.9	ug/kg	30.3	90.9
75-69-4	Trichlorofluoromethane	U	90.9	ug/kg	30.3	90.9
67-64-1	Acetone	J	389	ug/kg	152	455
75-35-4	1,1-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
74-88-4	Iodomethane	U	455	ug/kg	152	455
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	455	ug/kg	152	455
75-05-8	Acetonitrile	U	2270	ug/kg	758	2270
75-15-0	Carbon disulfide	U	455	ug/kg	152	455
75-09-2	Methylene chloride	U	455	ug/kg	152	455
156-60-5	trans-1,2-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
108-05-4	Vinyl acetate	U	455	ug/kg	152	455
75-34-3	1,1-Dichloroethane	U	90.9	ug/kg	30.3	90.9
78-93-3	2-Butanone	U	455	ug/kg	152	455
67-66-3	Chloroform	U	90.9	ug/kg	30.3	90.9
71-55-6	1,1,1-Trichloroethane	U	90.9	ug/kg	30.3	90.9
56-23-5	Carbon tetrachloride	U	90.9	ug/kg	30.3	90.9
107-06-2	1,2-Dichloroethane	U	90.9	ug/kg	30.3	90.9
71-43-2	Benzene	U	90.9	ug/kg	30.3	90.9
79-01-6	Trichloroethylene	U	90.9	ug/kg	30.3	90.9
78-87-5	1,2-Dichloropropane	U	90.9	ug/kg	30.3	90.9
74-95-3	Dibromomethane	U	90.9	ug/kg	30.3	90.9
75-27-4	Bromodichloromethane	U	90.9	ug/kg	30.3	90.9
10061-01-5	cis-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
108-10-1	4-Methyl-2-pentanone	U	455	ug/kg	152	455
108-88-3	Toluene	U	90.9	ug/kg	30.3	90.9
10061-02-6	trans-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
79-00-5	1,1,2-Trichloroethane	U	90.9	ug/kg	30.3	90.9
591-78-6	2-Hexanone	U	455	ug/kg	152	455
127-18-4	Tetrachloroethylene	U	90.9	ug/kg	30.3	90.9
124-48-1	Dibromochloromethane	U	90.9	ug/kg	30.3	90.9
106-93-4	1,2-Dibromoethane	U	90.9	ug/kg	30.3	90.9
108-90-7	Chlorobenzene	U	90.9	ug/kg	30.3	90.9
100-41-4	Ethylbenzene	U	90.9	ug/kg	30.3	90.9
100-42-5	Styrene	U	90.9	ug/kg	30.3	90.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:40	Matrix:	MISC SOLID
Lab Sample ID:	660771002	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Middle Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 11:15	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:52	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA308.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	90.9	ug/kg	30.3	90.9
79-34-5	1,1,2,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
96-18-4	1,2,3-Trichloropropane	U	90.9	ug/kg	30.3	90.9
96-12-8	1,2-Dibromo-3-chloropropane	U	90.9	ug/kg	45.5	90.9
107-02-8	Acrolein	U	455	ug/kg	152	455
107-05-1	Allyl chloride	U	455	ug/kg	152	455
107-13-1	Acrylonitrile	U	455	ug/kg	152	455
126-99-8	2-Chloro-1,3-butadiene	U	90.9	ug/kg	30.3	90.9
107-12-0	Propionitrile	U	455	ug/kg	152	455
126-98-7	Methacrylonitrile	U	455	ug/kg	152	455
78-83-1	Isobutyl alcohol	U	4550	ug/kg	1520	4550
80-62-6	Methyl methacrylate	U	455	ug/kg	152	455
97-63-2	Ethyl methacrylate	U	455	ug/kg	152	455
76-01-7	Pentachloroethane	U	455	ug/kg	152	455
110-57-6	trans-1,4-Dichloro-2-butene	U	455	ug/kg	152	455
1330-20-7	Xylenes (total)	U	273	ug/kg	90.9	273
630-20-6	1,1,1,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
120-82-1	1,2,4-Trichlorobenzene	U	90.9	ug/kg	30.3	90.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:50	Matrix:	MISC SOLID
Lab Sample ID:	660771003	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Bottom Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 11:43	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:53	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA309.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	89.3	ug/kg	29.7	89.3
74-87-3	Chloromethane	U	89.3	ug/kg	29.7	89.3
75-01-4	Vinyl chloride	U	89.3	ug/kg	29.7	89.3
74-83-9	Bromomethane	U	89.3	ug/kg	29.7	89.3
75-00-3	Chloroethane	U	89.3	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane	U	89.3	ug/kg	29.7	89.3
67-64-1	Acetone	J	227	ug/kg	149	446
75-35-4	1,1-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
74-88-4	Iodomethane	U	446	ug/kg	149	446
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-05-8	Acetonitrile	U	2230	ug/kg	744	2230
75-15-0	Carbon disulfide	U	446	ug/kg	149	446
75-09-2	Methylene chloride	U	446	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
108-05-4	Vinyl acetate	U	446	ug/kg	149	446
75-34-3	1,1-Dichloroethane	U	89.3	ug/kg	29.7	89.3
78-93-3	2-Butanone	BJ	179	ug/kg	149	446
67-66-3	Chloroform	U	89.3	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane	U	89.3	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride	U	89.3	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane	U	89.3	ug/kg	29.7	89.3
71-43-2	Benzene	U	89.3	ug/kg	29.7	89.3
79-01-6	Trichloroethylene	U	89.3	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane	U	89.3	ug/kg	29.7	89.3
74-95-3	Dibromomethane	U	89.3	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane	U	89.3	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone	U	446	ug/kg	149	446
108-88-3	Toluene	U	89.3	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane	U	89.3	ug/kg	29.7	89.3
591-78-6	2-Hexanone	U	446	ug/kg	149	446
127-18-4	Tetrachloroethylene	U	89.3	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane	U	89.3	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane	U	89.3	ug/kg	29.7	89.3
108-90-7	Chlorobenzene	U	89.3	ug/kg	29.7	89.3
100-41-4	Ethylbenzene	U	89.3	ug/kg	29.7	89.3
100-42-5	Styrene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:50	Matrix:	MISC SOLID
Lab Sample ID:	660771003	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Bottom Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 11:43	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:53	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA309.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	89.3	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane	U	89.3	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane	U	89.3	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)	U	268	ug/kg	89.3	268
630-20-6	1,1,1,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
120-82-1	1,2,4-Trichlorobenzene	U	89.3	ug/kg	29.7	89.3

Volatile

Certificate of Analysis

Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660771004	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Top Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 12:11	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:54	Aliquot:	5.4 g	Final Volume:	10 mL
Data File:	data\040324VC\CA310.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	92.6	ug/kg	30.8	92.6
74-87-3	Chloromethane	U	92.6	ug/kg	30.8	92.6
75-01-4	Vinyl chloride	U	92.6	ug/kg	30.8	92.6
74-83-9	Bromomethane	U	92.6	ug/kg	30.8	92.6
75-00-3	Chloroethane	U	92.6	ug/kg	30.8	92.6
75-69-4	Trichlorofluoromethane	U	92.6	ug/kg	30.8	92.6
67-64-1	Acetone	J	291	ug/kg	154	463
75-35-4	1,1-Dichloroethylene	U	92.6	ug/kg	30.8	92.6
74-88-4	Iodomethane	U	463	ug/kg	154	463
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	463	ug/kg	154	463
75-05-8	Acetonitrile	U	2310	ug/kg	772	2310
75-15-0	Carbon disulfide	U	463	ug/kg	154	463
75-09-2	Methylene chloride	U	463	ug/kg	154	463
156-60-5	trans-1,2-Dichloroethylene	U	92.6	ug/kg	30.8	92.6
108-05-4	Vinyl acetate	U	463	ug/kg	154	463
75-34-3	1,1-Dichloroethane	U	92.6	ug/kg	30.8	92.6
78-93-3	2-Butanone	JB	183	ug/kg	154	463
67-66-3	Chloroform	U	92.6	ug/kg	30.8	92.6
71-55-6	1,1,1-Trichloroethane	U	92.6	ug/kg	30.8	92.6
56-23-5	Carbon tetrachloride	U	92.6	ug/kg	30.8	92.6
107-06-2	1,2-Dichloroethane	U	92.6	ug/kg	30.8	92.6
71-43-2	Benzene	U	92.6	ug/kg	30.8	92.6
79-01-6	Trichloroethylene	U	92.6	ug/kg	30.8	92.6
78-87-5	1,2-Dichloropropane	U	92.6	ug/kg	30.8	92.6
74-95-3	Dibromomethane	U	92.6	ug/kg	30.8	92.6
75-27-4	Bromodichloromethane	U	92.6	ug/kg	30.8	92.6
10061-01-5	cis-1,3-Dichloropropylene	U	92.6	ug/kg	30.8	92.6
108-10-1	4-Methyl-2-pentanone	U	463	ug/kg	154	463
108-88-3	Toluene	U	92.6	ug/kg	30.8	92.6
10061-02-6	trans-1,3-Dichloropropylene	U	92.6	ug/kg	30.8	92.6
79-00-5	1,1,2-Trichloroethane	U	92.6	ug/kg	30.8	92.6
591-78-6	2-Hexanone	U	463	ug/kg	154	463
127-18-4	Tetrachloroethylene	U	92.6	ug/kg	30.8	92.6
124-48-1	Dibromochloromethane	U	92.6	ug/kg	30.8	92.6
106-93-4	1,2-Dibromoethane	U	92.6	ug/kg	30.8	92.6
108-90-7	Chlorobenzene	U	92.6	ug/kg	30.8	92.6
100-41-4	Ethylbenzene	U	92.6	ug/kg	30.8	92.6
100-42-5	Styrene	U	92.6	ug/kg	30.8	92.6

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660771004	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Top Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 12:11	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:54	Aliquot:	5.4 g	Final Volume:	10 mL
Data File:	data\040324VC\CA310.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	92.6	ug/kg	30.8	92.6
79-34-5	1,1,2,2-Tetrachloroethane	U	92.6	ug/kg	30.8	92.6
96-18-4	1,2,3-Trichloropropane	U	92.6	ug/kg	30.8	92.6
96-12-8	1,2-Dibromo-3-chloropropane	U	92.6	ug/kg	46.3	92.6
107-02-8	Acrolein	U	463	ug/kg	154	463
107-05-1	Allyl chloride	U	463	ug/kg	154	463
107-13-1	Acrylonitrile	U	463	ug/kg	154	463
126-99-8	2-Chloro-1,3-butadiene	U	92.6	ug/kg	30.8	92.6
107-12-0	Propionitrile	U	463	ug/kg	154	463
126-98-7	Methacrylonitrile	U	463	ug/kg	154	463
78-83-1	Isobutyl alcohol	U	4630	ug/kg	1540	4630
80-62-6	Methyl methacrylate	U	463	ug/kg	154	463
97-63-2	Ethyl methacrylate	U	463	ug/kg	154	463
76-01-7	Pentachloroethane	U	463	ug/kg	154	463
110-57-6	trans-1,4-Dichloro-2-butene	U	463	ug/kg	154	463
1330-20-7	Xylenes (total)	J	99.1	ug/kg	92.6	278
630-20-6	1,1,1,2-Tetrachloroethane	U	92.6	ug/kg	30.8	92.6
120-82-1	1,2,4-Trichlorobenzene	U	92.6	ug/kg	30.8	92.6

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660771005	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Middle Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 12:39	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:55	Aliquot:	5.4 g	Final Volume:	10 mL
Data File:	data\040324VC\CA311.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	92.6	ug/kg	30.8	92.6
74-87-3	Chloromethane	U	92.6	ug/kg	30.8	92.6
75-01-4	Vinyl chloride	U	92.6	ug/kg	30.8	92.6
74-83-9	Bromomethane	U	92.6	ug/kg	30.8	92.6
75-00-3	Chloroethane	U	92.6	ug/kg	30.8	92.6
75-69-4	Trichlorofluoromethane	U	92.6	ug/kg	30.8	92.6
67-64-1	Acetone	J	345	ug/kg	154	463
75-35-4	1,1-Dichloroethylene	U	92.6	ug/kg	30.8	92.6
74-88-4	Iodomethane	U	463	ug/kg	154	463
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	463	ug/kg	154	463
75-05-8	Acetonitrile	U	2310	ug/kg	772	2310
75-15-0	Carbon disulfide	U	463	ug/kg	154	463
75-09-2	Methylene chloride	U	463	ug/kg	154	463
156-60-5	trans-1,2-Dichloroethylene	U	92.6	ug/kg	30.8	92.6
108-05-4	Vinyl acetate	U	463	ug/kg	154	463
75-34-3	1,1-Dichloroethane	U	92.6	ug/kg	30.8	92.6
78-93-3	2-Butanone	JB	182	ug/kg	154	463
67-66-3	Chloroform	U	92.6	ug/kg	30.8	92.6
71-55-6	1,1,1-Trichloroethane	U	92.6	ug/kg	30.8	92.6
56-23-5	Carbon tetrachloride	U	92.6	ug/kg	30.8	92.6
107-06-2	1,2-Dichloroethane	U	92.6	ug/kg	30.8	92.6
71-43-2	Benzene	U	92.6	ug/kg	30.8	92.6
79-01-6	Trichloroethylene	U	92.6	ug/kg	30.8	92.6
78-87-5	1,2-Dichloropropane	U	92.6	ug/kg	30.8	92.6
74-95-3	Dibromomethane	U	92.6	ug/kg	30.8	92.6
75-27-4	Bromodichloromethane	U	92.6	ug/kg	30.8	92.6
10061-01-5	cis-1,3-Dichloropropylene	U	92.6	ug/kg	30.8	92.6
108-10-1	4-Methyl-2-pentanone	U	463	ug/kg	154	463
108-88-3	Toluene	U	92.6	ug/kg	30.8	92.6
10061-02-6	trans-1,3-Dichloropropylene	U	92.6	ug/kg	30.8	92.6
79-00-5	1,1,2-Trichloroethane	U	92.6	ug/kg	30.8	92.6
591-78-6	2-Hexanone	U	463	ug/kg	154	463
127-18-4	Tetrachloroethylene	U	92.6	ug/kg	30.8	92.6
124-48-1	Dibromochloromethane	U	92.6	ug/kg	30.8	92.6
106-93-4	1,2-Dibromoethane	U	92.6	ug/kg	30.8	92.6
108-90-7	Chlorobenzene	U	92.6	ug/kg	30.8	92.6
100-41-4	Ethylbenzene	U	92.6	ug/kg	30.8	92.6
100-42-5	Styrene	U	92.6	ug/kg	30.8	92.6

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660771005	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Middle Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 12:39	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:55	Aliquot:	5.4 g	Final Volume:	10 mL
Data File:	data\040324VC\CA311.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	92.6	ug/kg	30.8	92.6
79-34-5	1,1,2,2-Tetrachloroethane	U	92.6	ug/kg	30.8	92.6
96-18-4	1,2,3-Trichloropropane	U	92.6	ug/kg	30.8	92.6
96-12-8	1,2-Dibromo-3-chloropropane	U	92.6	ug/kg	46.3	92.6
107-02-8	Acrolein	U	463	ug/kg	154	463
107-05-1	Allyl chloride	U	463	ug/kg	154	463
107-13-1	Acrylonitrile	U	463	ug/kg	154	463
126-99-8	2-Chloro-1,3-butadiene	U	92.6	ug/kg	30.8	92.6
107-12-0	Propionitrile	U	463	ug/kg	154	463
126-98-7	Methacrylonitrile	U	463	ug/kg	154	463
78-83-1	Isobutyl alcohol	U	4630	ug/kg	1540	4630
80-62-6	Methyl methacrylate	U	463	ug/kg	154	463
97-63-2	Ethyl methacrylate	U	463	ug/kg	154	463
76-01-7	Pentachloroethane	U	463	ug/kg	154	463
110-57-6	trans-1,4-Dichloro-2-butene	U	463	ug/kg	154	463
1330-20-7	Xylenes (total)	U	278	ug/kg	92.6	278
630-20-6	1,1,1,2-Tetrachloroethane	U	92.6	ug/kg	30.8	92.6
120-82-1	1,2,4-Trichlorobenzene	U	92.6	ug/kg	30.8	92.6

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660771006	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Bottom Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 13:07	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:56	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA312.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	89.3	ug/kg	29.7	89.3
74-87-3	Chloromethane	U	89.3	ug/kg	29.7	89.3
75-01-4	Vinyl chloride	U	89.3	ug/kg	29.7	89.3
74-83-9	Bromomethane	U	89.3	ug/kg	29.7	89.3
75-00-3	Chloroethane	U	89.3	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane	U	89.3	ug/kg	29.7	89.3
67-64-1	Acetone	J	314	ug/kg	149	446
75-35-4	1,1-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
74-88-4	Iodomethane	U	446	ug/kg	149	446
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-05-8	Acetonitrile	U	2230	ug/kg	744	2230
75-15-0	Carbon disulfide	U	446	ug/kg	149	446
75-09-2	Methylene chloride	U	446	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
108-05-4	Vinyl acetate	U	446	ug/kg	149	446
75-34-3	1,1-Dichloroethane	U	89.3	ug/kg	29.7	89.3
78-93-3	2-Butanone	JB	170	ug/kg	149	446
67-66-3	Chloroform	U	89.3	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane	U	89.3	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride	U	89.3	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane	U	89.3	ug/kg	29.7	89.3
71-43-2	Benzene	U	89.3	ug/kg	29.7	89.3
79-01-6	Trichloroethylene	U	89.3	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane	U	89.3	ug/kg	29.7	89.3
74-95-3	Dibromomethane	U	89.3	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane	U	89.3	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone	U	446	ug/kg	149	446
108-88-3	Toluene	U	89.3	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane	U	89.3	ug/kg	29.7	89.3
591-78-6	2-Hexanone	U	446	ug/kg	149	446
127-18-4	Tetrachloroethylene	U	89.3	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane	U	89.3	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane	U	89.3	ug/kg	29.7	89.3
108-90-7	Chlorobenzene	U	89.3	ug/kg	29.7	89.3
100-41-4	Ethylbenzene	U	89.3	ug/kg	29.7	89.3
100-42-5	Styrene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660771006	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Bottom Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 13:07	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:56	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA312.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	89.3	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane	U	89.3	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane	U	89.3	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)	U	268	ug/kg	89.3	268
630-20-6	1,1,1,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
120-82-1	1,2,4-Trichlorobenzene	U	89.3	ug/kg	29.7	89.3

Volatiles
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:05	Matrix:	MISC SOLID
Lab Sample ID:	660771007	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Top Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 13:34	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:57	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA313.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	89.3	ug/kg	29.7	89.3
74-87-3	Chloromethane	U	89.3	ug/kg	29.7	89.3
75-01-4	Vinyl chloride	U	89.3	ug/kg	29.7	89.3
74-83-9	Bromomethane	U	89.3	ug/kg	29.7	89.3
75-00-3	Chloroethane	U	89.3	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane	U	89.3	ug/kg	29.7	89.3
67-64-1	Acetone	U	446	ug/kg	149	446
75-35-4	1,1-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
74-88-4	Iodomethane	U	446	ug/kg	149	446
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-05-8	Acetonitrile	U	2230	ug/kg	744	2230
75-15-0	Carbon disulfide	U	446	ug/kg	149	446
75-09-2	Methylene chloride	U	446	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
108-05-4	Vinyl acetate	U	446	ug/kg	149	446
75-34-3	1,1-Dichloroethane	U	89.3	ug/kg	29.7	89.3
78-93-3	2-Butanone	JB	153	ug/kg	149	446
67-66-3	Chloroform	U	89.3	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane	U	89.3	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride	U	89.3	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane	U	89.3	ug/kg	29.7	89.3
71-43-2	Benzene	U	89.3	ug/kg	29.7	89.3
79-01-6	Trichloroethylene	U	89.3	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane	U	89.3	ug/kg	29.7	89.3
74-95-3	Dibromomethane	U	89.3	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane	U	89.3	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone	U	446	ug/kg	149	446
108-88-3	Toluene	U	89.3	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane	U	89.3	ug/kg	29.7	89.3
591-78-6	2-Hexanone	U	446	ug/kg	149	446
127-18-4	Tetrachloroethylene	U	89.3	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane	U	89.3	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane	U	89.3	ug/kg	29.7	89.3
108-90-7	Chlorobenzene	U	89.3	ug/kg	29.7	89.3
100-41-4	Ethylbenzene	U	89.3	ug/kg	29.7	89.3
100-42-5	Styrene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:05	Matrix:	MISC SOLID
Lab Sample ID:	660771007	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Top Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 13:34	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:57	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA313.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	89.3	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane	U	89.3	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane	U	89.3	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)	U	268	ug/kg	89.3	268
630-20-6	1,1,1,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
120-82-1	1,2,4-Trichlorobenzene	U	89.3	ug/kg	29.7	89.3

Volatile

Certificate of Analysis

Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:10	Matrix:	MISC SOLID
Lab Sample ID:	660771008	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Middle Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 14:02	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:58	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA314.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	90.9	ug/kg	30.3	90.9
74-87-3	Chloromethane	U	90.9	ug/kg	30.3	90.9
75-01-4	Vinyl chloride	U	90.9	ug/kg	30.3	90.9
74-83-9	Bromomethane	U	90.9	ug/kg	30.3	90.9
75-00-3	Chloroethane	U	90.9	ug/kg	30.3	90.9
75-69-4	Trichlorofluoromethane	U	90.9	ug/kg	30.3	90.9
67-64-1	Acetone	J	184	ug/kg	152	455
75-35-4	1,1-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
74-88-4	Iodomethane	U	455	ug/kg	152	455
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	455	ug/kg	152	455
75-05-8	Acetonitrile	U	2270	ug/kg	758	2270
75-15-0	Carbon disulfide	U	455	ug/kg	152	455
75-09-2	Methylene chloride	U	455	ug/kg	152	455
156-60-5	trans-1,2-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
108-05-4	Vinyl acetate	U	455	ug/kg	152	455
75-34-3	1,1-Dichloroethane	U	90.9	ug/kg	30.3	90.9
78-93-3	2-Butanone	JB	165	ug/kg	152	455
67-66-3	Chloroform	U	90.9	ug/kg	30.3	90.9
71-55-6	1,1,1-Trichloroethane	U	90.9	ug/kg	30.3	90.9
56-23-5	Carbon tetrachloride	U	90.9	ug/kg	30.3	90.9
107-06-2	1,2-Dichloroethane	U	90.9	ug/kg	30.3	90.9
71-43-2	Benzene	U	90.9	ug/kg	30.3	90.9
79-01-6	Trichloroethylene	U	90.9	ug/kg	30.3	90.9
78-87-5	1,2-Dichloropropane	U	90.9	ug/kg	30.3	90.9
74-95-3	Dibromomethane	U	90.9	ug/kg	30.3	90.9
75-27-4	Bromodichloromethane	U	90.9	ug/kg	30.3	90.9
10061-01-5	cis-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
108-10-1	4-Methyl-2-pentanone	U	455	ug/kg	152	455
108-88-3	Toluene	J	32.7	ug/kg	30.3	90.9
10061-02-6	trans-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
79-00-5	1,1,2-Trichloroethane	U	90.9	ug/kg	30.3	90.9
591-78-6	2-Hexanone	U	455	ug/kg	152	455
127-18-4	Tetrachloroethylene	U	90.9	ug/kg	30.3	90.9
124-48-1	Dibromochloromethane	U	90.9	ug/kg	30.3	90.9
106-93-4	1,2-Dibromoethane	U	90.9	ug/kg	30.3	90.9
108-90-7	Chlorobenzene	U	90.9	ug/kg	30.3	90.9
100-41-4	Ethylbenzene	U	90.9	ug/kg	30.3	90.9
100-42-5	Styrene	U	90.9	ug/kg	30.3	90.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:10	Matrix:	MISC SOLID
Lab Sample ID:	660771008	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Middle Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 14:02	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:58	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA314.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	90.9	ug/kg	30.3	90.9
79-34-5	1,1,2,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
96-18-4	1,2,3-Trichloropropane	U	90.9	ug/kg	30.3	90.9
96-12-8	1,2-Dibromo-3-chloropropane	U	90.9	ug/kg	45.5	90.9
107-02-8	Acrolein	U	455	ug/kg	152	455
107-05-1	Allyl chloride	U	455	ug/kg	152	455
107-13-1	Acrylonitrile	U	455	ug/kg	152	455
126-99-8	2-Chloro-1,3-butadiene	U	90.9	ug/kg	30.3	90.9
107-12-0	Propionitrile	U	455	ug/kg	152	455
126-98-7	Methacrylonitrile	U	455	ug/kg	152	455
78-83-1	Isobutyl alcohol	U	4550	ug/kg	1520	4550
80-62-6	Methyl methacrylate	U	455	ug/kg	152	455
97-63-2	Ethyl methacrylate	U	455	ug/kg	152	455
76-01-7	Pentachloroethane	U	455	ug/kg	152	455
110-57-6	trans-1,4-Dichloro-2-butene	U	455	ug/kg	152	455
1330-20-7	Xylenes (total)	U	273	ug/kg	90.9	273
630-20-6	1,1,1,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
120-82-1	1,2,4-Trichlorobenzene	U	90.9	ug/kg	30.3	90.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771009	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Bottom Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 14:30	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:59	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA315.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	89.3	ug/kg	29.7	89.3
74-87-3	Chloromethane	U	89.3	ug/kg	29.7	89.3
75-01-4	Vinyl chloride	U	89.3	ug/kg	29.7	89.3
74-83-9	Bromomethane	U	89.3	ug/kg	29.7	89.3
75-00-3	Chloroethane	U	89.3	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane	U	89.3	ug/kg	29.7	89.3
67-64-1	Acetone	J	229	ug/kg	149	446
75-35-4	1,1-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
74-88-4	Iodomethane	U	446	ug/kg	149	446
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-05-8	Acetonitrile	U	2230	ug/kg	744	2230
75-15-0	Carbon disulfide	U	446	ug/kg	149	446
75-09-2	Methylene chloride	U	446	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
108-05-4	Vinyl acetate	U	446	ug/kg	149	446
75-34-3	1,1-Dichloroethane	U	89.3	ug/kg	29.7	89.3
78-93-3	2-Butanone	JB	166	ug/kg	149	446
67-66-3	Chloroform	U	89.3	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane	U	89.3	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride	U	89.3	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane	U	89.3	ug/kg	29.7	89.3
71-43-2	Benzene	U	89.3	ug/kg	29.7	89.3
79-01-6	Trichloroethylene	U	89.3	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane	U	89.3	ug/kg	29.7	89.3
74-95-3	Dibromomethane	U	89.3	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane	U	89.3	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone	U	446	ug/kg	149	446
108-88-3	Toluene	J	39.3	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane	U	89.3	ug/kg	29.7	89.3
591-78-6	2-Hexanone	U	446	ug/kg	149	446
127-18-4	Tetrachloroethylene	U	89.3	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane	U	89.3	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane	U	89.3	ug/kg	29.7	89.3
108-90-7	Chlorobenzene	U	89.3	ug/kg	29.7	89.3
100-41-4	Ethylbenzene	U	89.3	ug/kg	29.7	89.3
100-42-5	Styrene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771009	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Bottom Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 14:30	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:59	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA315.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	89.3	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane	U	89.3	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane	U	89.3	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)	U	268	ug/kg	89.3	268
630-20-6	1,1,1,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
120-82-1	1,2,4-Trichlorobenzene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:25	Matrix:	MISC SOLID
Lab Sample ID:	660771010	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Top Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 14:58	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:00	Aliquot:	5.4 g	Final Volume:	10 mL
Data File:	data\040324VC\CA316.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	92.6	ug/kg	30.8	92.6
74-87-3	Chloromethane	U	92.6	ug/kg	30.8	92.6
75-01-4	Vinyl chloride	U	92.6	ug/kg	30.8	92.6
74-83-9	Bromomethane	U	92.6	ug/kg	30.8	92.6
75-00-3	Chloroethane	U	92.6	ug/kg	30.8	92.6
75-69-4	Trichlorofluoromethane	U	92.6	ug/kg	30.8	92.6
67-64-1	Acetone	U	463	ug/kg	154	463
75-35-4	1,1-Dichloroethylene	U	92.6	ug/kg	30.8	92.6
74-88-4	Iodomethane	U	463	ug/kg	154	463
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	463	ug/kg	154	463
75-05-8	Acetonitrile	U	2310	ug/kg	772	2310
75-15-0	Carbon disulfide	U	463	ug/kg	154	463
75-09-2	Methylene chloride	U	463	ug/kg	154	463
156-60-5	trans-1,2-Dichloroethylene	U	92.6	ug/kg	30.8	92.6
108-05-4	Vinyl acetate	U	463	ug/kg	154	463
75-34-3	1,1-Dichloroethane	U	92.6	ug/kg	30.8	92.6
78-93-3	2-Butanone	U	463	ug/kg	154	463
67-66-3	Chloroform	U	92.6	ug/kg	30.8	92.6
71-55-6	1,1,1-Trichloroethane	U	92.6	ug/kg	30.8	92.6
56-23-5	Carbon tetrachloride	U	92.6	ug/kg	30.8	92.6
107-06-2	1,2-Dichloroethane	U	92.6	ug/kg	30.8	92.6
71-43-2	Benzene	U	92.6	ug/kg	30.8	92.6
79-01-6	Trichloroethylene	U	92.6	ug/kg	30.8	92.6
78-87-5	1,2-Dichloropropane	U	92.6	ug/kg	30.8	92.6
74-95-3	Dibromomethane	U	92.6	ug/kg	30.8	92.6
75-27-4	Bromodichloromethane	U	92.6	ug/kg	30.8	92.6
10061-01-5	cis-1,3-Dichloropropylene	U	92.6	ug/kg	30.8	92.6
108-10-1	4-Methyl-2-pentanone	U	463	ug/kg	154	463
108-88-3	Toluene	U	92.6	ug/kg	30.8	92.6
10061-02-6	trans-1,3-Dichloropropylene	U	92.6	ug/kg	30.8	92.6
79-00-5	1,1,2-Trichloroethane	U	92.6	ug/kg	30.8	92.6
591-78-6	2-Hexanone	U	463	ug/kg	154	463
127-18-4	Tetrachloroethylene	U	92.6	ug/kg	30.8	92.6
124-48-1	Dibromochloromethane	U	92.6	ug/kg	30.8	92.6
106-93-4	1,2-Dibromoethane	U	92.6	ug/kg	30.8	92.6
108-90-7	Chlorobenzene	U	92.6	ug/kg	30.8	92.6
100-41-4	Ethylbenzene	U	92.6	ug/kg	30.8	92.6
100-42-5	Styrene	U	92.6	ug/kg	30.8	92.6

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:25	Matrix:	MISC SOLID
Lab Sample ID:	660771010	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Top Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 14:58	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:00	Aliquot:	5.4 g	Final Volume:	10 mL
Data File:	data\040324VC\CA316.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	92.6	ug/kg	30.8	92.6
79-34-5	1,1,2,2-Tetrachloroethane	U	92.6	ug/kg	30.8	92.6
96-18-4	1,2,3-Trichloropropane	U	92.6	ug/kg	30.8	92.6
96-12-8	1,2-Dibromo-3-chloropropane	U	92.6	ug/kg	46.3	92.6
107-02-8	Acrolein	U	463	ug/kg	154	463
107-05-1	Allyl chloride	U	463	ug/kg	154	463
107-13-1	Acrylonitrile	U	463	ug/kg	154	463
126-99-8	2-Chloro-1,3-butadiene	U	92.6	ug/kg	30.8	92.6
107-12-0	Propionitrile	U	463	ug/kg	154	463
126-98-7	Methacrylonitrile	U	463	ug/kg	154	463
78-83-1	Isobutyl alcohol	U	4630	ug/kg	1540	4630
80-62-6	Methyl methacrylate	U	463	ug/kg	154	463
97-63-2	Ethyl methacrylate	U	463	ug/kg	154	463
76-01-7	Pentachloroethane	U	463	ug/kg	154	463
110-57-6	trans-1,4-Dichloro-2-butene	U	463	ug/kg	154	463
1330-20-7	Xylenes (total)	U	278	ug/kg	92.6	278
630-20-6	1,1,1,2-Tetrachloroethane	U	92.6	ug/kg	30.8	92.6
120-82-1	1,2,4-Trichlorobenzene	U	92.6	ug/kg	30.8	92.6

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:30	Matrix:	MISC SOLID
Lab Sample ID:	660771011	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Middle Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 15:26	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:01	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA317.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	90.9	ug/kg	30.3	90.9
74-87-3	Chloromethane	U	90.9	ug/kg	30.3	90.9
75-01-4	Vinyl chloride	U	90.9	ug/kg	30.3	90.9
74-83-9	Bromomethane	U	90.9	ug/kg	30.3	90.9
75-00-3	Chloroethane	U	90.9	ug/kg	30.3	90.9
75-69-4	Trichlorofluoromethane	U	90.9	ug/kg	30.3	90.9
67-64-1	Acetone	U	455	ug/kg	152	455
75-35-4	1,1-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
74-88-4	Iodomethane	U	455	ug/kg	152	455
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	455	ug/kg	152	455
75-05-8	Acetonitrile	U	2270	ug/kg	758	2270
75-15-0	Carbon disulfide	U	455	ug/kg	152	455
75-09-2	Methylene chloride	U	455	ug/kg	152	455
156-60-5	trans-1,2-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
108-05-4	Vinyl acetate	U	455	ug/kg	152	455
75-34-3	1,1-Dichloroethane	U	90.9	ug/kg	30.3	90.9
78-93-3	2-Butanone	JB	157	ug/kg	152	455
67-66-3	Chloroform	U	90.9	ug/kg	30.3	90.9
71-55-6	1,1,1-Trichloroethane	U	90.9	ug/kg	30.3	90.9
56-23-5	Carbon tetrachloride	U	90.9	ug/kg	30.3	90.9
107-06-2	1,2-Dichloroethane	U	90.9	ug/kg	30.3	90.9
71-43-2	Benzene	U	90.9	ug/kg	30.3	90.9
79-01-6	Trichloroethylene	U	90.9	ug/kg	30.3	90.9
78-87-5	1,2-Dichloropropane	U	90.9	ug/kg	30.3	90.9
74-95-3	Dibromomethane	U	90.9	ug/kg	30.3	90.9
75-27-4	Bromodichloromethane	U	90.9	ug/kg	30.3	90.9
10061-01-5	cis-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
108-10-1	4-Methyl-2-pentanone	U	455	ug/kg	152	455
108-88-3	Toluene	U	90.9	ug/kg	30.3	90.9
10061-02-6	trans-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
79-00-5	1,1,2-Trichloroethane	U	90.9	ug/kg	30.3	90.9
591-78-6	2-Hexanone	U	455	ug/kg	152	455
127-18-4	Tetrachloroethylene	U	90.9	ug/kg	30.3	90.9
124-48-1	Dibromochloromethane	U	90.9	ug/kg	30.3	90.9
106-93-4	1,2-Dibromoethane	U	90.9	ug/kg	30.3	90.9
108-90-7	Chlorobenzene	U	90.9	ug/kg	30.3	90.9
100-41-4	Ethylbenzene	U	90.9	ug/kg	30.3	90.9
100-42-5	Styrene	U	90.9	ug/kg	30.3	90.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771011

Client ID: 12043.B2.Middle Back.EPA

Batch ID: 2590956

Run Date: 04/03/2024 15:26

Prep Date: 04/03/2024 08:01

Data File: data\040324VC\CA317.D

Date Collected: 03/28/2024 07:30

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 8260D

Inst: VOAC.I

Analyst: PXY1

Aliquot: 5.5 g

Column: DB-624

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-038

Dilution: 50

Purge Vol: 5 mL

Final Volume: 10 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	90.9	ug/kg	30.3	90.9
79-34-5	1,1,2,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
96-18-4	1,2,3-Trichloropropane	U	90.9	ug/kg	30.3	90.9
96-12-8	1,2-Dibromo-3-chloropropane	U	90.9	ug/kg	45.5	90.9
107-02-8	Acrolein	U	455	ug/kg	152	455
107-05-1	Allyl chloride	U	455	ug/kg	152	455
107-13-1	Acrylonitrile	U	455	ug/kg	152	455
126-99-8	2-Chloro-1,3-butadiene	U	90.9	ug/kg	30.3	90.9
107-12-0	Propionitrile	U	455	ug/kg	152	455
126-98-7	Methacrylonitrile	U	455	ug/kg	152	455
78-83-1	Isobutyl alcohol	U	4550	ug/kg	1520	4550
80-62-6	Methyl methacrylate	U	455	ug/kg	152	455
97-63-2	Ethyl methacrylate	U	455	ug/kg	152	455
76-01-7	Pentachloroethane	U	455	ug/kg	152	455
110-57-6	trans-1,4-Dichloro-2-butene	U	455	ug/kg	152	455
1330-20-7	Xylenes (total)	U	273	ug/kg	90.9	273
630-20-6	1,1,1,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
120-82-1	1,2,4-Trichlorobenzene	U	90.9	ug/kg	30.3	90.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:35	Matrix:	MISC SOLID
Lab Sample ID:	660771012	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Bottom Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 15:54	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:02	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA318.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	89.3	ug/kg	29.7	89.3
74-87-3	Chloromethane	U	89.3	ug/kg	29.7	89.3
75-01-4	Vinyl chloride	U	89.3	ug/kg	29.7	89.3
74-83-9	Bromomethane	U	89.3	ug/kg	29.7	89.3
75-00-3	Chloroethane	U	89.3	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane	U	89.3	ug/kg	29.7	89.3
67-64-1	Acetone	J	216	ug/kg	149	446
75-35-4	1,1-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
74-88-4	Iodomethane	U	446	ug/kg	149	446
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-05-8	Acetonitrile	U	2230	ug/kg	744	2230
75-15-0	Carbon disulfide	U	446	ug/kg	149	446
75-09-2	Methylene chloride	U	446	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
108-05-4	Vinyl acetate	U	446	ug/kg	149	446
75-34-3	1,1-Dichloroethane	U	89.3	ug/kg	29.7	89.3
78-93-3	2-Butanone	JB	161	ug/kg	149	446
67-66-3	Chloroform	U	89.3	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane	U	89.3	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride	U	89.3	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane	U	89.3	ug/kg	29.7	89.3
71-43-2	Benzene	U	89.3	ug/kg	29.7	89.3
79-01-6	Trichloroethylene	U	89.3	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane	U	89.3	ug/kg	29.7	89.3
74-95-3	Dibromomethane	U	89.3	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane	U	89.3	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone	U	446	ug/kg	149	446
108-88-3	Toluene	U	89.3	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane	U	89.3	ug/kg	29.7	89.3
591-78-6	2-Hexanone	U	446	ug/kg	149	446
127-18-4	Tetrachloroethylene	U	89.3	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane	U	89.3	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane	U	89.3	ug/kg	29.7	89.3
108-90-7	Chlorobenzene	U	89.3	ug/kg	29.7	89.3
100-41-4	Ethylbenzene	U	89.3	ug/kg	29.7	89.3
100-42-5	Styrene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:35	Matrix:	MISC SOLID
Lab Sample ID:	660771012	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Bottom Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 15:54	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:02	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA318.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	89.3	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane	U	89.3	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane	U	89.3	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)	U	268	ug/kg	89.3	268
630-20-6	1,1,1,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
120-82-1	1,2,4-Trichlorobenzene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:45	Matrix:	MISC SOLID
Lab Sample ID:	660771013	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Top Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 16:21	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:03	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA319.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	89.3	ug/kg	29.7	89.3
74-87-3	Chloromethane	U	89.3	ug/kg	29.7	89.3
75-01-4	Vinyl chloride	U	89.3	ug/kg	29.7	89.3
74-83-9	Bromomethane	U	89.3	ug/kg	29.7	89.3
75-00-3	Chloroethane	U	89.3	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane	U	89.3	ug/kg	29.7	89.3
67-64-1	Acetone	U	446	ug/kg	149	446
75-35-4	1,1-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
74-88-4	Iodomethane	U	446	ug/kg	149	446
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-05-8	Acetonitrile	U	2230	ug/kg	744	2230
75-15-0	Carbon disulfide	U	446	ug/kg	149	446
75-09-2	Methylene chloride	U	446	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
108-05-4	Vinyl acetate	U	446	ug/kg	149	446
75-34-3	1,1-Dichloroethane	U	89.3	ug/kg	29.7	89.3
78-93-3	2-Butanone	U	446	ug/kg	149	446
67-66-3	Chloroform	U	89.3	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane	U	89.3	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride	U	89.3	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane	U	89.3	ug/kg	29.7	89.3
71-43-2	Benzene	U	89.3	ug/kg	29.7	89.3
79-01-6	Trichloroethylene	U	89.3	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane	U	89.3	ug/kg	29.7	89.3
74-95-3	Dibromomethane	U	89.3	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane	U	89.3	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone	U	446	ug/kg	149	446
108-88-3	Toluene	U	89.3	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane	U	89.3	ug/kg	29.7	89.3
591-78-6	2-Hexanone	U	446	ug/kg	149	446
127-18-4	Tetrachloroethylene	U	89.3	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane	U	89.3	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane	U	89.3	ug/kg	29.7	89.3
108-90-7	Chlorobenzene	U	89.3	ug/kg	29.7	89.3
100-41-4	Ethylbenzene	U	89.3	ug/kg	29.7	89.3
100-42-5	Styrene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:45	Matrix:	MISC SOLID
Lab Sample ID:	660771013	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Top Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 16:21	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:03	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA319.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	89.3	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane	U	89.3	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane	U	89.3	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)	U	268	ug/kg	89.3	268
630-20-6	1,1,1,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
120-82-1	1,2,4-Trichlorobenzene	U	89.3	ug/kg	29.7	89.3

Volatiles
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:55	Matrix:	MISC SOLID
Lab Sample ID:	660771014	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Middle Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 16:49	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:04	Aliquot:	5.7 g	Final Volume:	10 mL
Data File:	data\040324VC\CA320.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	87.7	ug/kg	29.2	87.7
74-87-3	Chloromethane	U	87.7	ug/kg	29.2	87.7
75-01-4	Vinyl chloride	U	87.7	ug/kg	29.2	87.7
74-83-9	Bromomethane	U	87.7	ug/kg	29.2	87.7
75-00-3	Chloroethane	U	87.7	ug/kg	29.2	87.7
75-69-4	Trichlorofluoromethane	U	87.7	ug/kg	29.2	87.7
67-64-1	Acetone	U	439	ug/kg	146	439
75-35-4	1,1-Dichloroethylene	U	87.7	ug/kg	29.2	87.7
74-88-4	Iodomethane	U	439	ug/kg	146	439
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	439	ug/kg	146	439
75-05-8	Acetonitrile	U	2190	ug/kg	731	2190
75-15-0	Carbon disulfide	U	439	ug/kg	146	439
75-09-2	Methylene chloride	U	439	ug/kg	146	439
156-60-5	trans-1,2-Dichloroethylene	U	87.7	ug/kg	29.2	87.7
108-05-4	Vinyl acetate	U	439	ug/kg	146	439
75-34-3	1,1-Dichloroethane	U	87.7	ug/kg	29.2	87.7
78-93-3	2-Butanone	U	439	ug/kg	146	439
67-66-3	Chloroform	U	87.7	ug/kg	29.2	87.7
71-55-6	1,1,1-Trichloroethane	U	87.7	ug/kg	29.2	87.7
56-23-5	Carbon tetrachloride	U	87.7	ug/kg	29.2	87.7
107-06-2	1,2-Dichloroethane	U	87.7	ug/kg	29.2	87.7
71-43-2	Benzene	U	87.7	ug/kg	29.2	87.7
79-01-6	Trichloroethylene	U	87.7	ug/kg	29.2	87.7
78-87-5	1,2-Dichloropropane	U	87.7	ug/kg	29.2	87.7
74-95-3	Dibromomethane	U	87.7	ug/kg	29.2	87.7
75-27-4	Bromodichloromethane	U	87.7	ug/kg	29.2	87.7
10061-01-5	cis-1,3-Dichloropropylene	U	87.7	ug/kg	29.2	87.7
108-10-1	4-Methyl-2-pentanone	U	439	ug/kg	146	439
108-88-3	Toluene	U	87.7	ug/kg	29.2	87.7
10061-02-6	trans-1,3-Dichloropropylene	U	87.7	ug/kg	29.2	87.7
79-00-5	1,1,2-Trichloroethane	U	87.7	ug/kg	29.2	87.7
591-78-6	2-Hexanone	U	439	ug/kg	146	439
127-18-4	Tetrachloroethylene	U	87.7	ug/kg	29.2	87.7
124-48-1	Dibromochloromethane	U	87.7	ug/kg	29.2	87.7
106-93-4	1,2-Dibromoethane	U	87.7	ug/kg	29.2	87.7
108-90-7	Chlorobenzene	U	87.7	ug/kg	29.2	87.7
100-41-4	Ethylbenzene	U	87.7	ug/kg	29.2	87.7
100-42-5	Styrene	U	87.7	ug/kg	29.2	87.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:55	Matrix:	MISC SOLID
Lab Sample ID:	660771014	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Middle Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 16:49	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:04	Aliquot:	5.7 g	Final Volume:	10 mL
Data File:	data\040324VC\CA320.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	87.7	ug/kg	29.2	87.7
79-34-5	1,1,2,2-Tetrachloroethane	U	87.7	ug/kg	29.2	87.7
96-18-4	1,2,3-Trichloropropane	U	87.7	ug/kg	29.2	87.7
96-12-8	1,2-Dibromo-3-chloropropane	U	87.7	ug/kg	43.9	87.7
107-02-8	Acrolein	U	439	ug/kg	146	439
107-05-1	Allyl chloride	U	439	ug/kg	146	439
107-13-1	Acrylonitrile	U	439	ug/kg	146	439
126-99-8	2-Chloro-1,3-butadiene	U	87.7	ug/kg	29.2	87.7
107-12-0	Propionitrile	U	439	ug/kg	146	439
126-98-7	Methacrylonitrile	U	439	ug/kg	146	439
78-83-1	Isobutyl alcohol	U	4390	ug/kg	1460	4390
80-62-6	Methyl methacrylate	U	439	ug/kg	146	439
97-63-2	Ethyl methacrylate	U	439	ug/kg	146	439
76-01-7	Pentachloroethane	U	439	ug/kg	146	439
110-57-6	trans-1,4-Dichloro-2-butene	U	439	ug/kg	146	439
1330-20-7	Xylenes (total)	U	263	ug/kg	87.7	263
630-20-6	1,1,1,2-Tetrachloroethane	U	87.7	ug/kg	29.2	87.7
120-82-1	1,2,4-Trichlorobenzene	U	87.7	ug/kg	29.2	87.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:05	Matrix:	MISC SOLID
Lab Sample ID:	660771015	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Bottom Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 17:17	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:05	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA321.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	89.3	ug/kg	29.7	89.3
74-87-3	Chloromethane	U	89.3	ug/kg	29.7	89.3
75-01-4	Vinyl chloride	U	89.3	ug/kg	29.7	89.3
74-83-9	Bromomethane	U	89.3	ug/kg	29.7	89.3
75-00-3	Chloroethane	U	89.3	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane	U	89.3	ug/kg	29.7	89.3
67-64-1	Acetone	U	446	ug/kg	149	446
75-35-4	1,1-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
74-88-4	Iodomethane	U	446	ug/kg	149	446
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-05-8	Acetonitrile	U	2230	ug/kg	744	2230
75-15-0	Carbon disulfide	U	446	ug/kg	149	446
75-09-2	Methylene chloride	U	446	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
108-05-4	Vinyl acetate	U	446	ug/kg	149	446
75-34-3	1,1-Dichloroethane	U	89.3	ug/kg	29.7	89.3
78-93-3	2-Butanone	U	446	ug/kg	149	446
67-66-3	Chloroform	U	89.3	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane	U	89.3	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride	U	89.3	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane	U	89.3	ug/kg	29.7	89.3
71-43-2	Benzene	U	89.3	ug/kg	29.7	89.3
79-01-6	Trichloroethylene	U	89.3	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane	U	89.3	ug/kg	29.7	89.3
74-95-3	Dibromomethane	U	89.3	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane	U	89.3	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone	U	446	ug/kg	149	446
108-88-3	Toluene	U	89.3	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane	U	89.3	ug/kg	29.7	89.3
591-78-6	2-Hexanone	U	446	ug/kg	149	446
127-18-4	Tetrachloroethylene	U	89.3	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane	U	89.3	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane	U	89.3	ug/kg	29.7	89.3
108-90-7	Chlorobenzene	U	89.3	ug/kg	29.7	89.3
100-41-4	Ethylbenzene	U	89.3	ug/kg	29.7	89.3
100-42-5	Styrene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:05	Matrix:	MISC SOLID
Lab Sample ID:	660771015	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Bottom Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 17:17	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:05	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA321.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	89.3	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane	U	89.3	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane	U	89.3	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)	U	268	ug/kg	89.3	268
630-20-6	1,1,1,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
120-82-1	1,2,4-Trichlorobenzene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771016	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Top Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 17:45	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:06	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA322.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	90.9	ug/kg	30.3	90.9
74-87-3	Chloromethane	U	90.9	ug/kg	30.3	90.9
75-01-4	Vinyl chloride	U	90.9	ug/kg	30.3	90.9
74-83-9	Bromomethane	U	90.9	ug/kg	30.3	90.9
75-00-3	Chloroethane	U	90.9	ug/kg	30.3	90.9
75-69-4	Trichlorofluoromethane	U	90.9	ug/kg	30.3	90.9
67-64-1	Acetone	U	455	ug/kg	152	455
75-35-4	1,1-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
74-88-4	Iodomethane	U	455	ug/kg	152	455
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	455	ug/kg	152	455
75-05-8	Acetonitrile	U	2270	ug/kg	758	2270
75-15-0	Carbon disulfide	U	455	ug/kg	152	455
75-09-2	Methylene chloride	U	455	ug/kg	152	455
156-60-5	trans-1,2-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
108-05-4	Vinyl acetate	U	455	ug/kg	152	455
75-34-3	1,1-Dichloroethane	U	90.9	ug/kg	30.3	90.9
78-93-3	2-Butanone	U	455	ug/kg	152	455
67-66-3	Chloroform	U	90.9	ug/kg	30.3	90.9
71-55-6	1,1,1-Trichloroethane	U	90.9	ug/kg	30.3	90.9
56-23-5	Carbon tetrachloride	U	90.9	ug/kg	30.3	90.9
107-06-2	1,2-Dichloroethane	U	90.9	ug/kg	30.3	90.9
71-43-2	Benzene	U	90.9	ug/kg	30.3	90.9
79-01-6	Trichloroethylene	U	90.9	ug/kg	30.3	90.9
78-87-5	1,2-Dichloropropane	U	90.9	ug/kg	30.3	90.9
74-95-3	Dibromomethane	U	90.9	ug/kg	30.3	90.9
75-27-4	Bromodichloromethane	U	90.9	ug/kg	30.3	90.9
10061-01-5	cis-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
108-10-1	4-Methyl-2-pentanone	U	455	ug/kg	152	455
108-88-3	Toluene	U	90.9	ug/kg	30.3	90.9
10061-02-6	trans-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
79-00-5	1,1,2-Trichloroethane	U	90.9	ug/kg	30.3	90.9
591-78-6	2-Hexanone	U	455	ug/kg	152	455
127-18-4	Tetrachloroethylene	U	90.9	ug/kg	30.3	90.9
124-48-1	Dibromochloromethane	U	90.9	ug/kg	30.3	90.9
106-93-4	1,2-Dibromoethane	U	90.9	ug/kg	30.3	90.9
108-90-7	Chlorobenzene	U	90.9	ug/kg	30.3	90.9
100-41-4	Ethylbenzene	U	90.9	ug/kg	30.3	90.9
100-42-5	Styrene	U	90.9	ug/kg	30.3	90.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771016	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Top Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 17:45	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:06	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA322.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	90.9	ug/kg	30.3	90.9
79-34-5	1,1,2,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
96-18-4	1,2,3-Trichloropropane	U	90.9	ug/kg	30.3	90.9
96-12-8	1,2-Dibromo-3-chloropropane	U	90.9	ug/kg	45.5	90.9
107-02-8	Acrolein	U	455	ug/kg	152	455
107-05-1	Allyl chloride	U	455	ug/kg	152	455
107-13-1	Acrylonitrile	U	455	ug/kg	152	455
126-99-8	2-Chloro-1,3-butadiene	U	90.9	ug/kg	30.3	90.9
107-12-0	Propionitrile	U	455	ug/kg	152	455
126-98-7	Methacrylonitrile	U	455	ug/kg	152	455
78-83-1	Isobutyl alcohol	U	4550	ug/kg	1520	4550
80-62-6	Methyl methacrylate	U	455	ug/kg	152	455
97-63-2	Ethyl methacrylate	U	455	ug/kg	152	455
76-01-7	Pentachloroethane	U	455	ug/kg	152	455
110-57-6	trans-1,4-Dichloro-2-butene	U	455	ug/kg	152	455
1330-20-7	Xylenes (total)	U	273	ug/kg	90.9	273
630-20-6	1,1,1,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
120-82-1	1,2,4-Trichlorobenzene	U	90.9	ug/kg	30.3	90.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:25	Matrix:	MISC SOLID
Lab Sample ID:	660771017	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Middle Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 18:13	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:07	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA323.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	90.9	ug/kg	30.3	90.9
74-87-3	Chloromethane	U	90.9	ug/kg	30.3	90.9
75-01-4	Vinyl chloride	U	90.9	ug/kg	30.3	90.9
74-83-9	Bromomethane	U	90.9	ug/kg	30.3	90.9
75-00-3	Chloroethane	U	90.9	ug/kg	30.3	90.9
75-69-4	Trichlorofluoromethane	U	90.9	ug/kg	30.3	90.9
67-64-1	Acetone	J	155	ug/kg	152	455
75-35-4	1,1-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
74-88-4	Iodomethane	U	455	ug/kg	152	455
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	455	ug/kg	152	455
75-05-8	Acetonitrile	U	2270	ug/kg	758	2270
75-15-0	Carbon disulfide	U	455	ug/kg	152	455
75-09-2	Methylene chloride	U	455	ug/kg	152	455
156-60-5	trans-1,2-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
108-05-4	Vinyl acetate	U	455	ug/kg	152	455
75-34-3	1,1-Dichloroethane	U	90.9	ug/kg	30.3	90.9
78-93-3	2-Butanone	U	455	ug/kg	152	455
67-66-3	Chloroform	U	90.9	ug/kg	30.3	90.9
71-55-6	1,1,1-Trichloroethane	U	90.9	ug/kg	30.3	90.9
56-23-5	Carbon tetrachloride	U	90.9	ug/kg	30.3	90.9
107-06-2	1,2-Dichloroethane	U	90.9	ug/kg	30.3	90.9
71-43-2	Benzene	U	90.9	ug/kg	30.3	90.9
79-01-6	Trichloroethylene	U	90.9	ug/kg	30.3	90.9
78-87-5	1,2-Dichloropropane	U	90.9	ug/kg	30.3	90.9
74-95-3	Dibromomethane	U	90.9	ug/kg	30.3	90.9
75-27-4	Bromodichloromethane	U	90.9	ug/kg	30.3	90.9
10061-01-5	cis-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
108-10-1	4-Methyl-2-pentanone	U	455	ug/kg	152	455
108-88-3	Toluene	U	90.9	ug/kg	30.3	90.9
10061-02-6	trans-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
79-00-5	1,1,2-Trichloroethane	U	90.9	ug/kg	30.3	90.9
591-78-6	2-Hexanone	U	455	ug/kg	152	455
127-18-4	Tetrachloroethylene	U	90.9	ug/kg	30.3	90.9
124-48-1	Dibromochloromethane	U	90.9	ug/kg	30.3	90.9
106-93-4	1,2-Dibromoethane	U	90.9	ug/kg	30.3	90.9
108-90-7	Chlorobenzene	U	90.9	ug/kg	30.3	90.9
100-41-4	Ethylbenzene	U	90.9	ug/kg	30.3	90.9
100-42-5	Styrene	U	90.9	ug/kg	30.3	90.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:25	Matrix:	MISC SOLID
Lab Sample ID:	660771017	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Middle Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 18:13	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:07	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA323.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	90.9	ug/kg	30.3	90.9
79-34-5	1,1,2,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
96-18-4	1,2,3-Trichloropropane	U	90.9	ug/kg	30.3	90.9
96-12-8	1,2-Dibromo-3-chloropropane	U	90.9	ug/kg	45.5	90.9
107-02-8	Acrolein	U	455	ug/kg	152	455
107-05-1	Allyl chloride	U	455	ug/kg	152	455
107-13-1	Acrylonitrile	U	455	ug/kg	152	455
126-99-8	2-Chloro-1,3-butadiene	U	90.9	ug/kg	30.3	90.9
107-12-0	Propionitrile	U	455	ug/kg	152	455
126-98-7	Methacrylonitrile	U	455	ug/kg	152	455
78-83-1	Isobutyl alcohol	U	4550	ug/kg	1520	4550
80-62-6	Methyl methacrylate	U	455	ug/kg	152	455
97-63-2	Ethyl methacrylate	U	455	ug/kg	152	455
76-01-7	Pentachloroethane	U	455	ug/kg	152	455
110-57-6	trans-1,4-Dichloro-2-butene	U	455	ug/kg	152	455
1330-20-7	Xylenes (total)	U	273	ug/kg	90.9	273
630-20-6	1,1,1,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
120-82-1	1,2,4-Trichlorobenzene	U	90.9	ug/kg	30.3	90.9

Volatiles
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:35	Matrix:	MISC SOLID
Lab Sample ID:	660771018	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Bottom Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 18:41	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:08	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA324.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	90.9	ug/kg	30.3	90.9
74-87-3	Chloromethane	U	90.9	ug/kg	30.3	90.9
75-01-4	Vinyl chloride	U	90.9	ug/kg	30.3	90.9
74-83-9	Bromomethane	U	90.9	ug/kg	30.3	90.9
75-00-3	Chloroethane	U	90.9	ug/kg	30.3	90.9
75-69-4	Trichlorofluoromethane	U	90.9	ug/kg	30.3	90.9
67-64-1	Acetone	U	455	ug/kg	152	455
75-35-4	1,1-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
74-88-4	Iodomethane	U	455	ug/kg	152	455
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	455	ug/kg	152	455
75-05-8	Acetonitrile	U	2270	ug/kg	758	2270
75-15-0	Carbon disulfide	U	455	ug/kg	152	455
75-09-2	Methylene chloride	U	455	ug/kg	152	455
156-60-5	trans-1,2-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
108-05-4	Vinyl acetate	U	455	ug/kg	152	455
75-34-3	1,1-Dichloroethane	U	90.9	ug/kg	30.3	90.9
78-93-3	2-Butanone	U	455	ug/kg	152	455
67-66-3	Chloroform	U	90.9	ug/kg	30.3	90.9
71-55-6	1,1,1-Trichloroethane	U	90.9	ug/kg	30.3	90.9
56-23-5	Carbon tetrachloride	U	90.9	ug/kg	30.3	90.9
107-06-2	1,2-Dichloroethane	U	90.9	ug/kg	30.3	90.9
71-43-2	Benzene	U	90.9	ug/kg	30.3	90.9
79-01-6	Trichloroethylene	U	90.9	ug/kg	30.3	90.9
78-87-5	1,2-Dichloropropane	U	90.9	ug/kg	30.3	90.9
74-95-3	Dibromomethane	U	90.9	ug/kg	30.3	90.9
75-27-4	Bromodichloromethane	U	90.9	ug/kg	30.3	90.9
10061-01-5	cis-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
108-10-1	4-Methyl-2-pentanone	U	455	ug/kg	152	455
108-88-3	Toluene	U	90.9	ug/kg	30.3	90.9
10061-02-6	trans-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
79-00-5	1,1,2-Trichloroethane	U	90.9	ug/kg	30.3	90.9
591-78-6	2-Hexanone	U	455	ug/kg	152	455
127-18-4	Tetrachloroethylene	U	90.9	ug/kg	30.3	90.9
124-48-1	Dibromochloromethane	U	90.9	ug/kg	30.3	90.9
106-93-4	1,2-Dibromoethane	U	90.9	ug/kg	30.3	90.9
108-90-7	Chlorobenzene	U	90.9	ug/kg	30.3	90.9
100-41-4	Ethylbenzene	U	90.9	ug/kg	30.3	90.9
100-42-5	Styrene	U	90.9	ug/kg	30.3	90.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:35	Matrix:	MISC SOLID
Lab Sample ID:	660771018	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Bottom Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 18:41	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:08	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA324.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	90.9	ug/kg	30.3	90.9
79-34-5	1,1,2,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
96-18-4	1,2,3-Trichloropropane	U	90.9	ug/kg	30.3	90.9
96-12-8	1,2-Dibromo-3-chloropropane	U	90.9	ug/kg	45.5	90.9
107-02-8	Acrolein	U	455	ug/kg	152	455
107-05-1	Allyl chloride	U	455	ug/kg	152	455
107-13-1	Acrylonitrile	U	455	ug/kg	152	455
126-99-8	2-Chloro-1,3-butadiene	U	90.9	ug/kg	30.3	90.9
107-12-0	Propionitrile	U	455	ug/kg	152	455
126-98-7	Methacrylonitrile	U	455	ug/kg	152	455
78-83-1	Isobutyl alcohol	U	4550	ug/kg	1520	4550
80-62-6	Methyl methacrylate	U	455	ug/kg	152	455
97-63-2	Ethyl methacrylate	U	455	ug/kg	152	455
76-01-7	Pentachloroethane	U	455	ug/kg	152	455
110-57-6	trans-1,4-Dichloro-2-butene	U	455	ug/kg	152	455
1330-20-7	Xylenes (total)	U	273	ug/kg	90.9	273
630-20-6	1,1,1,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
120-82-1	1,2,4-Trichlorobenzene	U	90.9	ug/kg	30.3	90.9

Quality Control Summary

Volatile
Surrogate Recovery Report

Page 1 of 1

SDG Number: 660771**Matrix Type: SOLID**

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1205692480	LCS for batch 2590953	105	103	102
1205692481	MB for batch 2590953	105	105	103
1205692482	HB for batch 2590953	108	D	107
660771001	12045.B1.Top Front.EPA	107	D	104
660771002	12045.B1.Middle Front.EPA	107	D	106
660771003	12045.B1.Bottom Front.EPA	108	D	104
660771004	12044.B1.Top Back.EPA	108	D	107
660771005	12044.B1.Middle Back.EPA	110	D	109
660771006	12044.B1.Bottom Back.EPA	106	D	104
660771007	12038.B2.Top Front.EPA	106	D	103
660771008	12038.B2.Middle Front.EPA	107	D	103
660771009	12038.B2.Bottom Front.EPA	107	D	109
660771010	12043.B2.Top Back.EPA	106	D	106
660771011	12043.B2.Middle Back.EPA	106	D	103
660771012	12043.B2.Bottom Back.EPA	107	D	104
660771013	12041.B3.Top Front.EPA	106	D	106
660771014	12041.B3.Middle Front.EPA	104	D	103
660771015	12041.B3.Bottom Front.EPA	108	D	111
660771016	12042.B3.Top Back.EPA	106	D	103
660771017	12042.B3.Middle Back.EPA	106	D	107
660771018	12042.B3.Bottom Back.EPA	107	D	104
1205692483	12045.B1.Top Front.EPAPS	106	D	106
1205692484	12045.B1.Top Front.EPAPSD	106	D	105

Surrogate**Acceptance Limits**

DCED4 = 1,2-Dichloroethane-d4

(77%-127%)

TOL = Toluene-d8

(81%-120%)

BFB = Bromofluorobenzene

(74%-128%)

* Recovery outside Acceptance Limits

Column to be used to flag recovery values

D Sample Diluted

Quality Control Summary
Spike Recovery Report

SDG Number: 660771

Client ID: LCS for batch 2590953

Lab Sample ID: 1205692480

Instrument: VOAC.I

Analvst: PXY1

Purge Vol: 5 mL

Sample Type: Laboratory Control Sample

Matrix: MISC SOLID

Analysis Date: 04/03/2024 08:28

Dilution: 1

Prep Batch ID:2590953

Batch ID: 2590956

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-05-8	LCS Acetonitrile	1250	0.0	1110	89	58-129
1330-20-7	LCS Xylenes (total)	150	0.0	128	85	70-121
67-64-1	LCS Acetone	250	0.0	213	85	62-136
74-88-4	LCS Iodomethane	250	0.0	208	83	67-124
75-15-0	LCS Carbon disulfide	250	0.0	239	95	64-135
108-05-4	LCS Vinyl acetate	250	0.0	271	108	63-132
78-93-3	LCS 2-Butanone	250	0.0	237	95	64-131
108-10-1	LCS 4-Methyl-2-pentanone	250	0.0	240	96	64-126
591-78-6	LCS 2-Hexanone	250	0.0	261	104	60-143
75-71-8	LCS Dichlorodifluoromethane	50.0	0.0	61.4	123	53-153
74-87-3	LCS Chloromethane	50.0	0.0	47.9	96	56-138
75-01-4	LCS Vinyl chloride	50.0	0.0	47.4	95	61-138
74-83-9	LCS Bromomethane	50.0	0.0	50.9	102	63-140
75-00-3	LCS Chloroethane	50.0	0.0	54.5	109	70-132
75-69-4	LCS Trichlorofluoromethane	50.0	0.0	55.6	111	64-133
75-35-4	LCS 1,1-Dichloroethylene	50.0	0.0	45.3	91	70-132
75-09-2	LCS Methylene chloride	50.0	0.0	41.1	82	65-118
156-60-5	LCS trans-1,2-Dichloroethylene	50.0	0.0	44.1	88	71-125
75-34-3	LCS 1,1-Dichloroethane	50.0	0.0	45.1	90	74-124
67-66-3	LCS Chloroform	50.0	0.0	44.4	89	72-122
71-55-6	LCS 1,1,1-Trichloroethane	50.0	0.0	43.7	87	67-132
56-23-5	LCS Carbon tetrachloride	50.0	0.0	45.2	90	66-134

Quality Control Summary
Spike Recovery Report

SDG Number: 660771

Client ID: LCS for batch 2590953

Lab Sample ID: 1205692480

Instrument: VOAC.I

Analvst: PXY1

Purge Vol: 5 mL

Sample Type: Laboratory Control Sample

Matrix: MISC SOLID

Analysis Date: 04/03/2024 08:28

Dilution: 1

Prep Batch ID:2590953

Batch ID: 2590956

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
107-06-2	LCS 1,2-Dichloroethane	50.0	0.0	44.3	89	62-128
71-43-2	LCS Benzene	50.0	0.0	42.4	85	73-126
79-01-6	LCS Trichloroethylene	50.0	0.0	42.3	85	72-123
78-87-5	LCS 1,2-Dichloropropane	50.0	0.0	44.8	90	72-120
74-95-3	LCS Dibromomethane	50.0	0.0	43.6	87	73-119
75-27-4	LCS Bromodichloromethane	50.0	0.0	44.6	89	71-126
10061-01-5	LCS cis-1,3-Dichloropropylene	50.0	0.0	43.5	87	70-124
108-88-3	LCS Toluene	50.0	0.0	44.0	88	70-120
10061-02-6	LCS trans-1,3-Dichloropropylene	50.0	0.0	46.0	92	69-120
79-00-5	LCS 1,1,2-Trichloroethane	50.0	0.0	47.4	95	70-115
127-18-4	LCS Tetrachloroethylene	50.0	0.0	41.9	84	68-126
124-48-1	LCS Dibromochloromethane	50.0	0.0	42.9	86	69-128
106-93-4	LCS 1,2-Dibromoethane	50.0	0.0	43.6	87	73-119
108-90-7	LCS Chlorobenzene	50.0	0.0	42.7	85	74-116
100-41-4	LCS Ethylbenzene	50.0	0.0	44.3	89	67-120
100-42-5	LCS Styrene	50.0	0.0	42.3	85	70-122
75-25-2	LCS Bromoform	50.0	0.0	44.8	90	62-132
79-34-5	LCS 1,1,2,2-Tetrachloroethane	50.0	0.0	48.1	96	66-120
96-18-4	LCS 1,2,3-Trichloropropane	50.0	0.0	47.3	95	69-119
96-12-8	LCS 1,2-Dibromo-3-chloropropane	50.0	0.0	41.6	83	57-133
120-82-1	LCS 1,2,4-Trichlorobenzene	50.0	0.0	39.7	79	68-123
630-20-6	LCS 1,1,1,2-Tetrachloroethane	50.0	0.0	41.5	83	71-123

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660771

Client ID: 12045.B1.Top Front.EPAPS

Lab Sample ID: 1205692483

Instrument: VOAC.I

Analvst: PXY1

Purge Vol: 5 mL

Sample Type: Post Spike

Matrix: MISC SOLID

Analysis Date: 04/03/2024 19:09

Dilution: 50

Prep Batch ID:2590953

Batch ID: 2590956

CAS No.	Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
75-05-8	PS Acetonitrile	1250	0.000 U	1050	84	45-132
1330-20-7	PS Xylenes (total)	150	0.000 U	127	85	45-128
67-64-1	PS Acetone	250	1.86 J	199	79	37-145
78-93-3	PS 2-Butanone	250	2.04 JB	230	91	42-135
74-88-4	PS Iodomethane	250	0.000 U	201	80	44-131
75-15-0	PS Carbon disulfide	250	0.000 U	228	91	48-136
108-05-4	PS Vinyl acetate	250	0.000 U	234	94	38-133
108-10-1	PS 4-Methyl-2-pentanone	250	0.000 U	232	93	51-131
591-78-6	PS 2-Hexanone	250	0.000 U	240	96	34-142
75-71-8	PS Dichlorodifluoromethane	50.0	0.000 U	57.6	115	39-162
74-87-3	PS Chloromethane	50.0	0.000 U	45.1	90	41-150
75-01-4	PS Vinyl chloride	50.0	0.000 U	44.1	88	46-150
74-83-9	PS Bromomethane	50.0	0.000 U	58.5	117	37-166
75-00-3	PS Chloroethane	50.0	0.000 U	49.9	100	51-133
75-69-4	PS Trichlorofluoromethane	50.0	0.000 U	51.1	102	47-134
75-35-4	PS 1,1-Dichloroethylene	50.0	0.000 U	44.1	88	50-139
75-09-2	PS Methylene chloride	50.0	0.000 U	39.9	80	54-122
156-60-5	PS trans-1,2-Dichloroethylene	50.0	0.000 U	43.8	88	52-130
75-34-3	PS 1,1-Dichloroethane	50.0	0.000 U	45.6	91	59-127
67-66-3	PS Chloroform	50.0	0.000 U	44.5	89	58-125
71-55-6	PS 1,1,1-Trichloroethane	50.0	0.000 U	41.6	83	54-136
56-23-5	PS Carbon tetrachloride	50.0	0.000 U	42.2	84	46-136

Quality Control Summary
Spike Recovery Report

SDG Number: 660771

Client ID: 12045.B1.Top Front.EPAPS

Lab Sample ID: 1205692483

Instrument: VOAC.I

Analvst: PXY1

Purge Vol: 5 mL

Sample Type: Post Spike

Matrix: MISC SOLID

Analysis Date: 04/03/2024 19:09

Dilution: 50

Prep Batch ID:2590953

Batch ID: 2590956

CAS No.		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
107-06-2	PS	1,2-Dichloroethane	50.0	0.000	U	44.3	89	54-128
71-43-2	PS	Benzene	50.0	0.000	U	41.5	83	57-131
79-01-6	PS	Trichloroethylene	50.0	0.000	U	41.4	83	48-134
78-87-5	PS	1,2-Dichloropropane	50.0	0.000	U	43.8	88	55-122
74-95-3	PS	Dibromomethane	50.0	0.000	U	42.2	84	57-122
75-27-4	PS	Bromodichloromethane	50.0	0.000	U	43.4	87	52-128
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.000	U	41.4	83	46-125
108-88-3	PS	Toluene	50.0	0.000	U	44.8	90	52-124
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.000	U	45.8	92	45-131
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.000	U	44.6	89	55-127
127-18-4	PS	Tetrachloroethylene	50.0	0.000	U	40.6	81	43-131
124-48-1	PS	Dibromochloromethane	50.0	0.000	U	41.9	84	51-128
106-93-4	PS	1,2-Dibromoethane	50.0	0.000	U	43.3	87	53-126
108-90-7	PS	Chlorobenzene	50.0	0.000	U	42.6	85	47-124
100-41-4	PS	Ethylbenzene	50.0	0.000	U	43.6	87	44-124
100-42-5	PS	Styrene	50.0	0.000	U	41.4	83	40-127
75-25-2	PS	Bromoform	50.0	0.000	U	42.3	85	48-132
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.000	U	47.4	95	48-128
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.000	U	46.4	93	56-130
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.000	U	40.2	80	38-138
120-82-1	PS	1,2,4-Trichlorobenzene	50.0	0.000	U	40.1	80	29-139
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.000	U	42.7	85	50-126

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660771

Client ID: 12045.B1.Top Front.EPAPSD

Lab Sample ID: 1205692484

Instrument: VOAC.I

Analvst: PXY1

Purge Vol: 5 mL

Sample Type: Post Spike Duplicate

Matrix: MISC SOLID

Analysis Date: 04/03/2024 19:37

Dilution: 50

Prep Batch ID:2590953

Batch ID: 2590956

CAS No.	Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits	Acceptance RPD %	Acceptance Limits
75-05-8	PSD Acetonitrile	1250	0.000 U	1020	81	45-132	4	0-20
1330-20-7	PSD Xylenes (total)	150	0.000 U	104	69	45-128	20	0-20
67-64-1	PSD Acetone	250	1.86 J	190	75	37-145	5	0-20
78-93-3	PSD 2-Butanone	250	2.04 JB	224	89	42-135	3	0-20
74-88-4	PSD Iodomethane	250	0.000 U	192	77	44-131	5	0-20
75-15-0	PSD Carbon disulfide	250	0.000 U	212	85	48-136	7	0-20
108-05-4	PSD Vinyl acetate	250	0.000 U	245	98	38-133	5	0-20
108-10-1	PSD 4-Methyl-2-pentanone	250	0.000 U	225	90	51-131	3	0-20
591-78-6	PSD 2-Hexanone	250	0.000 U	235	94	34-142	2	0-20
75-71-8	PSD Dichlorodifluoromethane	50.0	0.000 U	56.8	114	39-162	1	0-20
74-87-3	PSD Chloromethane	50.0	0.000 U	44.6	89	41-150	1	0-20
75-01-4	PSD Vinyl chloride	50.0	0.000 U	43.5	87	46-150	1	0-20
74-83-9	PSD Bromomethane	50.0	0.000 U	56.2	112	37-166	4	0-20
75-00-3	PSD Chloroethane	50.0	0.000 U	49.6	99	51-133	1	0-20
75-69-4	PSD Trichlorofluoromethane	50.0	0.000 U	49.9	100	47-134	2	0-20
75-35-4	PSD 1,1-Dichloroethylene	50.0	0.000 U	41.6	83	50-139	6	0-20
75-09-2	PSD Methylene chloride	50.0	0.000 U	37.6	75	54-122	6	0-20
156-60-5	PSD trans-1,2-Dichloroethylene	50.0	0.000 U	41.4	83	52-130	6	0-20
75-34-3	PSD 1,1-Dichloroethane	50.0	0.000 U	43.7	87	59-127	4	0-20
67-66-3	PSD Chloroform	50.0	0.000 U	42.3	85	58-125	5	0-20
71-55-6	PSD 1,1,1-Trichloroethane	50.0	0.000 U	39.5	79	54-136	5	0-20
56-23-5	PSD Carbon tetrachloride	50.0	0.000 U	40.1	80	46-136	5	0-20

Quality Control Summary
Spike Recovery Report

SDG Number: 660771

Client ID: 12045.B1.Top Front.EPAPSD

Lab Sample ID: 1205692484

Instrument: VOAC.I

Analvst: PXY1

Purge Vol: 5 mL

Sample Type: Post Spike Duplicate

Matrix: MISC SOLID

Analysis Date: 04/03/2024 19:37

Dilution: 50

Prep Batch ID:2590953

Batch ID: 2590956

CAS No.	Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits	Acceptance RPD %	Acceptance Limits
107-06-2	PSD 1,2-Dichloroethane	50.0	0.000 U	42.8	86	54-128	3	0-20
71-43-2	PSD Benzene	50.0	0.000 U	38.9	78	57-131	6	0-20
79-01-6	PSD Trichloroethylene	50.0	0.000 U	37.3	75	48-134	10	0-20
78-87-5	PSD 1,2-Dichloropropane	50.0	0.000 U	41.8	84	55-122	5	0-20
74-95-3	PSD Dibromomethane	50.0	0.000 U	40.4	81	57-122	4	0-20
75-27-4	PSD Bromodichloromethane	50.0	0.000 U	41.0	82	52-128	6	0-20
10061-01-5	PSD cis-1,3-Dichloropropylene	50.0	0.000 U	38.8	78	46-125	6	0-20
108-88-3	PSD Toluene	50.0	0.000 U	39.6	79	52-124	12	0-20
10061-02-6	PSD trans-1,3-Dichloropropylene	50.0	0.000 U	43.1	86	45-131	6	0-20
79-00-5	PSD 1,1,2-Trichloroethane	50.0	0.000 U	42.5	85	55-127	5	0-20
127-18-4	PSD Tetrachloroethylene	50.0	0.000 U	34.6	69	43-131	16	0-20
124-48-1	PSD Dibromochloromethane	50.0	0.000 U	39.6	79	51-128	6	0-20
106-93-4	PSD 1,2-Dibromoethane	50.0	0.000 U	41.1	82	53-126	5	0-20
108-90-7	PSD Chlorobenzene	50.0	0.000 U	36.7	73	47-124	15	0-20
100-41-4	PSD Ethylbenzene	50.0	0.000 U	36.0	72	44-124	19	0-20
100-42-5	PSD Styrene	50.0	0.000 U	34.5	69	40-127	18	0-20
75-25-2	PSD Bromoform	50.0	0.000 U	38.8	78	48-132	8	0-20
79-34-5	PSD 1,1,2,2-Tetrachloroethane	50.0	0.000 U	44.6	89	48-128	6	0-20
96-18-4	PSD 1,2,3-Trichloropropane	50.0	0.000 U	43.5	87	56-130	6	0-20
96-12-8	PSD 1,2-Dibromo-3-chloropropane	50.0	0.000 U	37.3	75	38-138	7	0-20
120-82-1	PSD 1,2,4-Trichlorobenzene	50.0	0.000 U	30.8	62	29-139	26 *	0-20
630-20-6	PSD 1,1,1,2-Tetrachloroethane	50.0	0.000 U	39.2	78	50-126	9	0-20

Method Blank Summary

Page 1 of 1

SDG Number:	660771	Client:	PERM001	Matrix:	MISC SOLID
Client ID:	MB for batch 2590953	Instrument ID:	VOAC.I	Data File:	data\040324VC\CA305P.D
Lab Sample ID:	1205692481	Prep Date:	04/03/2024 07:01	Analyzed:	04/03/24 09:52
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 2590953	1205692480	data\040324VC\CA302P.D	04/03/24	0828
02 HB for batch 2590953	1205692482	data\040324VC\CA306.D	04/03/24	1020
03 12045.B1.Top Front.EPA	660771001	data\040324VC\CA307.D	04/03/24	1047
04 12045.B1.Middle Front.EPA	660771002	data\040324VC\CA308.D	04/03/24	1115
05 12045.B1.Bottom Front.EPA	660771003	data\040324VC\CA309.D	04/03/24	1143
06 12044.B1.Top Back.EPA	660771004	data\040324VC\CA310.D	04/03/24	1211
07 12044.B1.Middle Back.EPA	660771005	data\040324VC\CA311.D	04/03/24	1239
08 12044.B1.Bottom Back.EPA	660771006	data\040324VC\CA312.D	04/03/24	1307
09 12038.B2.Top Front.EPA	660771007	data\040324VC\CA313.D	04/03/24	1334
10 12038.B2.Middle Front.EPA	660771008	data\040324VC\CA314.D	04/03/24	1402
11 12038.B2.Bottom Front.EPA	660771009	data\040324VC\CA315.D	04/03/24	1430
12 12043.B2.Top Back.EPA	660771010	data\040324VC\CA316.D	04/03/24	1458
13 12043.B2.Middle Back.EPA	660771011	data\040324VC\CA317.D	04/03/24	1526
14 12043.B2.Bottom Back.EPA	660771012	data\040324VC\CA318.D	04/03/24	1554
15 12041.B3.Top Front.EPA	660771013	data\040324VC\CA319.D	04/03/24	1621
16 12041.B3.Middle Front.EPA	660771014	data\040324VC\CA320.D	04/03/24	1649
17 12041.B3.Bottom Front.EPA	660771015	data\040324VC\CA321.D	04/03/24	1717
18 12042.B3.Top Back.EPA	660771016	data\040324VC\CA322.D	04/03/24	1745
19 12042.B3.Middle Back.EPA	660771017	data\040324VC\CA323.D	04/03/24	1813
20 12042.B3.Bottom Back.EPA	660771018	data\040324VC\CA324.D	04/03/24	1841
21 12045.B1.Top Front.EPAPS	1205692483	data\040324VC\CA325.D	04/03/24	1909
22 12045.B1.Top Front.EPAPSD	1205692484	data\040324VC\CA326.D	04/03/24	1937

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC

Client SDG: 660771

Instrument ID: VOAC.I

Injection Date/Time: 18-MAR-24 11:14

Column Description: DB-624

Lab File ID data\031824VC_ICAL\CY101.D

m/e	Ion Abundance Criteria	% Relative Abundance
95	50 - 200% of mass 174	141.6
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	1.5
174	50 - 200% of mass 95	70.6
175	5.0 - 9.0% of mass 174	8.6
176	95.0 - 105.0% of mass 174	98.3
177	5.0 - 10.0% of mass 176	6.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	WCVM240318-01	data\031824VC_ICAL\CY102.D	18-MAR-24 11:39
ICALMIX[A]	WCVM240318-02	data\031824VC_ICAL\CY103.D	18-MAR-24 12:07
ICALMIX[A]	WCVM240318-03	data\031824VC_ICAL\CY104.D	18-MAR-24 12:35
ICALMIX[A]	WCVM240318-04	data\031824VC_ICAL\CY105.D	18-MAR-24 13:03
ICALMIX[A]	WCVM240318-05	data\031824VC_ICAL\CY106.D	18-MAR-24 13:31
ICALMIX[A]	WCVM240318-06	data\031824VC_ICAL\CY107.D	18-MAR-24 13:59
ICALMIX[A]	WCVM240318-07	data\031824VC_ICAL\CY108.D	18-MAR-24 14:26
ICALMIX[A]	WCVM240318-08	data\031824VC_ICAL\CY109.D	18-MAR-24 14:54
ICALMIX[A]	WCVM240318-09	data\031824VC_ICAL\CY110.D	18-MAR-24 15:22
ICVMIX[A]01	WCVM240318-10	data\031824VC_ICAL\CY112.D	18-MAR-24 16:17
ICALMIX[B]	WCVM240318-11	data\031824VC_ICAL\CY113.D	18-MAR-24 16:45
ICALMIX[B]	WCVM240318-12	data\031824VC_ICAL\CY114.D	18-MAR-24 17:13
ICALMIX[B]	WCVM240318-13	data\031824VC_ICAL\CY115.D	18-MAR-24 17:41
ICALMIX[B]	WCVM240318-14	data\031824VC_ICAL\CY116.D	18-MAR-24 18:08
ICALMIX[B]	WCVM240318-15	data\031824VC_ICAL\CY117.D	18-MAR-24 18:36
ICALMIX[B]	WCVM240318-16	data\031824VC_ICAL\CY118.D	18-MAR-24 19:04
ICALMIX[B]	WCVM240318-17	data\031824VC_ICAL\CY119.D	18-MAR-24 19:32
ICALMIX[B]	WCVM240318-18	data\031824VC_ICAL\CY120.D	18-MAR-24 20:00
ICVMIX[B]02	WCVM240318-19	data\031824VC_ICAL\CY122.D	18-MAR-24 20:56
CCVMIX[A]01	WCVM240403-01	data\040324VC\CA302.D	03-APR-24 08:28

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC

Client SDG: 660771

Instrument ID: VOAC.I

Injection Date/Time: 18-MAR-24 11:14

Column Description: DB-624

Lab File ID data\031824VC_ICAL\CY101.D

m/e	Ion Abundance Criteria	% Relative Abundance
95	50 - 200% of mass 174	141.6
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	1.5
174	50 - 200% of mass 95	70.6
175	5.0 - 9.0% of mass 174	8.6
176	95.0 - 105.0% of mass 174	98.3
177	5.0 - 10.0% of mass 176	6.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
BLK01LCS	1205692480	data\040324VC\CA302P.D	03-APR-24 08:28
CCVMIX[B]02	WCVM240403-02	data\040324VC\CA303.D	03-APR-24 08:56
BLK01	1205692481	data\040324VC\CA305P.D	03-APR-24 09:52
HBLK01	1205692482	data\040324VC\CA306.D	03-APR-24 10:20
12045.B1.Top Front.EPA	660771001	data\040324VC\CA307.D	03-APR-24 10:47
12045.B1.Middle Front.EPA	660771002	data\040324VC\CA308.D	03-APR-24 11:15
12045.B1.Bottom Front.EPA	660771003	data\040324VC\CA309.D	03-APR-24 11:43
12044.B1.Top Back.EPA	660771004	data\040324VC\CA310.D	03-APR-24 12:11
12044.B1.Middle Back.EPA	660771005	data\040324VC\CA311.D	03-APR-24 12:39
12044.B1.Bottom Back.EPA	660771006	data\040324VC\CA312.D	03-APR-24 13:07
12038.B2.Top Front.EPA	660771007	data\040324VC\CA313.D	03-APR-24 13:34
12038.B2.Middle Front.EPA	660771008	data\040324VC\CA314.D	03-APR-24 14:02
12038.B2.Bottom Front.EPA	660771009	data\040324VC\CA315.D	03-APR-24 14:30
12043.B2.Top Back.EPA	660771010	data\040324VC\CA316.D	03-APR-24 14:58
12043.B2.Middle Back.EPA	660771011	data\040324VC\CA317.D	03-APR-24 15:26
12043.B2.Bottom Back.EPA	660771012	data\040324VC\CA318.D	03-APR-24 15:54
12041.B3.Top Front.EPA	660771013	data\040324VC\CA319.D	03-APR-24 16:21
12041.B3.Middle Front.EPA	660771014	data\040324VC\CA320.D	03-APR-24 16:49
12041.B3.Bottom Front.EPA	660771015	data\040324VC\CA321.D	03-APR-24 17:17
12042.B3.Top Back.EPA	660771016	data\040324VC\CA322.D	03-APR-24 17:45

Instrument Performance Check
BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC**Client SDG:** 660771**Instrument ID:** VOAC.I**Injection Date/Time:** 18-MAR-24 11:14**Column Description:** DB-624**Lab File ID** data\031824VC_ICAL\CY101.D

m/e	Ion Abundance Criteria	% Relative Abundance
95	50 - 200% of mass 174	141.6
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	1.5
174	50 - 200% of mass 95	70.6
175	5.0 -9.0% of mass 174	8.6
176	95.0 - 105.0% of mass 174	98.3
177	5.0 - 10.0% of mass 176	6.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
12042.B3.Middle Back.EPA	660771017	data\040324VC\CA323.D	03-APR-24 18:13
12042.B3.Bottom Back.EPA	660771018	data\040324VC\CA324.D	03-APR-24 18:41
12045.B1.Top Front.EPAMS	1205692483	data\040324VC\CA325.D	03-APR-24 19:09
12045.B1.Top Front.EPAMSD	1205692484	data\040324VC\CA326.D	03-APR-24 19:37

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 660771

Instrument: VOAC.I

STD Analysis Time: 03-APR-24 08:28

GC Column: DB-624

Data File: data\040324VC\CA302.D

	Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
	Area	# RT #	Area	# RT #	Area	# RT #
12 Hour STD Upper Limit Lower Limit	927614	10.93	728626	14.35	373766	16.93
	1855228	11.43	1457252	14.85	747532	17.43
	463807	10.43	364313	13.85	186883	16.43
Sample ID						
BLK01LCS	927614	10.9	728626	14.4	373766	16.9
BLK01	947529	10.9	686126	14.4	356954	16.9
HBLK01	936407	10.9	670130	14.4	342617	16.9
I2045.B1.Top Front.EPA	988255	10.9	712137	14.3	372992	16.9
I2045.B1.Middle Front.EPA	952700	10.9	682472	14.3	353180	16.9
I2045.B1.Bottom Front.EPA	940416	10.9	673436	14.3	354759	16.9
I2044.B1.Top Back.EPA	956429	10.9	685057	14.3	350015	16.9
I2044.B1.Middle Back.EPA	938636	10.9	672458	14.3	344013	16.9
I2044.B1.Bottom Back.EPA	965322	10.9	686556	14.3	358652	16.9
I2038.B2.Top Front.EPA	970048	10.9	689921	14.3	355885	16.9
I2038.B2.Middle Front.EPA	935833	10.9	674708	14.3	353119	16.9
I2038.B2.Bottom Front.EPA	970236	10.9	689616	14.3	348977	16.9
I2043.B2.Top Back.EPA	980299	10.9	695218	14.3	350224	16.9
I2043.B2.Middle Back.EPA	988212	10.9	706539	14.3	364235	16.9
I2043.B2.Bottom Back.EPA	981975	10.9	698004	14.3	362578	16.9
I2041.B3.Top Front.EPA	986243	10.9	705589	14.3	359402	16.9
I2041.B3.Middle Front.EPA	994664	10.9	711926	14.3	366831	16.9
I2041.B3.Bottom Front.EPA	951736	10.9	682430	14.3	341654	16.9
I2042.B3.Top Back.EPA	960587	10.9	687744	14.3	355243	16.9
I2042.B3.Middle Back.EPA	982105	10.9	697576	14.3	354074	16.9
I2042.B3.Bottom Back.EPA	992127	10.9	710850	14.3	364283	16.9
I2045.B1.Top Front.EPAMS	984408	10.9	718690	14.3	362268	16.9
I2045.B1.Top Front.EPAMSD	998494	10.9	729438	14.3	374597	16.9

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatiles
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:30	Matrix:	MISC SOLID
Lab Sample ID:	660771001	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Top Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 10:47	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:51	Aliquot:	5.7 g	Final Volume:	10 mL
Data File:	data\040324VC\CA307.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	87.7	ug/kg	29.2	87.7
74-87-3	Chloromethane	U	87.7	ug/kg	29.2	87.7
75-01-4	Vinyl chloride	U	87.7	ug/kg	29.2	87.7
74-83-9	Bromomethane	U	87.7	ug/kg	29.2	87.7
75-00-3	Chloroethane	U	87.7	ug/kg	29.2	87.7
75-69-4	Trichlorofluoromethane	U	87.7	ug/kg	29.2	87.7
67-64-1	Acetone	J	163	ug/kg	146	439
75-35-4	1,1-Dichloroethylene	U	87.7	ug/kg	29.2	87.7
74-88-4	Iodomethane	U	439	ug/kg	146	439
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	439	ug/kg	146	439
75-05-8	Acetonitrile	U	2190	ug/kg	731	2190
75-15-0	Carbon disulfide	U	439	ug/kg	146	439
75-09-2	Methylene chloride	U	439	ug/kg	146	439
156-60-5	trans-1,2-Dichloroethylene	U	87.7	ug/kg	29.2	87.7
108-05-4	Vinyl acetate	U	439	ug/kg	146	439
75-34-3	1,1-Dichloroethane	U	87.7	ug/kg	29.2	87.7
78-93-3	2-Butanone	JB	179	ug/kg	146	439
67-66-3	Chloroform	U	87.7	ug/kg	29.2	87.7
71-55-6	1,1,1-Trichloroethane	U	87.7	ug/kg	29.2	87.7
56-23-5	Carbon tetrachloride	U	87.7	ug/kg	29.2	87.7
107-06-2	1,2-Dichloroethane	U	87.7	ug/kg	29.2	87.7
71-43-2	Benzene	U	87.7	ug/kg	29.2	87.7
79-01-6	Trichloroethylene	U	87.7	ug/kg	29.2	87.7
78-87-5	1,2-Dichloropropane	U	87.7	ug/kg	29.2	87.7
74-95-3	Dibromomethane	U	87.7	ug/kg	29.2	87.7
75-27-4	Bromodichloromethane	U	87.7	ug/kg	29.2	87.7
10061-01-5	cis-1,3-Dichloropropylene	U	87.7	ug/kg	29.2	87.7
108-10-1	4-Methyl-2-pentanone	U	439	ug/kg	146	439
108-88-3	Toluene	U	87.7	ug/kg	29.2	87.7
10061-02-6	trans-1,3-Dichloropropylene	U	87.7	ug/kg	29.2	87.7
79-00-5	1,1,2-Trichloroethane	U	87.7	ug/kg	29.2	87.7
591-78-6	2-Hexanone	U	439	ug/kg	146	439
127-18-4	Tetrachloroethylene	U	87.7	ug/kg	29.2	87.7
124-48-1	Dibromochloromethane	U	87.7	ug/kg	29.2	87.7
106-93-4	1,2-Dibromoethane	U	87.7	ug/kg	29.2	87.7
108-90-7	Chlorobenzene	U	87.7	ug/kg	29.2	87.7
100-41-4	Ethylbenzene	U	87.7	ug/kg	29.2	87.7
100-42-5	Styrene	U	87.7	ug/kg	29.2	87.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771001

Client ID: 12045.B1.Top Front.EPA

Batch ID: 2590956

Run Date: 04/03/2024 10:47

Prep Date: 04/03/2024 07:51

Data File: data\040324VC\CA307.D

Date Collected: 03/27/2024 08:30

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 8260D

Inst: VOAC.I

Analyst: PXY1

Aliquot: 5.7 g

Column: DB-624

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-038

Dilution: 50

Purge Vol: 5 mL

Final Volume: 10 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	87.7	ug/kg	29.2	87.7
79-34-5	1,1,2,2-Tetrachloroethane	U	87.7	ug/kg	29.2	87.7
96-18-4	1,2,3-Trichloropropane	U	87.7	ug/kg	29.2	87.7
96-12-8	1,2-Dibromo-3-chloropropane	U	87.7	ug/kg	43.9	87.7
107-02-8	Acrolein	U	439	ug/kg	146	439
107-05-1	Allyl chloride	U	439	ug/kg	146	439
107-13-1	Acrylonitrile	U	439	ug/kg	146	439
126-99-8	2-Chloro-1,3-butadiene	U	87.7	ug/kg	29.2	87.7
107-12-0	Propionitrile	U	439	ug/kg	146	439
126-98-7	Methacrylonitrile	U	439	ug/kg	146	439
78-83-1	Isobutyl alcohol	U	4390	ug/kg	1460	4390
80-62-6	Methyl methacrylate	U	439	ug/kg	146	439
97-63-2	Ethyl methacrylate	U	439	ug/kg	146	439
76-01-7	Pentachloroethane	U	439	ug/kg	146	439
110-57-6	trans-1,4-Dichloro-2-butene	U	439	ug/kg	146	439
1330-20-7	Xylenes (total)	U	263	ug/kg	87.7	263
630-20-6	1,1,1,2-Tetrachloroethane	U	87.7	ug/kg	29.2	87.7
120-82-1	1,2,4-Trichlorobenzene	U	87.7	ug/kg	29.2	87.7

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA307.D
Acq On : 03 Apr 2024 10:47
Operator : PXY1
InstName : VOAC
Sample : |660771001|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.7G/100UL N/A SOIL
ALS Vial : 7 Sample Multiplier: 1

MA
04/04/2024

Quant Time: Apr 03 13:10:10 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.921	10.934	1.000	988255	50.00	ug/L	-0.01
43) Chlorobenzene-d5	117	14.341	14.354	1.000	712137	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.914	16.933	1.000	372992	50.00	ug/L	-0.02
84) B Fluorobenzene	96	10.921	10.928	1.000	987893	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.341	14.348	1.000	711920	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.914	16.920	1.000	373210	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.531	10.543	0.964	319843	53.45	ug/L	-0.01
45) Toluene-d8	98	12.701	12.714	0.886	986016	53.59	ug/L	-0.01
63) Bromofluorobenzene	95	15.610	15.622	0.923	334181	52.00	ug/L	-0.01

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	107%
45) Toluene-d8	50.000	81 - 120	107%
63) Bromofluorobenzene	50.000	74 - 128	104%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.367	7.367	0.675	2463	1.86	ug/L	83
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.739	7.739	0.709	211	N.D.		
13) Methyl acetate	43	7.782	7.794	0.713	710	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.983	8.001	0.731	4977	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.672	8.690	0.794	4584	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.519	9.525	0.872	3826	2.04	ug/L	84
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.641	10.665	0.974	635	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA307.D
Acq On : 03 Apr 2024 10:47
Operator : PXY1
InstName : VOAC
Sample : |660771001|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.7G/100UL N/A SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 03 13:10:10 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.421	11.434	1.046	705	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.793	12.793	0.892	799	N.D.	
47) trans-1,3-Dichloroprop...	75	12.951	12.952	0.903	123	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene	164	13.421	13.439	0.936	410	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene	112	14.372	14.390	1.002	119	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.439	14.457	1.007	1102	N.D.	
57) m,p-Xylenes	106	14.561	14.573	1.015	2399	N.D.	
58) o-Xylene	91	15.018	15.037	1.047	1303	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.610	15.695	0.923	138	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene	91	15.847	15.866	0.937	186	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.445	16.463	0.972	408	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene	119	16.780	16.792	0.992	126	N.D.	
75) 1,3-Dichlorobenzene	146	16.853	16.865	0.996	119	N.D.	
76) 1,4-Dichlorobenzene	146	16.945	16.957	1.002	285	N.D.	
77) n-Butylbenzene	91	17.262	17.280	1.021	119	N.D.	
78) 1,2-Dichlorobenzene	146	17.420	17.432	1.030	30070	2.92 ug/L	99
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	19.560	19.578	1.156	197	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.993	20.017	1.182	2709	N.D.	
83) 1,2,3-Trichlorobenzene	180	20.383	20.401	1.205	119	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA307.D
Acq On : 03 Apr 2024 10:47
Operator : PXY1
InstName : VOAC
Sample : |660771001|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.7G/100UL N/A SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 03 13:10:10 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

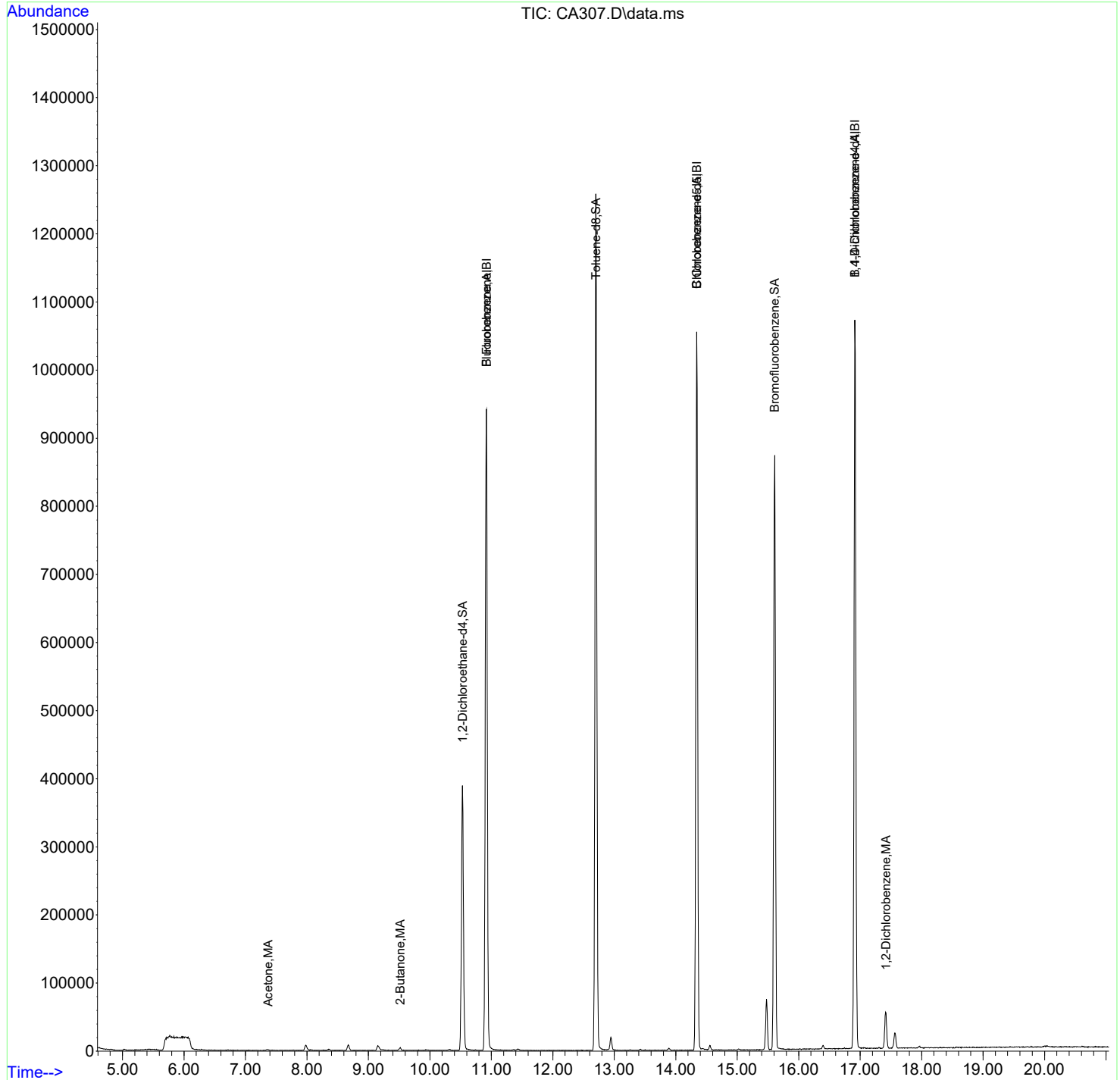
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.434	7.440	0.681	461	N.D.	
88) Allyl chloride	41	7.983	7.843	0.731	215	N.D.	
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	117	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.519	9.531	0.872	3826	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.934	9.940	0.910	615	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride	91	17.067	17.073	1.009	1080	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.560	17.506	1.038	1299	N.D.	

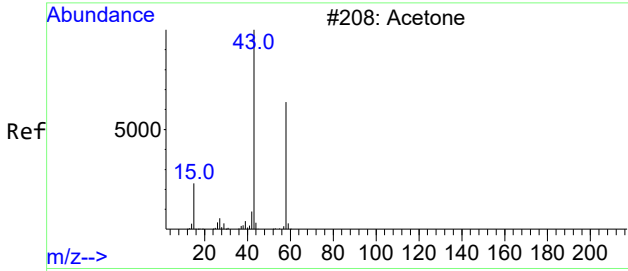
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA307.D
Acq On : 03 Apr 2024 10:47
Operator : PXY1
InstName : VOAC
Sample : |660771001|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.7G/100UL N/A SOIL
ALS Vial : 7 Sample Multiplier: 1

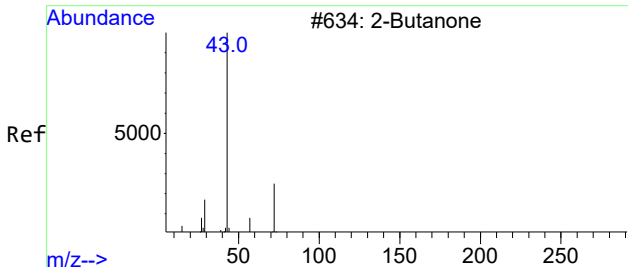
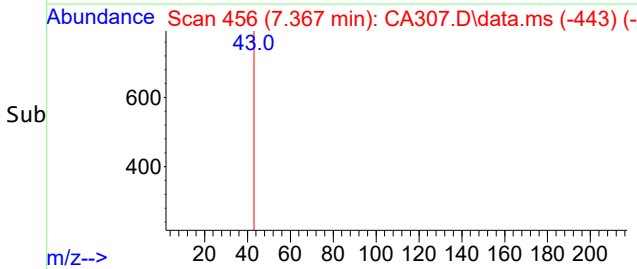
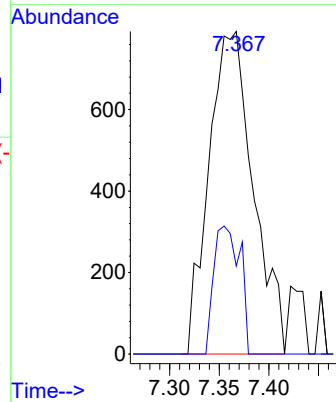
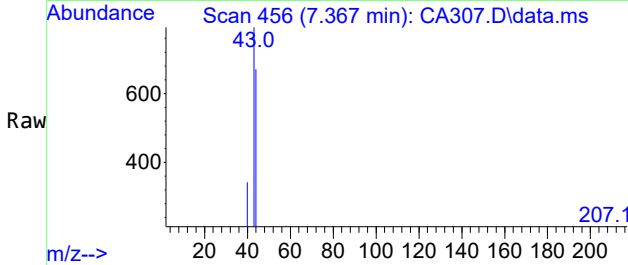
Quant Time: Apr 03 13:10:10 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





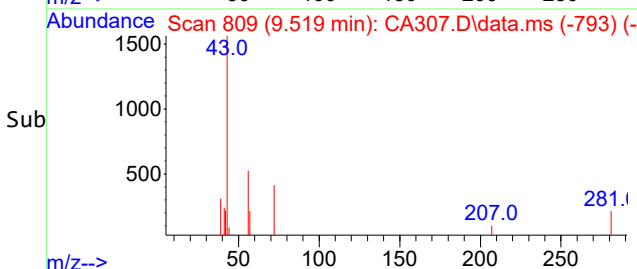
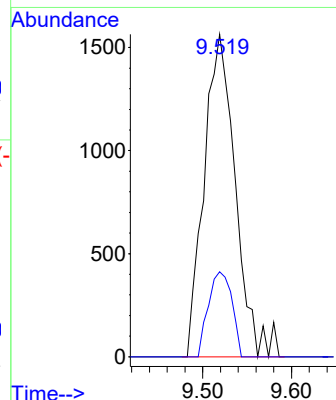
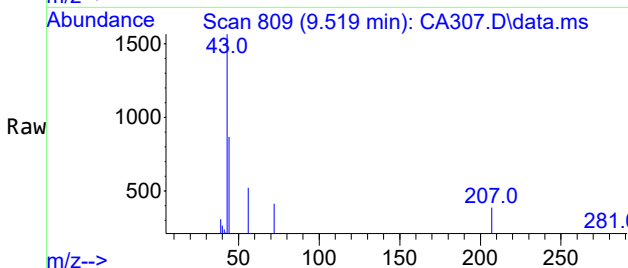
#9
Acetone
Concen: 1.86 ug/L
RT: 7.367 min Scan# 456
Delta R.T. 0.000 min
Lab File: CA307.D
Acq: 03 Apr 2024 10:47

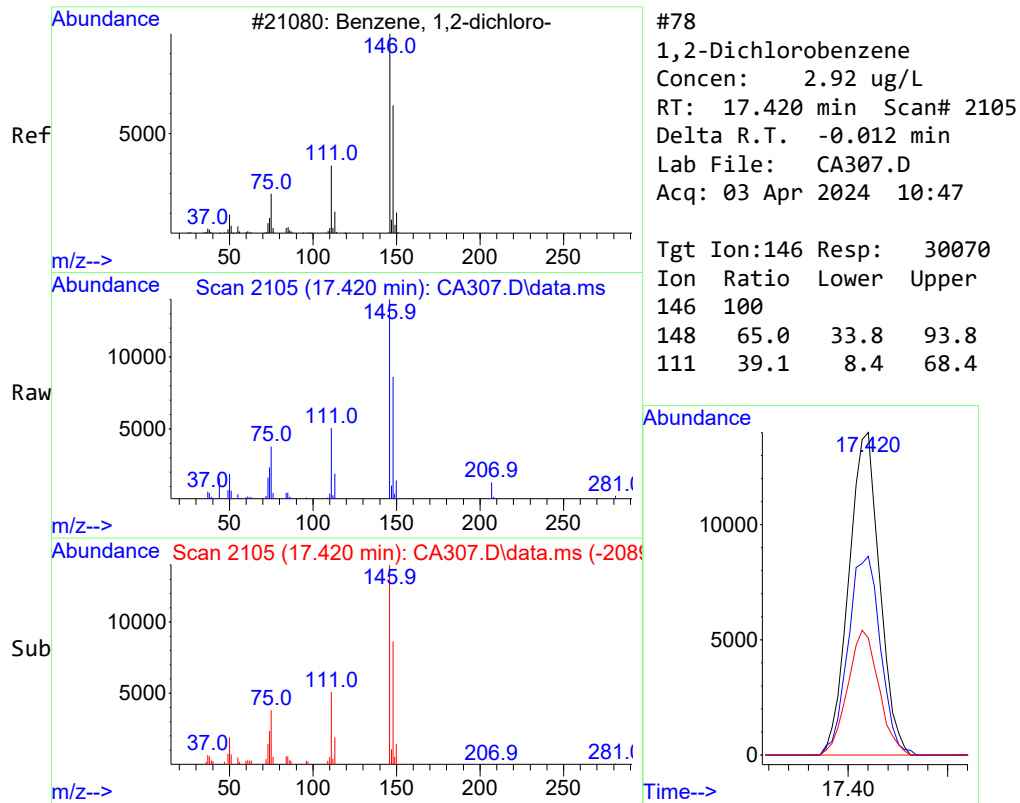
Tgt Ion: 43 Resp: 2463
Ion Ratio Lower Upper
43 100
58 23.3 2.6 62.6



#21
2-Butanone
Concen: 2.04 ug/L
RT: 9.519 min Scan# 809
Delta R.T. -0.006 min
Lab File: CA307.D
Acq: 03 Apr 2024 10:47

Tgt Ion: 43 Resp: 3826
Ion Ratio Lower Upper
43 100
72 19.8 0.0 58.1





Volatile

Certificate of Analysis

Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:40	Matrix:	MISC SOLID
Lab Sample ID:	660771002	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Middle Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 11:15	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:52	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA308.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	90.9	ug/kg	30.3	90.9
74-87-3	Chloromethane	U	90.9	ug/kg	30.3	90.9
75-01-4	Vinyl chloride	U	90.9	ug/kg	30.3	90.9
74-83-9	Bromomethane	U	90.9	ug/kg	30.3	90.9
75-00-3	Chloroethane	U	90.9	ug/kg	30.3	90.9
75-69-4	Trichlorofluoromethane	U	90.9	ug/kg	30.3	90.9
67-64-1	Acetone	J	389	ug/kg	152	455
75-35-4	1,1-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
74-88-4	Iodomethane	U	455	ug/kg	152	455
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	455	ug/kg	152	455
75-05-8	Acetonitrile	U	2270	ug/kg	758	2270
75-15-0	Carbon disulfide	U	455	ug/kg	152	455
75-09-2	Methylene chloride	U	455	ug/kg	152	455
156-60-5	trans-1,2-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
108-05-4	Vinyl acetate	U	455	ug/kg	152	455
75-34-3	1,1-Dichloroethane	U	90.9	ug/kg	30.3	90.9
78-93-3	2-Butanone	U	455	ug/kg	152	455
67-66-3	Chloroform	U	90.9	ug/kg	30.3	90.9
71-55-6	1,1,1-Trichloroethane	U	90.9	ug/kg	30.3	90.9
56-23-5	Carbon tetrachloride	U	90.9	ug/kg	30.3	90.9
107-06-2	1,2-Dichloroethane	U	90.9	ug/kg	30.3	90.9
71-43-2	Benzene	U	90.9	ug/kg	30.3	90.9
79-01-6	Trichloroethylene	U	90.9	ug/kg	30.3	90.9
78-87-5	1,2-Dichloropropane	U	90.9	ug/kg	30.3	90.9
74-95-3	Dibromomethane	U	90.9	ug/kg	30.3	90.9
75-27-4	Bromodichloromethane	U	90.9	ug/kg	30.3	90.9
10061-01-5	cis-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
108-10-1	4-Methyl-2-pentanone	U	455	ug/kg	152	455
108-88-3	Toluene	U	90.9	ug/kg	30.3	90.9
10061-02-6	trans-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
79-00-5	1,1,2-Trichloroethane	U	90.9	ug/kg	30.3	90.9
591-78-6	2-Hexanone	U	455	ug/kg	152	455
127-18-4	Tetrachloroethylene	U	90.9	ug/kg	30.3	90.9
124-48-1	Dibromochloromethane	U	90.9	ug/kg	30.3	90.9
106-93-4	1,2-Dibromoethane	U	90.9	ug/kg	30.3	90.9
108-90-7	Chlorobenzene	U	90.9	ug/kg	30.3	90.9
100-41-4	Ethylbenzene	U	90.9	ug/kg	30.3	90.9
100-42-5	Styrene	U	90.9	ug/kg	30.3	90.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:40	Matrix:	MISC SOLID
Lab Sample ID:	660771002	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Middle Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 11:15	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:52	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA308.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	90.9	ug/kg	30.3	90.9
79-34-5	1,1,2,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
96-18-4	1,2,3-Trichloropropane	U	90.9	ug/kg	30.3	90.9
96-12-8	1,2-Dibromo-3-chloropropane	U	90.9	ug/kg	45.5	90.9
107-02-8	Acrolein	U	455	ug/kg	152	455
107-05-1	Allyl chloride	U	455	ug/kg	152	455
107-13-1	Acrylonitrile	U	455	ug/kg	152	455
126-99-8	2-Chloro-1,3-butadiene	U	90.9	ug/kg	30.3	90.9
107-12-0	Propionitrile	U	455	ug/kg	152	455
126-98-7	Methacrylonitrile	U	455	ug/kg	152	455
78-83-1	Isobutyl alcohol	U	4550	ug/kg	1520	4550
80-62-6	Methyl methacrylate	U	455	ug/kg	152	455
97-63-2	Ethyl methacrylate	U	455	ug/kg	152	455
76-01-7	Pentachloroethane	U	455	ug/kg	152	455
110-57-6	trans-1,4-Dichloro-2-butene	U	455	ug/kg	152	455
1330-20-7	Xylenes (total)	U	273	ug/kg	90.9	273
630-20-6	1,1,1,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
120-82-1	1,2,4-Trichlorobenzene	U	90.9	ug/kg	30.3	90.9

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA308.D
Acq On : 03 Apr 2024 11:15
Operator : PXY1
InstName : VOAC
Sample : |660771002|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 8 Sample Multiplier: 1

MA

04/04/2024

Quant Time: Apr 03 13:10:58 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.915	10.934	1.000	952700	50.00	ug/L	-0.02
43) Chlorobenzene-d5	117	14.341	14.354	1.000	682472	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.914	16.933	1.000	353180	50.00	ug/L	-0.02
84) B Fluorobenzene	96	10.915	10.928	1.000	952529	50.00	ug/L	-0.01
103) B Chlorobenzene-d5	117	14.341	14.348	1.000	682472	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.914	16.920	1.000	353180	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.531	10.543	0.965	309845	53.71	ug/L	-0.01
45) Toluene-d8	98	12.701	12.714	0.886	948506	53.80	ug/L	-0.01
63) Bromofluorobenzene	95	15.603	15.622	0.923	323615	53.18	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	107%
45) Toluene-d8	50.000	81 - 120	108%
63) Bromofluorobenzene	50.000	74 - 128	106%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.361	7.367	0.674	5464	4.28	ug/L	85
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.715	7.739	0.707	131	N.D.		
13) Methyl acetate	43	7.782	7.794	0.713	730	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.983	8.001	0.731	4759	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.672	8.690	0.794	11025	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone		0.000	9.525	0.000	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.641	10.665	0.975	596	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA308.D
Acq On : 03 Apr 2024 11:15
Operator : PXY1
InstName : VOAC
Sample : |660771002|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 03 13:10:58 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.421	11.434	1.046	556	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.781	12.793	0.891	784	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.952	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene	164	13.415	13.439	0.935	441	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.439	14.457	1.007	618	N.D.	
57) m,p-Xylenes	106	14.549	14.573	1.014	1437	N.D.	
58) o-Xylene	91	15.018	15.037	1.047	846	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.616	15.695	0.923	202	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.445	16.463	0.972	474	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene	119	16.762	16.792	0.991	115	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene	146	16.939	16.957	1.001	191	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.414	17.432	1.030	16345	1.68 ug/L	100
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	19.566	19.578	1.157	286	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.999	20.017	1.182	1963	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA308.D
Acq On : 03 Apr 2024 11:15
Operator : PXY1
InstName : VOAC
Sample : |660771002|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 03 13:10:58 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

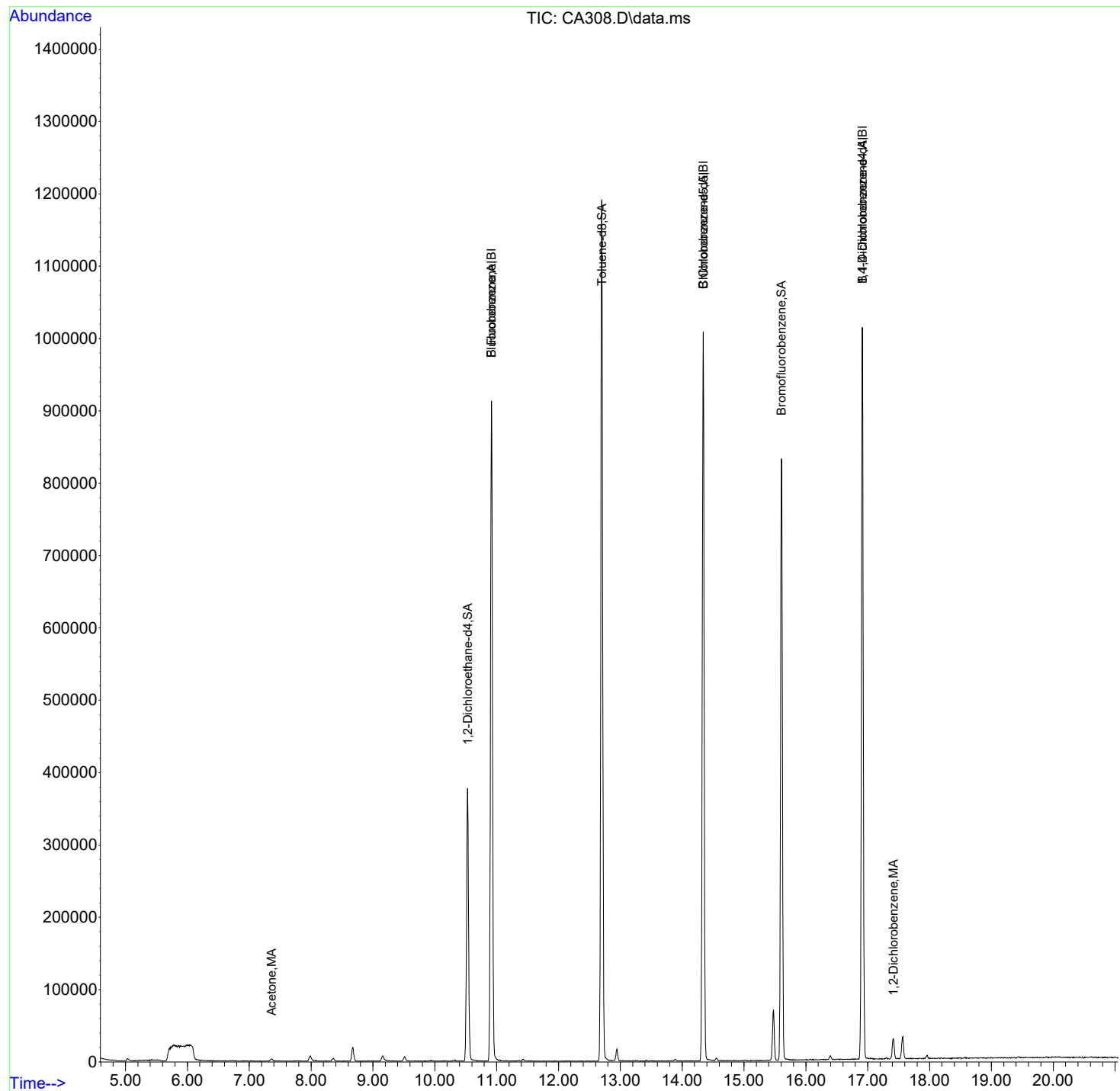
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.446	7.440	0.682	306	N.D.	
88) Allyl chloride		0.000	7.843	0.000	0	N.D.	
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	229	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.513	9.531	0.872	4050	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.940	9.940	0.911	654	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride	91	17.067	17.073	1.009	627	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.566	17.506	1.039	1469	N.D.	

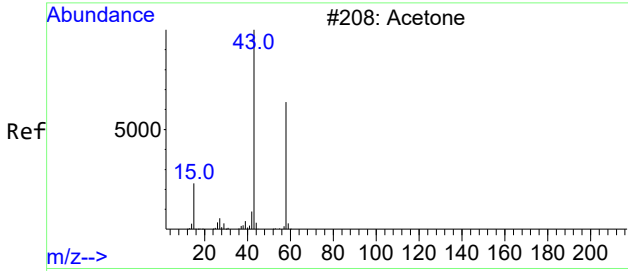
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA308.D
Acq On : 03 Apr 2024 11:15
Operator : PXY1
InstName : VOAC
Sample : |660771002|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 8 Sample Multiplier: 1

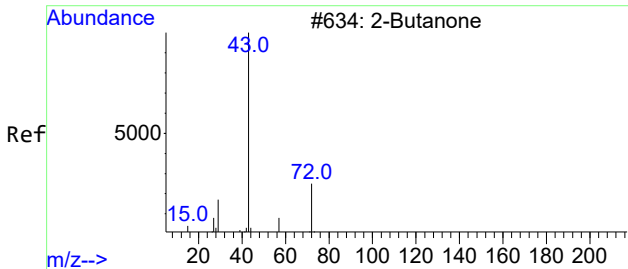
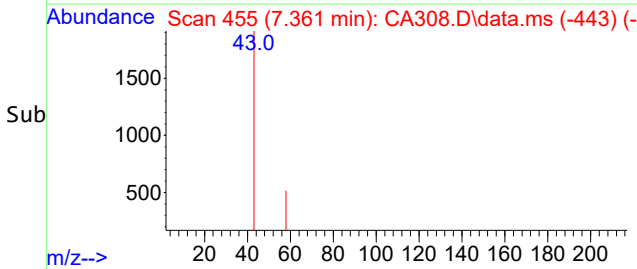
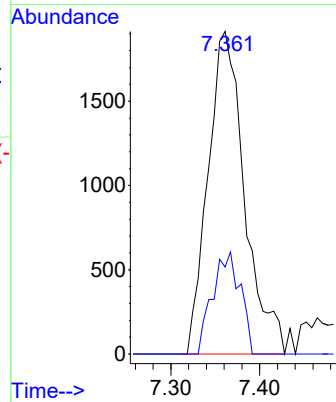
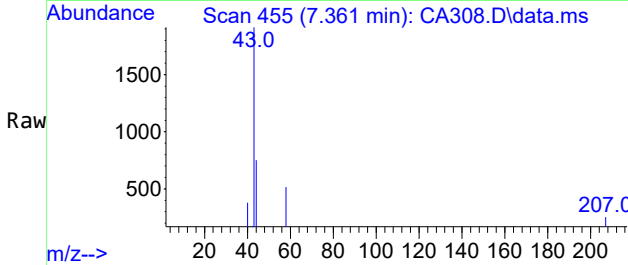
Quant Time: Apr 03 13:10:58 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





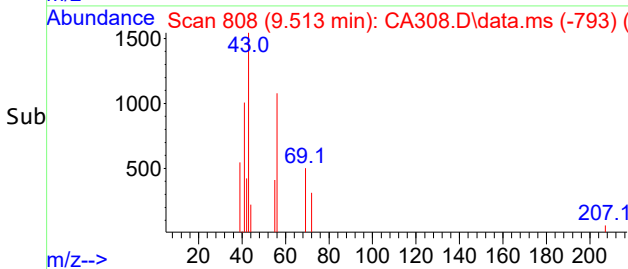
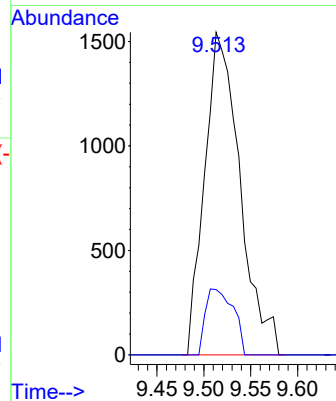
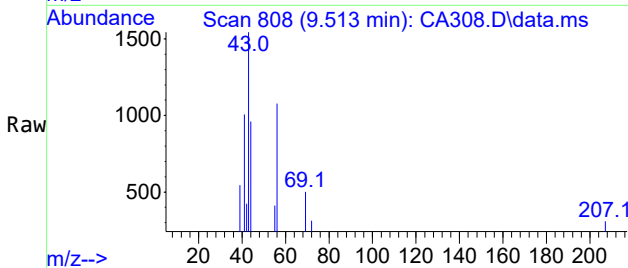
#9
Acetone
Concen: 4.28 ug/L
RT: 7.361 min Scan# 455
Delta R.T. -0.006 min
Lab File: CA308.D
Acq: 03 Apr 2024 11:15

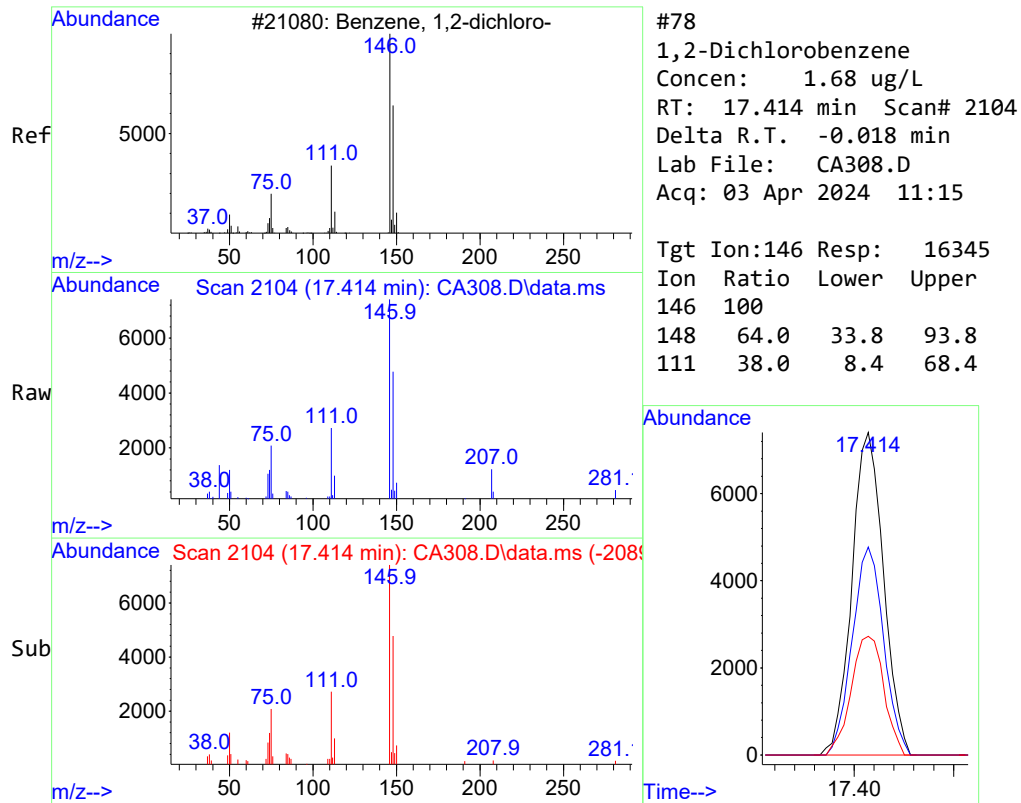
Tgt Ion: 43 Resp: 5464
Ion Ratio Lower Upper
43 100
58 23.9 2.6 62.6



#21 BEFORE analyst DELETION
2-Butanone
Concen: 2.24 ug/L
RT: 9.513 min Scan# 808
Delta R.T. -0.012 min
Lab File: CA308.D
Acq: 03 Apr 2024 11:15

Tgt Ion: 43 Resp: 4050
Ion Ratio Lower Upper
43 100
72 16.0 0.0 58.1





Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:50	Matrix:	MISC SOLID
Lab Sample ID:	660771003	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Bottom Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 11:43	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:53	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA309.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	89.3	ug/kg	29.7	89.3
74-87-3	Chloromethane	U	89.3	ug/kg	29.7	89.3
75-01-4	Vinyl chloride	U	89.3	ug/kg	29.7	89.3
74-83-9	Bromomethane	U	89.3	ug/kg	29.7	89.3
75-00-3	Chloroethane	U	89.3	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane	U	89.3	ug/kg	29.7	89.3
67-64-1	Acetone	J	227	ug/kg	149	446
75-35-4	1,1-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
74-88-4	Iodomethane	U	446	ug/kg	149	446
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-05-8	Acetonitrile	U	2230	ug/kg	744	2230
75-15-0	Carbon disulfide	U	446	ug/kg	149	446
75-09-2	Methylene chloride	U	446	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
108-05-4	Vinyl acetate	U	446	ug/kg	149	446
75-34-3	1,1-Dichloroethane	U	89.3	ug/kg	29.7	89.3
78-93-3	2-Butanone	BJ	179	ug/kg	149	446
67-66-3	Chloroform	U	89.3	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane	U	89.3	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride	U	89.3	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane	U	89.3	ug/kg	29.7	89.3
71-43-2	Benzene	U	89.3	ug/kg	29.7	89.3
79-01-6	Trichloroethylene	U	89.3	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane	U	89.3	ug/kg	29.7	89.3
74-95-3	Dibromomethane	U	89.3	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane	U	89.3	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone	U	446	ug/kg	149	446
108-88-3	Toluene	U	89.3	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane	U	89.3	ug/kg	29.7	89.3
591-78-6	2-Hexanone	U	446	ug/kg	149	446
127-18-4	Tetrachloroethylene	U	89.3	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane	U	89.3	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane	U	89.3	ug/kg	29.7	89.3
108-90-7	Chlorobenzene	U	89.3	ug/kg	29.7	89.3
100-41-4	Ethylbenzene	U	89.3	ug/kg	29.7	89.3
100-42-5	Styrene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:50	Matrix:	MISC SOLID
Lab Sample ID:	660771003	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Bottom Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 11:43	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:53	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA309.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	89.3	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane	U	89.3	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane	U	89.3	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)	U	268	ug/kg	89.3	268
630-20-6	1,1,1,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
120-82-1	1,2,4-Trichlorobenzene	U	89.3	ug/kg	29.7	89.3

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA309.D
Acq On : 03 Apr 2024 11:43
Operator : PXY1
InstName : VOAC
Sample : |660771003|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 9 Sample Multiplier: 1

MA
04/04/2024

Quant Time: Apr 03 13:13:19 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.915	10.934	1.000	940416	50.00	ug/L	-0.02
43) Chlorobenzene-d5	117	14.341	14.354	1.000	673436	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.914	16.933	1.000	354759	50.00	ug/L	-0.02
84) B Fluorobenzene	96	10.915	10.928	1.000	940268	50.00	ug/L	-0.01
103) B Chlorobenzene-d5	117	14.341	14.348	1.000	673009	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.914	16.920	1.000	354765	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.525	10.543	0.964	307411	53.99	ug/L	-0.02
45) Toluene-d8	98	12.695	12.714	0.885	939066	53.98	ug/L	-0.02
63) Bromofluorobenzene	95	15.603	15.622	0.923	316949	51.85	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	108%
45) Toluene-d8	50.000	81 - 120	108%
63) Bromofluorobenzene	50.000	74 - 128	104%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.355	7.367	0.674	3194	2.54	ug/L	81
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.727	7.739	0.708	123	N.D.		
13) Methyl acetate	43	7.788	7.794	0.713	728	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.977	8.001	0.731	4866	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.672	8.690	0.794	4837	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.513	9.525	0.872	3559	2.00	ug/L	79
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.641	10.665	0.975	353	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA309.D
Acq On : 03 Apr 2024 11:43
Operator : PXY1
InstName : VOAC
Sample : |660771003|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 03 13:13:19 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.415	11.434	1.046	631	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.775	12.793	0.891	664	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.952	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene	164	13.421	13.439	0.936	120	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.439	14.457	1.007	518	N.D.	
57) m,p-Xylenes	106	14.549	14.573	1.014	1005	N.D.	
58) o-Xylene	91	15.018	15.037	1.047	606	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	15.695	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.451	16.463	0.973	387	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.414	17.432	1.030	12703	1.30 ug/L	98
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.999	20.017	1.182	1558	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA309.D
Acq On : 03 Apr 2024 11:43
Operator : PXY1
InstName : VOAC
Sample : |660771003|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 03 13:13:19 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

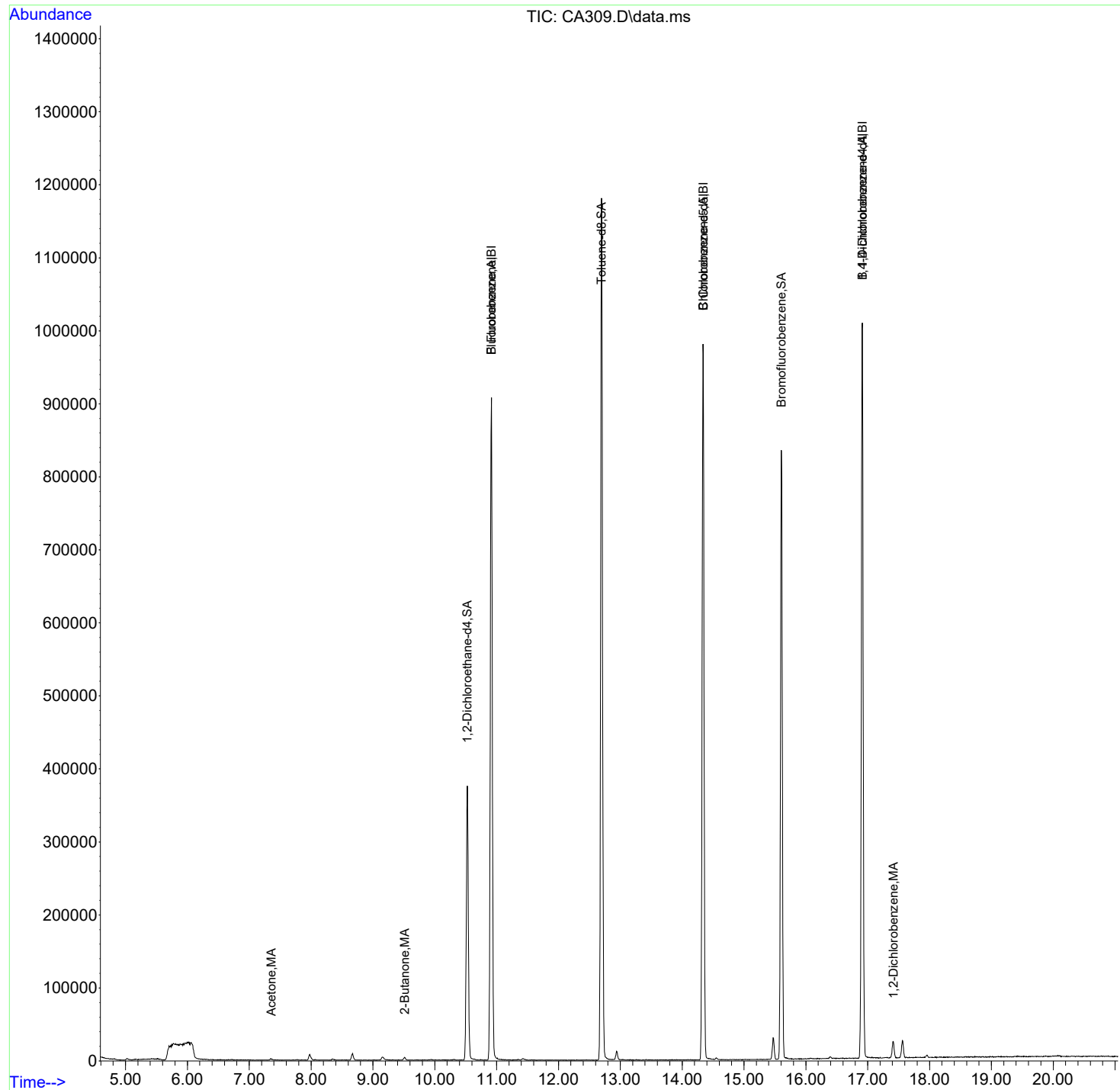
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.446	7.440	0.682	164	N.D.	
88) Allyl chloride		0.000	7.843	0.000	0	N.D.	
89) tert-Butyl Alcohol	59	8.062	7.983	0.739	260	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.513	9.531	0.872	3559	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.921	9.940	0.909	624	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride	91	17.067	17.073	1.009	458	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.554	17.506	1.038	1239	N.D.	

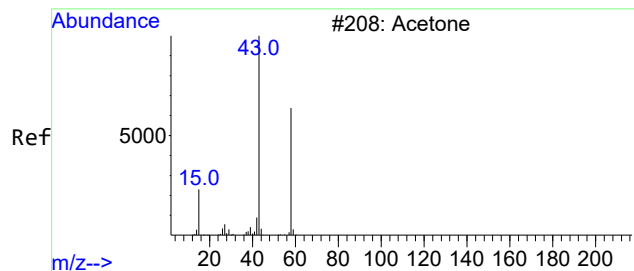
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

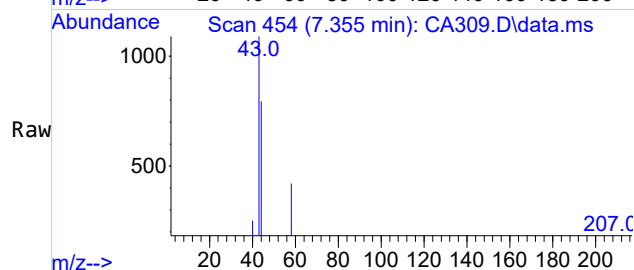
Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA309.D
Acq On : 03 Apr 2024 11:43
Operator : PXY1
InstName : VOAC
Sample : |660771003|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 03 13:13:19 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

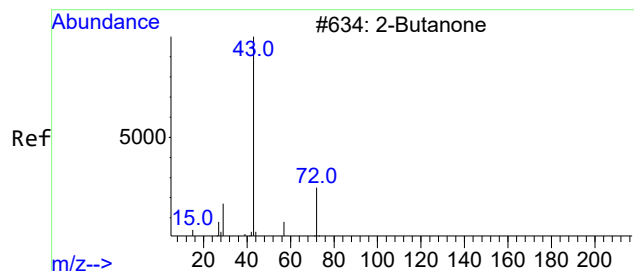
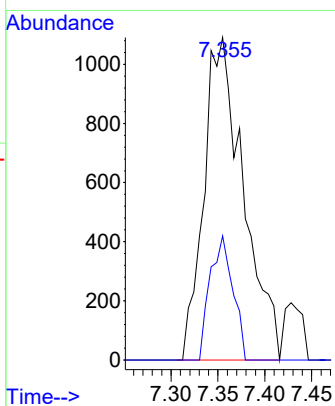
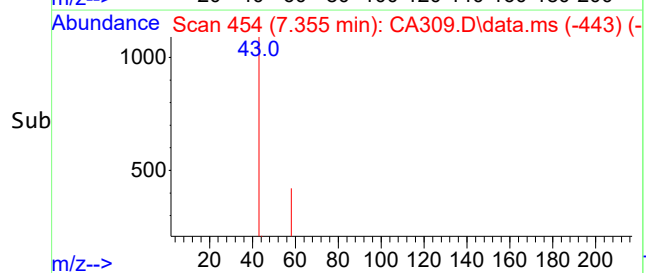




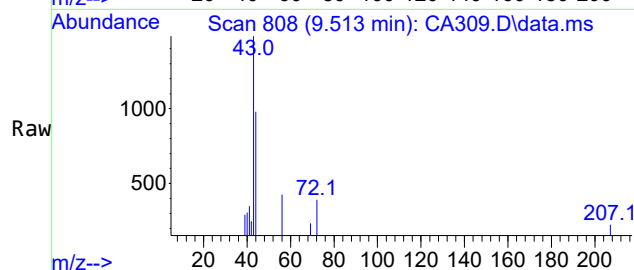
#9
Acetone
Concen: 2.54 ug/L
RT: 7.355 min Scan# 454
Delta R.T. -0.012 min
Lab File: CA309.D
Acq: 03 Apr 2024 11:43



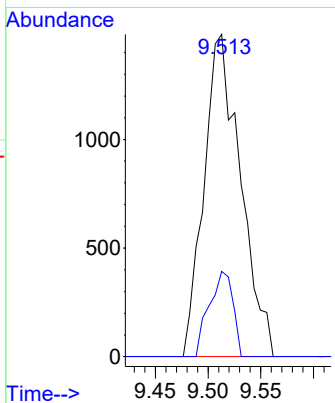
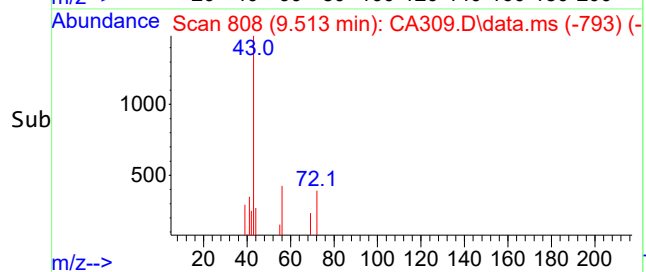
Tgt Ion: 43 Resp: 3194
Ion Ratio Lower Upper
43 100
58 22.2 2.6 62.6

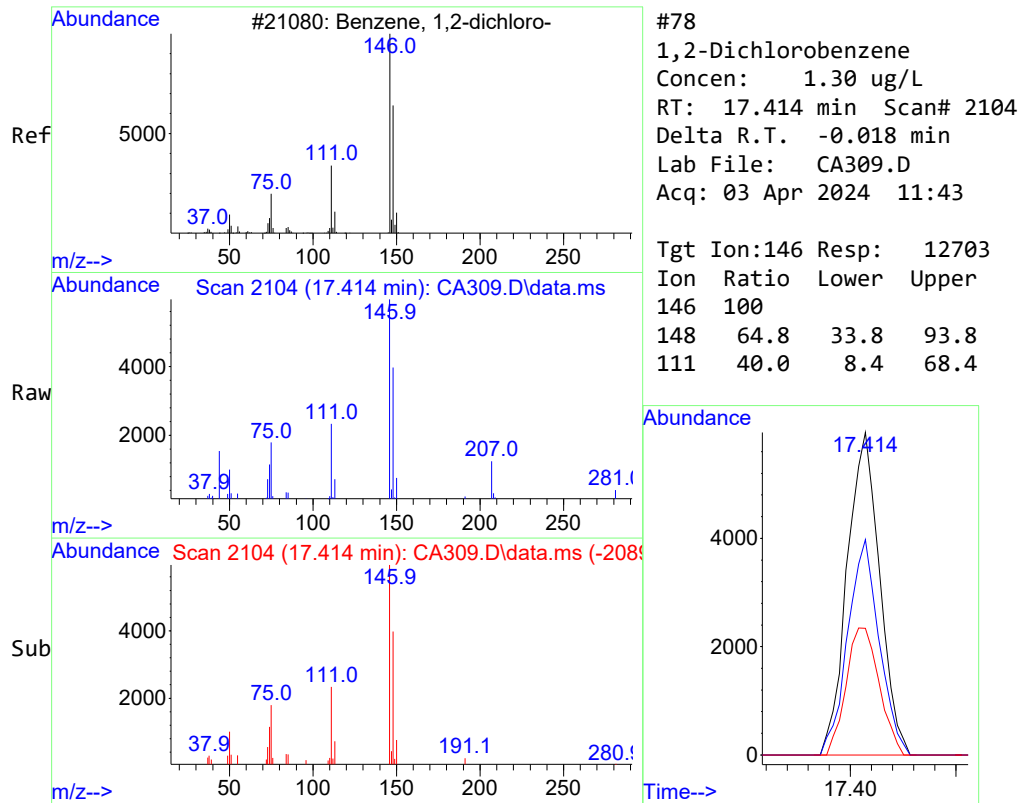


#21
2-Butanone
Concen: 2.00 ug/L
RT: 9.513 min Scan# 808
Delta R.T. -0.012 min
Lab File: CA309.D
Acq: 03 Apr 2024 11:43



Tgt Ion: 43 Resp: 3559
Ion Ratio Lower Upper
43 100
72 17.1 0.0 58.1





Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660771004	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Top Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 12:11	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:54	Aliquot:	5.4 g	Final Volume:	10 mL
Data File:	data\040324VC\CA310.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	92.6	ug/kg	30.8	92.6
74-87-3	Chloromethane	U	92.6	ug/kg	30.8	92.6
75-01-4	Vinyl chloride	U	92.6	ug/kg	30.8	92.6
74-83-9	Bromomethane	U	92.6	ug/kg	30.8	92.6
75-00-3	Chloroethane	U	92.6	ug/kg	30.8	92.6
75-69-4	Trichlorofluoromethane	U	92.6	ug/kg	30.8	92.6
67-64-1	Acetone	J	291	ug/kg	154	463
75-35-4	1,1-Dichloroethylene	U	92.6	ug/kg	30.8	92.6
74-88-4	Iodomethane	U	463	ug/kg	154	463
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	463	ug/kg	154	463
75-05-8	Acetonitrile	U	2310	ug/kg	772	2310
75-15-0	Carbon disulfide	U	463	ug/kg	154	463
75-09-2	Methylene chloride	U	463	ug/kg	154	463
156-60-5	trans-1,2-Dichloroethylene	U	92.6	ug/kg	30.8	92.6
108-05-4	Vinyl acetate	U	463	ug/kg	154	463
75-34-3	1,1-Dichloroethane	U	92.6	ug/kg	30.8	92.6
78-93-3	2-Butanone	JB	183	ug/kg	154	463
67-66-3	Chloroform	U	92.6	ug/kg	30.8	92.6
71-55-6	1,1,1-Trichloroethane	U	92.6	ug/kg	30.8	92.6
56-23-5	Carbon tetrachloride	U	92.6	ug/kg	30.8	92.6
107-06-2	1,2-Dichloroethane	U	92.6	ug/kg	30.8	92.6
71-43-2	Benzene	U	92.6	ug/kg	30.8	92.6
79-01-6	Trichloroethylene	U	92.6	ug/kg	30.8	92.6
78-87-5	1,2-Dichloropropane	U	92.6	ug/kg	30.8	92.6
74-95-3	Dibromomethane	U	92.6	ug/kg	30.8	92.6
75-27-4	Bromodichloromethane	U	92.6	ug/kg	30.8	92.6
10061-01-5	cis-1,3-Dichloropropylene	U	92.6	ug/kg	30.8	92.6
108-10-1	4-Methyl-2-pentanone	U	463	ug/kg	154	463
108-88-3	Toluene	U	92.6	ug/kg	30.8	92.6
10061-02-6	trans-1,3-Dichloropropylene	U	92.6	ug/kg	30.8	92.6
79-00-5	1,1,2-Trichloroethane	U	92.6	ug/kg	30.8	92.6
591-78-6	2-Hexanone	U	463	ug/kg	154	463
127-18-4	Tetrachloroethylene	U	92.6	ug/kg	30.8	92.6
124-48-1	Dibromochloromethane	U	92.6	ug/kg	30.8	92.6
106-93-4	1,2-Dibromoethane	U	92.6	ug/kg	30.8	92.6
108-90-7	Chlorobenzene	U	92.6	ug/kg	30.8	92.6
100-41-4	Ethylbenzene	U	92.6	ug/kg	30.8	92.6
100-42-5	Styrene	U	92.6	ug/kg	30.8	92.6

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660771004	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Top Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 12:11	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:54	Aliquot:	5.4 g	Final Volume:	10 mL
Data File:	data\040324VC\CA310.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	92.6	ug/kg	30.8	92.6
79-34-5	1,1,2,2-Tetrachloroethane	U	92.6	ug/kg	30.8	92.6
96-18-4	1,2,3-Trichloropropane	U	92.6	ug/kg	30.8	92.6
96-12-8	1,2-Dibromo-3-chloropropane	U	92.6	ug/kg	46.3	92.6
107-02-8	Acrolein	U	463	ug/kg	154	463
107-05-1	Allyl chloride	U	463	ug/kg	154	463
107-13-1	Acrylonitrile	U	463	ug/kg	154	463
126-99-8	2-Chloro-1,3-butadiene	U	92.6	ug/kg	30.8	92.6
107-12-0	Propionitrile	U	463	ug/kg	154	463
126-98-7	Methacrylonitrile	U	463	ug/kg	154	463
78-83-1	Isobutyl alcohol	U	4630	ug/kg	1540	4630
80-62-6	Methyl methacrylate	U	463	ug/kg	154	463
97-63-2	Ethyl methacrylate	U	463	ug/kg	154	463
76-01-7	Pentachloroethane	U	463	ug/kg	154	463
110-57-6	trans-1,4-Dichloro-2-butene	U	463	ug/kg	154	463
1330-20-7	Xylenes (total)	J	99.1	ug/kg	92.6	278
630-20-6	1,1,1,2-Tetrachloroethane	U	92.6	ug/kg	30.8	92.6
120-82-1	1,2,4-Trichlorobenzene	U	92.6	ug/kg	30.8	92.6

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA310.D
Acq On : 03 Apr 2024 12:11
Operator : PXY1
InstName : VOAC
Sample : |660771004|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.4G/100UL N/A SOIL
ALS Vial : 10 Sample Multiplier: 1

MA
04/04/2024

Quant Time: Apr 03 13:15:55 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.915	10.934	1.000	956429	50.00	ug/L	-0.02
43) Chlorobenzene-d5	117	14.335	14.354	1.000	685057	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.914	16.933	1.000	350015	50.00	ug/L	-0.02
84) B Fluorobenzene	96	10.915	10.928	1.000	956429	50.00	ug/L	-0.01
103) B Chlorobenzene-d5	117	14.335	14.348	1.000	685057	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.914	16.920	1.000	350215	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.525	10.543	0.964	311622	53.81	ug/L	-0.02
45) Toluene-d8	98	12.695	12.714	0.886	953660	53.88	ug/L	-0.02
63) Bromofluorobenzene	95	15.603	15.622	0.923	322722	53.51	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	108%
45) Toluene-d8	50.000	81 - 120	108%
63) Bromofluorobenzene	50.000	74 - 128	107%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.349	7.367	0.673	4020	3.14	ug/L	83
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.782	7.739	0.713	137	N.D.		
13) Methyl acetate	43	7.776	7.794	0.712	908	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.971	8.001	0.730	4693	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.672	8.690	0.794	6210	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.507	9.525	0.871	3594	1.98	ug/L	86
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.641	10.665	0.975	1156	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA310.D
Acq On : 03 Apr 2024 12:11
Operator : PXY1
InstName : VOAC
Sample : |660771004|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.4G/100UL N/A SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 03 13:15:55 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.440	11.434	1.048	665	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.769	12.793	0.891	1164	N.D.	
47) trans-1,3-Dichloroprop...	75	12.939	12.952	0.903	147	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene	164	13.421	13.439	0.936	1369	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene	112	14.384	14.390	1.003	172	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.439	14.457	1.007	2976	N.D.	
57) m,p-Xylenes	106	14.549	14.573	1.015	8532	1.07 ug/L	94
58) o-Xylene	91	15.018	15.037	1.048	4671	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.603	15.695	0.923	122	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene	105	16.012	16.024	0.947	248	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.439	16.463	0.972	821	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene	146	16.939	16.957	1.001	259	N.D.	
77) n-Butylbenzene	91	17.268	17.280	1.021	198	N.D.	
78) 1,2-Dichlorobenzene	146	17.408	17.432	1.029	98269	10.16 ug/L	99
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.993	20.017	1.182	8489	0.54 ug/L #	86
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA310.D
Acq On : 03 Apr 2024 12:11
Operator : PXY1
InstName : VOAC
Sample : |660771004|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.4G/100UL N/A SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 03 13:15:55 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

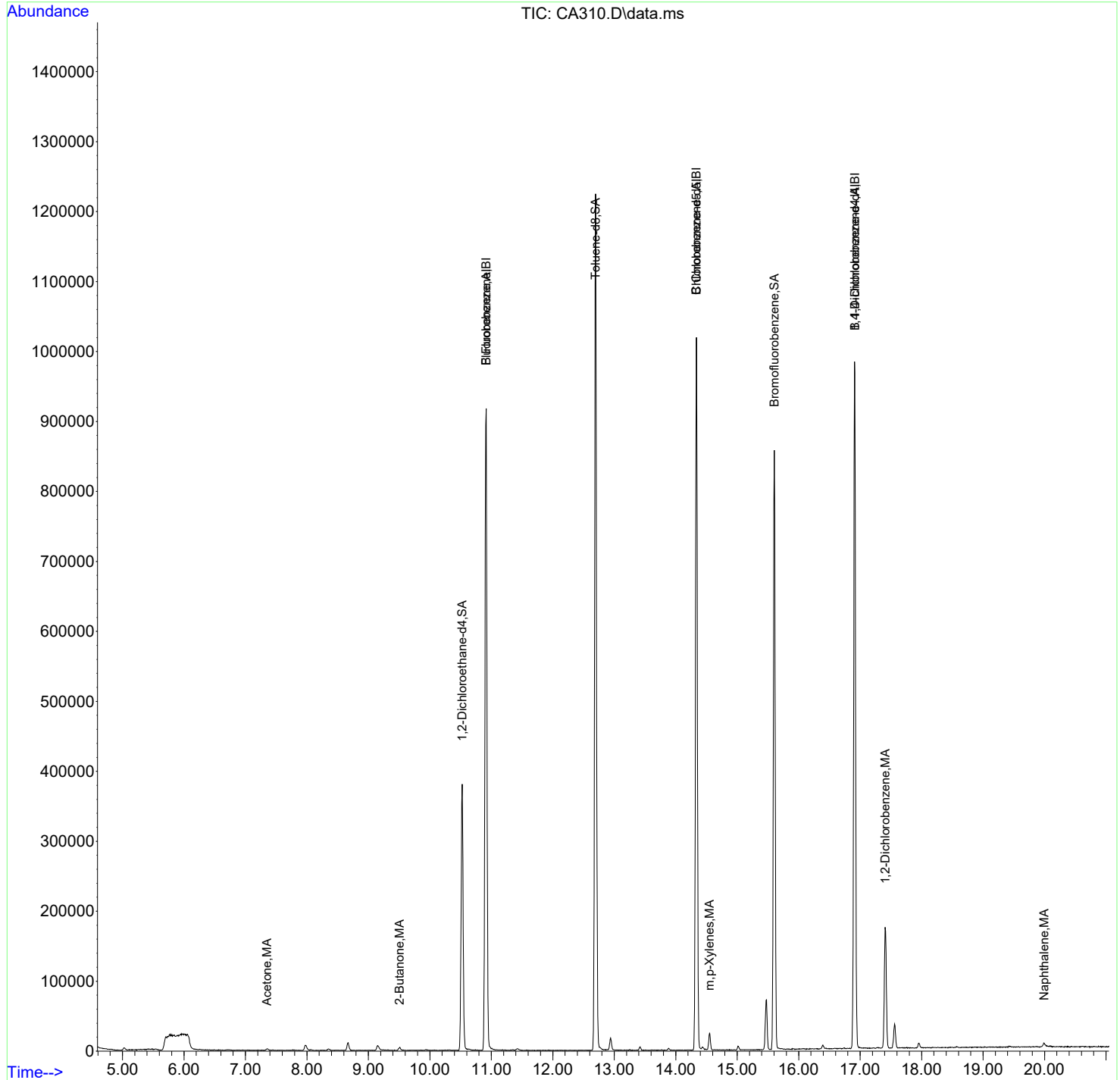
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.446	7.440	0.682	686	N.D.	
88) Allyl chloride	41	7.782	7.843	0.713	137	N.D.	
89) tert-Butyl Alcohol	59	8.062	7.983	0.739	568	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.507	9.531	0.871	3594	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.928	9.940	0.910	601	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride	91	17.073	17.073	1.009	356	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.560	17.506	1.038	1768	N.D.	

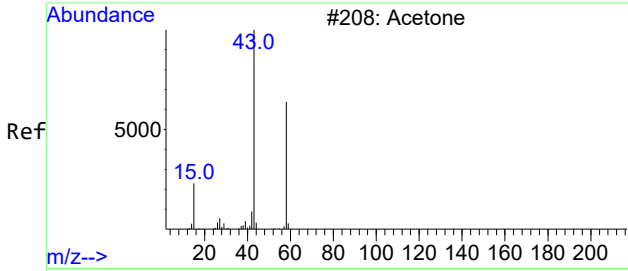
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA310.D
Acq On : 03 Apr 2024 12:11
Operator : PXY1
InstName : VOAC
Sample : |660771004|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.4G/100UL N/A SOIL
ALS Vial : 10 Sample Multiplier: 1

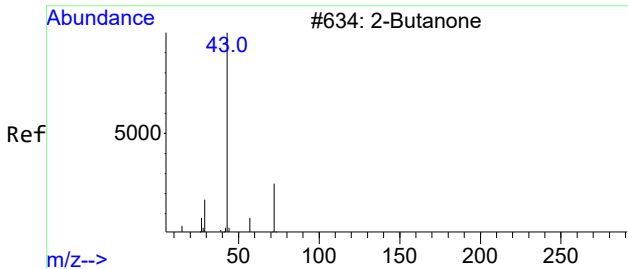
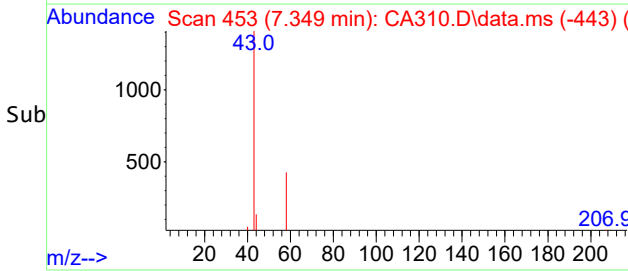
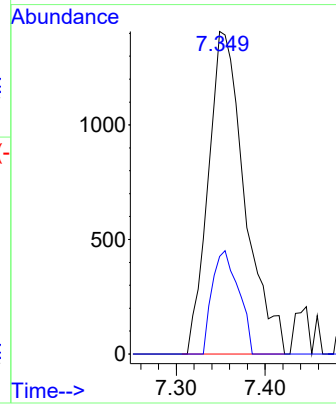
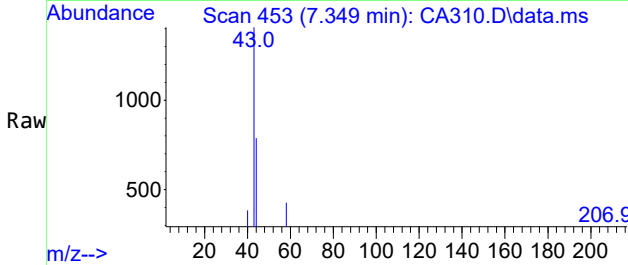
Quant Time: Apr 03 13:15:55 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





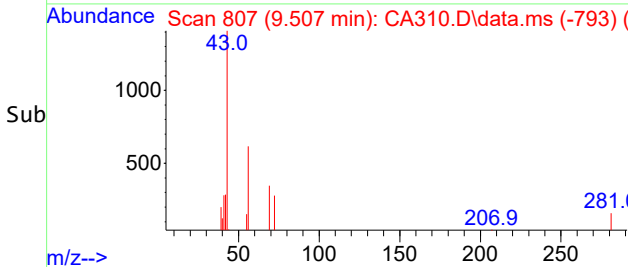
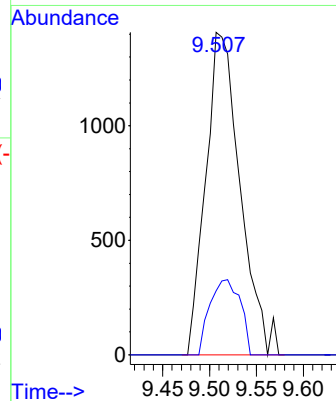
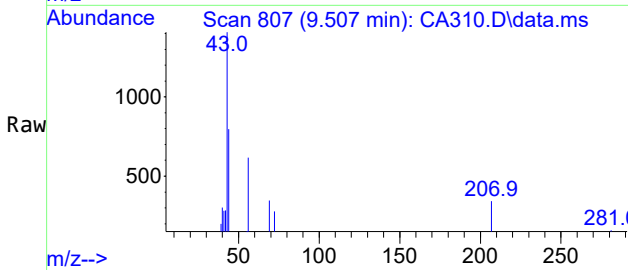
#9
Acetone
Concen: 3.14 ug/L
RT: 7.349 min Scan# 453
Delta R.T. -0.018 min
Lab File: CA310.D
Acq: 03 Apr 2024 12:11

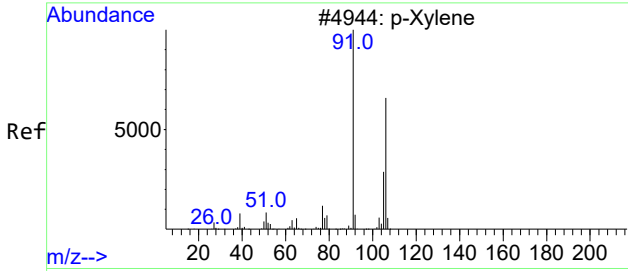
Tgt Ion: 43 Resp: 4020
Ion Ratio Lower Upper
43 100
58 23.0 2.6 62.6



#21
2-Butanone
Concen: 1.98 ug/L
RT: 9.507 min Scan# 807
Delta R.T. -0.018 min
Lab File: CA310.D
Acq: 03 Apr 2024 12:11

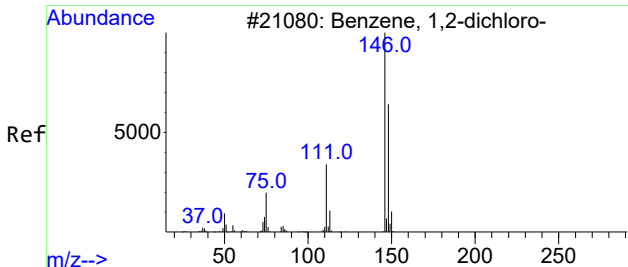
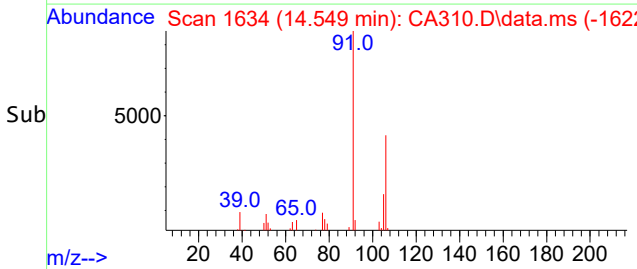
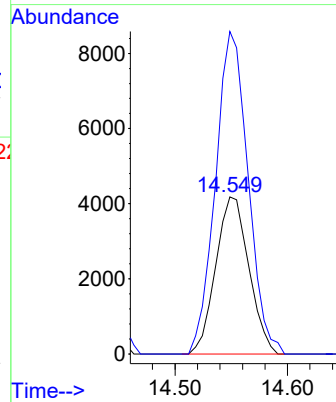
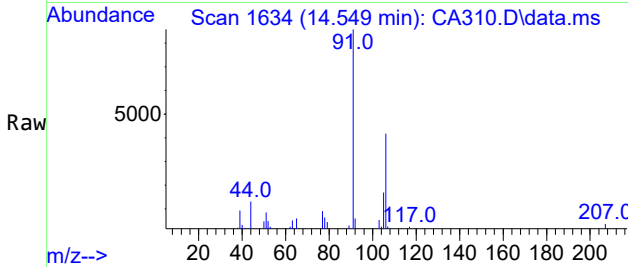
Tgt Ion: 43 Resp: 3594
Ion Ratio Lower Upper
43 100
72 20.6 0.0 58.1





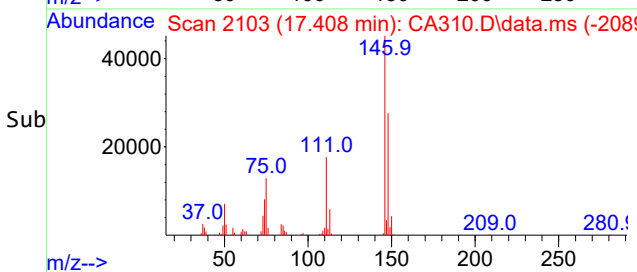
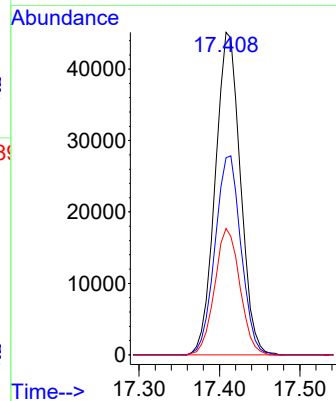
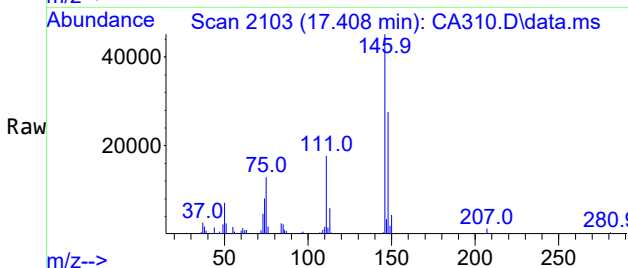
#57
m,p-Xylenes
Concen: 1.07 ug/L
RT: 14.549 min Scan# 1634
Delta R.T. -0.024 min
Lab File: CA310.D
Acq: 03 Apr 2024 12:11

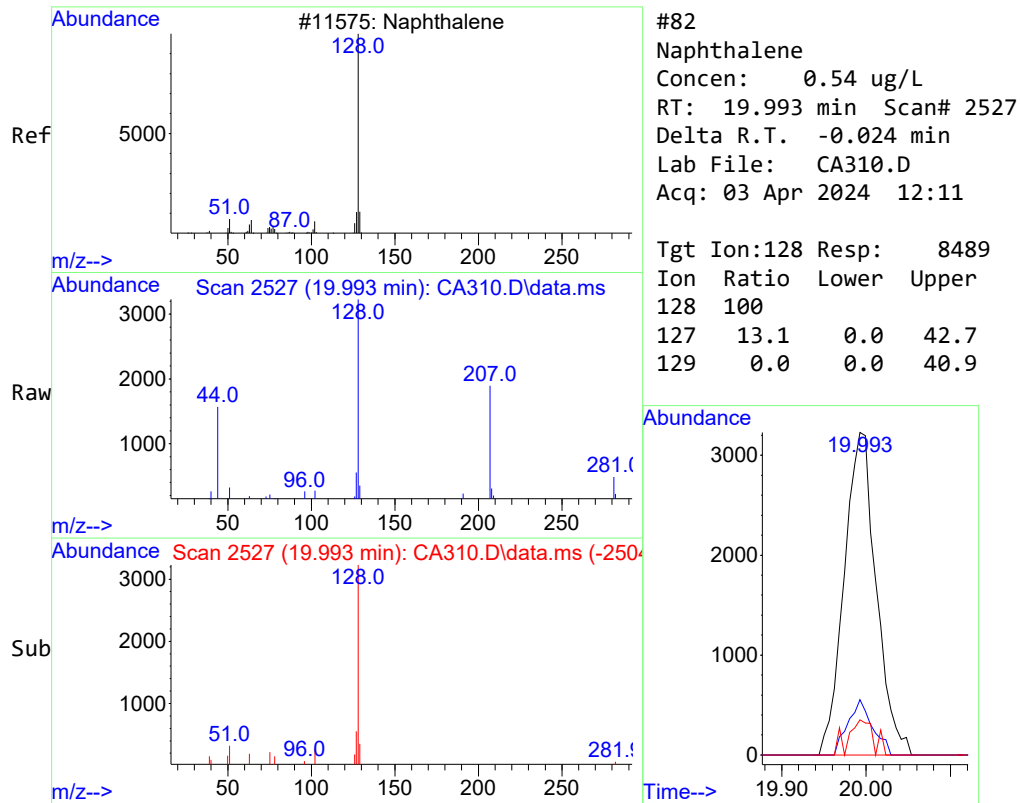
Tgt Ion:106 Resp: 8532
Ion Ratio Lower Upper
106 100
91 202.1 162.6 222.6



#78
1,2-Dichlorobenzene
Concen: 10.16 ug/L
RT: 17.408 min Scan# 2103
Delta R.T. -0.024 min
Lab File: CA310.D
Acq: 03 Apr 2024 12:11

Tgt Ion:146 Resp: 98269
Ion Ratio Lower Upper
146 100
148 63.7 33.8 93.8
111 39.2 8.4 68.4





Volatile

Certificate of Analysis

Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660771005	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Middle Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 12:39	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:55	Aliquot:	5.4 g	Final Volume:	10 mL
Data File:	data\040324VC\CA311.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	92.6	ug/kg	30.8	92.6
74-87-3	Chloromethane	U	92.6	ug/kg	30.8	92.6
75-01-4	Vinyl chloride	U	92.6	ug/kg	30.8	92.6
74-83-9	Bromomethane	U	92.6	ug/kg	30.8	92.6
75-00-3	Chloroethane	U	92.6	ug/kg	30.8	92.6
75-69-4	Trichlorofluoromethane	U	92.6	ug/kg	30.8	92.6
67-64-1	Acetone	J	345	ug/kg	154	463
75-35-4	1,1-Dichloroethylene	U	92.6	ug/kg	30.8	92.6
74-88-4	Iodomethane	U	463	ug/kg	154	463
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	463	ug/kg	154	463
75-05-8	Acetonitrile	U	2310	ug/kg	772	2310
75-15-0	Carbon disulfide	U	463	ug/kg	154	463
75-09-2	Methylene chloride	U	463	ug/kg	154	463
156-60-5	trans-1,2-Dichloroethylene	U	92.6	ug/kg	30.8	92.6
108-05-4	Vinyl acetate	U	463	ug/kg	154	463
75-34-3	1,1-Dichloroethane	U	92.6	ug/kg	30.8	92.6
78-93-3	2-Butanone	JB	182	ug/kg	154	463
67-66-3	Chloroform	U	92.6	ug/kg	30.8	92.6
71-55-6	1,1,1-Trichloroethane	U	92.6	ug/kg	30.8	92.6
56-23-5	Carbon tetrachloride	U	92.6	ug/kg	30.8	92.6
107-06-2	1,2-Dichloroethane	U	92.6	ug/kg	30.8	92.6
71-43-2	Benzene	U	92.6	ug/kg	30.8	92.6
79-01-6	Trichloroethylene	U	92.6	ug/kg	30.8	92.6
78-87-5	1,2-Dichloropropane	U	92.6	ug/kg	30.8	92.6
74-95-3	Dibromomethane	U	92.6	ug/kg	30.8	92.6
75-27-4	Bromodichloromethane	U	92.6	ug/kg	30.8	92.6
10061-01-5	cis-1,3-Dichloropropylene	U	92.6	ug/kg	30.8	92.6
108-10-1	4-Methyl-2-pentanone	U	463	ug/kg	154	463
108-88-3	Toluene	U	92.6	ug/kg	30.8	92.6
10061-02-6	trans-1,3-Dichloropropylene	U	92.6	ug/kg	30.8	92.6
79-00-5	1,1,2-Trichloroethane	U	92.6	ug/kg	30.8	92.6
591-78-6	2-Hexanone	U	463	ug/kg	154	463
127-18-4	Tetrachloroethylene	U	92.6	ug/kg	30.8	92.6
124-48-1	Dibromochloromethane	U	92.6	ug/kg	30.8	92.6
106-93-4	1,2-Dibromoethane	U	92.6	ug/kg	30.8	92.6
108-90-7	Chlorobenzene	U	92.6	ug/kg	30.8	92.6
100-41-4	Ethylbenzene	U	92.6	ug/kg	30.8	92.6
100-42-5	Styrene	U	92.6	ug/kg	30.8	92.6

Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771005

Client ID: 12044.B1.Middle Back.EPA

Batch ID: 2590956

Run Date: 04/03/2024 12:39

Prep Date: 04/03/2024 07:55

Data File: data\040324VC\CA311.D

Date Collected: 03/27/2024 09:10

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 8260D

Inst: VOAC.I

Analyst: PXY1

Aliquot: 5.4 g

Column: DB-624

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-038

Dilution: 50

Purge Vol: 5 mL

Final Volume: 10 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	92.6	ug/kg	30.8	92.6
79-34-5	1,1,2,2-Tetrachloroethane	U	92.6	ug/kg	30.8	92.6
96-18-4	1,2,3-Trichloropropane	U	92.6	ug/kg	30.8	92.6
96-12-8	1,2-Dibromo-3-chloropropane	U	92.6	ug/kg	46.3	92.6
107-02-8	Acrolein	U	463	ug/kg	154	463
107-05-1	Allyl chloride	U	463	ug/kg	154	463
107-13-1	Acrylonitrile	U	463	ug/kg	154	463
126-99-8	2-Chloro-1,3-butadiene	U	92.6	ug/kg	30.8	92.6
107-12-0	Propionitrile	U	463	ug/kg	154	463
126-98-7	Methacrylonitrile	U	463	ug/kg	154	463
78-83-1	Isobutyl alcohol	U	4630	ug/kg	1540	4630
80-62-6	Methyl methacrylate	U	463	ug/kg	154	463
97-63-2	Ethyl methacrylate	U	463	ug/kg	154	463
76-01-7	Pentachloroethane	U	463	ug/kg	154	463
110-57-6	trans-1,4-Dichloro-2-butene	U	463	ug/kg	154	463
1330-20-7	Xylenes (total)	U	278	ug/kg	92.6	278
630-20-6	1,1,1,2-Tetrachloroethane	U	92.6	ug/kg	30.8	92.6
120-82-1	1,2,4-Trichlorobenzene	U	92.6	ug/kg	30.8	92.6

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA311.D
Acq On : 03 Apr 2024 12:39
Operator : PXY1
InstName : VOAC
Sample : |660771005|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.4G/100UL N/A SOIL
ALS Vial : 11 Sample Multiplier: 1

MA

04/04/2024

Quant Time: Apr 03 13:16:37 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.909	10.934	1.000	938636	50.00	ug/L	-0.02
43) Chlorobenzene-d5	117	14.335	14.354	1.000	672458	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.908	16.933	1.000	344013	50.00	ug/L	-0.02
84) B Fluorobenzene	96	10.909	10.928	1.000	938491	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	117	14.335	14.348	1.000	672458	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.908	16.920	1.000	344090	50.00	ug/L	-0.01

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.525	10.543	0.965	313786	55.21	ug/L	-0.02
45) Toluene-d8	98	12.695	12.714	0.886	955374	54.99	ug/L	-0.02
63) Bromofluorobenzene	95	15.604	15.622	0.923	322246	54.37	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	110%
45) Toluene-d8	50.000	81 - 120	110%
63) Bromofluorobenzene	50.000	74 - 128	109%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.355	7.367	0.674	4686	3.73	ug/L	77
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.715	7.739	0.707	121	N.D.		
13) Methyl acetate	43	7.782	7.794	0.713	853	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.983	8.001	0.732	4896	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.666	8.690	0.794	6783	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.507	9.525	0.871	3507	1.97	ug/L	80
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.647	10.665	0.976	375	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA311.D
Acq On : 03 Apr 2024 12:39
Operator : PXY1
InstName : VOAC
Sample : |660771005|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.4G/100UL N/A SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 03 13:16:37 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.434	11.434	1.048	589	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.775	12.793	0.891	601	N.D.	
47) trans-1,3-Dichloroprop...	75	12.945	12.952	0.903	133	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.433	14.457	1.007	422	N.D.	
57) m,p-Xylenes	106	14.555	14.573	1.015	1093	N.D.	
58) o-Xylene	91	15.006	15.037	1.047	664	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	15.695	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.451	16.463	0.973	329	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene	146	16.926	16.957	1.001	248	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.408	17.432	1.030	11994	1.26 ug/L	98
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.993	20.017	1.182	1852	N.D.	
83) 1,2,3-Trichlorobenzene	180	20.383	20.401	1.206	131	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA311.D
Acq On : 03 Apr 2024 12:39
Operator : PXY1
InstName : VOAC
Sample : |660771005|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.4G/100UL N/A SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 03 13:16:37 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

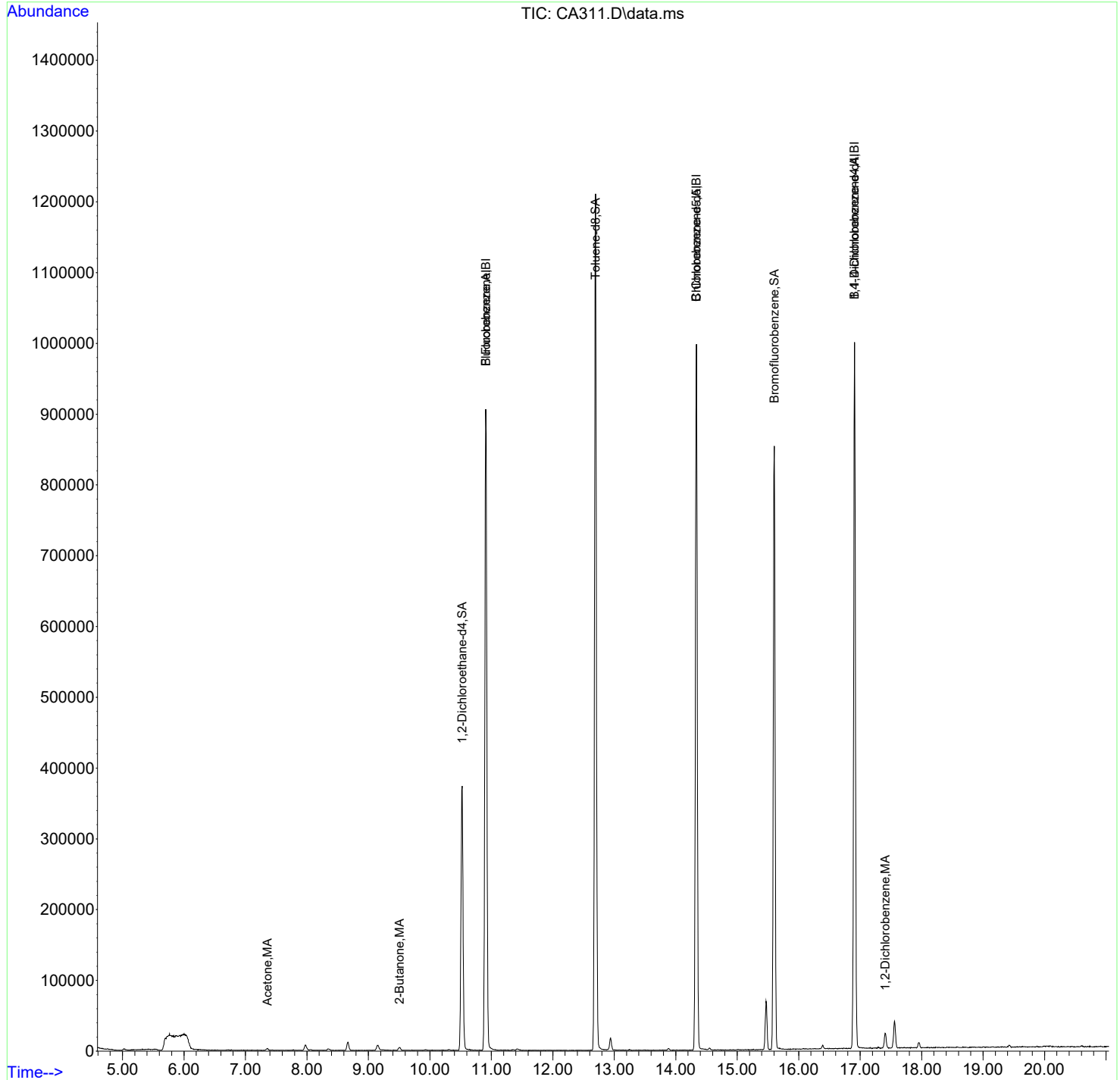
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.446	7.440	0.683	327	N.D.	
88) Allyl chloride	41	7.983	7.843	0.732	269	N.D.	
89) tert-Butyl Alcohol	59	8.050	7.983	0.738	589	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.507	9.531	0.871	3507	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.934	9.940	0.911	703	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.554	17.506	1.038	2005	N.D.	

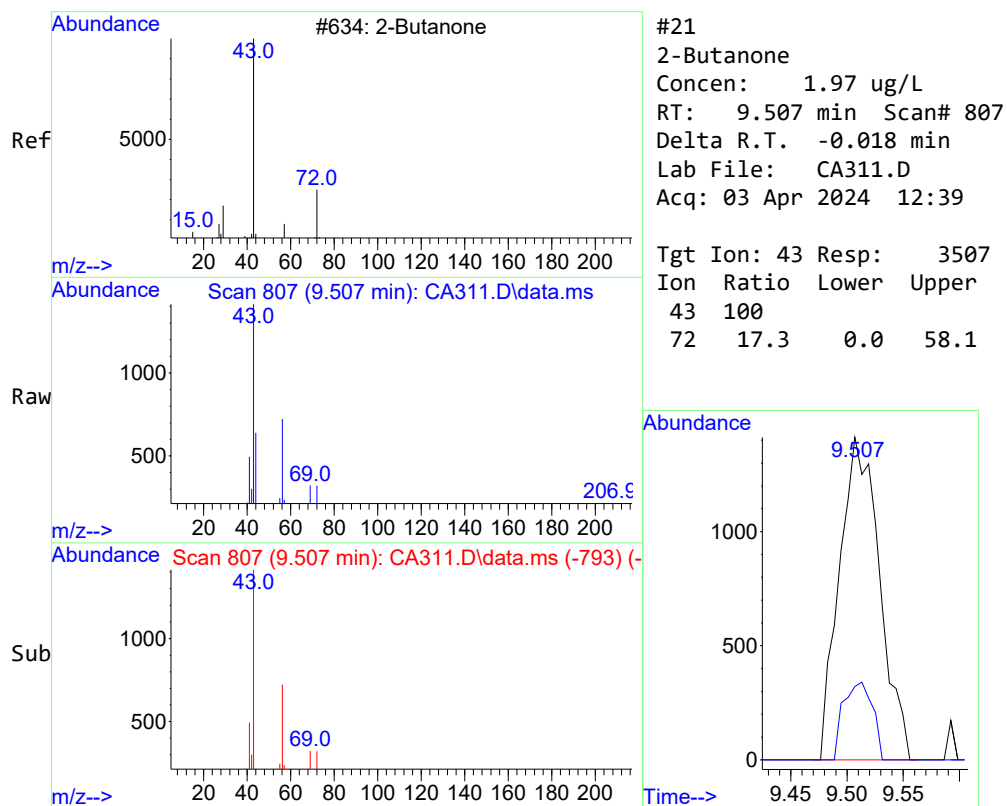
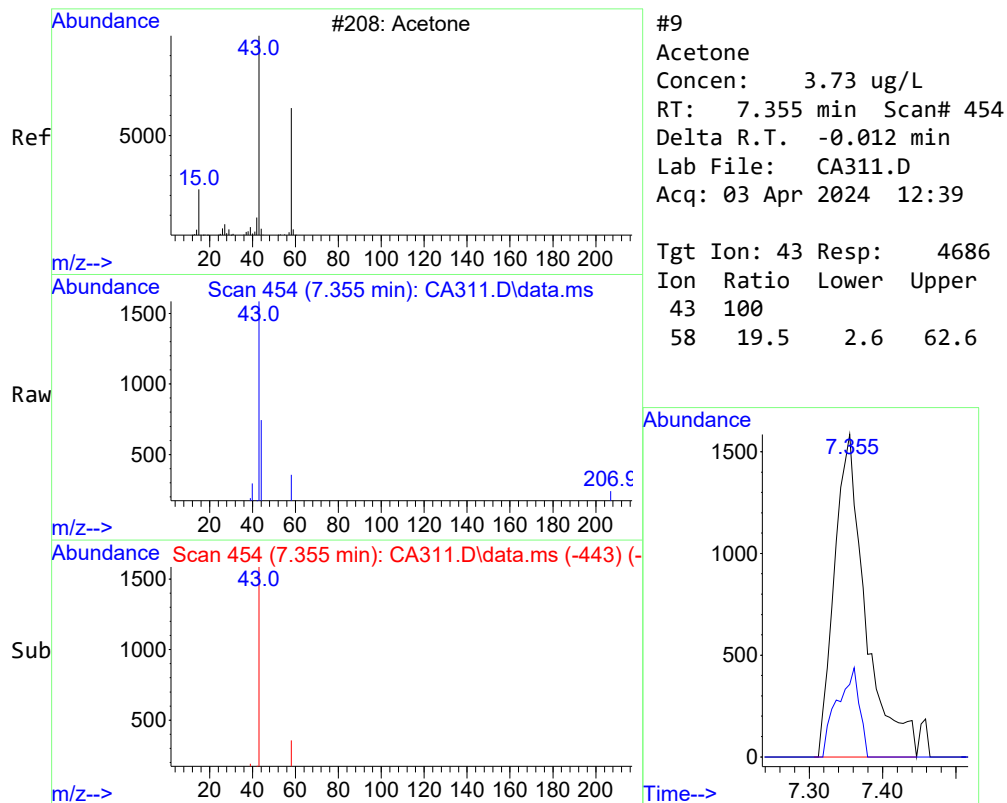
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

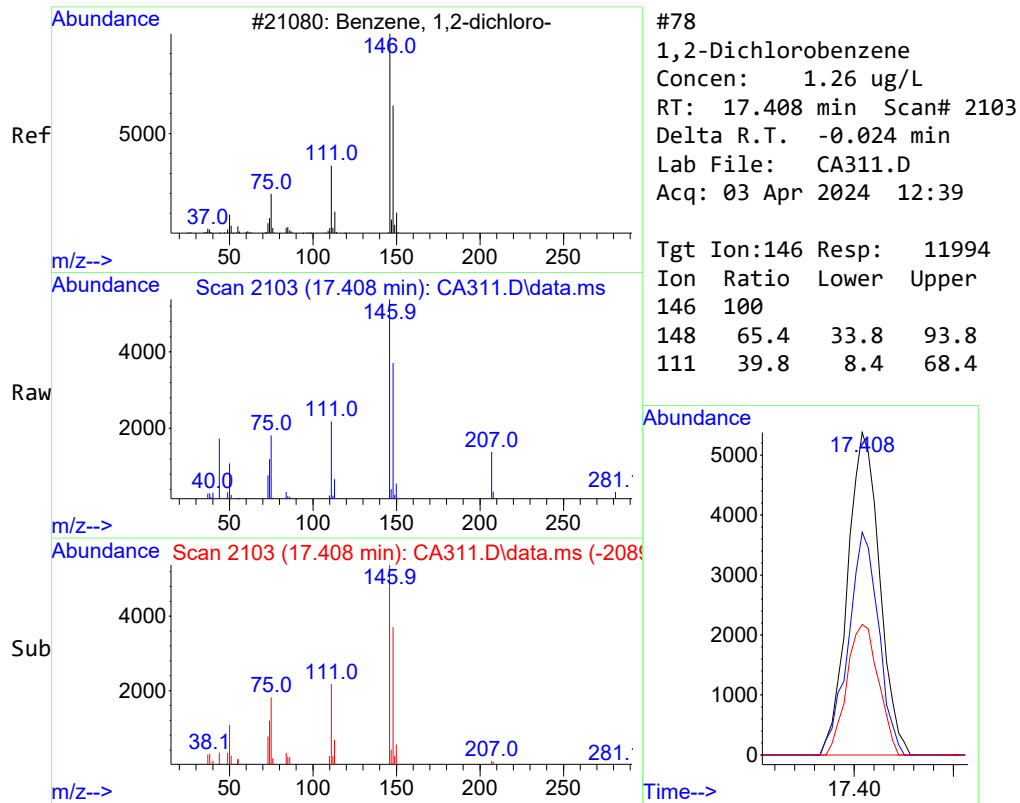
Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA311.D
Acq On : 03 Apr 2024 12:39
Operator : PXY1
InstName : VOAC
Sample : |660771005|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.4G/100UL N/A SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 03 13:16:37 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE







Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660771006	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Bottom Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 13:07	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:56	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA312.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	89.3	ug/kg	29.7	89.3
74-87-3	Chloromethane	U	89.3	ug/kg	29.7	89.3
75-01-4	Vinyl chloride	U	89.3	ug/kg	29.7	89.3
74-83-9	Bromomethane	U	89.3	ug/kg	29.7	89.3
75-00-3	Chloroethane	U	89.3	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane	U	89.3	ug/kg	29.7	89.3
67-64-1	Acetone	J	314	ug/kg	149	446
75-35-4	1,1-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
74-88-4	Iodomethane	U	446	ug/kg	149	446
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-05-8	Acetonitrile	U	2230	ug/kg	744	2230
75-15-0	Carbon disulfide	U	446	ug/kg	149	446
75-09-2	Methylene chloride	U	446	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
108-05-4	Vinyl acetate	U	446	ug/kg	149	446
75-34-3	1,1-Dichloroethane	U	89.3	ug/kg	29.7	89.3
78-93-3	2-Butanone	JB	170	ug/kg	149	446
67-66-3	Chloroform	U	89.3	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane	U	89.3	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride	U	89.3	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane	U	89.3	ug/kg	29.7	89.3
71-43-2	Benzene	U	89.3	ug/kg	29.7	89.3
79-01-6	Trichloroethylene	U	89.3	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane	U	89.3	ug/kg	29.7	89.3
74-95-3	Dibromomethane	U	89.3	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane	U	89.3	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone	U	446	ug/kg	149	446
108-88-3	Toluene	U	89.3	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane	U	89.3	ug/kg	29.7	89.3
591-78-6	2-Hexanone	U	446	ug/kg	149	446
127-18-4	Tetrachloroethylene	U	89.3	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane	U	89.3	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane	U	89.3	ug/kg	29.7	89.3
108-90-7	Chlorobenzene	U	89.3	ug/kg	29.7	89.3
100-41-4	Ethylbenzene	U	89.3	ug/kg	29.7	89.3
100-42-5	Styrene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660771006	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Bottom Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 13:07	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:56	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA312.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	89.3	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane	U	89.3	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane	U	89.3	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)	U	268	ug/kg	89.3	268
630-20-6	1,1,1,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
120-82-1	1,2,4-Trichlorobenzene	U	89.3	ug/kg	29.7	89.3

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA312.D
Acq On : 03 Apr 2024 13:07
Operator : PXY1
InstName : VOAC
Sample : |660771006|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

MA
04/04/2024

Quant Time: Apr 03 13:34:11 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.909	10.934	1.000	965322	50.00	ug/L	-0.02
43) Chlorobenzene-d5	117	14.335	14.354	1.000	686556	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.908	16.933	1.000	358652	50.00	ug/L	-0.02
84) B Fluorobenzene	96	10.909	10.928	1.000	965322	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	117	14.335	14.348	1.000	686556	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.908	16.920	1.000	358652	50.00	ug/L	-0.01

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.525	10.543	0.965	311119	53.23	ug/L	-0.02
45) Toluene-d8	98	12.695	12.714	0.886	945979	53.33	ug/L	-0.02
63) Bromofluorobenzene	95	15.603	15.622	0.923	321163	51.97	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	106%
45) Toluene-d8	50.000	81 - 120	107%
63) Bromofluorobenzene	50.000	74 - 128	104%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.349	7.367	0.674	4549	3.52	ug/L	84
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.727	7.739	0.708	123	N.D.		
13) Methyl acetate	43	7.776	7.794	0.713	941	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.977	8.001	0.731	4956	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.660	8.690	0.794	5568	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.513	9.525	0.872	3487	1.90	ug/L	82
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.641	10.665	0.975	449	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA312.D
Acq On : 03 Apr 2024 13:07
Operator : PXY1
InstName : VOAC
Sample : |660771006|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 03 13:34:11 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.427	11.434	1.048	664	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.769	12.793	0.891	575	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.952	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.445	14.457	1.008	520	N.D.	
57) m,p-Xylenes	106	14.549	14.573	1.015	1213	N.D.	
58) o-Xylene	91	15.012	15.037	1.047	776	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.610	15.695	0.923	150	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.439	16.463	0.972	235	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.408	17.432	1.030	14874	1.50 ug/L	99
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.993	20.017	1.182	1781	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA312.D
Acq On : 03 Apr 2024 13:07
Operator : PXY1
InstName : VOAC
Sample : |660771006|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 03 13:34:11 2024
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Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
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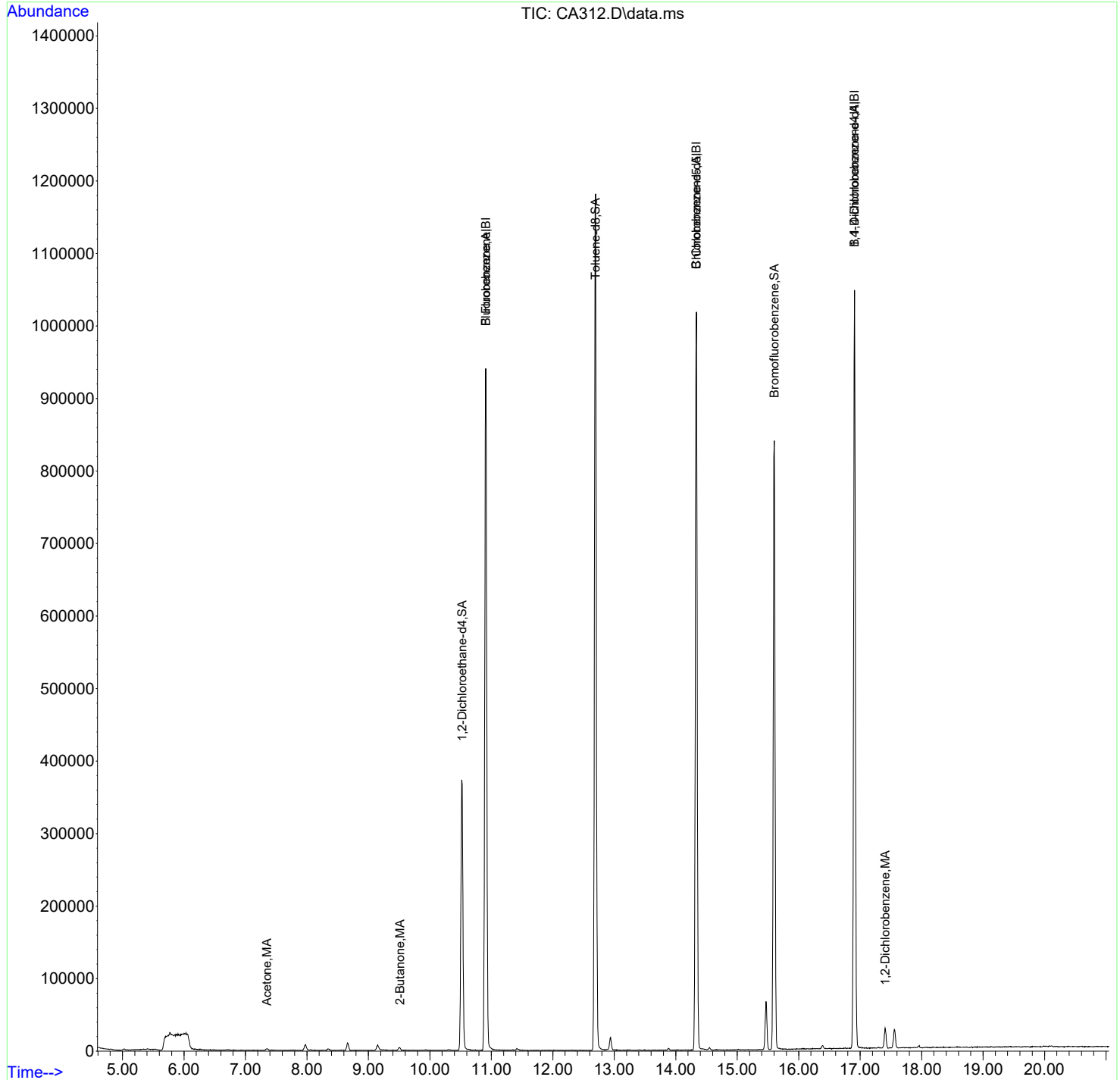
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol		0.000	7.440	0.000	0	N.D.	
88) Allyl chloride	41	7.971	7.843	0.731	277	N.D.	
89) tert-Butyl Alcohol	59	8.068	7.983	0.740	666	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.513	9.531	0.872	3487	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.940	9.940	0.911	616	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride	91	17.054	17.073	1.009	137	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.560	17.506	1.039	1260	N.D.	

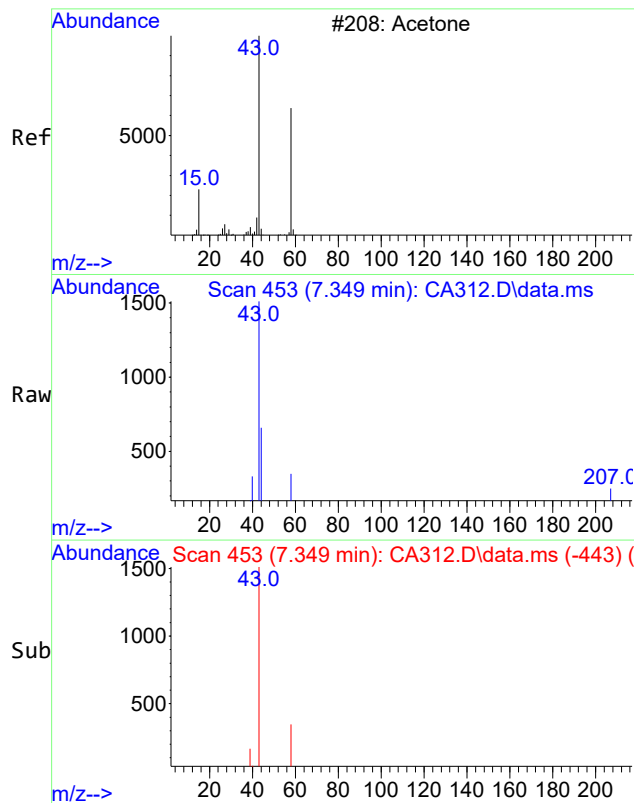
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA312.D
Acq On : 03 Apr 2024 13:07
Operator : PXY1
InstName : VOAC
Sample : |660771006|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

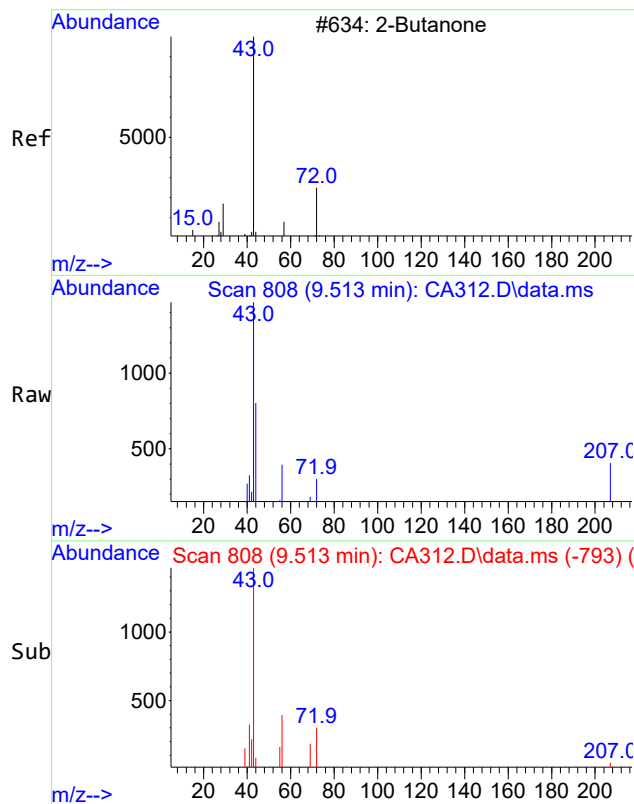
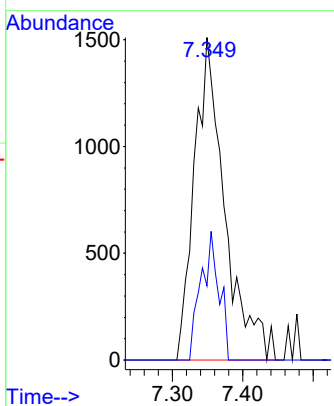
Quant Time: Apr 03 13:34:11 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





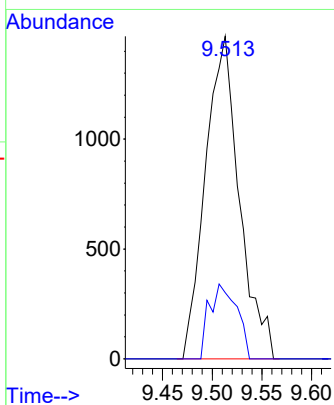
#9
Acetone
Concen: 3.52 ug/L
RT: 7.349 min Scan# 453
Delta R.T. -0.018 min
Lab File: CA312.D
Acq: 03 Apr 2024 13:07

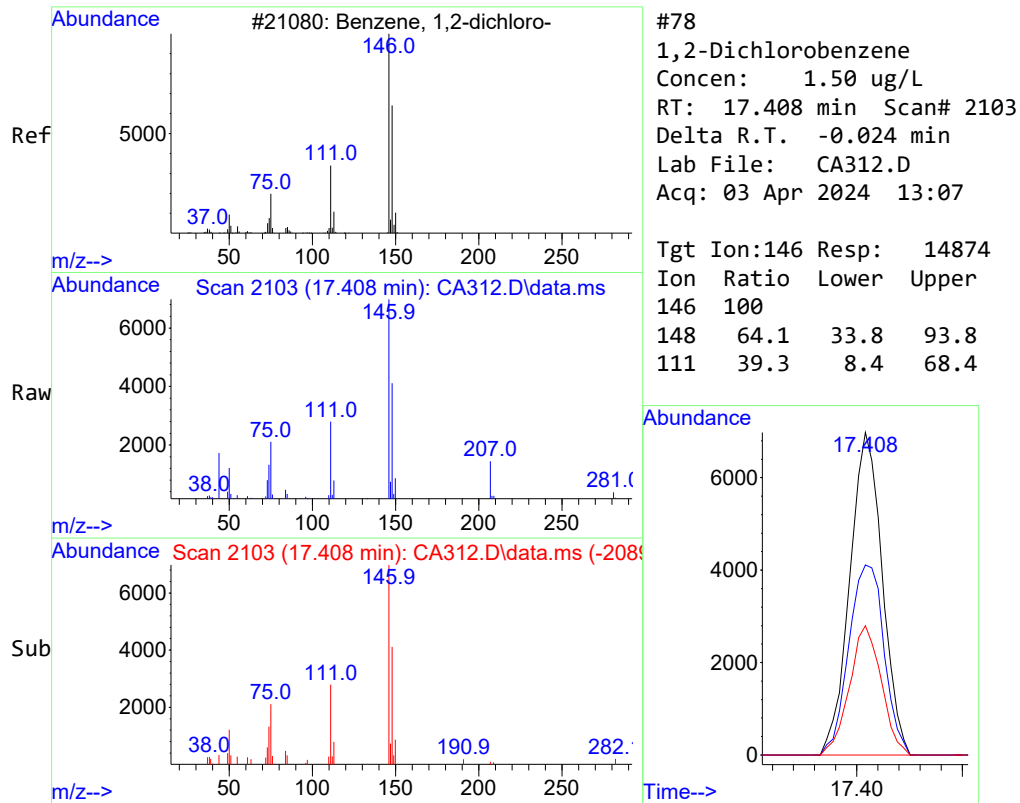
Tgt Ion: 43 Resp: 4549
Ion Ratio Lower Upper
43 100
58 23.6 2.6 62.6



#21
2-Butanone
Concen: 1.90 ug/L
RT: 9.513 min Scan# 808
Delta R.T. -0.012 min
Lab File: CA312.D
Acq: 03 Apr 2024 13:07

Tgt Ion: 43 Resp: 3487
Ion Ratio Lower Upper
43 100
72 18.7 0.0 58.1





Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:05	Matrix:	MISC SOLID
Lab Sample ID:	660771007	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Top Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 13:34	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:57	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA313.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	89.3	ug/kg	29.7	89.3
74-87-3	Chloromethane	U	89.3	ug/kg	29.7	89.3
75-01-4	Vinyl chloride	U	89.3	ug/kg	29.7	89.3
74-83-9	Bromomethane	U	89.3	ug/kg	29.7	89.3
75-00-3	Chloroethane	U	89.3	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane	U	89.3	ug/kg	29.7	89.3
67-64-1	Acetone	U	446	ug/kg	149	446
75-35-4	1,1-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
74-88-4	Iodomethane	U	446	ug/kg	149	446
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-05-8	Acetonitrile	U	2230	ug/kg	744	2230
75-15-0	Carbon disulfide	U	446	ug/kg	149	446
75-09-2	Methylene chloride	U	446	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
108-05-4	Vinyl acetate	U	446	ug/kg	149	446
75-34-3	1,1-Dichloroethane	U	89.3	ug/kg	29.7	89.3
78-93-3	2-Butanone	JB	153	ug/kg	149	446
67-66-3	Chloroform	U	89.3	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane	U	89.3	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride	U	89.3	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane	U	89.3	ug/kg	29.7	89.3
71-43-2	Benzene	U	89.3	ug/kg	29.7	89.3
79-01-6	Trichloroethylene	U	89.3	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane	U	89.3	ug/kg	29.7	89.3
74-95-3	Dibromomethane	U	89.3	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane	U	89.3	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone	U	446	ug/kg	149	446
108-88-3	Toluene	U	89.3	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane	U	89.3	ug/kg	29.7	89.3
591-78-6	2-Hexanone	U	446	ug/kg	149	446
127-18-4	Tetrachloroethylene	U	89.3	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane	U	89.3	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane	U	89.3	ug/kg	29.7	89.3
108-90-7	Chlorobenzene	U	89.3	ug/kg	29.7	89.3
100-41-4	Ethylbenzene	U	89.3	ug/kg	29.7	89.3
100-42-5	Styrene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:05	Matrix:	MISC SOLID
Lab Sample ID:	660771007	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Top Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 13:34	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:57	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA313.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	89.3	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane	U	89.3	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane	U	89.3	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)	U	268	ug/kg	89.3	268
630-20-6	1,1,1,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
120-82-1	1,2,4-Trichlorobenzene	U	89.3	ug/kg	29.7	89.3

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA313.D
Acq On : 03 Apr 2024 13:34
Operator : PXY1
InstName : VOAC
Sample : |660771007|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

MA
04/04/2024

Quant Time: Apr 03 14:01:24 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.909	10.934	1.000	970048	50.00	ug/L	-0.02
43) Chlorobenzene-d5	117	14.335	14.354	1.000	689921	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.908	16.933	1.000	355885	50.00	ug/L	-0.02
84) B Fluorobenzene	96	10.909	10.928	1.000	969878	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	117	14.335	14.348	1.000	689458	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.908	16.920	1.000	355891	50.00	ug/L	-0.01

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.525	10.543	0.965	311637	53.06	ug/L	-0.02
45) Toluene-d8	98	12.695	12.714	0.886	939167	52.69	ug/L	-0.02
63) Bromofluorobenzene	95	15.597	15.622	0.922	315807	51.50	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	106%
45) Toluene-d8	50.000	81 - 120	105%
63) Bromofluorobenzene	50.000	74 - 128	103%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.355	7.367	0.674	1907	N.D.		
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.715	7.739	0.707	121	N.D.		
13) Methyl acetate	43	7.776	7.794	0.713	975	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.977	8.001	0.731	4811	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.666	8.690	0.794	2845	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.513	9.525	0.872	3142	1.71	ug/L	85
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene		0.000	10.665	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA313.D
Acq On : 03 Apr 2024 13:34
Operator : PXY1
InstName : VOAC
Sample : |660771007|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 03 14:01:24 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.415	11.434	1.046	456	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.775	12.793	0.891	1021	N.D.	
47) trans-1,3-Dichloroprop...	75	12.927	12.952	0.902	207	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.439	14.457	1.007	116	N.D.	
57) m,p-Xylenes		0.000	14.573	0.000	0	N.D.	
58) o-Xylene		0.000	15.037	0.000	0	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.591	15.695	0.922	143	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	16.463	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.408	17.432	1.030	2663	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.993	20.017	1.182	939	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA313.D
Acq On : 03 Apr 2024 13:34
Operator : PXY1
InstName : VOAC
Sample : |660771007|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 03 14:01:24 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

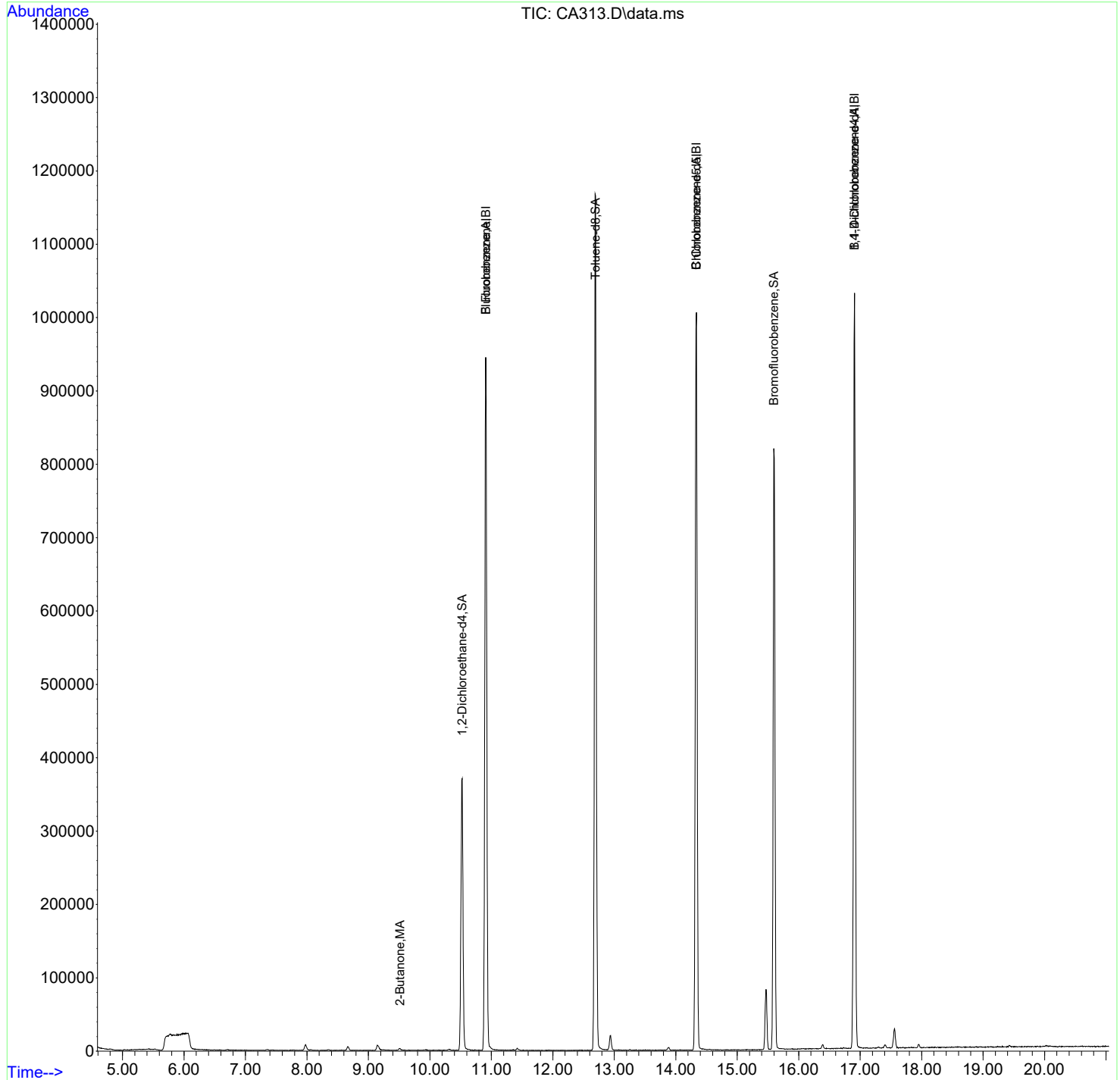
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.440	7.440	0.682	616	N.D.	
88) Allyl chloride	41	7.983	7.843	0.732	147	N.D.	
89) tert-Butyl Alcohol	59	8.068	7.983	0.740	616	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.513	9.531	0.872	3142	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.928	9.940	0.910	532	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.560	17.506	1.039	1353	N.D.	

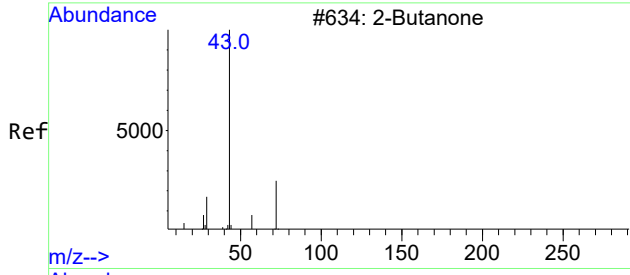
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA313.D
Acq On : 03 Apr 2024 13:34
Operator : PXY1
InstName : VOAC
Sample : |660771007|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

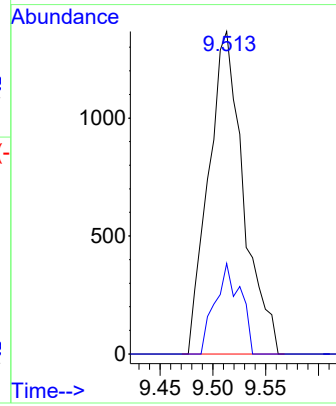
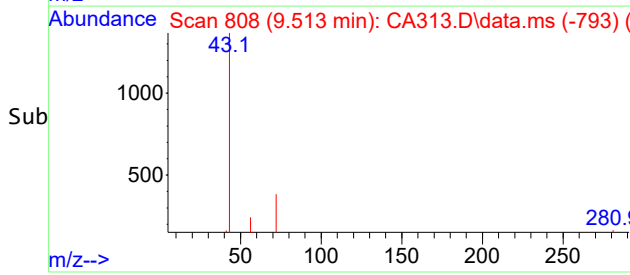
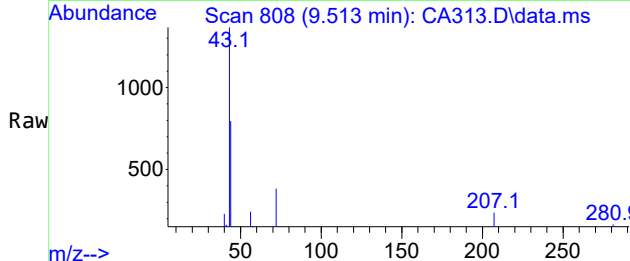
Quant Time: Apr 03 14:01:24 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





#21
2-Butanone
Concen: 1.71 ug/L
RT: 9.513 min Scan# 808
Delta R.T. -0.012 min
Lab File: CA313.D
Acq: 03 Apr 2024 13:34

Tgt Ion: 43 Resp: 3142
Ion Ratio Lower Upper
43 100
72 20.3 0.0 58.1



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:10	Matrix:	MISC SOLID
Lab Sample ID:	660771008	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Middle Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 14:02	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:58	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA314.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	90.9	ug/kg	30.3	90.9
74-87-3	Chloromethane	U	90.9	ug/kg	30.3	90.9
75-01-4	Vinyl chloride	U	90.9	ug/kg	30.3	90.9
74-83-9	Bromomethane	U	90.9	ug/kg	30.3	90.9
75-00-3	Chloroethane	U	90.9	ug/kg	30.3	90.9
75-69-4	Trichlorofluoromethane	U	90.9	ug/kg	30.3	90.9
67-64-1	Acetone	J	184	ug/kg	152	455
75-35-4	1,1-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
74-88-4	Iodomethane	U	455	ug/kg	152	455
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	455	ug/kg	152	455
75-05-8	Acetonitrile	U	2270	ug/kg	758	2270
75-15-0	Carbon disulfide	U	455	ug/kg	152	455
75-09-2	Methylene chloride	U	455	ug/kg	152	455
156-60-5	trans-1,2-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
108-05-4	Vinyl acetate	U	455	ug/kg	152	455
75-34-3	1,1-Dichloroethane	U	90.9	ug/kg	30.3	90.9
78-93-3	2-Butanone	JB	165	ug/kg	152	455
67-66-3	Chloroform	U	90.9	ug/kg	30.3	90.9
71-55-6	1,1,1-Trichloroethane	U	90.9	ug/kg	30.3	90.9
56-23-5	Carbon tetrachloride	U	90.9	ug/kg	30.3	90.9
107-06-2	1,2-Dichloroethane	U	90.9	ug/kg	30.3	90.9
71-43-2	Benzene	U	90.9	ug/kg	30.3	90.9
79-01-6	Trichloroethylene	U	90.9	ug/kg	30.3	90.9
78-87-5	1,2-Dichloropropane	U	90.9	ug/kg	30.3	90.9
74-95-3	Dibromomethane	U	90.9	ug/kg	30.3	90.9
75-27-4	Bromodichloromethane	U	90.9	ug/kg	30.3	90.9
10061-01-5	cis-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
108-10-1	4-Methyl-2-pentanone	U	455	ug/kg	152	455
108-88-3	Toluene	J	32.7	ug/kg	30.3	90.9
10061-02-6	trans-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
79-00-5	1,1,2-Trichloroethane	U	90.9	ug/kg	30.3	90.9
591-78-6	2-Hexanone	U	455	ug/kg	152	455
127-18-4	Tetrachloroethylene	U	90.9	ug/kg	30.3	90.9
124-48-1	Dibromochloromethane	U	90.9	ug/kg	30.3	90.9
106-93-4	1,2-Dibromoethane	U	90.9	ug/kg	30.3	90.9
108-90-7	Chlorobenzene	U	90.9	ug/kg	30.3	90.9
100-41-4	Ethylbenzene	U	90.9	ug/kg	30.3	90.9
100-42-5	Styrene	U	90.9	ug/kg	30.3	90.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:10	Matrix:	MISC SOLID
Lab Sample ID:	660771008	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Middle Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 14:02	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:58	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA314.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	90.9	ug/kg	30.3	90.9
79-34-5	1,1,2,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
96-18-4	1,2,3-Trichloropropane	U	90.9	ug/kg	30.3	90.9
96-12-8	1,2-Dibromo-3-chloropropane	U	90.9	ug/kg	45.5	90.9
107-02-8	Acrolein	U	455	ug/kg	152	455
107-05-1	Allyl chloride	U	455	ug/kg	152	455
107-13-1	Acrylonitrile	U	455	ug/kg	152	455
126-99-8	2-Chloro-1,3-butadiene	U	90.9	ug/kg	30.3	90.9
107-12-0	Propionitrile	U	455	ug/kg	152	455
126-98-7	Methacrylonitrile	U	455	ug/kg	152	455
78-83-1	Isobutyl alcohol	U	4550	ug/kg	1520	4550
80-62-6	Methyl methacrylate	U	455	ug/kg	152	455
97-63-2	Ethyl methacrylate	U	455	ug/kg	152	455
76-01-7	Pentachloroethane	U	455	ug/kg	152	455
110-57-6	trans-1,4-Dichloro-2-butene	U	455	ug/kg	152	455
1330-20-7	Xylenes (total)	U	273	ug/kg	90.9	273
630-20-6	1,1,1,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
120-82-1	1,2,4-Trichlorobenzene	U	90.9	ug/kg	30.3	90.9

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA314.D
Acq On : 03 Apr 2024 14:02
Operator : PXY1
InstName : VOAC
Sample : |660771008|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

MA

04/04/2024

Quant Time: Apr 04 07:53:51 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.909	10.934	1.000	935833	50.00	ug/L	-0.02
43) Chlorobenzene-d5	117	14.329	14.354	1.000	674708	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.908	16.933	1.000	353119	50.00	ug/L	-0.02
84) B Fluorobenzene	96	10.909	10.928	1.000	935667	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	117	14.329	14.348	1.000	674708	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.908	16.920	1.000	353397	50.00	ug/L	-0.01

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.519	10.543	0.964	303964	53.64	ug/L	-0.02
45) Toluene-d8	98	12.689	12.714	0.886	918998	52.72	ug/L	-0.02
63) Bromofluorobenzene	95	15.597	15.622	0.922	313089	51.46	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	107%
45) Toluene-d8	50.000	81 - 120	105%
63) Bromofluorobenzene	50.000	74 - 128	103%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.349	7.367	0.674	2531	2.02	ug/L	81
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.745	7.739	0.710	226	N.D.		
13) Methyl acetate	43	7.769	7.794	0.712	985	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.977	8.001	0.731	4879	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.666	8.690	0.794	2965	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.501	9.525	0.871	3228	1.82	ug/L	78
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane	56	10.257	10.342	0.940	191	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene		0.000	10.665	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA314.D
Acq On : 03 Apr 2024 14:02
Operator : PXY1
InstName : VOAC
Sample : |660771008|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 04 07:53:51 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.415	11.434	1.046	522	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.769	12.793	0.891	6380	0.36 ug/L #	100
47) trans-1,3-Dichloroprop...	75	12.933	12.952	0.903	199	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.439	14.457	1.008	135	N.D.	
57) m,p-Xylenes		0.000	14.573	0.000	0	N.D.	
58) o-Xylene	91	15.018	15.037	1.048	189	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.591	15.695	0.922	286	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.445	16.463	0.973	185	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene	119	16.774	16.792	0.992	436	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.408	17.432	1.030	2220	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	19.548	19.578	1.156	120	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.993	20.017	1.182	822	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA314.D
Acq On : 03 Apr 2024 14:02
Operator : PXY1
InstName : VOAC
Sample : |660771008|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 04 07:53:51 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

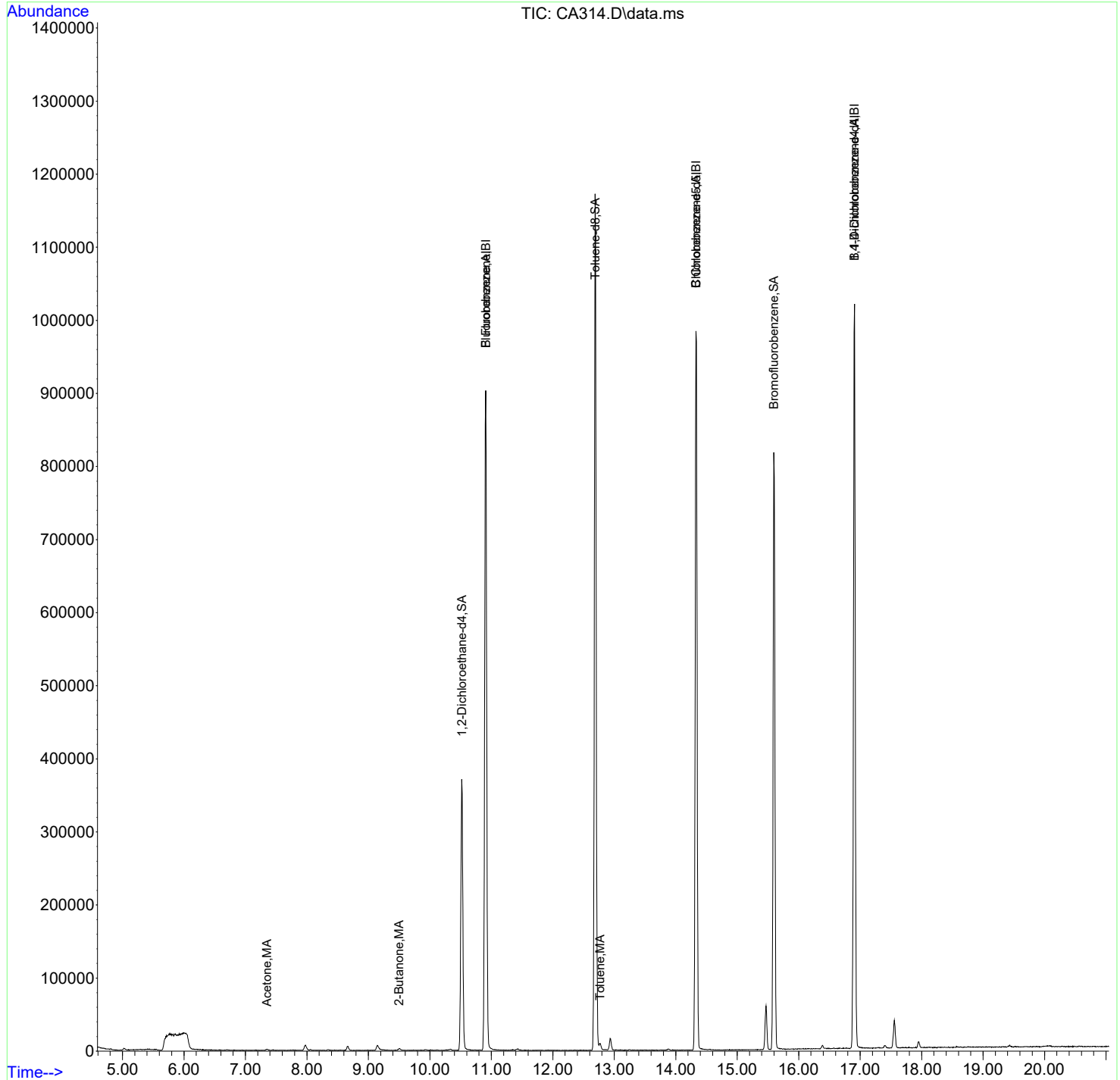
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.446	7.440	0.683	291	N.D.	
88) Allyl chloride	41	7.977	7.843	0.731	311	N.D.	
89) tert-Butyl Alcohol	59	8.050	7.983	0.738	536	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.501	9.531	0.871	3228	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.922	9.940	0.909	548	N.D.	
98) Isobutyl alcohol	41	10.336	10.263	0.947	574	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.554	17.506	1.038	1788	N.D.	

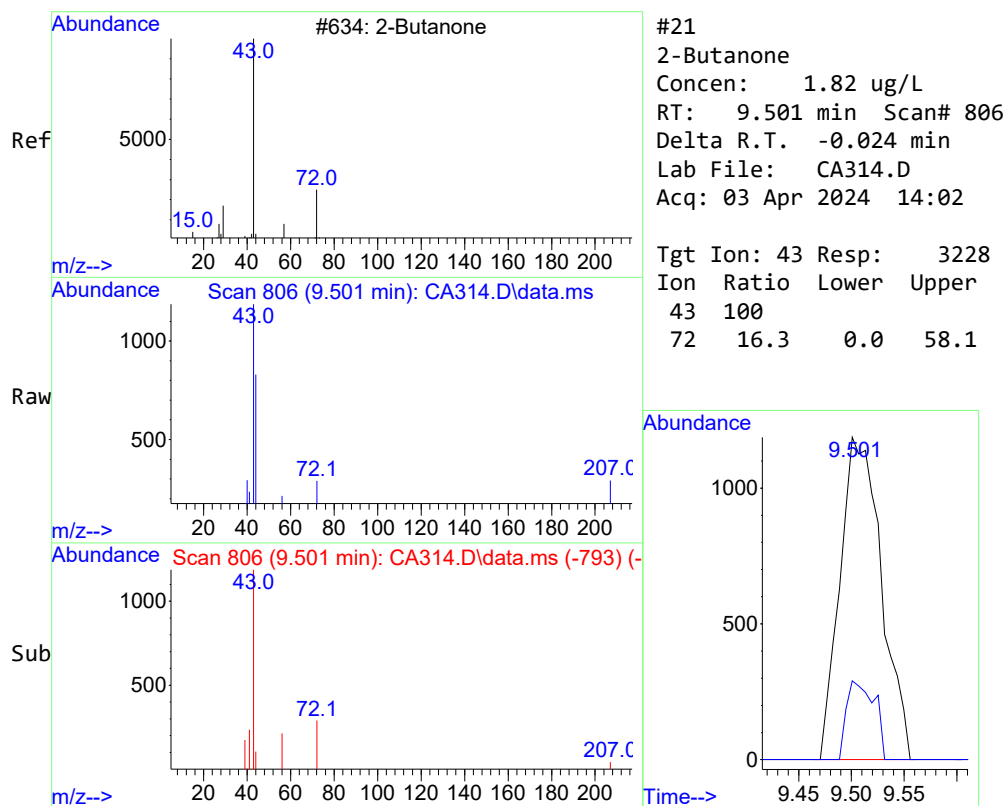
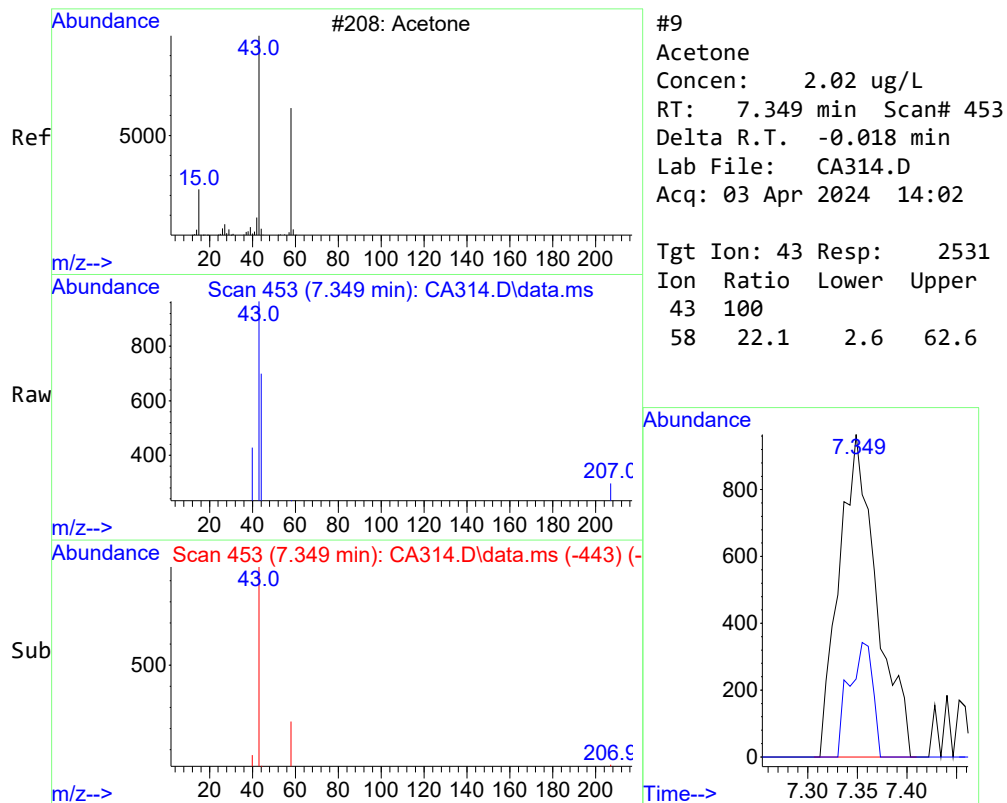
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

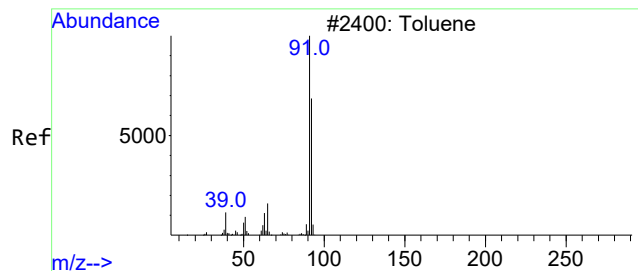
Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA314.D
Acq On : 03 Apr 2024 14:02
Operator : PXY1
InstName : VOAC
Sample : |660771008|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

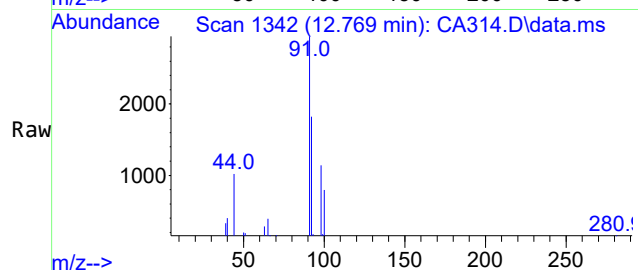
Quant Time: Apr 04 07:53:51 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



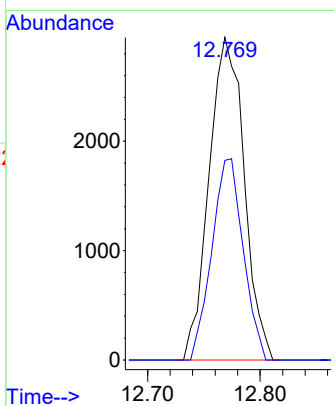
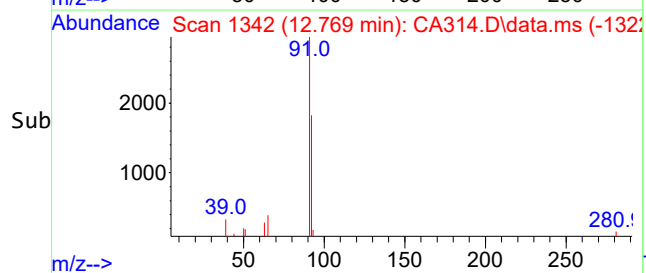




#46
Toluene
Concen: 0.36 ug/L
RT: 12.769 min Scan# 1342
Delta R.T. -0.024 min
Lab File: CA314.D
Acq: 03 Apr 2024 14:02



Tgt Ion: 91 Resp: 6380
Ion Ratio Lower Upper
91 100
92 55.7 0.0 30.0#



Volatiles
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771009	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Bottom Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 14:30	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:59	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA315.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	89.3	ug/kg	29.7	89.3
74-87-3	Chloromethane	U	89.3	ug/kg	29.7	89.3
75-01-4	Vinyl chloride	U	89.3	ug/kg	29.7	89.3
74-83-9	Bromomethane	U	89.3	ug/kg	29.7	89.3
75-00-3	Chloroethane	U	89.3	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane	U	89.3	ug/kg	29.7	89.3
67-64-1	Acetone	J	229	ug/kg	149	446
75-35-4	1,1-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
74-88-4	Iodomethane	U	446	ug/kg	149	446
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-05-8	Acetonitrile	U	2230	ug/kg	744	2230
75-15-0	Carbon disulfide	U	446	ug/kg	149	446
75-09-2	Methylene chloride	U	446	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
108-05-4	Vinyl acetate	U	446	ug/kg	149	446
75-34-3	1,1-Dichloroethane	U	89.3	ug/kg	29.7	89.3
78-93-3	2-Butanone	JB	166	ug/kg	149	446
67-66-3	Chloroform	U	89.3	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane	U	89.3	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride	U	89.3	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane	U	89.3	ug/kg	29.7	89.3
71-43-2	Benzene	U	89.3	ug/kg	29.7	89.3
79-01-6	Trichloroethylene	U	89.3	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane	U	89.3	ug/kg	29.7	89.3
74-95-3	Dibromomethane	U	89.3	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane	U	89.3	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone	U	446	ug/kg	149	446
108-88-3	Toluene	J	39.3	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane	U	89.3	ug/kg	29.7	89.3
591-78-6	2-Hexanone	U	446	ug/kg	149	446
127-18-4	Tetrachloroethylene	U	89.3	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane	U	89.3	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane	U	89.3	ug/kg	29.7	89.3
108-90-7	Chlorobenzene	U	89.3	ug/kg	29.7	89.3
100-41-4	Ethylbenzene	U	89.3	ug/kg	29.7	89.3
100-42-5	Styrene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771009	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Bottom Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 14:30	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:59	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA315.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	89.3	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane	U	89.3	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane	U	89.3	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)	U	268	ug/kg	89.3	268
630-20-6	1,1,1,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
120-82-1	1,2,4-Trichlorobenzene	U	89.3	ug/kg	29.7	89.3

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA315.D
Acq On : 03 Apr 2024 14:30
Operator : PXY1
InstName : VOAC
Sample : |660771009|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

MA
04/04/2024

Quant Time: Apr 04 07:54:28 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.903	10.934	1.000	970236	50.00	ug/L	-0.03
43) Chlorobenzene-d5	117	14.329	14.354	1.000	689616	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.908	16.933	1.000	348977	50.00	ug/L	-0.02
84) B Fluorobenzene	96	10.903	10.928	1.000	969883	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	117	14.329	14.348	1.000	689616	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.908	16.920	1.000	348983	50.00	ug/L	-0.01

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.519	10.543	0.965	314091	53.46	ug/L	-0.02
45) Toluene-d8	98	12.689	12.714	0.886	958721	53.81	ug/L	-0.02
63) Bromofluorobenzene	95	15.597	15.622	0.922	326743	54.34	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	107%
45) Toluene-d8	50.000	81 - 120	108%
63) Bromofluorobenzene	50.000	74 - 128	109%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.349	7.367	0.674	3335	2.57	ug/L	86
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.727	7.739	0.709	123	N.D.		
13) Methyl acetate	43	7.770	7.794	0.713	791	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.965	8.001	0.730	5025	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.666	8.690	0.795	3162	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.501	9.525	0.871	3420	1.86	ug/L	80
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane	56	10.336	10.342	0.948	370	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.641	10.665	0.976	145	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA315.D
Acq On : 03 Apr 2024 14:30
Operator : PXY1
InstName : VOAC
Sample : |660771009|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 04 07:54:28 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.421	11.434	1.048	570	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.769	12.793	0.891	7947	0.44 ug/L #	100
47) trans-1,3-Dichloroprop...		0.000	12.952	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.433	14.457	1.007	130	N.D.	
57) m,p-Xylenes	106	14.543	14.573	1.015	472	N.D.	
58) o-Xylene	91	15.018	15.037	1.048	217	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.597	15.695	0.922	195	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	16.463	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene	119	16.768	16.792	0.992	332	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.402	17.432	1.029	2991	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.987	20.017	1.182	793	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA315.D
Acq On : 03 Apr 2024 14:30
Operator : PXY1
InstName : VOAC
Sample : |660771009|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 04 07:54:28 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

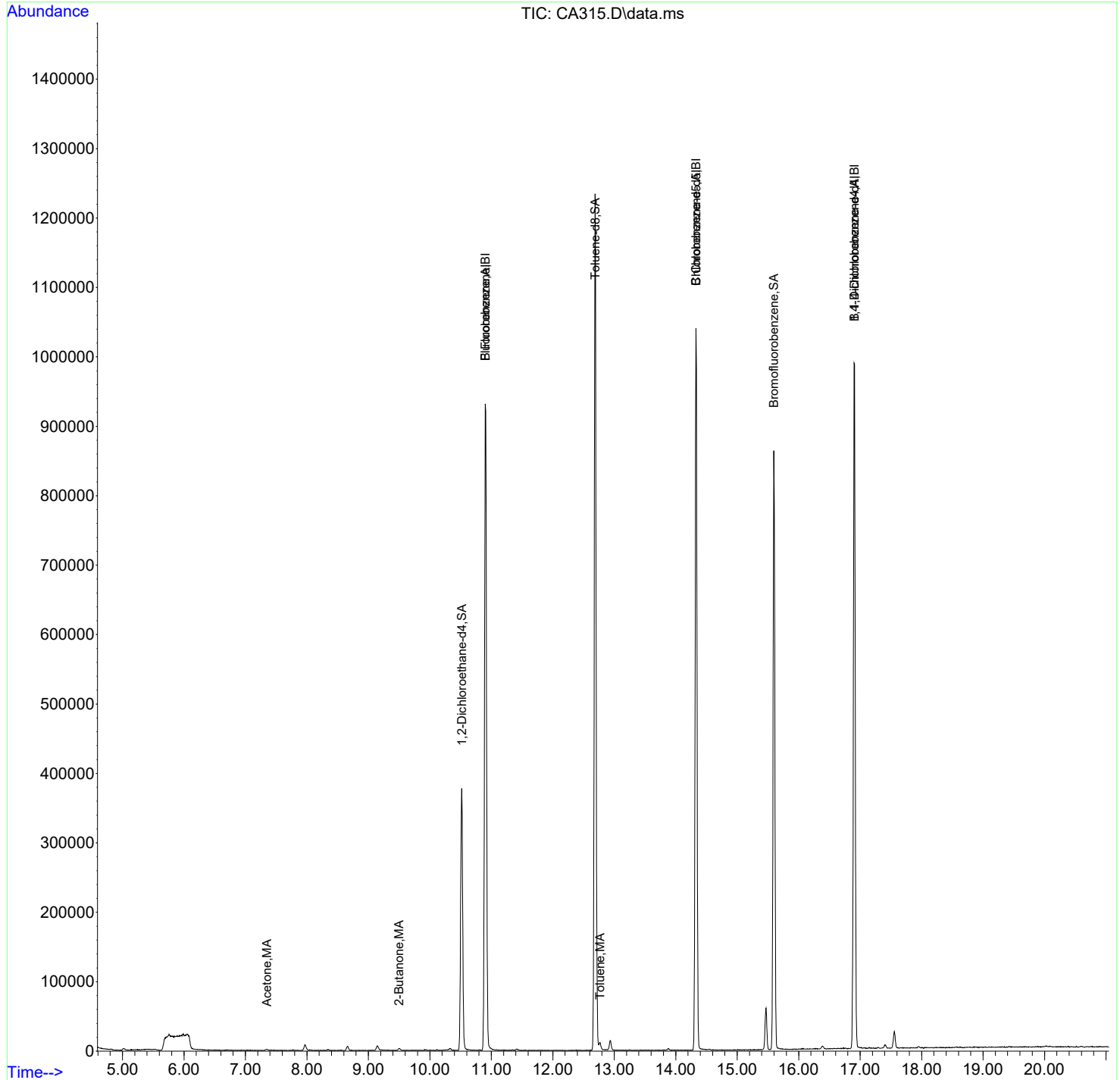
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.440	7.440	0.682	305	N.D.	
88) Allyl chloride	41	7.995	7.843	0.733	563	N.D.	
89) tert-Butyl Alcohol	59	8.050	7.983	0.738	472	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.501	9.531	0.871	3420	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.940	9.940	0.912	531	N.D.	
98) Isobutyl alcohol	41	10.342	10.263	0.949	873	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.548	17.506	1.038	1254	N.D.	

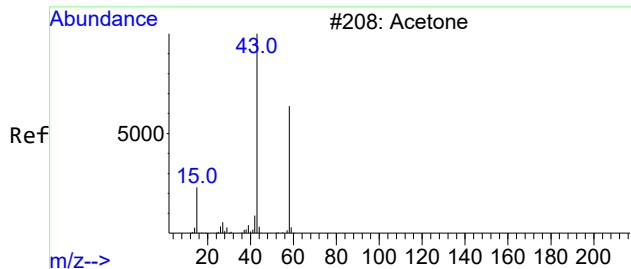
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

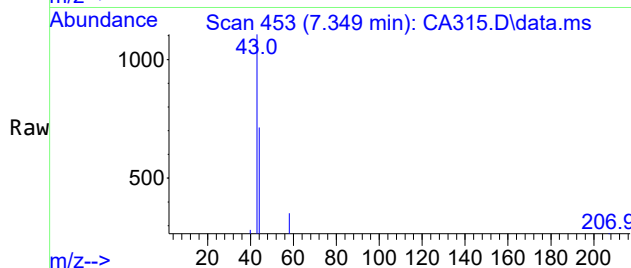
Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA315.D
Acq On : 03 Apr 2024 14:30
Operator : PXY1
InstName : VOAC
Sample : |660771009|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 04 07:54:28 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

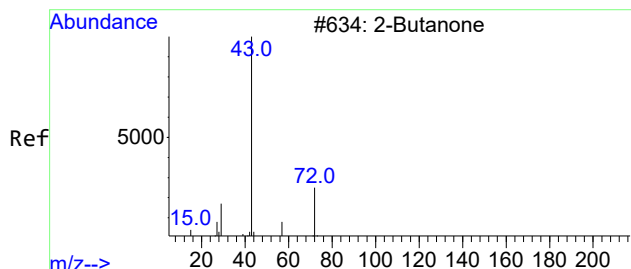
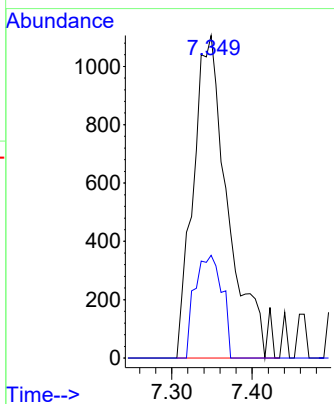
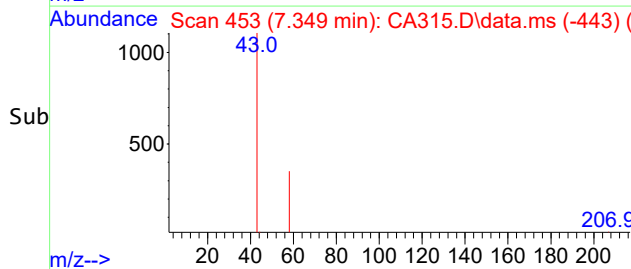




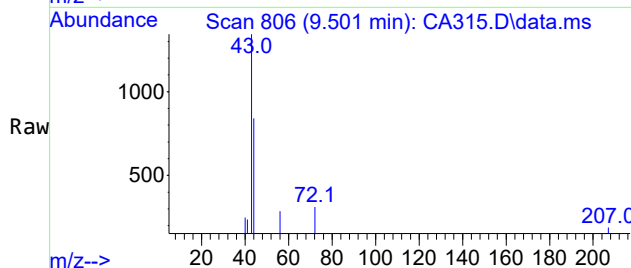
#9
Acetone
Concen: 2.57 ug/L
RT: 7.349 min Scan# 453
Delta R.T. -0.018 min
Lab File: CA315.D
Acq: 03 Apr 2024 14:30



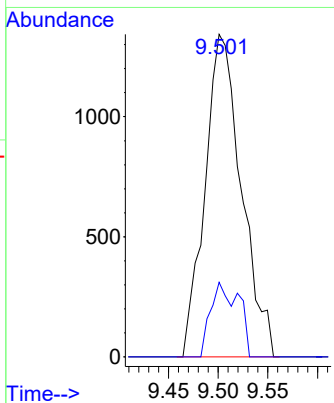
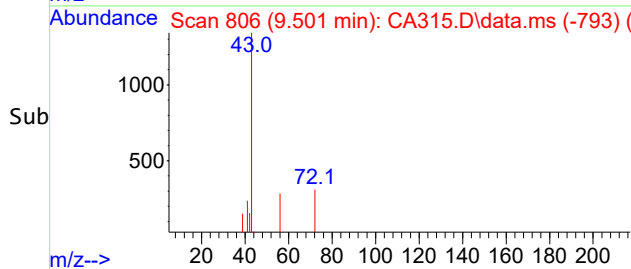
Tgt Ion: 43 Resp: 3335
Ion Ratio Lower Upper
43 100
58 24.7 2.6 62.6

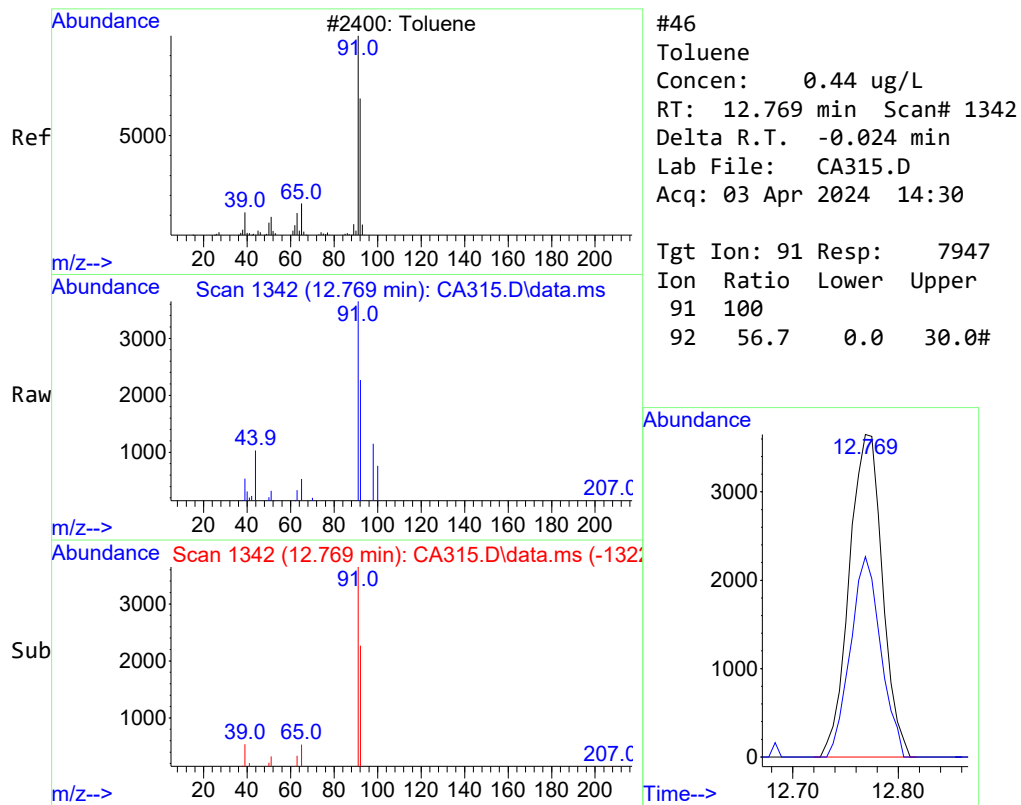


#21
2-Butanone
Concen: 1.86 ug/L
RT: 9.501 min Scan# 806
Delta R.T. -0.024 min
Lab File: CA315.D
Acq: 03 Apr 2024 14:30



Tgt Ion: 43 Resp: 3420
Ion Ratio Lower Upper
43 100
72 17.6 0.0 58.1





Volatiles
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:25	Matrix:	MISC SOLID
Lab Sample ID:	660771010	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Top Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 14:58	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:00	Aliquot:	5.4 g	Final Volume:	10 mL
Data File:	data\040324VC\CA316.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	92.6	ug/kg	30.8	92.6
74-87-3	Chloromethane	U	92.6	ug/kg	30.8	92.6
75-01-4	Vinyl chloride	U	92.6	ug/kg	30.8	92.6
74-83-9	Bromomethane	U	92.6	ug/kg	30.8	92.6
75-00-3	Chloroethane	U	92.6	ug/kg	30.8	92.6
75-69-4	Trichlorofluoromethane	U	92.6	ug/kg	30.8	92.6
67-64-1	Acetone	U	463	ug/kg	154	463
75-35-4	1,1-Dichloroethylene	U	92.6	ug/kg	30.8	92.6
74-88-4	Iodomethane	U	463	ug/kg	154	463
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	463	ug/kg	154	463
75-05-8	Acetonitrile	U	2310	ug/kg	772	2310
75-15-0	Carbon disulfide	U	463	ug/kg	154	463
75-09-2	Methylene chloride	U	463	ug/kg	154	463
156-60-5	trans-1,2-Dichloroethylene	U	92.6	ug/kg	30.8	92.6
108-05-4	Vinyl acetate	U	463	ug/kg	154	463
75-34-3	1,1-Dichloroethane	U	92.6	ug/kg	30.8	92.6
78-93-3	2-Butanone	U	463	ug/kg	154	463
67-66-3	Chloroform	U	92.6	ug/kg	30.8	92.6
71-55-6	1,1,1-Trichloroethane	U	92.6	ug/kg	30.8	92.6
56-23-5	Carbon tetrachloride	U	92.6	ug/kg	30.8	92.6
107-06-2	1,2-Dichloroethane	U	92.6	ug/kg	30.8	92.6
71-43-2	Benzene	U	92.6	ug/kg	30.8	92.6
79-01-6	Trichloroethylene	U	92.6	ug/kg	30.8	92.6
78-87-5	1,2-Dichloropropane	U	92.6	ug/kg	30.8	92.6
74-95-3	Dibromomethane	U	92.6	ug/kg	30.8	92.6
75-27-4	Bromodichloromethane	U	92.6	ug/kg	30.8	92.6
10061-01-5	cis-1,3-Dichloropropylene	U	92.6	ug/kg	30.8	92.6
108-10-1	4-Methyl-2-pentanone	U	463	ug/kg	154	463
108-88-3	Toluene	U	92.6	ug/kg	30.8	92.6
10061-02-6	trans-1,3-Dichloropropylene	U	92.6	ug/kg	30.8	92.6
79-00-5	1,1,2-Trichloroethane	U	92.6	ug/kg	30.8	92.6
591-78-6	2-Hexanone	U	463	ug/kg	154	463
127-18-4	Tetrachloroethylene	U	92.6	ug/kg	30.8	92.6
124-48-1	Dibromochloromethane	U	92.6	ug/kg	30.8	92.6
106-93-4	1,2-Dibromoethane	U	92.6	ug/kg	30.8	92.6
108-90-7	Chlorobenzene	U	92.6	ug/kg	30.8	92.6
100-41-4	Ethylbenzene	U	92.6	ug/kg	30.8	92.6
100-42-5	Styrene	U	92.6	ug/kg	30.8	92.6

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:25	Matrix:	MISC SOLID
Lab Sample ID:	660771010	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Top Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 14:58	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:00	Aliquot:	5.4 g	Final Volume:	10 mL
Data File:	data\040324VC\CA316.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	92.6	ug/kg	30.8	92.6
79-34-5	1,1,2,2-Tetrachloroethane	U	92.6	ug/kg	30.8	92.6
96-18-4	1,2,3-Trichloropropane	U	92.6	ug/kg	30.8	92.6
96-12-8	1,2-Dibromo-3-chloropropane	U	92.6	ug/kg	46.3	92.6
107-02-8	Acrolein	U	463	ug/kg	154	463
107-05-1	Allyl chloride	U	463	ug/kg	154	463
107-13-1	Acrylonitrile	U	463	ug/kg	154	463
126-99-8	2-Chloro-1,3-butadiene	U	92.6	ug/kg	30.8	92.6
107-12-0	Propionitrile	U	463	ug/kg	154	463
126-98-7	Methacrylonitrile	U	463	ug/kg	154	463
78-83-1	Isobutyl alcohol	U	4630	ug/kg	1540	4630
80-62-6	Methyl methacrylate	U	463	ug/kg	154	463
97-63-2	Ethyl methacrylate	U	463	ug/kg	154	463
76-01-7	Pentachloroethane	U	463	ug/kg	154	463
110-57-6	trans-1,4-Dichloro-2-butene	U	463	ug/kg	154	463
1330-20-7	Xylenes (total)	U	278	ug/kg	92.6	278
630-20-6	1,1,1,2-Tetrachloroethane	U	92.6	ug/kg	30.8	92.6
120-82-1	1,2,4-Trichlorobenzene	U	92.6	ug/kg	30.8	92.6

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA316.D
Acq On : 03 Apr 2024 14:58
Operator : PXY1
InstName : VOAC
Sample : |660771010|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.4G/100UL N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

MA

04/04/2024

Quant Time: Apr 04 07:55:41 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.903	10.934	1.000	980299	50.00	ug/L	-0.03
43) Chlorobenzene-d5	117	14.329	14.354	1.000	695218	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.902	16.933	1.000	350224	50.00	ug/L	-0.03
84) B Fluorobenzene	96	10.903	10.928	1.000	979911	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	117	14.329	14.348	1.000	694823	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.902	16.920	1.000	350352	50.00	ug/L	-0.02

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.519	10.543	0.965	313350	52.79	ug/L	-0.02
45) Toluene-d8	98	12.689	12.714	0.886	955604	53.20	ug/L	-0.02
63) Bromofluorobenzene	95	15.597	15.622	0.923	319230	52.90	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	106%
45) Toluene-d8	50.000	81 - 120	106%
63) Bromofluorobenzene	50.000	74 - 128	106%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.343	7.367	0.673	1898	N.D.		
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.977	7.739	0.732	288	N.D.		
13) Methyl acetate	43	7.769	7.794	0.713	787	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.971	8.001	0.731	5187	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.666	8.690	0.795	2847	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.507	9.525	0.872	3102	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene		0.000	10.665	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA316.D
Acq On : 03 Apr 2024 14:58
Operator : PXY1
InstName : VOAC
Sample : |660771010|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.4G/100UL N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 04 07:55:41 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.403	11.434	1.046	355	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.775	12.793	0.892	977	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.952	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene		0.000	14.457	0.000	0	N.D.	
57) m,p-Xylenes		0.000	14.573	0.000	0	N.D.	
58) o-Xylene		0.000	15.037	0.000	0	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.597	15.695	0.923	183	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	16.463	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene	119	16.896	16.792	1.000	137	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene	91	17.243	17.280	1.020	119	N.D.	
78) 1,2-Dichlorobenzene	146	17.408	17.432	1.030	2720	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.999	20.017	1.183	750	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA316.D
Acq On : 03 Apr 2024 14:58
Operator : PXY1
InstName : VOAC
Sample : |660771010|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.4G/100UL N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 04 07:55:41 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

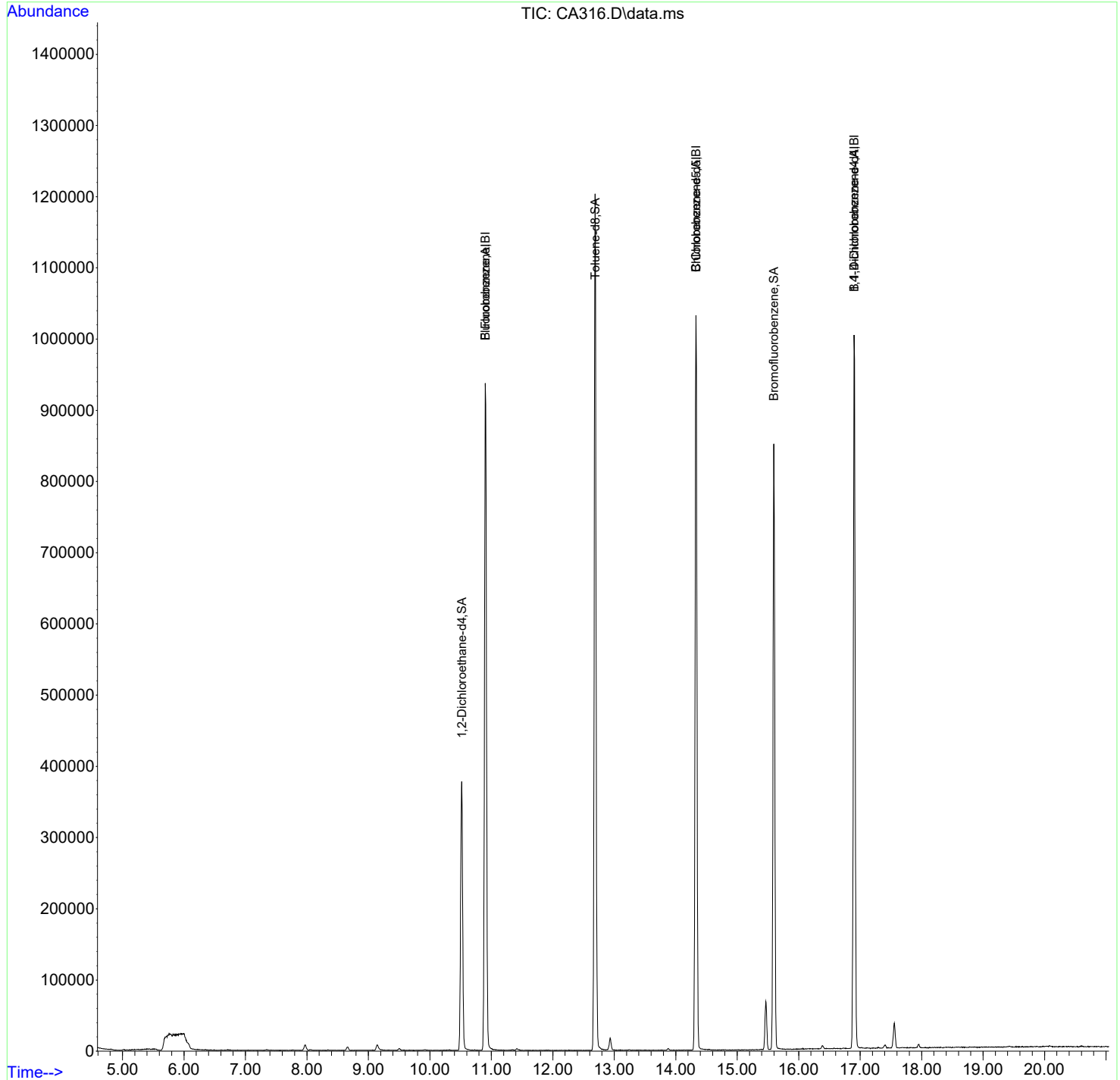
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.422	7.440	0.681	246	N.D.	
88) Allyl chloride	41	7.751	7.843	0.711	122	N.D.	
89) tert-Butyl Alcohol	59	7.977	7.983	0.732	183	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.507	9.531	0.872	3102	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.921	9.940	0.910	674	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.548	17.506	1.038	1687	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA316.D
Acq On : 03 Apr 2024 14:58
Operator : PXY1
InstName : VOAC
Sample : |660771010|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.4G/100UL N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 04 07:55:41 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:30	Matrix:	MISC SOLID
Lab Sample ID:	660771011	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Middle Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 15:26	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:01	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA317.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	90.9	ug/kg	30.3	90.9
74-87-3	Chloromethane	U	90.9	ug/kg	30.3	90.9
75-01-4	Vinyl chloride	U	90.9	ug/kg	30.3	90.9
74-83-9	Bromomethane	U	90.9	ug/kg	30.3	90.9
75-00-3	Chloroethane	U	90.9	ug/kg	30.3	90.9
75-69-4	Trichlorofluoromethane	U	90.9	ug/kg	30.3	90.9
67-64-1	Acetone	U	455	ug/kg	152	455
75-35-4	1,1-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
74-88-4	Iodomethane	U	455	ug/kg	152	455
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	455	ug/kg	152	455
75-05-8	Acetonitrile	U	2270	ug/kg	758	2270
75-15-0	Carbon disulfide	U	455	ug/kg	152	455
75-09-2	Methylene chloride	U	455	ug/kg	152	455
156-60-5	trans-1,2-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
108-05-4	Vinyl acetate	U	455	ug/kg	152	455
75-34-3	1,1-Dichloroethane	U	90.9	ug/kg	30.3	90.9
78-93-3	2-Butanone	JB	157	ug/kg	152	455
67-66-3	Chloroform	U	90.9	ug/kg	30.3	90.9
71-55-6	1,1,1-Trichloroethane	U	90.9	ug/kg	30.3	90.9
56-23-5	Carbon tetrachloride	U	90.9	ug/kg	30.3	90.9
107-06-2	1,2-Dichloroethane	U	90.9	ug/kg	30.3	90.9
71-43-2	Benzene	U	90.9	ug/kg	30.3	90.9
79-01-6	Trichloroethylene	U	90.9	ug/kg	30.3	90.9
78-87-5	1,2-Dichloropropane	U	90.9	ug/kg	30.3	90.9
74-95-3	Dibromomethane	U	90.9	ug/kg	30.3	90.9
75-27-4	Bromodichloromethane	U	90.9	ug/kg	30.3	90.9
10061-01-5	cis-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
108-10-1	4-Methyl-2-pentanone	U	455	ug/kg	152	455
108-88-3	Toluene	U	90.9	ug/kg	30.3	90.9
10061-02-6	trans-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
79-00-5	1,1,2-Trichloroethane	U	90.9	ug/kg	30.3	90.9
591-78-6	2-Hexanone	U	455	ug/kg	152	455
127-18-4	Tetrachloroethylene	U	90.9	ug/kg	30.3	90.9
124-48-1	Dibromochloromethane	U	90.9	ug/kg	30.3	90.9
106-93-4	1,2-Dibromoethane	U	90.9	ug/kg	30.3	90.9
108-90-7	Chlorobenzene	U	90.9	ug/kg	30.3	90.9
100-41-4	Ethylbenzene	U	90.9	ug/kg	30.3	90.9
100-42-5	Styrene	U	90.9	ug/kg	30.3	90.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:30	Matrix:	MISC SOLID
Lab Sample ID:	660771011	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Middle Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 15:26	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:01	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA317.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	90.9	ug/kg	30.3	90.9
79-34-5	1,1,2,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
96-18-4	1,2,3-Trichloropropane	U	90.9	ug/kg	30.3	90.9
96-12-8	1,2-Dibromo-3-chloropropane	U	90.9	ug/kg	45.5	90.9
107-02-8	Acrolein	U	455	ug/kg	152	455
107-05-1	Allyl chloride	U	455	ug/kg	152	455
107-13-1	Acrylonitrile	U	455	ug/kg	152	455
126-99-8	2-Chloro-1,3-butadiene	U	90.9	ug/kg	30.3	90.9
107-12-0	Propionitrile	U	455	ug/kg	152	455
126-98-7	Methacrylonitrile	U	455	ug/kg	152	455
78-83-1	Isobutyl alcohol	U	4550	ug/kg	1520	4550
80-62-6	Methyl methacrylate	U	455	ug/kg	152	455
97-63-2	Ethyl methacrylate	U	455	ug/kg	152	455
76-01-7	Pentachloroethane	U	455	ug/kg	152	455
110-57-6	trans-1,4-Dichloro-2-butene	U	455	ug/kg	152	455
1330-20-7	Xylenes (total)	U	273	ug/kg	90.9	273
630-20-6	1,1,1,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
120-82-1	1,2,4-Trichlorobenzene	U	90.9	ug/kg	30.3	90.9

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA317.D
Acq On : 03 Apr 2024 15:26
Operator : PXY1
InstName : VOAC
Sample : |660771011|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

04/04/2024

Quant Time: Apr 04 07:55:57 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.903	10.934	1.000	988212	50.00	ug/L	-0.03
43) Chlorobenzene-d5	117	14.329	14.354	1.000	706539	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.902	16.933	1.000	364235	50.00	ug/L	-0.03
84) B Fluorobenzene	96	10.903	10.928	1.000	988212	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	117	14.329	14.348	1.000	706341	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.902	16.920	1.000	364235	50.00	ug/L	-0.02

System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.519	10.543	0.965	316557	52.90	ug/L	-0.02
45) Toluene-d8	98	12.689	12.714	0.886	958620	52.52	ug/L	-0.02
63) Bromofluorobenzene	95	15.597	15.622	0.923	324248	51.67	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	106%
45) Toluene-d8	50.000	81 - 120	105%
63) Bromofluorobenzene	50.000	74 - 128	103%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.355	7.367	0.675	1436	N.D.		
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.983	7.739	0.732	373	N.D.		
13) Methyl acetate	43	7.770	7.794	0.713	962	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.971	8.001	0.731	4632	Below Cal		87
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.660	8.690	0.794	2839	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.501	9.525	0.871	3235	1.73 ug/L		77
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.635	10.665	0.975	198	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA317.D
Acq On : 03 Apr 2024 15:26
Operator : PXY1
InstName : VOAC
Sample : |660771011|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 04 07:55:57 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.415	11.434	1.047	543	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.769	12.793	0.891	1751	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.952	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene		0.000	14.457	0.000	0	N.D.	
57) m,p-Xylenes		0.000	14.573	0.000	0	N.D.	
58) o-Xylene		0.000	15.037	0.000	0	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.597	15.695	0.923	189	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	16.463	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.408	17.432	1.030	985	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.981	20.017	1.182	663	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA317.D
Acq On : 03 Apr 2024 15:26
Operator : PXY1
InstName : VOAC
Sample : |660771011|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 04 07:55:57 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

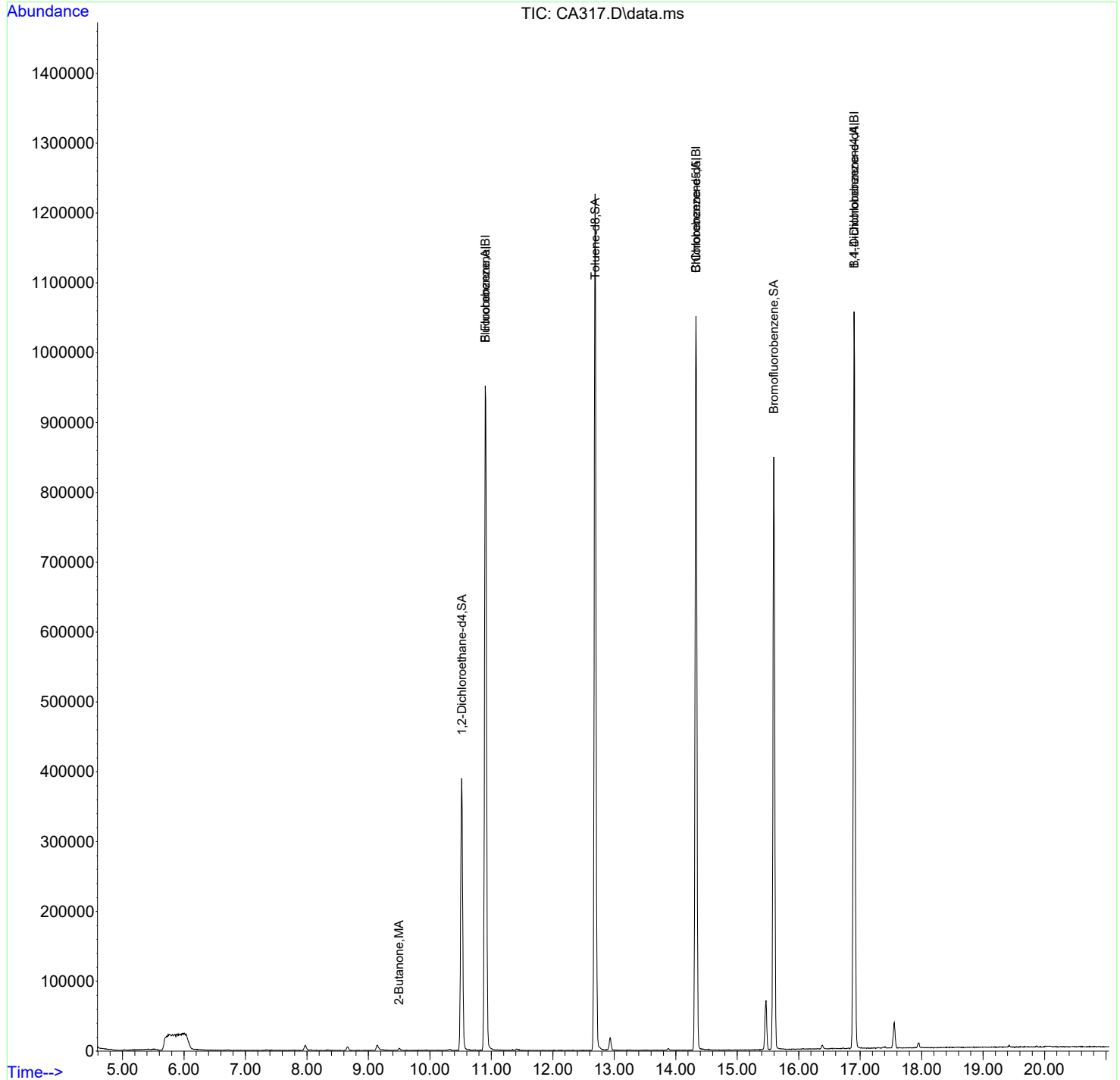
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.440	7.440	0.682	284	N.D.	
88) Allyl chloride	41	7.983	7.843	0.732	374	N.D.	
89) tert-Butyl Alcohol	59	7.983	7.983	0.732	187	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.501	9.531	0.871	3235	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.916	9.940	0.909	692	N.D.	
98) Isobutyl alcohol	41	10.336	10.263	0.948	379	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.548	17.506	1.038	1815	N.D.	

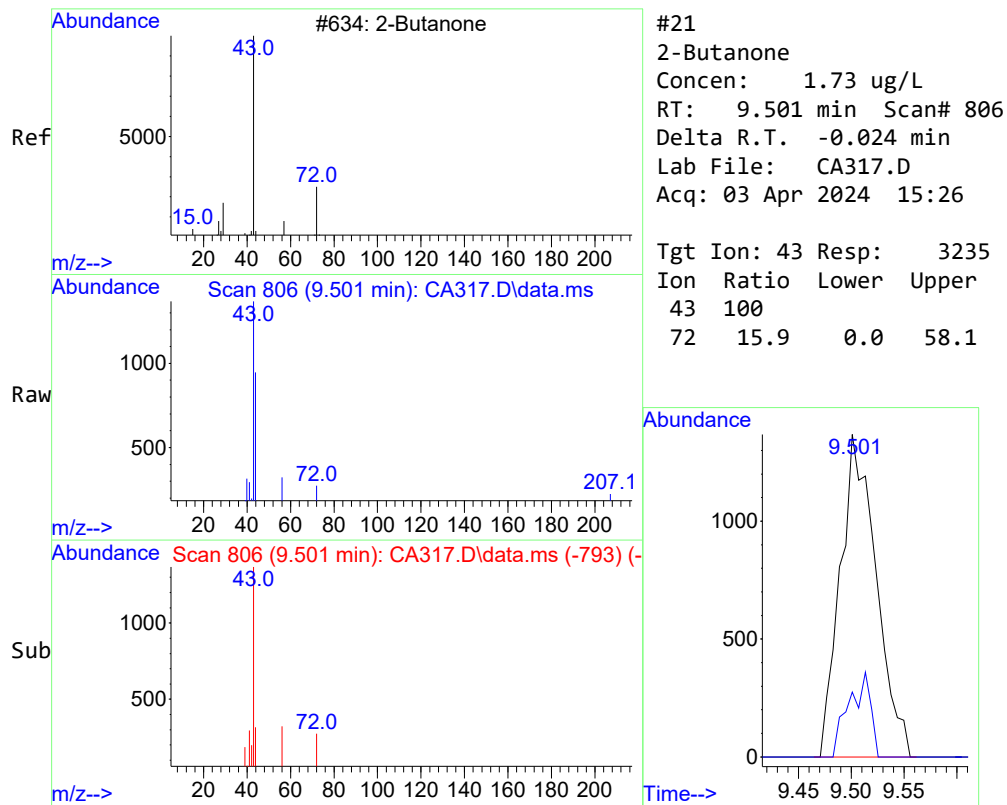
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA317.D
Acq On : 03 Apr 2024 15:26
Operator : PXY1
InstName : VOAC
Sample : |660771011|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 04 07:55:57 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





Volatiles
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:35	Matrix:	MISC SOLID
Lab Sample ID:	660771012	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Bottom Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 15:54	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:02	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA318.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	89.3	ug/kg	29.7	89.3
74-87-3	Chloromethane	U	89.3	ug/kg	29.7	89.3
75-01-4	Vinyl chloride	U	89.3	ug/kg	29.7	89.3
74-83-9	Bromomethane	U	89.3	ug/kg	29.7	89.3
75-00-3	Chloroethane	U	89.3	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane	U	89.3	ug/kg	29.7	89.3
67-64-1	Acetone	J	216	ug/kg	149	446
75-35-4	1,1-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
74-88-4	Iodomethane	U	446	ug/kg	149	446
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-05-8	Acetonitrile	U	2230	ug/kg	744	2230
75-15-0	Carbon disulfide	U	446	ug/kg	149	446
75-09-2	Methylene chloride	U	446	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
108-05-4	Vinyl acetate	U	446	ug/kg	149	446
75-34-3	1,1-Dichloroethane	U	89.3	ug/kg	29.7	89.3
78-93-3	2-Butanone	JB	161	ug/kg	149	446
67-66-3	Chloroform	U	89.3	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane	U	89.3	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride	U	89.3	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane	U	89.3	ug/kg	29.7	89.3
71-43-2	Benzene	U	89.3	ug/kg	29.7	89.3
79-01-6	Trichloroethylene	U	89.3	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane	U	89.3	ug/kg	29.7	89.3
74-95-3	Dibromomethane	U	89.3	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane	U	89.3	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone	U	446	ug/kg	149	446
108-88-3	Toluene	U	89.3	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane	U	89.3	ug/kg	29.7	89.3
591-78-6	2-Hexanone	U	446	ug/kg	149	446
127-18-4	Tetrachloroethylene	U	89.3	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane	U	89.3	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane	U	89.3	ug/kg	29.7	89.3
108-90-7	Chlorobenzene	U	89.3	ug/kg	29.7	89.3
100-41-4	Ethylbenzene	U	89.3	ug/kg	29.7	89.3
100-42-5	Styrene	U	89.3	ug/kg	29.7	89.3

Volatiles
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771012

Client ID: 12043.B2.Bottom Back.EPA

Batch ID: 2590956

Run Date: 04/03/2024 15:54

Prep Date: 04/03/2024 08:02

Data File: data\040324VC\CA318.D

Date Collected: 03/28/2024 07:35

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 8260D

Inst: VOAC.I

Analyst: PXY1

Aliquot: 5.6 g

Column: DB-624

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-038

Dilution: 50

Purge Vol: 5 mL

Final Volume: 10 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	89.3	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane	U	89.3	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane	U	89.3	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)	U	268	ug/kg	89.3	268
630-20-6	1,1,1,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
120-82-1	1,2,4-Trichlorobenzene	U	89.3	ug/kg	29.7	89.3

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA318.D
Acq On : 03 Apr 2024 15:54
Operator : PXY1
InstName : VOAC
Sample : |660771012|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

MA

04/04/2024

Quant Time: Apr 04 07:56:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.903	10.934	1.000	981975	50.00	ug/L	-0.03
43) Chlorobenzene-d5	117	14.329	14.354	1.000	698004	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.902	16.933	1.000	362578	50.00	ug/L	-0.03
84) B Fluorobenzene	96	10.903	10.928	1.000	981975	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	117	14.329	14.348	1.000	697824	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.902	16.920	1.000	362578	50.00	ug/L	-0.02

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.519	10.543	0.965	318190	53.51	ug/L	-0.02
45) Toluene-d8	98	12.689	12.714	0.886	967159	53.63	ug/L	-0.02
63) Bromofluorobenzene	95	15.597	15.622	0.923	324724	51.98	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	107%
45) Toluene-d8	50.000	81 - 120	107%
63) Bromofluorobenzene	50.000	74 - 128	104%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.355	7.367	0.675	3190	2.42	ug/L	76
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.745	7.739	0.710	172	N.D.		
13) Methyl acetate	43	7.776	7.794	0.713	1053	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.971	8.001	0.731	4732	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.666	8.690	0.795	2961	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.513	9.525	0.873	3360	1.80	ug/L	81
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.641	10.665	0.976	161	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA318.D
Acq On : 03 Apr 2024 15:54
Operator : PXY1
InstName : VOAC
Sample : |660771012|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 04 07:56:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.421	11.434	1.048	477	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.769	12.793	0.891	3038	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.952	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene		0.000	14.457	0.000	0	N.D.	
57) m,p-Xylenes	106	14.543	14.573	1.015	442	N.D.	
58) o-Xylene	91	15.012	15.037	1.048	373	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.591	15.695	0.922	244	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.433	16.463	0.972	121	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.408	17.432	1.030	4501	0.45 ug/L	98
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.981	20.017	1.182	801	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA318.D
Acq On : 03 Apr 2024 15:54
Operator : PXY1
InstName : VOAC
Sample : |660771012|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 04 07:56:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

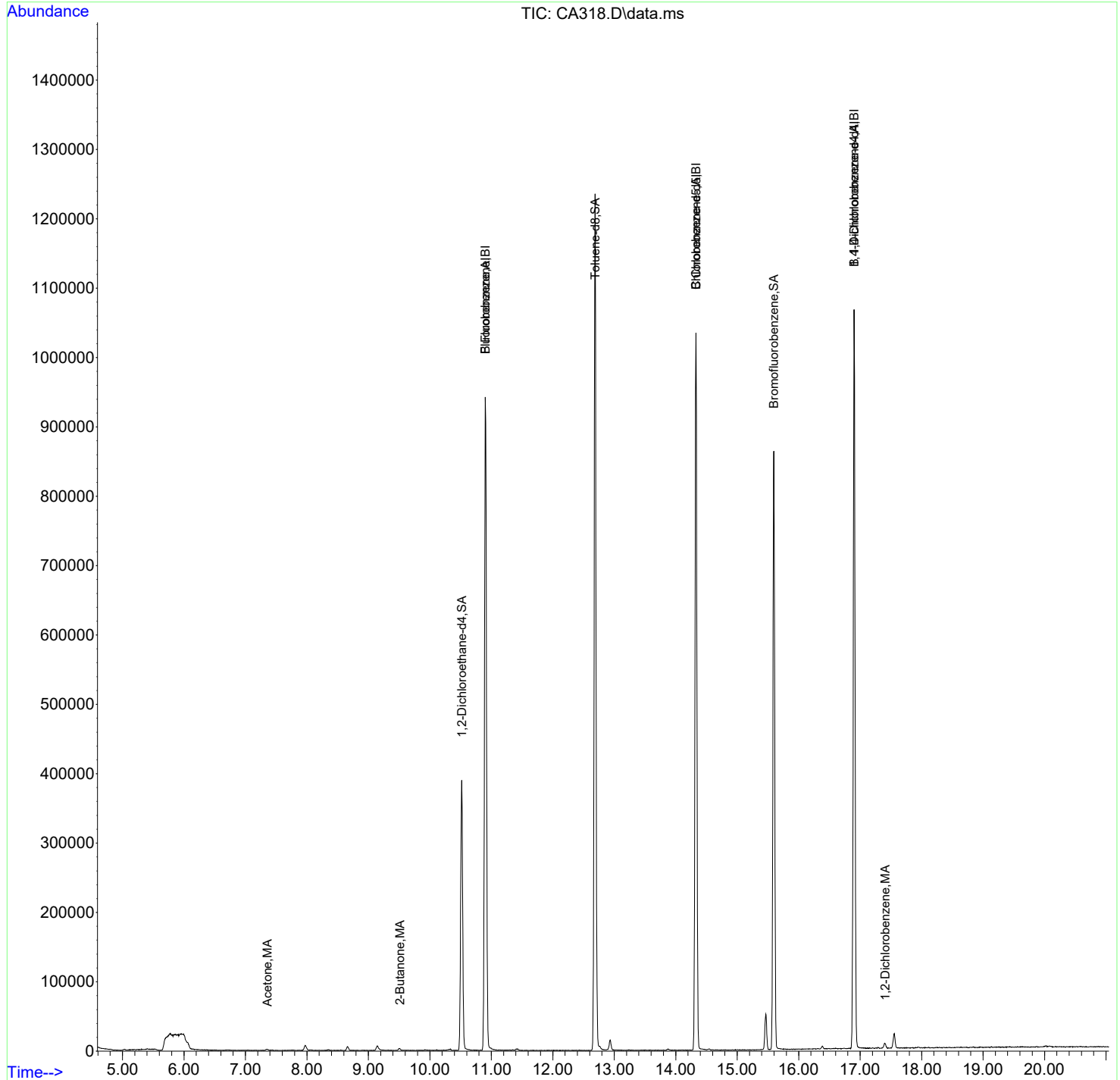
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.434	7.440	0.682	333	N.D.	
88) Allyl chloride	41	7.971	7.843	0.731	544	N.D.	
89) tert-Butyl Alcohol	59	8.062	7.983	0.739	416	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.513	9.531	0.873	3360	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.940	9.940	0.912	707	N.D.	
98) Isobutyl alcohol	41	10.336	10.263	0.948	383	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.548	17.506	1.038	938	N.D.	

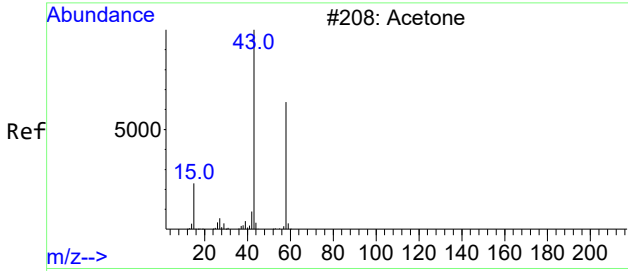
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA318.D
Acq On : 03 Apr 2024 15:54
Operator : PXY1
InstName : VOAC
Sample : |660771012|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

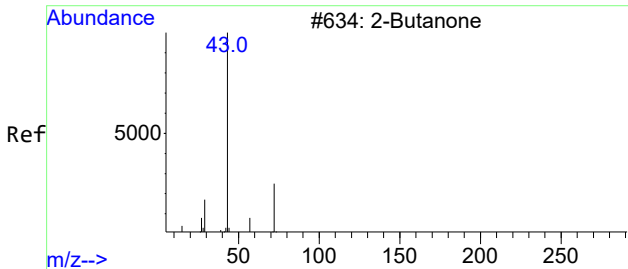
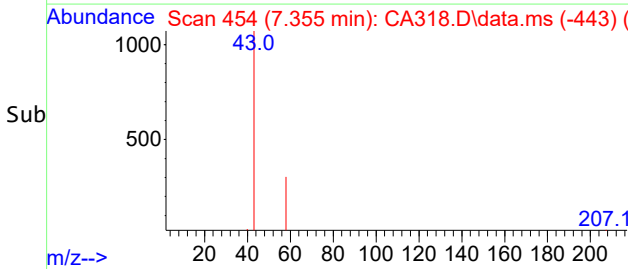
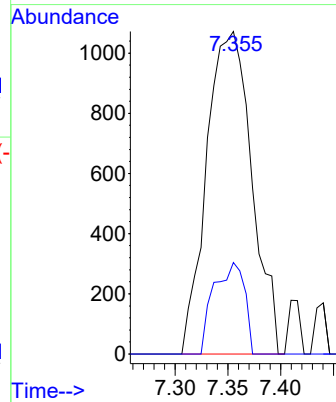
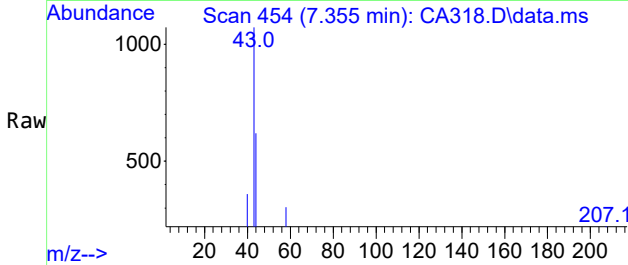
Quant Time: Apr 04 07:56:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





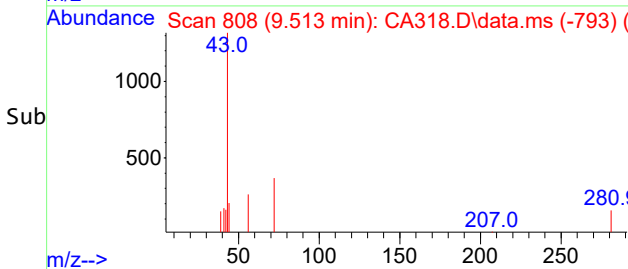
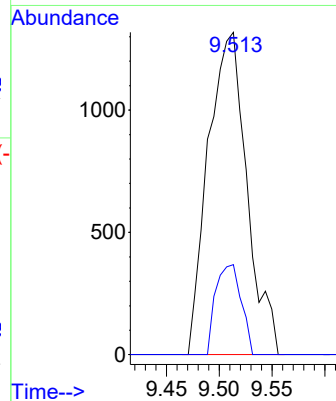
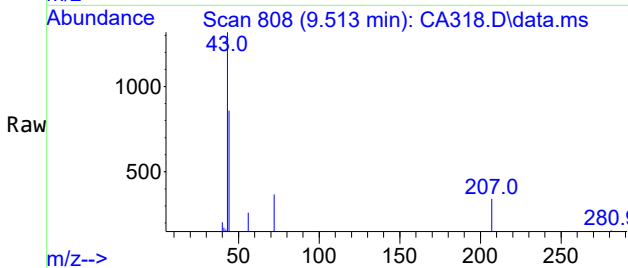
#9
Acetone
Concen: 2.42 ug/L
RT: 7.355 min Scan# 454
Delta R.T. -0.012 min
Lab File: CA318.D
Acq: 03 Apr 2024 15:54

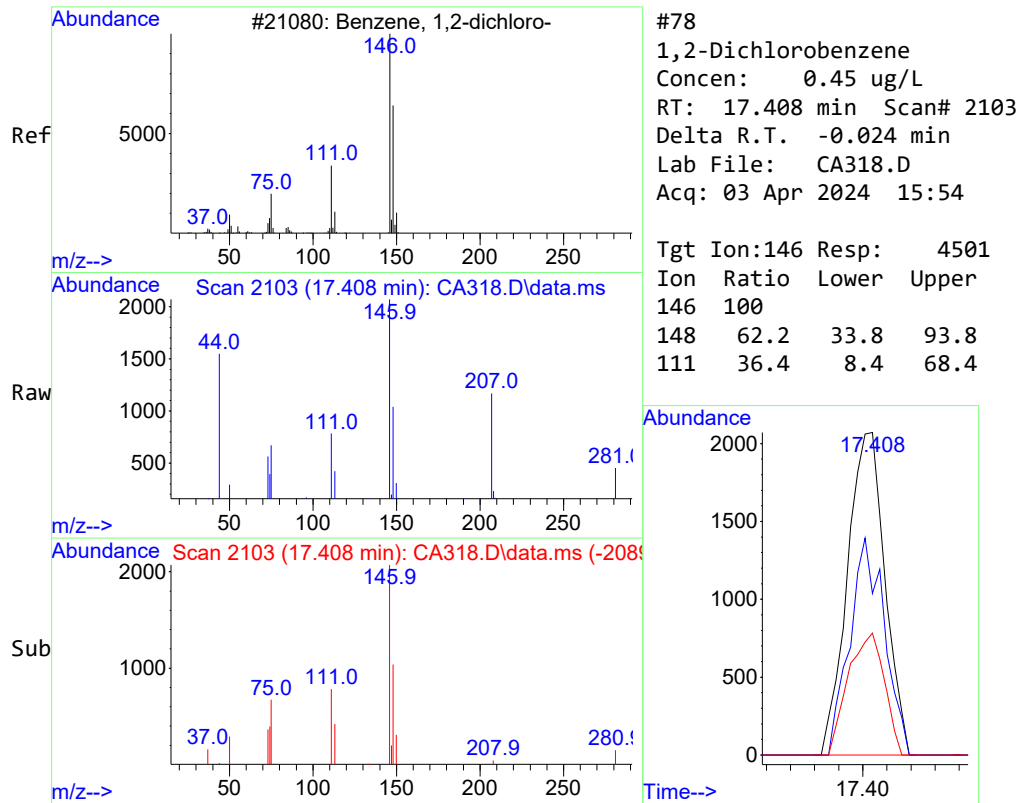
Tgt Ion: 43 Resp: 3190
Ion Ratio Lower Upper
43 100
58 19.1 2.6 62.6



#21
2-Butanone
Concen: 1.80 ug/L
RT: 9.513 min Scan# 808
Delta R.T. -0.012 min
Lab File: CA318.D
Acq: 03 Apr 2024 15:54

Tgt Ion: 43 Resp: 3360
Ion Ratio Lower Upper
43 100
72 18.3 0.0 58.1





Volatiles
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:45	Matrix:	MISC SOLID
Lab Sample ID:	660771013	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Top Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 16:21	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:03	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA319.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	89.3	ug/kg	29.7	89.3
74-87-3	Chloromethane	U	89.3	ug/kg	29.7	89.3
75-01-4	Vinyl chloride	U	89.3	ug/kg	29.7	89.3
74-83-9	Bromomethane	U	89.3	ug/kg	29.7	89.3
75-00-3	Chloroethane	U	89.3	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane	U	89.3	ug/kg	29.7	89.3
67-64-1	Acetone	U	446	ug/kg	149	446
75-35-4	1,1-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
74-88-4	Iodomethane	U	446	ug/kg	149	446
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-05-8	Acetonitrile	U	2230	ug/kg	744	2230
75-15-0	Carbon disulfide	U	446	ug/kg	149	446
75-09-2	Methylene chloride	U	446	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
108-05-4	Vinyl acetate	U	446	ug/kg	149	446
75-34-3	1,1-Dichloroethane	U	89.3	ug/kg	29.7	89.3
78-93-3	2-Butanone	U	446	ug/kg	149	446
67-66-3	Chloroform	U	89.3	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane	U	89.3	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride	U	89.3	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane	U	89.3	ug/kg	29.7	89.3
71-43-2	Benzene	U	89.3	ug/kg	29.7	89.3
79-01-6	Trichloroethylene	U	89.3	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane	U	89.3	ug/kg	29.7	89.3
74-95-3	Dibromomethane	U	89.3	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane	U	89.3	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone	U	446	ug/kg	149	446
108-88-3	Toluene	U	89.3	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane	U	89.3	ug/kg	29.7	89.3
591-78-6	2-Hexanone	U	446	ug/kg	149	446
127-18-4	Tetrachloroethylene	U	89.3	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane	U	89.3	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane	U	89.3	ug/kg	29.7	89.3
108-90-7	Chlorobenzene	U	89.3	ug/kg	29.7	89.3
100-41-4	Ethylbenzene	U	89.3	ug/kg	29.7	89.3
100-42-5	Styrene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:45	Matrix:	MISC SOLID
Lab Sample ID:	660771013	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Top Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 16:21	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:03	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA319.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	89.3	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane	U	89.3	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane	U	89.3	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)	U	268	ug/kg	89.3	268
630-20-6	1,1,1,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
120-82-1	1,2,4-Trichlorobenzene	U	89.3	ug/kg	29.7	89.3

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA319.D
Acq On : 03 Apr 2024 16:21
Operator : PXY1
InstName : VOAC
Sample : |660771013|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

04/04/2024

Quant Time: Apr 04 07:56:42 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.903	10.934	1.000	986243	50.00	ug/L	-0.03
43) Chlorobenzene-d5	117	14.329	14.354	1.000	705589	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.902	16.933	1.000	359402	50.00	ug/L	-0.03
84) B Fluorobenzene	96	10.903	10.928	1.000	986087	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	117	14.329	14.348	1.000	705083	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.902	16.920	1.000	359410	50.00	ug/L	-0.02

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.519	10.543	0.965	317216	53.12	ug/L	-0.02
45) Toluene-d8	98	12.689	12.714	0.886	960889	52.71	ug/L	-0.02
63) Bromofluorobenzene	95	15.597	15.622	0.923	327259	52.85	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	106%
45) Toluene-d8	50.000	81 - 120	105%
63) Bromofluorobenzene	50.000	74 - 128	106%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.349	7.367	0.674	1508	N.D.		
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.751	7.739	0.711	273	N.D.		
13) Methyl acetate	43	7.769	7.794	0.713	1166	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.965	8.001	0.730	4459	Below Cal		86
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.660	8.690	0.794	2727	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.507	9.525	0.872	2882	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.641	10.665	0.976	132	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA319.D
Acq On : 03 Apr 2024 16:21
Operator : PXY1
InstName : VOAC
Sample : |660771013|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 04 07:56:42 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.421	11.434	1.048	476	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.769	12.793	0.891	2289	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.952	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.433	14.457	1.007	330	N.D.	
57) m,p-Xylenes	106	14.549	14.573	1.015	959	N.D.	
58) o-Xylene	91	15.006	15.037	1.047	587	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	15.695	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	16.463	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.402	17.432	1.030	15705	1.58 ug/L	100
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.987	20.017	1.183	796	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA319.D
Acq On : 03 Apr 2024 16:21
Operator : PXY1
InstName : VOAC
Sample : |660771013|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 04 07:56:42 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

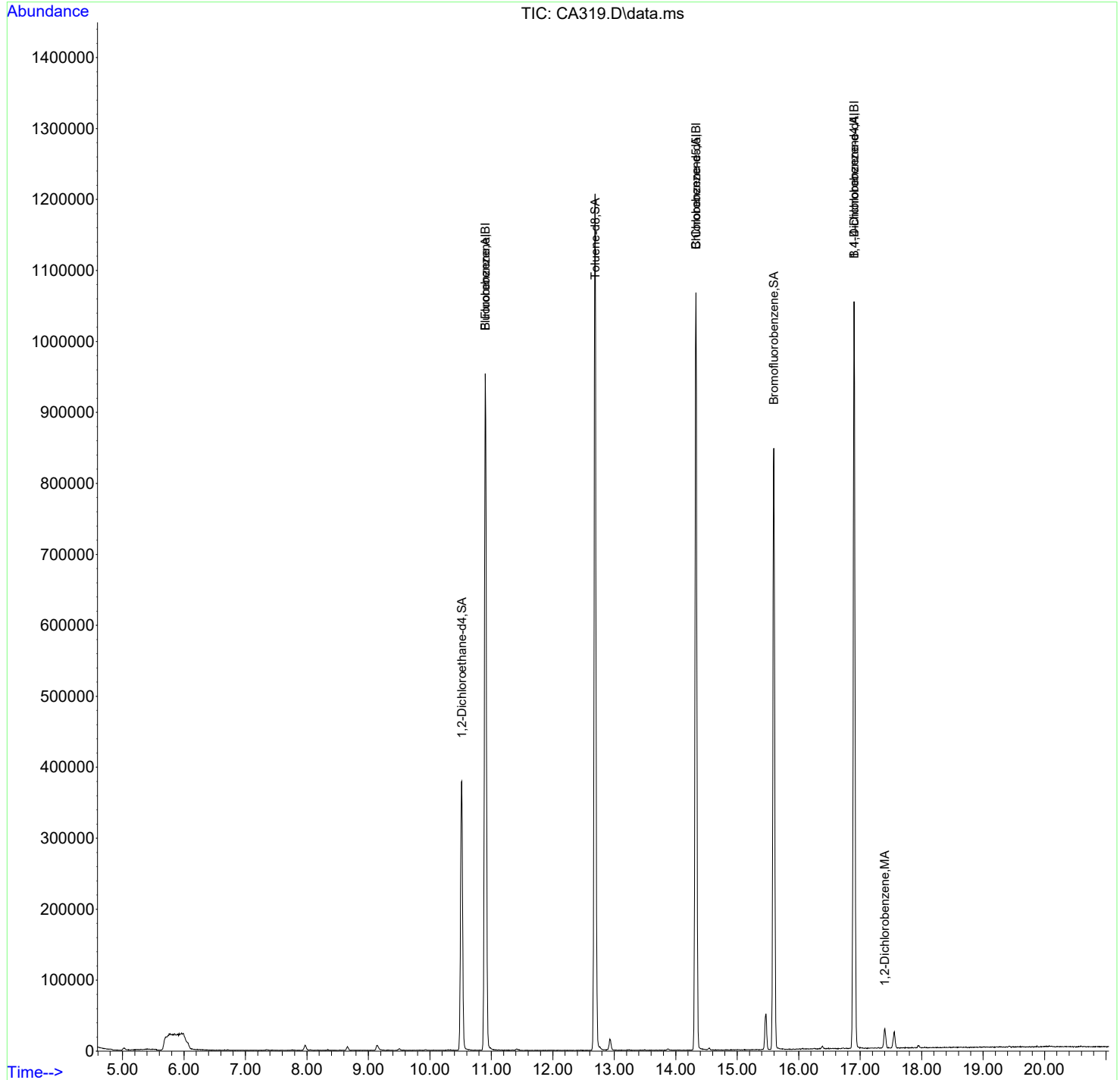
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol		0.000	7.440	0.000	0	N.D.	
88) Allyl chloride	41	7.971	7.843	0.731	141	N.D.	
89) tert-Butyl Alcohol	59	7.971	7.983	0.731	117	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.507	9.531	0.872	2882	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.915	9.940	0.909	533	N.D.	
98) Isobutyl alcohol	41	10.336	10.263	0.948	132	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.548	17.506	1.038	1127	N.D.	

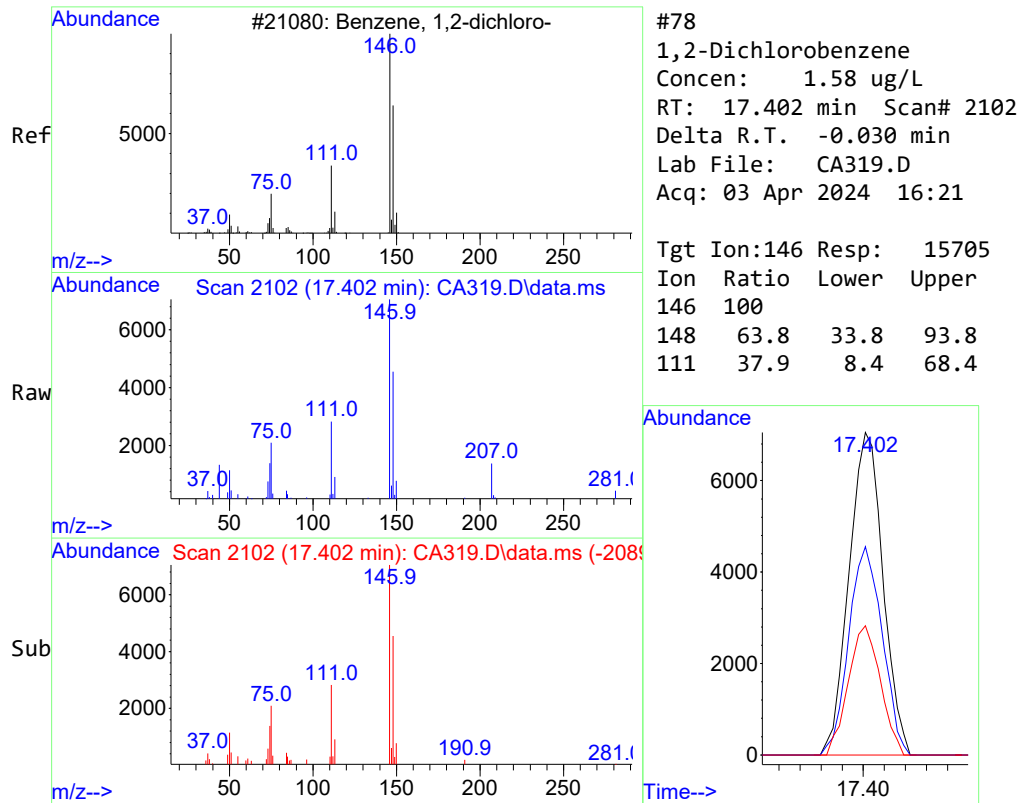
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA319.D
Acq On : 03 Apr 2024 16:21
Operator : PXY1
InstName : VOAC
Sample : |660771013|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 04 07:56:42 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:55	Matrix:	MISC SOLID
Lab Sample ID:	660771014	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Middle Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 16:49	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:04	Aliquot:	5.7 g	Final Volume:	10 mL
Data File:	data\040324VC\CA320.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	87.7	ug/kg	29.2	87.7
74-87-3	Chloromethane	U	87.7	ug/kg	29.2	87.7
75-01-4	Vinyl chloride	U	87.7	ug/kg	29.2	87.7
74-83-9	Bromomethane	U	87.7	ug/kg	29.2	87.7
75-00-3	Chloroethane	U	87.7	ug/kg	29.2	87.7
75-69-4	Trichlorofluoromethane	U	87.7	ug/kg	29.2	87.7
67-64-1	Acetone	U	439	ug/kg	146	439
75-35-4	1,1-Dichloroethylene	U	87.7	ug/kg	29.2	87.7
74-88-4	Iodomethane	U	439	ug/kg	146	439
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	439	ug/kg	146	439
75-05-8	Acetonitrile	U	2190	ug/kg	731	2190
75-15-0	Carbon disulfide	U	439	ug/kg	146	439
75-09-2	Methylene chloride	U	439	ug/kg	146	439
156-60-5	trans-1,2-Dichloroethylene	U	87.7	ug/kg	29.2	87.7
108-05-4	Vinyl acetate	U	439	ug/kg	146	439
75-34-3	1,1-Dichloroethane	U	87.7	ug/kg	29.2	87.7
78-93-3	2-Butanone	U	439	ug/kg	146	439
67-66-3	Chloroform	U	87.7	ug/kg	29.2	87.7
71-55-6	1,1,1-Trichloroethane	U	87.7	ug/kg	29.2	87.7
56-23-5	Carbon tetrachloride	U	87.7	ug/kg	29.2	87.7
107-06-2	1,2-Dichloroethane	U	87.7	ug/kg	29.2	87.7
71-43-2	Benzene	U	87.7	ug/kg	29.2	87.7
79-01-6	Trichloroethylene	U	87.7	ug/kg	29.2	87.7
78-87-5	1,2-Dichloropropane	U	87.7	ug/kg	29.2	87.7
74-95-3	Dibromomethane	U	87.7	ug/kg	29.2	87.7
75-27-4	Bromodichloromethane	U	87.7	ug/kg	29.2	87.7
10061-01-5	cis-1,3-Dichloropropylene	U	87.7	ug/kg	29.2	87.7
108-10-1	4-Methyl-2-pentanone	U	439	ug/kg	146	439
108-88-3	Toluene	U	87.7	ug/kg	29.2	87.7
10061-02-6	trans-1,3-Dichloropropylene	U	87.7	ug/kg	29.2	87.7
79-00-5	1,1,2-Trichloroethane	U	87.7	ug/kg	29.2	87.7
591-78-6	2-Hexanone	U	439	ug/kg	146	439
127-18-4	Tetrachloroethylene	U	87.7	ug/kg	29.2	87.7
124-48-1	Dibromochloromethane	U	87.7	ug/kg	29.2	87.7
106-93-4	1,2-Dibromoethane	U	87.7	ug/kg	29.2	87.7
108-90-7	Chlorobenzene	U	87.7	ug/kg	29.2	87.7
100-41-4	Ethylbenzene	U	87.7	ug/kg	29.2	87.7
100-42-5	Styrene	U	87.7	ug/kg	29.2	87.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:55	Matrix:	MISC SOLID
Lab Sample ID:	660771014	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Middle Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 16:49	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:04	Aliquot:	5.7 g	Final Volume:	10 mL
Data File:	data\040324VC\CA320.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	87.7	ug/kg	29.2	87.7
79-34-5	1,1,2,2-Tetrachloroethane	U	87.7	ug/kg	29.2	87.7
96-18-4	1,2,3-Trichloropropane	U	87.7	ug/kg	29.2	87.7
96-12-8	1,2-Dibromo-3-chloropropane	U	87.7	ug/kg	43.9	87.7
107-02-8	Acrolein	U	439	ug/kg	146	439
107-05-1	Allyl chloride	U	439	ug/kg	146	439
107-13-1	Acrylonitrile	U	439	ug/kg	146	439
126-99-8	2-Chloro-1,3-butadiene	U	87.7	ug/kg	29.2	87.7
107-12-0	Propionitrile	U	439	ug/kg	146	439
126-98-7	Methacrylonitrile	U	439	ug/kg	146	439
78-83-1	Isobutyl alcohol	U	4390	ug/kg	1460	4390
80-62-6	Methyl methacrylate	U	439	ug/kg	146	439
97-63-2	Ethyl methacrylate	U	439	ug/kg	146	439
76-01-7	Pentachloroethane	U	439	ug/kg	146	439
110-57-6	trans-1,4-Dichloro-2-butene	U	439	ug/kg	146	439
1330-20-7	Xylenes (total)	U	263	ug/kg	87.7	263
630-20-6	1,1,1,2-Tetrachloroethane	U	87.7	ug/kg	29.2	87.7
120-82-1	1,2,4-Trichlorobenzene	U	87.7	ug/kg	29.2	87.7

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA320.D
Acq On : 03 Apr 2024 16:49
Operator : PXY1
InstName : VOAC
Sample : |660771014|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.7G/100UL N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

MA

04/04/2024

Quant Time: Apr 04 07:56:59 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.903	10.934	1.000	994664	50.00	ug/L	-0.03
43) Chlorobenzene-d5	117	14.329	14.354	1.000	711926	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.902	16.933	1.000	366831	50.00	ug/L	-0.03
84) B Fluorobenzene	96	10.903	10.928	1.000	994502	50.00	ug/L	-0.03
103) B Chlorobenzene-d5	117	14.329	14.348	1.000	711517	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.902	16.920	1.000	366838	50.00	ug/L	-0.02

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.513	10.543	0.964	313677	52.08	ug/L	-0.03
45) Toluene-d8	98	12.689	12.714	0.886	965681	52.50	ug/L	-0.02
63) Bromofluorobenzene	95	15.591	15.622	0.922	325898	51.56	ug/L	-0.03

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	104%
45) Toluene-d8	50.000	81 - 120	105%
63) Bromofluorobenzene	50.000	74 - 128	103%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.355	7.367	0.675	1740	N.D.		
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.715	7.739	0.708	140	N.D.		
13) Methyl acetate	43	7.763	7.794	0.712	1016	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.971	8.001	0.731	4783	Below Cal		88
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.659	8.690	0.794	2758	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.501	9.525	0.871	2983	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane	56	10.336	10.342	0.948	543	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.647	10.665	0.977	208	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA320.D
Acq On : 03 Apr 2024 16:49
Operator : PXY1
InstName : VOAC
Sample : |660771014|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.7G/100UL N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 04 07:56:59 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.415	11.434	1.047	278	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.769	12.793	0.891	6056	N.D.	
47) trans-1,3-Dichloroprop...	75	12.927	12.952	0.902	123	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.433	14.457	1.007	260	N.D.	
57) m,p-Xylenes	106	14.549	14.573	1.015	728	N.D.	
58) o-Xylene	91	15.012	15.037	1.048	500	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.597	15.695	0.923	208	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.439	16.463	0.973	349	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.402	17.432	1.030	9173	0.91 ug/L	99
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.987	20.017	1.183	743	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA320.D
Acq On : 03 Apr 2024 16:49
Operator : PXY1
InstName : VOAC
Sample : |660771014|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.7G/100UL N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 04 07:56:59 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

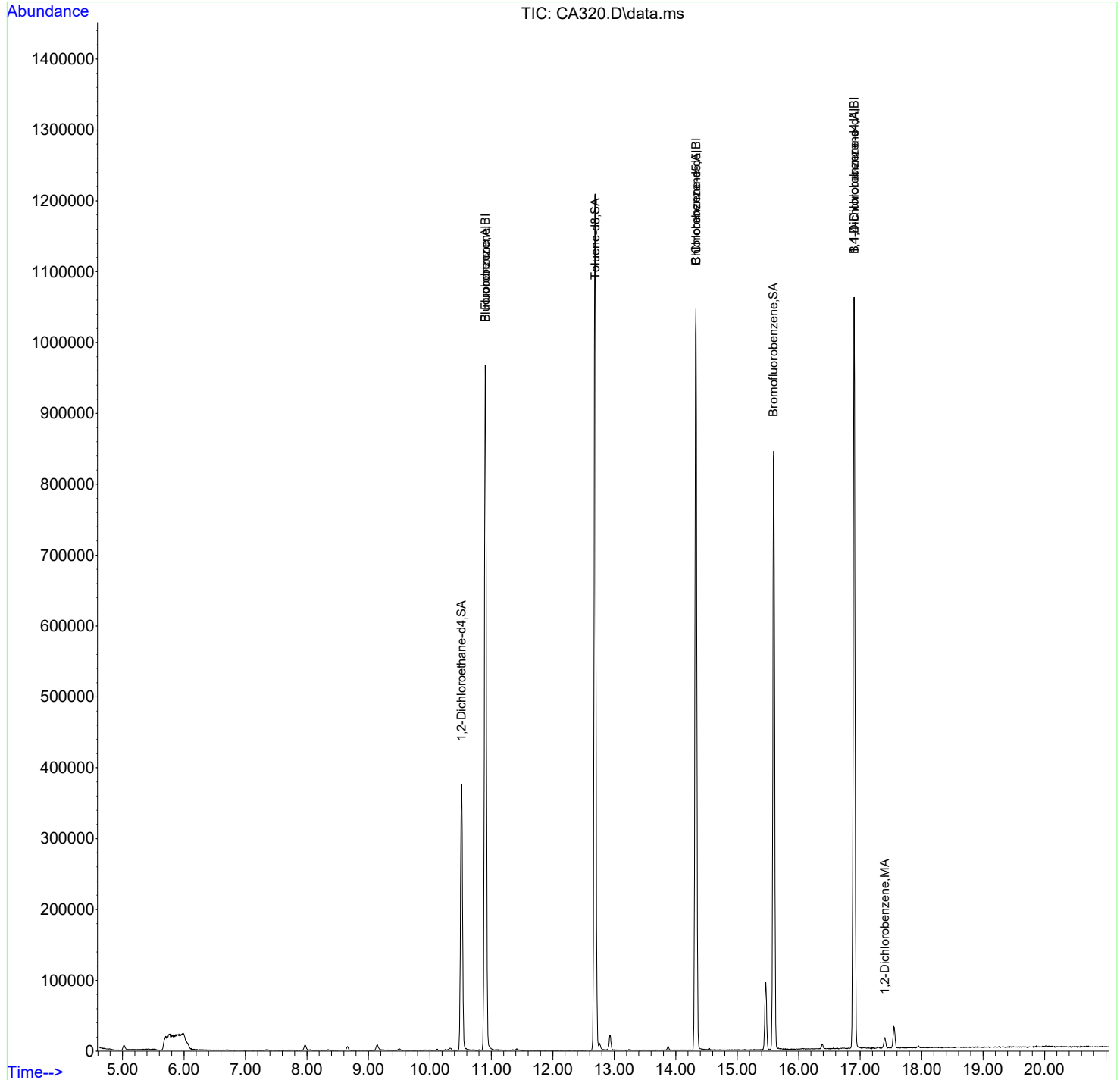
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.446	7.440	0.683	336	N.D.	
88) Allyl chloride	41	7.971	7.843	0.731	399	N.D.	
89) tert-Butyl Alcohol	59	8.062	7.983	0.739	781	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.501	9.531	0.871	2983	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.934	9.940	0.911	602	N.D.	
98) Isobutyl alcohol	41	10.330	10.263	0.947	915	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.542	17.506	1.038	1543	N.D.	

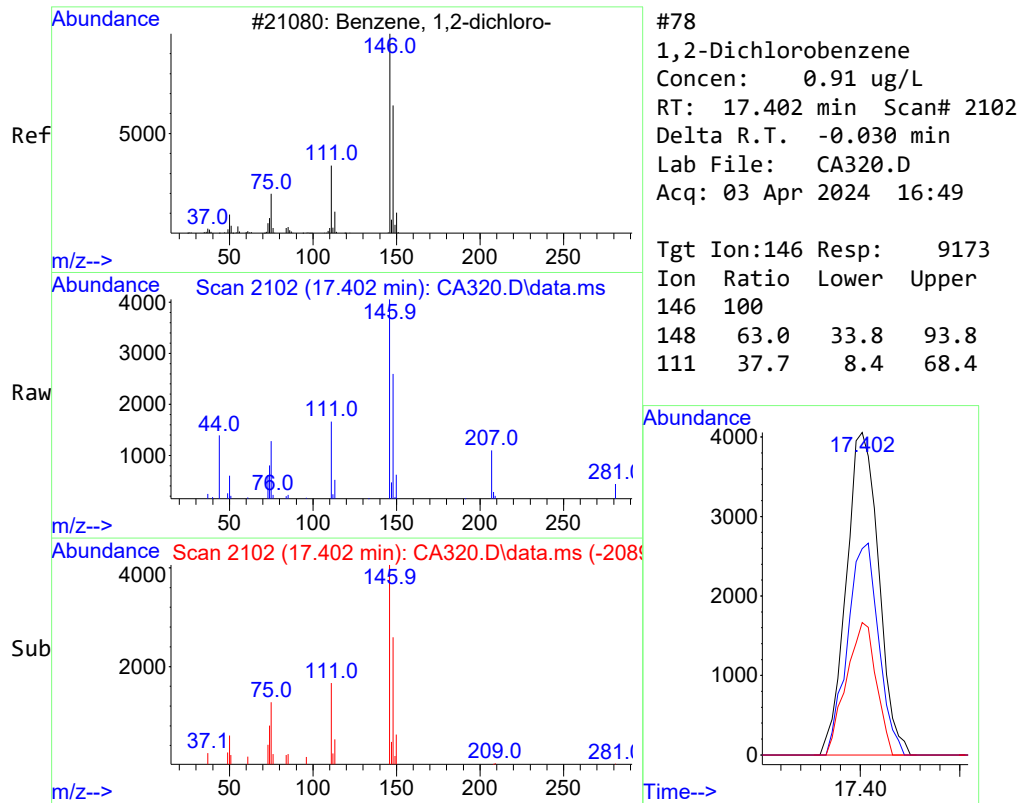
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA320.D
Acq On : 03 Apr 2024 16:49
Operator : PXY1
InstName : VOAC
Sample : |660771014|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.7G/100UL N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 04 07:56:59 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:05	Matrix:	MISC SOLID
Lab Sample ID:	660771015	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Bottom Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 17:17	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:05	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040324VC\CA321.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	89.3	ug/kg	29.7	89.3
74-87-3	Chloromethane	U	89.3	ug/kg	29.7	89.3
75-01-4	Vinyl chloride	U	89.3	ug/kg	29.7	89.3
74-83-9	Bromomethane	U	89.3	ug/kg	29.7	89.3
75-00-3	Chloroethane	U	89.3	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane	U	89.3	ug/kg	29.7	89.3
67-64-1	Acetone	U	446	ug/kg	149	446
75-35-4	1,1-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
74-88-4	Iodomethane	U	446	ug/kg	149	446
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-05-8	Acetonitrile	U	2230	ug/kg	744	2230
75-15-0	Carbon disulfide	U	446	ug/kg	149	446
75-09-2	Methylene chloride	U	446	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
108-05-4	Vinyl acetate	U	446	ug/kg	149	446
75-34-3	1,1-Dichloroethane	U	89.3	ug/kg	29.7	89.3
78-93-3	2-Butanone	U	446	ug/kg	149	446
67-66-3	Chloroform	U	89.3	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane	U	89.3	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride	U	89.3	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane	U	89.3	ug/kg	29.7	89.3
71-43-2	Benzene	U	89.3	ug/kg	29.7	89.3
79-01-6	Trichloroethylene	U	89.3	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane	U	89.3	ug/kg	29.7	89.3
74-95-3	Dibromomethane	U	89.3	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane	U	89.3	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone	U	446	ug/kg	149	446
108-88-3	Toluene	U	89.3	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane	U	89.3	ug/kg	29.7	89.3
591-78-6	2-Hexanone	U	446	ug/kg	149	446
127-18-4	Tetrachloroethylene	U	89.3	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane	U	89.3	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane	U	89.3	ug/kg	29.7	89.3
108-90-7	Chlorobenzene	U	89.3	ug/kg	29.7	89.3
100-41-4	Ethylbenzene	U	89.3	ug/kg	29.7	89.3
100-42-5	Styrene	U	89.3	ug/kg	29.7	89.3

Volatiles
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771015

Client ID: 12041.B3.Bottom Front.EPA

Batch ID: 2590956

Run Date: 04/03/2024 17:17

Prep Date: 04/03/2024 08:05

Data File: data\040324VC\CA321.D

Date Collected: 03/29/2024 07:05

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 8260D

Inst: VOAC.I

Analyst: PXY1

Aliquot: 5.6 g

Column: DB-624

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-038

Dilution: 50

Purge Vol: 5 mL

Final Volume: 10 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	89.3	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane	U	89.3	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane	U	89.3	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)	U	268	ug/kg	89.3	268
630-20-6	1,1,1,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
120-82-1	1,2,4-Trichlorobenzene	U	89.3	ug/kg	29.7	89.3

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA321.D
Acq On : 03 Apr 2024 17:17
Operator : PXY1
InstName : VOAC
Sample : |660771015|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

MA
04/04/2024

Quant Time: Apr 04 07:57:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.903	10.934	1.000	951736	50.00	ug/L	-0.03
43) Chlorobenzene-d5	117	14.329	14.354	1.000	682430	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.902	16.933	1.000	341654	50.00	ug/L	-0.03
84) B Fluorobenzene	96	10.903	10.928	1.000	951736	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	117	14.329	14.348	1.000	681993	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.902	16.920	1.000	341644	50.00	ug/L	-0.02

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.519	10.543	0.965	312113	54.16	ug/L	-0.02
45) Toluene-d8	98	12.683	12.714	0.885	959142	54.40	ug/L	-0.03
63) Bromofluorobenzene	95	15.591	15.622	0.922	325322	55.27	ug/L	-0.03

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	108%
45) Toluene-d8	50.000	81 - 120	109%
63) Bromofluorobenzene	50.000	74 - 128	111%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.349	7.367	0.674	1752	N.D.		
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.977	7.739	0.732	123	N.D.		
13) Methyl acetate	43	7.769	7.794	0.713	1072	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.971	8.001	0.731	4549	Below Cal		88
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.660	8.690	0.794	2708	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.501	9.525	0.871	2931	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene		0.000	10.665	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA321.D
Acq On : 03 Apr 2024 17:17
Operator : PXY1
InstName : VOAC
Sample : |660771015|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Apr 04 07:57:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene	67	10.720	10.793	0.983	178	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.415	11.434	1.047	501	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.769	12.793	0.891	1411	N.D.	
47) trans-1,3-Dichloroprop...	75	12.933	12.952	0.903	130	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.433	14.457	1.007	257	N.D.	
57) m,p-Xylenes	106	14.543	14.573	1.015	946	N.D.	
58) o-Xylene	91	15.012	15.037	1.048	613	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	15.695	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.451	16.463	0.973	228	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.402	17.432	1.030	12292	1.30 ug/L	98
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.993	20.017	1.183	1060	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA321.D
Acq On : 03 Apr 2024 17:17
Operator : PXY1
InstName : VOAC
Sample : |660771015|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Apr 04 07:57:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

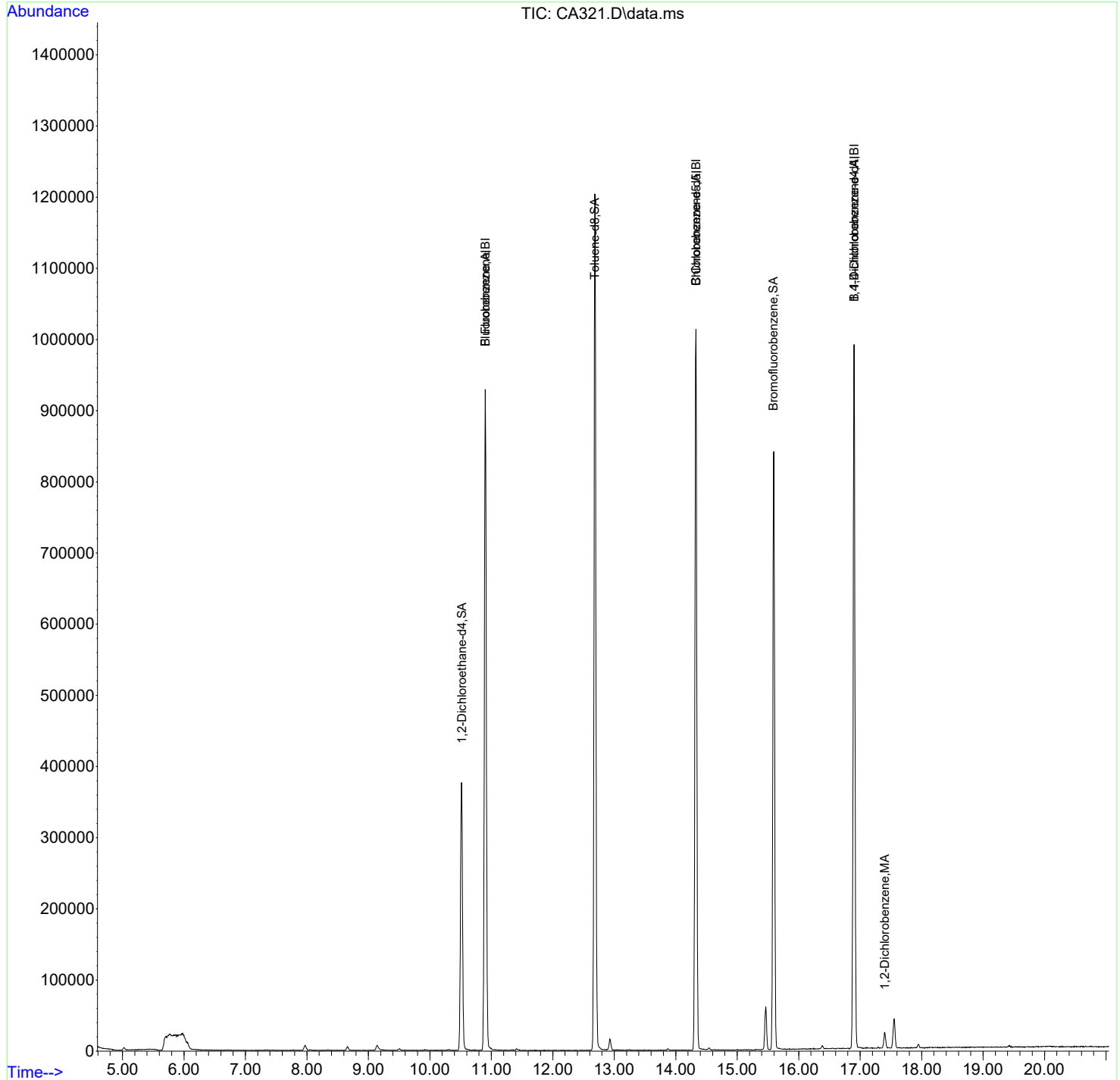
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.428	7.440	0.681	161	N.D.	
88) Allyl chloride	41	7.977	7.843	0.732	123	N.D.	
89) tert-Butyl Alcohol	59	7.977	7.983	0.732	112	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.501	9.531	0.871	2931	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.922	9.940	0.910	479	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.548	17.506	1.038	2045	N.D.	

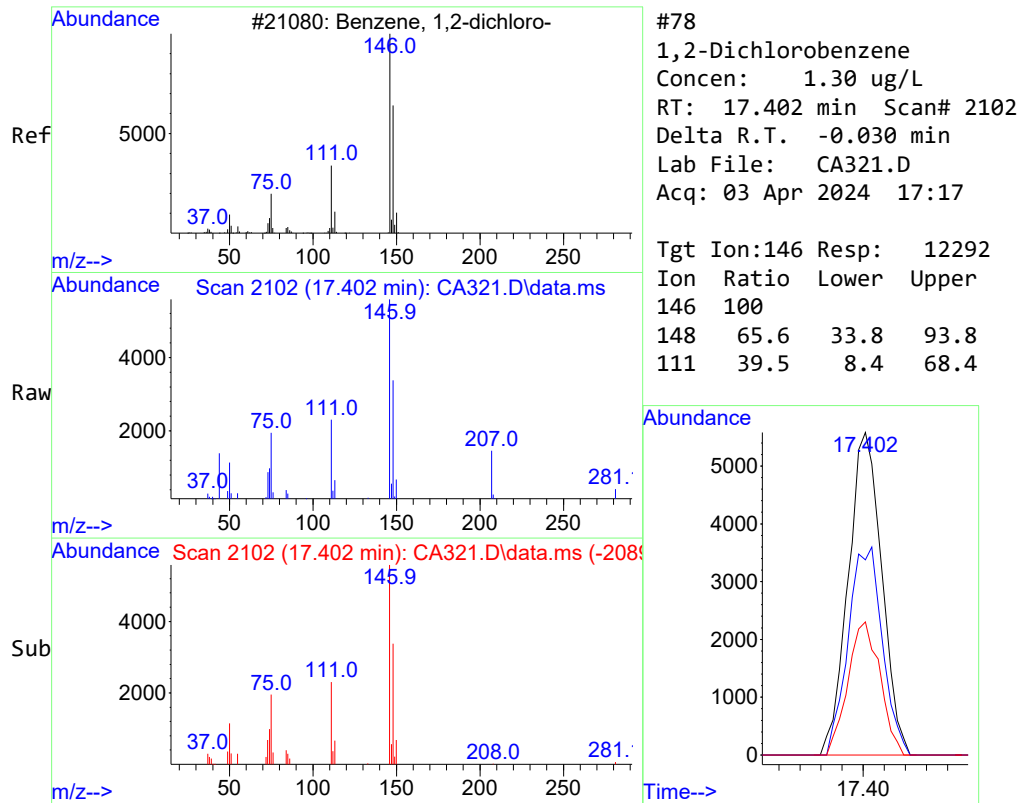
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA321.D
Acq On : 03 Apr 2024 17:17
Operator : PXY1
InstName : VOAC
Sample : |660771015|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Apr 04 07:57:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





Volatiles
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771016	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Top Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 17:45	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:06	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA322.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	90.9	ug/kg	30.3	90.9
74-87-3	Chloromethane	U	90.9	ug/kg	30.3	90.9
75-01-4	Vinyl chloride	U	90.9	ug/kg	30.3	90.9
74-83-9	Bromomethane	U	90.9	ug/kg	30.3	90.9
75-00-3	Chloroethane	U	90.9	ug/kg	30.3	90.9
75-69-4	Trichlorofluoromethane	U	90.9	ug/kg	30.3	90.9
67-64-1	Acetone	U	455	ug/kg	152	455
75-35-4	1,1-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
74-88-4	Iodomethane	U	455	ug/kg	152	455
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	455	ug/kg	152	455
75-05-8	Acetonitrile	U	2270	ug/kg	758	2270
75-15-0	Carbon disulfide	U	455	ug/kg	152	455
75-09-2	Methylene chloride	U	455	ug/kg	152	455
156-60-5	trans-1,2-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
108-05-4	Vinyl acetate	U	455	ug/kg	152	455
75-34-3	1,1-Dichloroethane	U	90.9	ug/kg	30.3	90.9
78-93-3	2-Butanone	U	455	ug/kg	152	455
67-66-3	Chloroform	U	90.9	ug/kg	30.3	90.9
71-55-6	1,1,1-Trichloroethane	U	90.9	ug/kg	30.3	90.9
56-23-5	Carbon tetrachloride	U	90.9	ug/kg	30.3	90.9
107-06-2	1,2-Dichloroethane	U	90.9	ug/kg	30.3	90.9
71-43-2	Benzene	U	90.9	ug/kg	30.3	90.9
79-01-6	Trichloroethylene	U	90.9	ug/kg	30.3	90.9
78-87-5	1,2-Dichloropropane	U	90.9	ug/kg	30.3	90.9
74-95-3	Dibromomethane	U	90.9	ug/kg	30.3	90.9
75-27-4	Bromodichloromethane	U	90.9	ug/kg	30.3	90.9
10061-01-5	cis-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
108-10-1	4-Methyl-2-pentanone	U	455	ug/kg	152	455
108-88-3	Toluene	U	90.9	ug/kg	30.3	90.9
10061-02-6	trans-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
79-00-5	1,1,2-Trichloroethane	U	90.9	ug/kg	30.3	90.9
591-78-6	2-Hexanone	U	455	ug/kg	152	455
127-18-4	Tetrachloroethylene	U	90.9	ug/kg	30.3	90.9
124-48-1	Dibromochloromethane	U	90.9	ug/kg	30.3	90.9
106-93-4	1,2-Dibromoethane	U	90.9	ug/kg	30.3	90.9
108-90-7	Chlorobenzene	U	90.9	ug/kg	30.3	90.9
100-41-4	Ethylbenzene	U	90.9	ug/kg	30.3	90.9
100-42-5	Styrene	U	90.9	ug/kg	30.3	90.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771016	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Top Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 17:45	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:06	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA322.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	90.9	ug/kg	30.3	90.9
79-34-5	1,1,2,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
96-18-4	1,2,3-Trichloropropane	U	90.9	ug/kg	30.3	90.9
96-12-8	1,2-Dibromo-3-chloropropane	U	90.9	ug/kg	45.5	90.9
107-02-8	Acrolein	U	455	ug/kg	152	455
107-05-1	Allyl chloride	U	455	ug/kg	152	455
107-13-1	Acrylonitrile	U	455	ug/kg	152	455
126-99-8	2-Chloro-1,3-butadiene	U	90.9	ug/kg	30.3	90.9
107-12-0	Propionitrile	U	455	ug/kg	152	455
126-98-7	Methacrylonitrile	U	455	ug/kg	152	455
78-83-1	Isobutyl alcohol	U	4550	ug/kg	1520	4550
80-62-6	Methyl methacrylate	U	455	ug/kg	152	455
97-63-2	Ethyl methacrylate	U	455	ug/kg	152	455
76-01-7	Pentachloroethane	U	455	ug/kg	152	455
110-57-6	trans-1,4-Dichloro-2-butene	U	455	ug/kg	152	455
1330-20-7	Xylenes (total)	U	273	ug/kg	90.9	273
630-20-6	1,1,1,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
120-82-1	1,2,4-Trichlorobenzene	U	90.9	ug/kg	30.3	90.9

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA322.D
Acq On : 03 Apr 2024 17:45
Operator : PXY1
InstName : VOAC
Sample : |660771016|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

04/04/2024

Quant Time: Apr 04 07:57:33 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.903	10.934	1.000	960587	50.00	ug/L	-0.03
43) Chlorobenzene-d5	117	14.329	14.354	1.000	687744	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.902	16.933	1.000	355243	50.00	ug/L	-0.03
84) B Fluorobenzene	96	10.903	10.928	1.000	960482	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	117	14.329	14.348	1.000	687654	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.902	16.920	1.000	355243	50.00	ug/L	-0.02

System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.513	10.543	0.964	309110	53.14	ug/L	-0.03
45) Toluene-d8	98	12.683	12.714	0.885	944022	53.13	ug/L	-0.03
63) Bromofluorobenzene	95	15.591	15.622	0.922	315835	51.60	ug/L	-0.03

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	106%
45) Toluene-d8	50.000	81 - 120	106%
63) Bromofluorobenzene	50.000	74 - 128	103%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.343	7.367	0.673	1767	N.D.		
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.715	7.739	0.708	260	N.D.		
13) Methyl acetate	43	7.776	7.794	0.713	1044	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.965	8.001	0.730	4656	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.660	8.690	0.794	3081	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.501	9.525	0.871	3035	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane	56	10.324	10.342	0.947	259	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.629	10.665	0.975	353	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA322.D
Acq On : 03 Apr 2024 17:45
Operator : PXY1
InstName : VOAC
Sample : |660771016|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Apr 04 07:57:33 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.421	11.434	1.048	432	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.762	12.793	0.891	3646	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.952	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene	164	13.403	13.439	0.935	270	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.421	14.457	1.006	686	N.D.	
57) m,p-Xylenes	106	14.537	14.573	1.014	2623	N.D.	
58) o-Xylene	91	15.006	15.037	1.047	1377	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	15.695	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.433	16.463	0.972	267	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.402	17.432	1.030	30345	3.09 ug/L	99
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.975	20.017	1.182	1690	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA322.D
Acq On : 03 Apr 2024 17:45
Operator : PXY1
InstName : VOAC
Sample : |660771016|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Apr 04 07:57:33 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

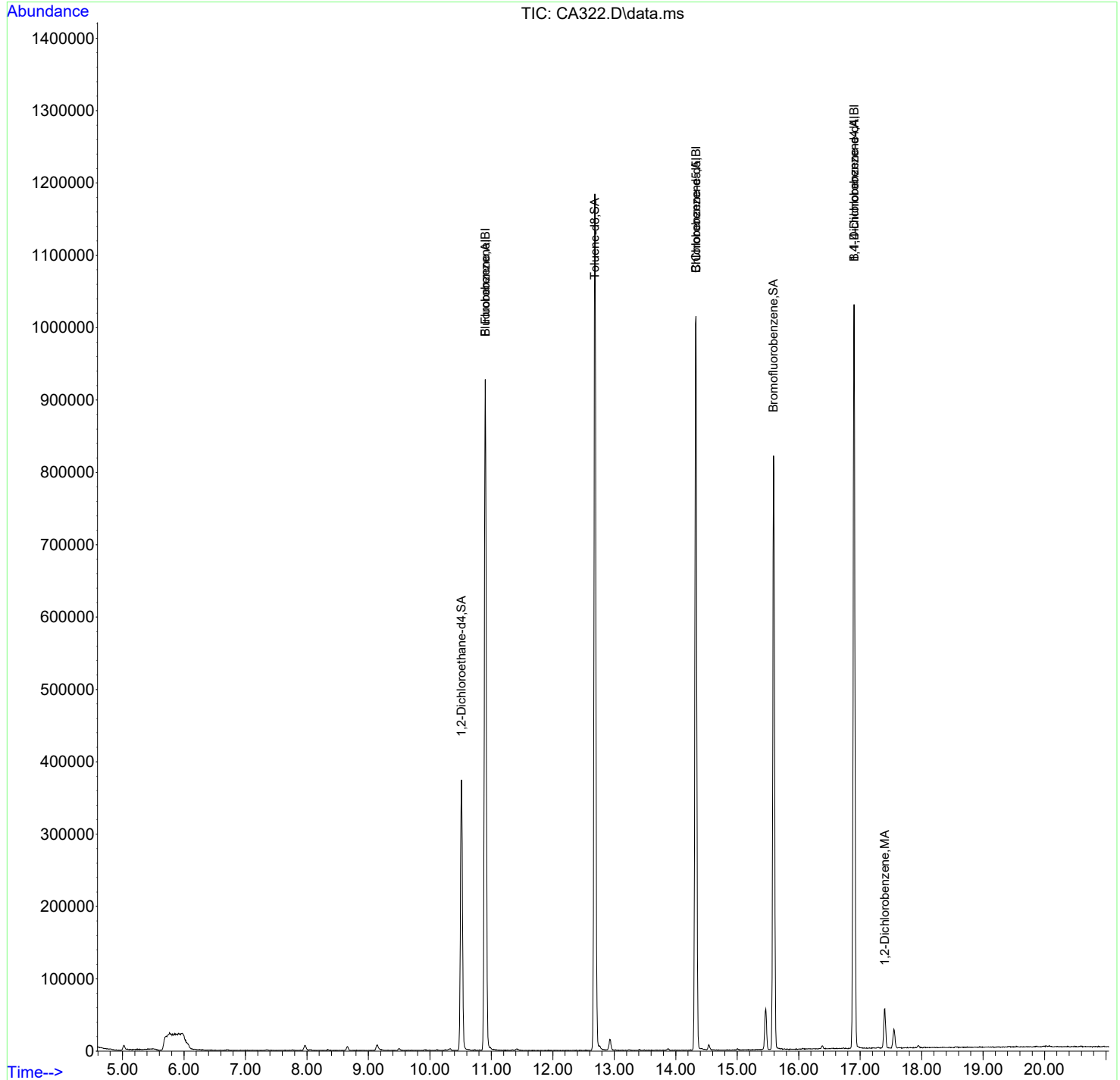
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.446	7.440	0.683	430	N.D.	
88) Allyl chloride	41	7.971	7.843	0.731	295	N.D.	
89) tert-Butyl Alcohol	59	8.056	7.983	0.739	605	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.501	9.531	0.871	3035	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.922	9.940	0.910	508	N.D.	
98) Isobutyl alcohol	41	10.239	10.263	0.939	130	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.548	17.506	1.038	1395	N.D.	

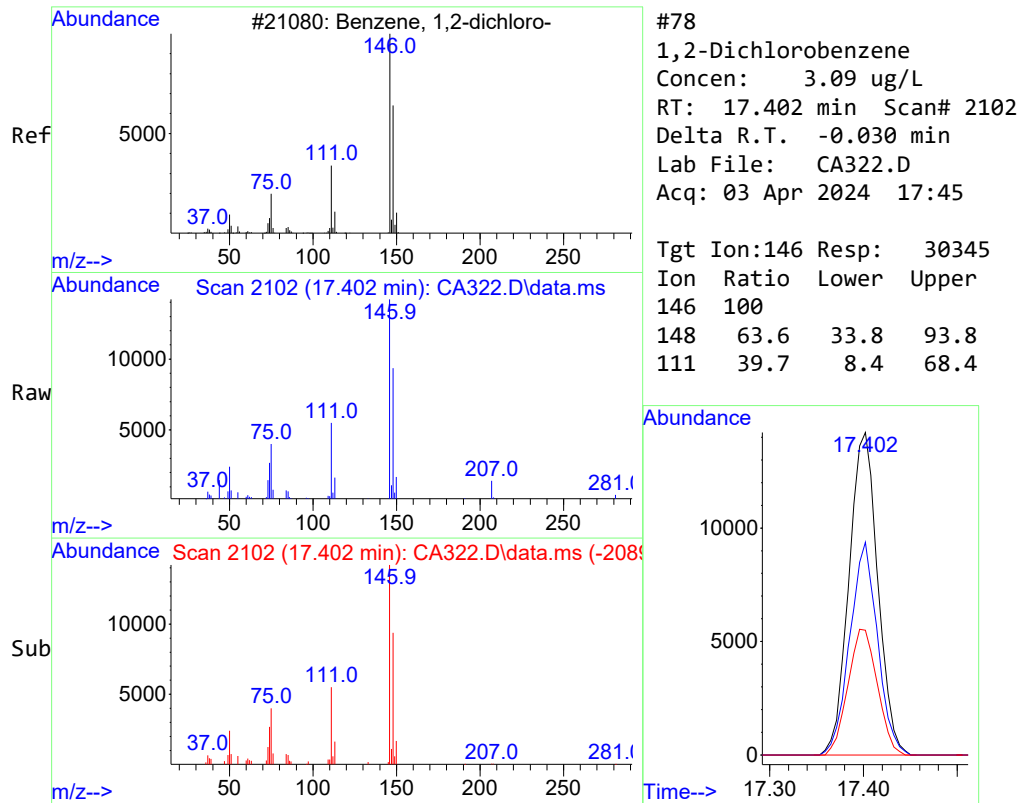
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA322.D
Acq On : 03 Apr 2024 17:45
Operator : PXY1
InstName : VOAC
Sample : |660771016|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Apr 04 07:57:33 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





Volatiles
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:25	Matrix:	MISC SOLID
Lab Sample ID:	660771017	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Middle Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 18:13	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:07	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA323.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	90.9	ug/kg	30.3	90.9
74-87-3	Chloromethane	U	90.9	ug/kg	30.3	90.9
75-01-4	Vinyl chloride	U	90.9	ug/kg	30.3	90.9
74-83-9	Bromomethane	U	90.9	ug/kg	30.3	90.9
75-00-3	Chloroethane	U	90.9	ug/kg	30.3	90.9
75-69-4	Trichlorofluoromethane	U	90.9	ug/kg	30.3	90.9
67-64-1	Acetone	J	155	ug/kg	152	455
75-35-4	1,1-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
74-88-4	Iodomethane	U	455	ug/kg	152	455
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	455	ug/kg	152	455
75-05-8	Acetonitrile	U	2270	ug/kg	758	2270
75-15-0	Carbon disulfide	U	455	ug/kg	152	455
75-09-2	Methylene chloride	U	455	ug/kg	152	455
156-60-5	trans-1,2-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
108-05-4	Vinyl acetate	U	455	ug/kg	152	455
75-34-3	1,1-Dichloroethane	U	90.9	ug/kg	30.3	90.9
78-93-3	2-Butanone	U	455	ug/kg	152	455
67-66-3	Chloroform	U	90.9	ug/kg	30.3	90.9
71-55-6	1,1,1-Trichloroethane	U	90.9	ug/kg	30.3	90.9
56-23-5	Carbon tetrachloride	U	90.9	ug/kg	30.3	90.9
107-06-2	1,2-Dichloroethane	U	90.9	ug/kg	30.3	90.9
71-43-2	Benzene	U	90.9	ug/kg	30.3	90.9
79-01-6	Trichloroethylene	U	90.9	ug/kg	30.3	90.9
78-87-5	1,2-Dichloropropane	U	90.9	ug/kg	30.3	90.9
74-95-3	Dibromomethane	U	90.9	ug/kg	30.3	90.9
75-27-4	Bromodichloromethane	U	90.9	ug/kg	30.3	90.9
10061-01-5	cis-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
108-10-1	4-Methyl-2-pentanone	U	455	ug/kg	152	455
108-88-3	Toluene	U	90.9	ug/kg	30.3	90.9
10061-02-6	trans-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
79-00-5	1,1,2-Trichloroethane	U	90.9	ug/kg	30.3	90.9
591-78-6	2-Hexanone	U	455	ug/kg	152	455
127-18-4	Tetrachloroethylene	U	90.9	ug/kg	30.3	90.9
124-48-1	Dibromochloromethane	U	90.9	ug/kg	30.3	90.9
106-93-4	1,2-Dibromoethane	U	90.9	ug/kg	30.3	90.9
108-90-7	Chlorobenzene	U	90.9	ug/kg	30.3	90.9
100-41-4	Ethylbenzene	U	90.9	ug/kg	30.3	90.9
100-42-5	Styrene	U	90.9	ug/kg	30.3	90.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:25	Matrix:	MISC SOLID
Lab Sample ID:	660771017	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Middle Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 18:13	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:07	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA323.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	90.9	ug/kg	30.3	90.9
79-34-5	1,1,2,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
96-18-4	1,2,3-Trichloropropane	U	90.9	ug/kg	30.3	90.9
96-12-8	1,2-Dibromo-3-chloropropane	U	90.9	ug/kg	45.5	90.9
107-02-8	Acrolein	U	455	ug/kg	152	455
107-05-1	Allyl chloride	U	455	ug/kg	152	455
107-13-1	Acrylonitrile	U	455	ug/kg	152	455
126-99-8	2-Chloro-1,3-butadiene	U	90.9	ug/kg	30.3	90.9
107-12-0	Propionitrile	U	455	ug/kg	152	455
126-98-7	Methacrylonitrile	U	455	ug/kg	152	455
78-83-1	Isobutyl alcohol	U	4550	ug/kg	1520	4550
80-62-6	Methyl methacrylate	U	455	ug/kg	152	455
97-63-2	Ethyl methacrylate	U	455	ug/kg	152	455
76-01-7	Pentachloroethane	U	455	ug/kg	152	455
110-57-6	trans-1,4-Dichloro-2-butene	U	455	ug/kg	152	455
1330-20-7	Xylenes (total)	U	273	ug/kg	90.9	273
630-20-6	1,1,1,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
120-82-1	1,2,4-Trichlorobenzene	U	90.9	ug/kg	30.3	90.9

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA323.D
Acq On : 03 Apr 2024 18:13
Operator : PXY1
InstName : VOAC
Sample : |660771017|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

MA

04/04/2024

Quant Time: Apr 04 07:57:47 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.897	10.934	1.000	982105	50.00	ug/L	-0.04
43) Chlorobenzene-d5	117	14.323	14.354	1.000	697576	50.00	ug/L	-0.03
60) 1,4-Dichlorobenzene-d4	152	16.902	16.933	1.000	354074	50.00	ug/L	-0.03
84) B Fluorobenzene	96	10.897	10.928	1.000	981925	50.00	ug/L	-0.03
103) B Chlorobenzene-d5	117	14.323	14.348	1.000	697200	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.902	16.920	1.000	354046	50.00	ug/L	-0.02

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.513	10.543	0.965	316583	53.24	ug/L	-0.03
45) Toluene-d8	98	12.683	12.714	0.886	960326	53.29	ug/L	-0.03
63) Bromofluorobenzene	95	15.591	15.622	0.922	325987	53.44	ug/L	-0.03

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	106%
45) Toluene-d8	50.000	81 - 120	107%
63) Bromofluorobenzene	50.000	74 - 128	107%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.337	7.367	0.673	2232	1.70	ug/L	69
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.690	7.739	0.706	178	N.D.		
13) Methyl acetate	43	7.763	7.794	0.712	1178	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.965	8.001	0.731	4647	Below Cal		93
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.654	8.690	0.794	2674	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.495	9.525	0.871	2854	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.623	10.665	0.975	244	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA323.D
Acq On : 03 Apr 2024 18:13
Operator : PXY1
InstName : VOAC
Sample : |660771017|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

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Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.409	11.434	1.047	419	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.763	12.793	0.891	2695	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.952	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.433	14.457	1.008	357	N.D.	
57) m,p-Xylenes	106	14.537	14.573	1.015	1876	N.D.	
58) o-Xylene	91	15.000	15.037	1.047	933	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.591	15.695	0.922	125	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.494	16.463	0.976	128	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.396	17.432	1.029	19578	2.00 ug/L	98
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.975	20.017	1.182	1409	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA323.D
Acq On : 03 Apr 2024 18:13
Operator : PXY1
InstName : VOAC
Sample : |660771017|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Apr 04 07:57:47 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

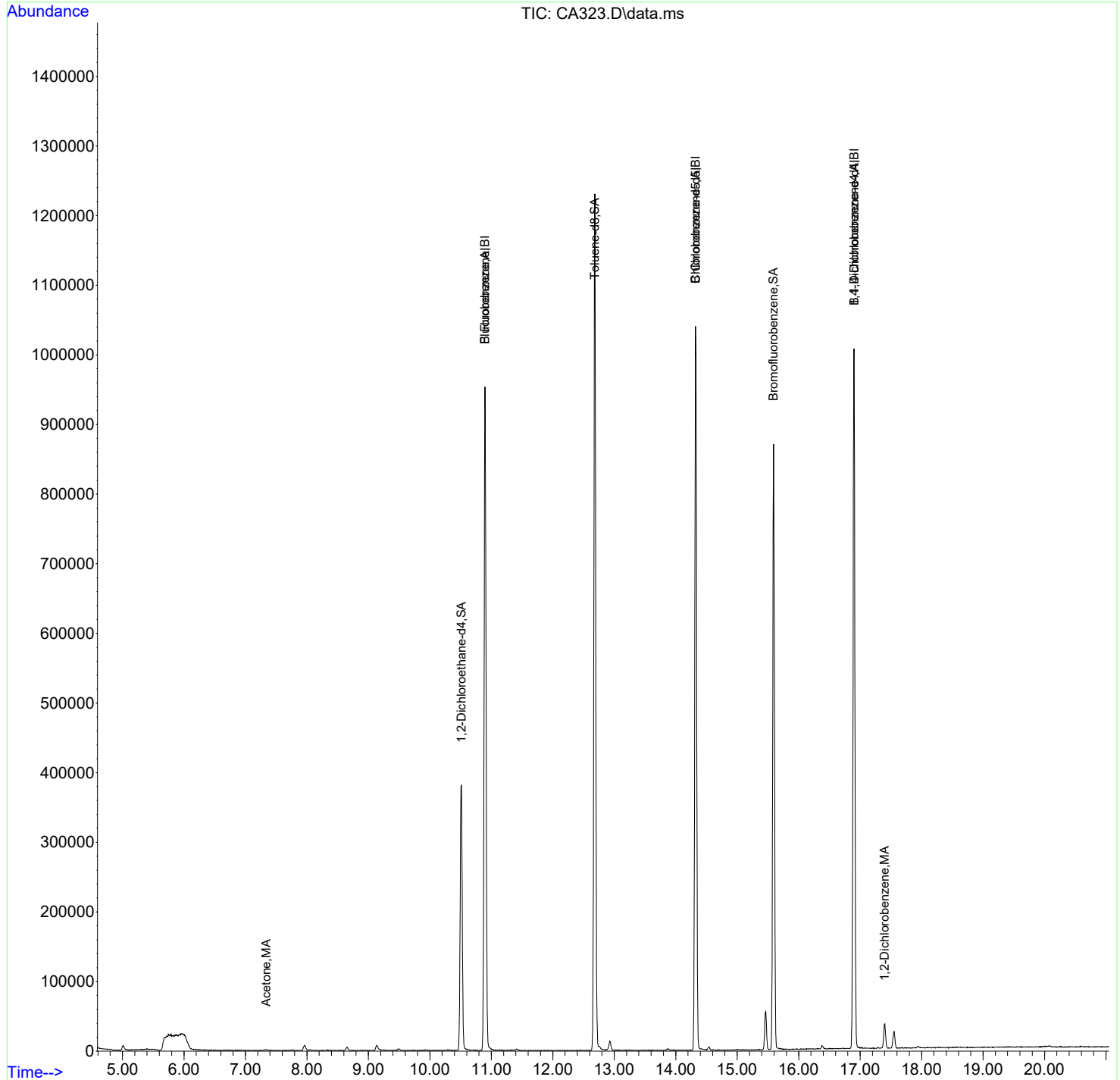
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.428	7.440	0.682	194	N.D.	
88) Allyl chloride	41	7.959	7.843	0.730	602	N.D.	
89) tert-Butyl Alcohol	59	8.044	7.983	0.738	568	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.495	9.531	0.871	2854	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.922	9.940	0.910	565	N.D.	
98) Isobutyl alcohol	41	10.324	10.263	0.947	245	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.548	17.506	1.038	1386	N.D.	

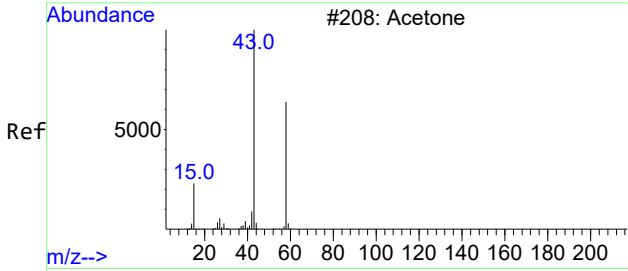
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA323.D
Acq On : 03 Apr 2024 18:13
Operator : PXY1
InstName : VOAC
Sample : |660771017|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

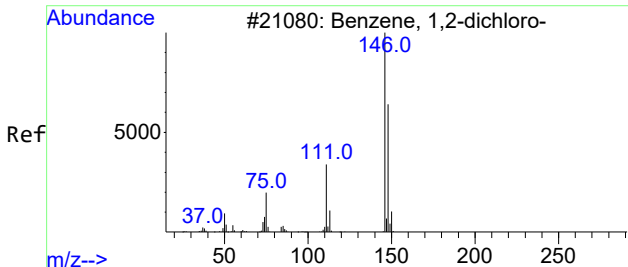
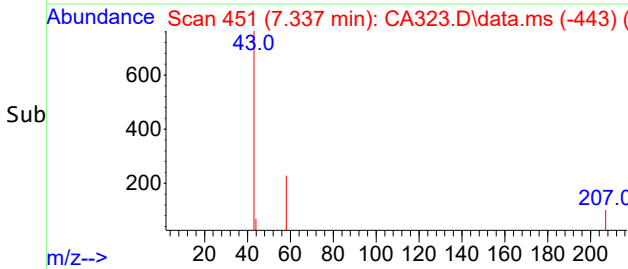
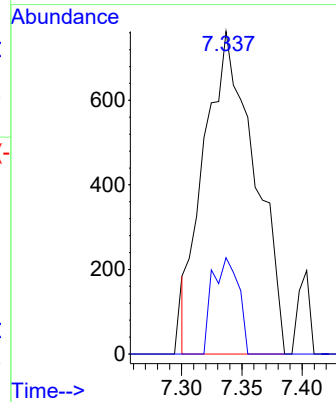
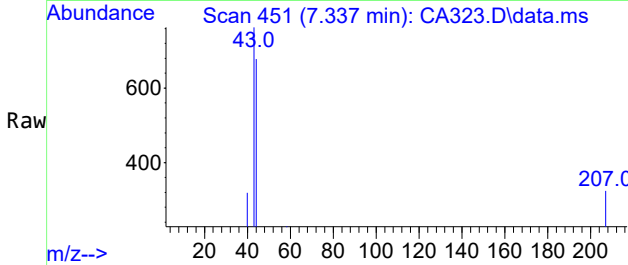
Quant Time: Apr 04 07:57:47 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





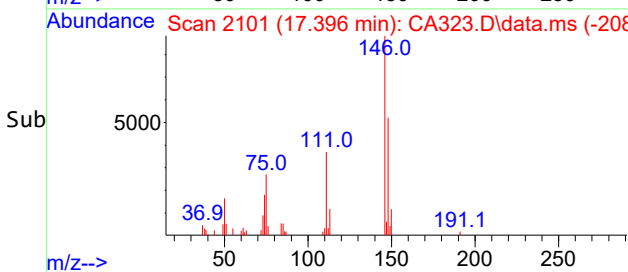
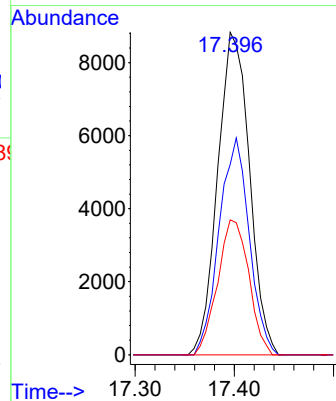
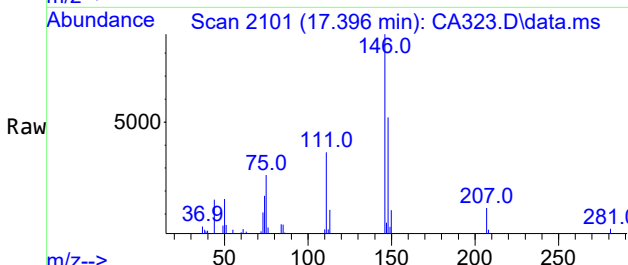
#9
Acetone
Concen: 1.70 ug/L
RT: 7.337 min Scan# 451
Delta R.T. -0.030 min
Lab File: CA323.D
Acq: 03 Apr 2024 18:13

Tgt Ion: 43 Resp: 2232
Ion Ratio Lower Upper
43 100
58 15.3 2.6 62.6



#78
1,2-Dichlorobenzene
Concen: 2.00 ug/L
RT: 17.396 min Scan# 2101
Delta R.T. -0.036 min
Lab File: CA323.D
Acq: 03 Apr 2024 18:13

Tgt Ion: 146 Resp: 19578
Ion Ratio Lower Upper
146 100
148 63.8 33.8 93.8
111 41.0 8.4 68.4



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:35	Matrix:	MISC SOLID
Lab Sample ID:	660771018	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Bottom Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 18:41	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:08	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA324.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	90.9	ug/kg	30.3	90.9
74-87-3	Chloromethane	U	90.9	ug/kg	30.3	90.9
75-01-4	Vinyl chloride	U	90.9	ug/kg	30.3	90.9
74-83-9	Bromomethane	U	90.9	ug/kg	30.3	90.9
75-00-3	Chloroethane	U	90.9	ug/kg	30.3	90.9
75-69-4	Trichlorofluoromethane	U	90.9	ug/kg	30.3	90.9
67-64-1	Acetone	U	455	ug/kg	152	455
75-35-4	1,1-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
74-88-4	Iodomethane	U	455	ug/kg	152	455
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	455	ug/kg	152	455
75-05-8	Acetonitrile	U	2270	ug/kg	758	2270
75-15-0	Carbon disulfide	U	455	ug/kg	152	455
75-09-2	Methylene chloride	U	455	ug/kg	152	455
156-60-5	trans-1,2-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
108-05-4	Vinyl acetate	U	455	ug/kg	152	455
75-34-3	1,1-Dichloroethane	U	90.9	ug/kg	30.3	90.9
78-93-3	2-Butanone	U	455	ug/kg	152	455
67-66-3	Chloroform	U	90.9	ug/kg	30.3	90.9
71-55-6	1,1,1-Trichloroethane	U	90.9	ug/kg	30.3	90.9
56-23-5	Carbon tetrachloride	U	90.9	ug/kg	30.3	90.9
107-06-2	1,2-Dichloroethane	U	90.9	ug/kg	30.3	90.9
71-43-2	Benzene	U	90.9	ug/kg	30.3	90.9
79-01-6	Trichloroethylene	U	90.9	ug/kg	30.3	90.9
78-87-5	1,2-Dichloropropane	U	90.9	ug/kg	30.3	90.9
74-95-3	Dibromomethane	U	90.9	ug/kg	30.3	90.9
75-27-4	Bromodichloromethane	U	90.9	ug/kg	30.3	90.9
10061-01-5	cis-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
108-10-1	4-Methyl-2-pentanone	U	455	ug/kg	152	455
108-88-3	Toluene	U	90.9	ug/kg	30.3	90.9
10061-02-6	trans-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
79-00-5	1,1,2-Trichloroethane	U	90.9	ug/kg	30.3	90.9
591-78-6	2-Hexanone	U	455	ug/kg	152	455
127-18-4	Tetrachloroethylene	U	90.9	ug/kg	30.3	90.9
124-48-1	Dibromochloromethane	U	90.9	ug/kg	30.3	90.9
106-93-4	1,2-Dibromoethane	U	90.9	ug/kg	30.3	90.9
108-90-7	Chlorobenzene	U	90.9	ug/kg	30.3	90.9
100-41-4	Ethylbenzene	U	90.9	ug/kg	30.3	90.9
100-42-5	Styrene	U	90.9	ug/kg	30.3	90.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:35	Matrix:	MISC SOLID
Lab Sample ID:	660771018	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Bottom Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 18:41	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 08:08	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040324VC\CA324.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	90.9	ug/kg	30.3	90.9
79-34-5	1,1,2,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
96-18-4	1,2,3-Trichloropropane	U	90.9	ug/kg	30.3	90.9
96-12-8	1,2-Dibromo-3-chloropropane	U	90.9	ug/kg	45.5	90.9
107-02-8	Acrolein	U	455	ug/kg	152	455
107-05-1	Allyl chloride	U	455	ug/kg	152	455
107-13-1	Acrylonitrile	U	455	ug/kg	152	455
126-99-8	2-Chloro-1,3-butadiene	U	90.9	ug/kg	30.3	90.9
107-12-0	Propionitrile	U	455	ug/kg	152	455
126-98-7	Methacrylonitrile	U	455	ug/kg	152	455
78-83-1	Isobutyl alcohol	U	4550	ug/kg	1520	4550
80-62-6	Methyl methacrylate	U	455	ug/kg	152	455
97-63-2	Ethyl methacrylate	U	455	ug/kg	152	455
76-01-7	Pentachloroethane	U	455	ug/kg	152	455
110-57-6	trans-1,4-Dichloro-2-butene	U	455	ug/kg	152	455
1330-20-7	Xylenes (total)	U	273	ug/kg	90.9	273
630-20-6	1,1,1,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
120-82-1	1,2,4-Trichlorobenzene	U	90.9	ug/kg	30.3	90.9

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA324.D
Acq On : 03 Apr 2024 18:41
Operator : PXY1
InstName : VOAC
Sample : |660771018|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 24 Sample Multiplier: 1

MA
04/04/2024

Quant Time: Apr 04 07:58:07 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.903	10.934	1.000	992127	50.00	ug/L	-0.03
43) Chlorobenzene-d5	117	14.323	14.354	1.000	710850	50.00	ug/L	-0.03
60) 1,4-Dichlorobenzene-d4	152	16.902	16.933	1.000	364283	50.00	ug/L	-0.03
84) B Fluorobenzene	96	10.903	10.928	1.000	992127	50.00	ug/L	-0.03
103) B Chlorobenzene-d5	117	14.323	14.348	1.000	710850	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.902	16.920	1.000	364368	50.00	ug/L	-0.02

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.513	10.543	0.964	320559	53.36	ug/L	-0.03
45) Toluene-d8	98	12.683	12.714	0.886	977849	53.25	ug/L	-0.03
63) Bromofluorobenzene	95	15.591	15.622	0.922	326941	52.09	ug/L	-0.03

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	107%
45) Toluene-d8	50.000	81 - 120	107%
63) Bromofluorobenzene	50.000	74 - 128	104%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.349	7.367	0.674	1736	N.D.		
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.708	7.739	0.707	139	N.D.		
13) Methyl acetate	43	7.763	7.794	0.712	1078	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.958	8.001	0.730	4696	Below Cal		90
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.653	8.690	0.794	2722	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.501	9.525	0.871	3058	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane	56	10.324	10.342	0.947	145	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene		0.000	10.665	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA324.D
Acq On : 03 Apr 2024 18:41
Operator : PXY1
InstName : VOAC
Sample : |660771018|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Apr 04 07:58:07 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.409	11.434	1.046	474	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.762	12.793	0.891	3402	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.952	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.421	14.457	1.007	158	N.D.	
57) m,p-Xylenes	106	14.536	14.573	1.015	542	N.D.	
58) o-Xylene	91	15.006	15.037	1.048	390	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.591	15.695	0.922	225	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.432	16.463	0.972	275	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.396	17.432	1.029	7308	0.73 ug/L	98
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.981	20.017	1.182	850	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA324.D
Acq On : 03 Apr 2024 18:41
Operator : PXY1
InstName : VOAC
Sample : |660771018|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Apr 04 07:58:07 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

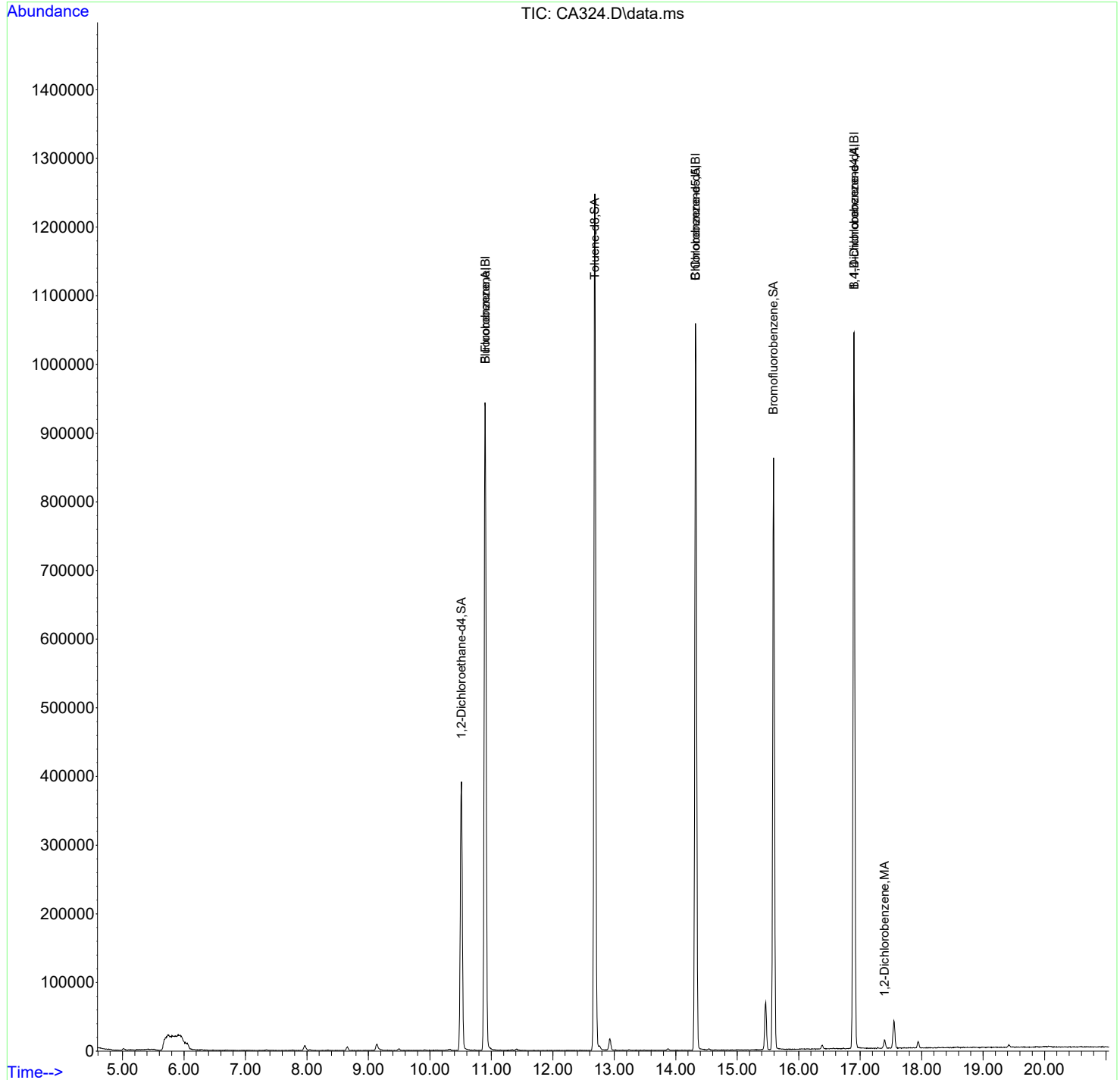
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.428	7.440	0.681	133	N.D.	
88) Allyl chloride	41	7.964	7.843	0.730	195	N.D.	
89) tert-Butyl Alcohol	59	8.056	7.983	0.739	737	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.501	9.531	0.871	3058	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.921	9.940	0.910	537	N.D.	
98) Isobutyl alcohol	41	10.324	10.263	0.947	506	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.548	17.506	1.038	1783	N.D.	

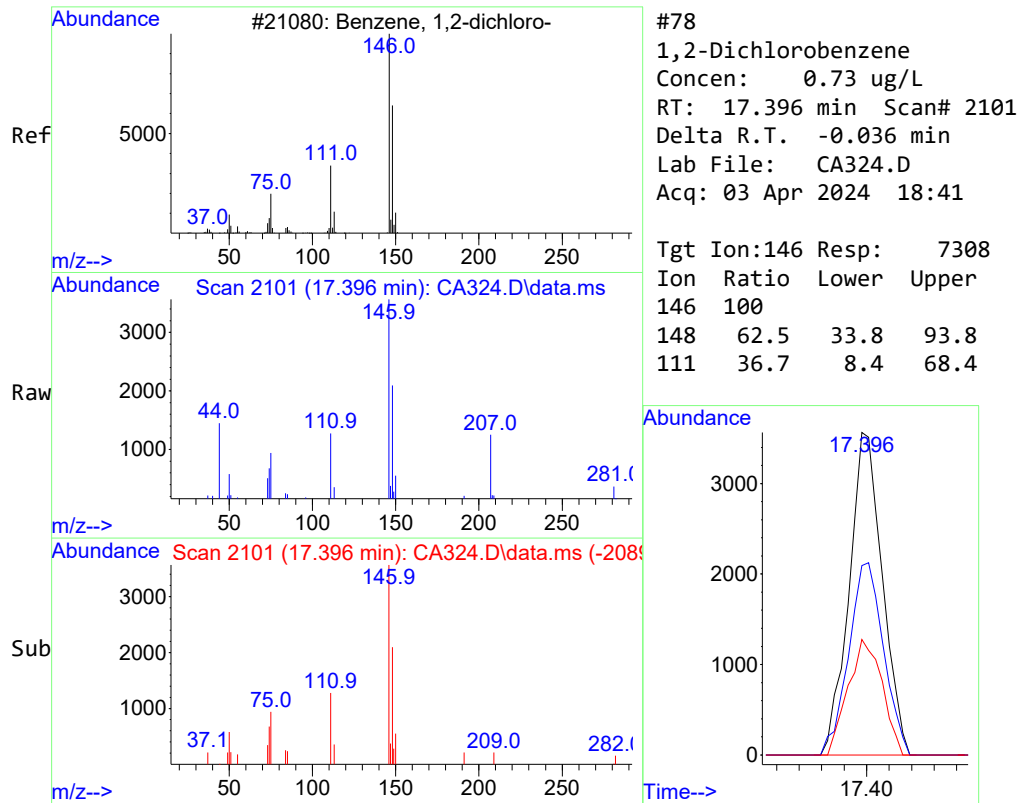
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA324.D
Acq On : 03 Apr 2024 18:41
Operator : PXY1
InstName : VOAC
Sample : |660771018|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Apr 04 07:58:07 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





Standards

Calibration History Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

03/19/2024

03/19/2024

Cal Lvl:8 Amt:0.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY102.D

Injection Date	Mix	Calibration File
18 Mar 2024 11:39	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY102.D

Cal Lvl:1 Amt:1.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY113.D

Injection Date	Mix	Calibration File
18 Mar 2024 12:07	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY103.D
18 Mar 2024 16:45	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY113.D

Cal Lvl:2 Amt:2.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY114.D

Injection Date	Mix	Calibration File
18 Mar 2024 12:35	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY104.D
18 Mar 2024 17:13	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY114.D

Cal Lvl:3 Amt:5.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY115.D

Injection Date	Mix	Calibration File
18 Mar 2024 13:03	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY105.D
18 Mar 2024 17:41	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY115.D

Cal Lvl:4 Amt:10.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY116.D

Injection Date	Mix	Calibration File
18 Mar 2024 13:31	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY106.D
18 Mar 2024 18:08	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY116.D

Cal Lvl:5 Amt:20.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY117.D

Injection Date	Mix	Calibration File
18 Mar 2024 13:59	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY107.D
18 Mar 2024 18:36	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY117.D

Cal Lvl:6 Amt:50.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY118.D

Injection Date	Mix	Calibration File
18 Mar 2024 14:26	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY108.D
18 Mar 2024 19:04	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY118.D

Cal Lvl:7 Amt:100.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY120.D

Injection Date	Mix	Calibration File
18 Mar 2024 15:22	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY110.D
18 Mar 2024 20:00	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY120.D

Calibration History Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

Cal Lvl:9 Amt:80.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY119.D

+-----+-----+-----+-----+			
Injection Date		Mix	Calibration File
+-----+-----+-----+-----+			
18 Mar 2024 14:54		A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY109.D
18 Mar 2024 19:32		B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY119.D
+-----+-----+-----+-----+			

VOAC-031824-8260D.M Tue Mar 19 10:07:27 2024

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

03/19/2024

03/19/2024

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound		8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
	m1	m2	6	7	9							
2)MA	Dichlorodifluoromethane		0.2169275 0.3191540	0.2921838 0.2972206	0.2421437 0.3176297	0.2588222	0.2690702	0.2766	AVRG			13.1637
3)MA	Chloromethane		0.2633283 0.3374436	0.3411389 0.3096790	0.2817108 0.3307604	0.2926895	0.3075803	0.3080	AVRG			9.0225
4)MA	Vinyl chloride		0.2473146 0.3530661	0.3386604 0.3266320	0.2966808 0.3462512	0.3054208	0.3251208	0.3174	AVRG			10.7743
5)MA	Bromomethane		0.1799788 0.2546098	0.2476504 0.2383259	0.2290269 0.2506274	0.2301198	0.2365925	0.2334	AVRG			10.0728
6)MA	Chloroethane		0.1513103 0.2145132	0.2056946 0.2010782	0.1998490 0.2161632	0.1988736	0.2092793	0.1996	AVRG			10.3065
7)MA	Trichlorofluoromethane		0.3189467 0.4123609	0.4286196 0.3894931	0.3868460 0.4078599	0.3825819	0.3962472	0.3904	AVRG			8.3639
8)MA	Ethyl ether		0.1592000 0.2189505	0.2142602 0.2176536	0.2066682 0.2205992	0.2067492	0.2117521	0.2070	AVRG			9.6655
9)MA	Acetone		0.0959496 0.0602103	0.0725344 0.0601548	0.0652937 0.0613501	0.0604509	0.0599468	0.0670	AVRG	#		18.6211
10)MA	1,1-Dichloroethylene		0.3512867 0.3504119	0.3509934 0.3290451	0.3453134 0.3576593	0.3493454	0.3400560	0.3468	AVRG			2.5284
11)MA	Iodomethane		0.4611253 0.4855637	0.4398422 0.4614200	0.4723853 0.5000129	0.4783824	0.4697520	0.4711	AVRG			3.8244
12)MA	Acetonitrile		0.0294497 0.0256796	0.0273395 0.0249432	0.0267352 0.0266757	0.0258240	0.0261005	0.0266	AVRG			5.1510
13)MA	Methyl acetate		0.1595437 0.1532878	0.1527581 0.1511794	0.1526654 0.1544275	0.1511499	0.1486551	0.1530	AVRG			2.0779
14)MA	Carbon disulfide		0.6998237 0.7248677	0.6451402 0.6700667	0.7048089 0.7293298	0.7165171	0.6919336	0.6978	AVRG			4.0918
15)MA	Methylene chloride			12492	18447	39785	73884	137407		1/x		

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

Compound			8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
b	m1	m2	6	7	9							
0.0048	0.2609	0.00	312471	631498	522012					LINR	#	0.9986
16)MA tert-Butyl methyl ether				0.7081586	0.6791648	0.7298488	0.7334699	0.7322576				
			0.7320218	0.7248549	0.7556178				0.7244	AVRG		3.0940
17)MA trans-1,2-Dichloroethyle				0.3452327	0.3688385	0.3508649	0.3550436	0.3429426				
			0.3435170	0.3308495	0.3574153				0.3493	AVRG		3.2707
18)MA Hexane					0.4074037	0.3591362	0.3585072	0.3434006				
			0.3394498	0.3368362	0.3309269				0.3537	AVRG		7.3451
19)MA Vinyl acetate				0.3575438	0.5101400	0.5001175	0.4762391	0.5013358				
			0.5211934	0.4944380	0.5002834				0.4827	AVRG		10.8049
20)MA 1,1-Dichloroethane				0.4491267	0.4284808	0.4390645	0.4487456	0.4358762				
			0.4311206	0.4130671	0.4444487				0.4362	AVRG		2.7689
21)MA 2-Butanone				0.0975666	0.0964468	0.0927676	0.0903971	0.0921791				
			0.0970691	0.0954733	0.0967256				0.0948	AVRG		2.8199
22)MA cis-1,2-Dichloroethylene				0.4115530	0.4266566	0.4139861	0.4134048	0.4062207				
			0.4047676	0.3909700	0.4197329				0.4109	AVRG		2.6004
23)MA 2,2-Dichloropropane				0.3746433	0.3388191	0.3661799	0.3451532	0.3293794				
			0.3375068	0.3243606	0.3555190				0.3464	AVRG		5.1004
24)MA Bromochloromethane				0.1468967	0.1523377	0.1568643	0.1570369	0.1557698				
			0.1588102	0.1559121	0.1642679				0.1560	AVRG		3.2001
25)MA Chloroform				0.4563915	0.4449181	0.4592091	0.4664302	0.4544753				
			0.4539765	0.4442120	0.4742187				0.4567	AVRG		2.2130
26)MA 1,1,1-Trichloroethane				0.4313554	0.4048658	0.4185911	0.4208205	0.4086373				
			0.4111078	0.3936133	0.4233548				0.4140	AVRG		2.8758
27)MA Cyclohexane				0.4423306	0.4113495	0.4274640	0.4184965	0.4042582				
			0.4079407	0.3816487	0.4144435				0.4135	AVRG		4.2752
28)MA 1,1-Dichloropropene				0.3540207	0.3202403	0.3382616	0.3456457	0.3334512				
			0.3363067	0.3224189	0.3469930				0.3372	AVRG		3.4954

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

Compound			8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
b	m1	m2	6	7	9							
29)MA	Carbon tetrachloride		0.3667225	0.3788225	0.3581909	0.3788956	0.3800666	0.3683856	0.3707	AVRG		2.7036
30)SA	1,2-Dichloroethane-d4		0.3033186	0.3016363	0.2984423	0.2976516	0.3046247	0.2985983	0.3028	AVRG		1.8920
31)MA	1,2-Dichloroethane		0.3454557	0.3460529	0.3457786	0.3433238	0.3516125	0.3382461	0.3445	AVRG		1.7982
32)MA	Benzene		0.9771671	1.0114822	0.9694452	0.9847163	0.9868747	0.9635308	0.9790	AVRG		2.3406
33)MA	Cyclohexene		0.4808655	0.5289220	0.4857239	0.4942916	0.4915427	0.4792113	0.4891	AVRG		4.0213
34)MA	n-Butyl alcohol		0.0072330	0.0074887	0.0067195	0.0068115	0.0066954	0.0068225	0.0070	AVRG	#	4.5109
35)MA	Trichloroethylene		0.2720667	0.2796936	0.2778284	0.2812295	0.2841097	0.2721979	0.2768	AVRG		2.5053
36)MA	2-Pentanone		0.1738635	0.1673743	0.1744855	0.1648307	0.1618747	0.1641178	0.1662	AVRG		3.7901
37)MA	1,2-Dichloropropane		0.2583419	0.2448539	0.2366459	0.2501823	0.2542392	0.2465198	0.2494	AVRG		3.2029
38)MA	Methylcyclohexane		0.4553212	0.4840054	0.4547726	0.4765538	0.4729098	0.4591698	0.4639	AVRG		3.2993
39)MA	Dibromomethane		0.1669874	0.1637697	0.1582861	0.1653843	0.1619618	0.1616314	0.1636	AVRG		2.1949
40)MA	Bromodichloromethane		0.3595720	0.3549972	0.3449459	0.3470462	0.3566960	0.3499592	0.3541	AVRG		2.3205
41)MA	2-Chloroethylvinyl ether		0.0116338	0.0059134	0.0108538	0.0117570	0.0102363	0.0096517	0.0099	AVRG	# #	18.7299
42)MA	cis-1,3-Dichloropropylene		0.4403226	0.3996013	0.4083555	0.4068782	0.4180122	0.4114415	0.4187	AVRG		3.8454

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

Compound			8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
b	m1	m2	6	7	9							
44)MA	4-Methyl-2-pentanone		0.0950948	0.1018886	0.1008295	0.1009475	0.1009415					
			0.1040079	0.1027111	0.1050406				0.1014	AVRG		2.9459
45)SA	Toluene-d8		1.3371605	1.2616187	1.2613565	1.2746122	1.3165211	1.2823137				
			1.2965958	1.2931531	1.3023327				1.2917	AVRG		1.9407
46)MA	Toluene		1.3494283	1.2887857	1.2998740	1.3255829	1.2814521					
			1.2951343	1.2417769	1.3359954				1.3023	AVRG		2.6340
47)MA	trans-1,3-Dichloropropyl		0.4454972	0.4559616	0.4484029	0.4597077	0.4530614					
			0.4721093	0.4488508	0.4749321				0.4573	AVRG		2.4034
48)MA	1,1,2-Trichloroethane		0.2248484	0.2266111	0.2195911	0.2279776	0.2201331					
			0.2284503	0.2201461	0.2322999				0.2250	AVRG		2.0790
49)MA	2-Hexanone		0.1559747	0.1616042	0.1588656	0.1605324	0.1579916					
			0.1684654	0.1602933	0.1644256				0.1610	AVRG		2.4327
50)MA	1,3-Dichloropropane		0.4123830	0.4301711	0.4293320	0.4387517	0.4339626					
			0.4509912	0.4302235	0.4546124				0.4351	AVRG		3.0658
51)MA	Tetrachloroethylene		0.3218740	0.3180502	0.3153556	0.3179713	0.3101095					
			0.3045029	0.2918109	0.3192169				0.3124	AVRG		3.2001
52)MA	Dibromochloromethane		0.3303698	0.3503316	0.3587224	0.3663424	0.3618708					
			0.3726056	0.3649909	0.3845534				0.3612	AVRG		4.4288
53)MA	1,2-Dibromoethane		0.2800709	0.2923831	0.2822586	0.2928972	0.2824715					
			0.2968965	0.2879536	0.3015713				0.2896	AVRG		2.6539
54)MA	Chlorobenzene		0.9008418	0.9125896	0.8977949	0.9245694	0.9015765					
			0.9108668	0.8813975	0.9462939				0.9095	AVRG		2.1421
55)MA	1,1,1,2-Tetrachloroethan		0.3593327	0.3623754	0.3698812	0.3772495	0.3680543					
			0.3620313	0.3610578	0.3860893				0.3683	AVRG		2.5273
56)MA	Ethylbenzene		1.4982009	1.4817087	1.4351591	1.4672178	1.4299540					
			1.4524059	1.3887463	1.4991515				1.4566	AVRG		2.6047
57)MA	m,p-Xylenes		0.6054446	0.5931450	0.5826241	0.5902933	0.5736662					

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound		8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
	m1	m2	6	7	9							
			0.5804490	0.5516171	0.5992125				0.5846	AVRG		2.8786
58)MA	o-Xylene			1.2787589	1.2217551	1.2233603	1.2563777	1.2113280				
			1.1953830	1.1629015	1.2515765				1.2252	AVRG		3.0091
59)MA	Styrene			0.9131510	0.9060001	0.9400328	0.9682892	0.9635919				
			0.9968629	0.9583266	1.0283372				0.9593	AVRG		4.2469
61)MA	Bromoform			0.4072071	0.4235097	0.4230364	0.4169013	0.4311460				
			0.4646467	0.4616584	0.4769177				0.4381	AVRG		5.8880
62)MA	Isopropylbenzene			2.6401913	2.7099296	2.6633252	2.6692361	2.6617975				
			2.6763676	2.6009730	2.8086365				2.6788	AVRG		2.2751
63)SA	Bromofluorobenzene			0.8148371	0.8521302	0.8442927	0.8520498	0.8472591				
			0.8888739	0.8738561	0.8777752				0.8615	AVRG		3.0900
64)MA	1,1,2,2-Tetrachloroethan			0.5906830	0.6298746	0.6077669	0.5917339	0.5983868				
			0.6192003	0.6116396	0.6279075				0.6096	AVRG		2.5173
65)MA	1,2,3-Trichloropropane			0.1840475	0.1932228	0.1895244	0.1936137	0.1868914				
			0.1997012	0.1950267	0.2033212				0.1932	AVRG		3.3048
66)MA	Bromobenzene			0.7152866	0.7708298	0.7557094	0.7562318	0.7511251				
			0.7850176	0.7579021	0.8126957				0.7631	AVRG		3.6926
67)MA	n-Propylbenzene			2.9712154	3.0529978	3.0117718	3.0038798	2.9844766				
			3.0464849	2.9094530	3.1657850				3.0183	AVRG		2.4796
68)MA	1,3,5-Trimethylbenzene			2.2842627	2.3588301	2.3200334	2.3431073	2.3311922				
			2.3435997	2.2684083	2.4709973				2.3401	AVRG		2.6167
69)MA	2-Chlorotoluene			0.6805021	0.6646195	0.6671673	0.6719657	0.6637717				
			0.6760196	0.6457039	0.7039379				0.6717	AVRG		2.4815
70)MA	4-Chlorotoluene			1.8219394	1.8632537	1.8276307	1.8275021	1.8220514				
			1.8695169	1.7713314	1.9309534				1.8418	AVRG		2.5411
71)MA	tert-Butylbenzene			0.4932701	0.5436781	0.5295859	0.5368326	0.5286134				
			0.5292150	0.5160766	0.5645262				0.5302	AVRG		3.8855

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound		8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
	m1	m2	6	7	9							
72)MA	1,2,4-Trimethylbenzene		2.3770372	2.3611805	2.4843240	2.3737291	2.3870386	2.3968375	2.3977	AVRG		2.9250
73)MA	sec-Butylbenzene		2.9239767	2.9352878	2.9979385	2.9614439	2.9594936	2.9198166	2.9497	AVRG		2.7052
74)MA	4-Isopropyltoluene		2.6124352	2.5987928	2.6547844	2.6232553	2.6184292	2.6261989	2.6265	AVRG		2.8554
75)MA	1,3-Dichlorobenzene		1.4131932	1.4176718	1.4524996	1.4142681	1.4135193	1.3937486	1.4150	AVRG		2.7285
76)MA	1,4-Dichlorobenzene		1.4099536	1.4150589	1.4933001	1.4189590	1.4065150	1.3970346	1.4187	AVRG		3.2832
77)MA	n-Butylbenzene		2.2510946	2.3223950	2.3622230	2.3121294	2.3021974	2.2817119	2.2940	AVRG		3.5702
78)MA	1,2-Dichlorobenzene		1.3829733	1.3631271	1.4051280	1.3804011	1.3761803	1.3666058	1.3811	AVRG		2.5160
79)MA	1,2-Dibromo-3-chloroprop		0.1725824	0.1597147	0.1740680	0.1740429	0.1588498	0.1655132	0.1702	AVRG		4.8397
80)MA	1,2,4-Trichlorobenzene		1.1350290	1.1314755	1.1557722	1.1507724	1.1197597	1.1456481	1.1439	AVRG		3.9384
81)MA	Hexachlorobutadiene		0.6609917	0.7027119	0.6653925	0.6750541	0.6707296	0.6622264	0.6644	AVRG		5.0052
82)MA	Naphthalene		2.2972843	2.1879113	2.2259921	2.2167830	2.1707124	2.2266493	2.2543	AVRG		3.9417
83)MA	1,2,3-Trichlorobenzene		1.0525321	1.0702353	1.0496908	1.0914408	1.0465236	1.0458323	1.0607	AVRG		3.2583
85)B	Acrolein		0.0245291	0.0249919	0.0251928	0.0253925	0.0251514	0.0265642	0.0264	AVRG		7.7809
86)B	Trichlorotrifluoroethane		0.1043247	0.1224231	0.1020322	0.1072415	0.1080012	0.0983069	0.1070	AVRG		6.5756

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

Compound			8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
b	m1	m2	6	7	9							
87)B	Isopropyl Alcohol		0.0146384	0.0207511 0.0154337	0.0144960 0.0152520	0.0136253	0.0138632	0.0147994	0.0154	AVRG		14.7486
88)B	Allyl chloride		0.3722878	0.3468165 0.3745337	0.3567870 0.3668880	0.3622975	0.3713028	0.3624174	0.3642	AVRG		2.5291
89)B	tert-Butyl Alcohol		0.0269169	0.0362262 0.0273991	0.0267403 0.0277935	0.0256252	0.0260957	0.0274404	0.0280	AVRG		12.0915
90)B	Acrylonitrile		0.0768309	0.0760532 0.0768474	0.0735886 0.0779734	0.0749442	0.0749251	0.0783454	0.0762	AVRG		2.1399
91)B	Isopropyl ether		0.7445343	0.5510510 0.7488369	0.7427503 0.7568966	0.7436467	0.7430914	0.7430132	0.7217	AVRG		9.5786
92)B	2-Chloro-1,3-butadiene		0.3126203	0.3400461 0.3125272	0.3092897 0.3079325	0.3043512	0.3140478	0.3057781	0.3133	AVRG		3.6159
93)B	Ethyl tert-butyl ether		0.6567189	0.4395346 0.6561388	0.6529577 0.6594295	0.6480018	0.6481154	0.6525990	0.6267	AVRG		12.0838
94)B	Ethyl acetate		0.1843635	0.2029827 0.1820018	0.1908144 0.1951466	0.1930205	0.1822475	0.1957665	0.1908	AVRG		3.9066
95)B	Propionitrile		0.0293484	0.0360074 0.0296127	0.0296815 0.0301882	0.0280320	0.0283131	0.0299822	0.0301	AVRG		8.2551
96)B	Methacrylonitrile		0.1253434	0.1175793 0.1254254	0.1258869 0.1300266	0.1279422	0.1240844	0.1295621	0.1257	AVRG		3.1161
97)B	Tetrahydrofuran		0.0624157	0.0759879 0.0612471	0.0639673 0.0640758	0.0616955	0.0592612	0.0640206	0.0641	AVRG		7.9462
98)B	Isobutyl alcohol		0.0075548	0.0113889 0.0077285	0.0079543 0.0079823	0.0076330	0.0075983	0.0079297	0.0082	AVRG	# #	15.7044
99)B	Methyl tert-amyl ether		0.6563358	0.4334390 0.6522697	0.6456116 0.6566189	0.6541293	0.6514451	0.6560088	0.6257	AVRG		12.4306
100)B	Methyl methacrylate			0.1210843	0.1413389	0.1535077	0.1447051	0.1527536				

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(x^2)$

b	Compound		8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
	m1	m2	6	7	9							
			0.1490492	0.1538558	0.1680615				0.1480	AVRG		9.0999
101)B	1,4-Dioxane			0.0035093	0.0024333	0.0022810	0.0022227	0.0023310				
			0.0023398	0.0024664	0.0024663				0.0025	AVRG	# #	16.5490
102)B	2-Nitropropane			0.0710570	0.0665857	0.0677581	0.0649701	0.0687959				
			0.0674202	0.0678502	0.0730760				0.0684	AVRG		3.7375
104)B	Ethyl methacrylate			0.2856536	0.3480719	0.3637942	0.3677286	0.3826886				
			0.3704224	0.3789686	0.4047777				0.3628	AVRG		9.7020
106)B	1-Chlorohexane			0.6986393	0.4724536	0.4832710	0.4783845	0.4873950				
			0.4721744	0.4820864	0.4861372				0.5076	AVRG	#	15.2522
107)B	cis-1,4-Dichloro-2-buten			0.1778748	0.1799738	0.1839763	0.1869046	0.1989303				
			0.1934749	0.1967520	0.2047679				0.1903	AVRG		5.0552
108)B	Cyclohexanone			0.0196011	0.0137156	0.0118769	0.0119530	0.0135050				
			0.0144551	0.0145135	0.0143283				0.0142	AVRG	#	16.8873
109)B	trans-1,4-Dichloro-2-but			0.1528183	0.1530612	0.1571903	0.1615251	0.1700041				
			0.1639951	0.1650684	0.1723386				0.1620	AVRG		4.4994
110)B	Pentachloroethane			0.4626936	0.5151273	0.5124610	0.5453181	0.5527208				
			0.5627742	0.5565706	0.5254769				0.5291	AVRG		6.2290
111)B	Benzyl chloride			1.2072938	1.2968895	1.2888226	1.3387873	1.3891690				
			1.3564343	1.3337375	1.3365242				1.3185	AVRG		4.1658
112)B	bis(2-Chloroisopropyl)et			0.2945069	0.2444082	0.2213894	0.2300875	0.2423030				
			0.2383346	0.2338343	0.2307251				0.2419	AVRG		9.2904

(#) = Out of Range (\$) = Individual RF Out of Range

AVRG = Average, LINR = Linear Regression, $1/x$ = the inverse of concentration, $1/x^2$ = the inverse square of concentration

PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY102.D
Acq On : 18 Mar 2024 11:39
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-01|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD0005 5UL/5ML N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 09:59:48 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.952	10.934	1.000	1169899	50.00	ug/L	0.02
43) Chlorobenzene-d5	117	14.366	14.354	1.000	957446	50.00	ug/L	0.01
60) 1,4-Dichlorobenzene-d4	152	16.939	16.933	1.000	547189	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.952	10.928	1.000	0m	50.00	ug/L	0.02
103) B Chlorobenzene-d5	117	14.366	14.348	1.000	0m	50.00	ug/L	0.02
105) B 1,4-Dichlorobenzene-d4	152	16.939	16.920	1.000	0m	50.00	ug/L	0.02
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.562	10.543	0.964	370200	52.26	ug/L	0.02
45) Toluene-d8	98	12.726	12.714	0.886	1280259	51.76	ug/L	0.01
63) Bromofluorobenzene	95	15.628	15.622	0.923	493619	52.36	ug/L	0.00
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.819	4.782	0.440	2509	0.39	ug/L	85
3) Chloromethane	50	5.215	5.203	0.476	3564	0.49	ug/L	98
4) Vinyl chloride	62	5.453	5.422	0.498	2966	0.40	ug/L	96
5) Bromomethane	94	6.105	6.075	0.557	2354	0.43	ug/L	# 68
6) Chloroethane	64	6.227	6.197	0.569	2041	0.44	ug/L	99
7) Trichlorofluoromethane	101	6.648	6.629	0.607	3917	0.43	ug/L	94
8) Ethyl ether	59	7.001	6.971	0.639	2056	0.42	ug/L	88
9) Acetone	43	7.398	7.367	0.675	8197	5.23	ug/L	92
10) 1,1-Dichloroethylene	61	7.410	7.392	0.677	4711	0.58	ug/L	97
11) Iodomethane	142	7.678	7.654	0.701	29342	2.66	ug/L	99
12) Acetonitrile	41	7.763	7.739	0.709	11059	17.77	ug/L	90
13) Methyl acetate	43	7.824	7.794	0.714	11316	3.16	ug/L	95
14) Carbon disulfide	76	7.824	7.800	0.714	44981	2.75	ug/L	99
15) Methylene chloride	84	8.020	8.001	0.732	8998	0.55	ug/L	97
16) tert-Butyl methyl ether	73	8.355	8.330	0.763	9095	0.54	ug/L	80
17) trans-1,2-Dichloroethy...	61	8.398	8.373	0.767	4653	0.57	ug/L	97
18) Hexane	57	8.715	8.690	0.796	7992	N.D.		
19) Vinyl acetate	43	8.873	8.849	0.810	23439	2.08	ug/L	96
20) 1,1-Dichloroethane	63	8.922	8.897	0.815	5435	0.53	ug/L	98
21) 2-Butanone	43	9.556	9.525	0.873	7409	3.34	ug/L	88
22) cis-1,2-Dichloroethylene	61	9.611	9.586	0.878	5112	0.53	ug/L	92
23) 2,2-Dichloropropane	77	9.641	9.623	0.880	4285	0.53	ug/L	78
24) Bromochloromethane	128	9.903	9.885	0.904	1721	0.47	ug/L	92
25) Chloroform	83	9.934	9.922	0.907	5963	0.56	ug/L	100
26) 1,1,1-Trichloroethane	97	10.251	10.232	0.936	5384	0.56	ug/L	95
27) Cyclohexane	56	10.367	10.342	0.947	5933	0.61	ug/L	98
28) 1,1-Dichloropropene	75	10.415	10.403	0.951	4472	0.57	ug/L	# 98
29) Carbon tetrachloride	117	10.464	10.446	0.955	4674	0.54	ug/L	97
31) 1,2-Dichloroethane	62	10.653	10.635	0.973	4710	0.58	ug/L	99
32) Benzene	78	10.684	10.665	0.976	12518	0.55	ug/L	# 81
33) Cyclohexene	67	10.806	10.793	0.987	7001	0.61	ug/L	91
34) n-Butyl alcohol	56	11.037	11.019	1.008	8761	53.16	ug/L	86
35) Trichloroethylene	95	11.373	11.354	1.038	3893	0.60	ug/L	93
36) 2-Pentanone	43	11.458	11.434	1.046	12312	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY102.D
Acq On : 18 Mar 2024 11:39
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-01|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD0005 5UL/5ML N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 19 09:59:48 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.635	11.616	1.062	3039	0.52 ug/L	99
38) Methylcyclohexane	83	11.641	11.635	1.063	6374	0.59 ug/L	66
39) Dibromomethane	93	11.781	11.763	1.076	1823	0.48 ug/L	91
40) Bromodichloromethane	83	11.897	11.885	1.086	4424	0.53 ug/L	97
41) 2-Chloroethylvinyl ether	63	12.135	12.122	1.108	253	N.D.	
42) cis-1,3-Dichloropropylene	75	12.385	12.372	1.131	5101	0.52 ug/L	74
44) 4-Methyl-2-pentanone	58	12.482	12.470	0.869	5215	2.68 ug/L	99
46) Toluene	91	12.811	12.793	0.892	14315	0.57 ug/L #	100
47) trans-1,3-Dichloroprop...	75	12.970	12.952	0.903	4905	0.56 ug/L	93
48) 1,1,2-Trichloroethane	83	13.201	13.189	0.919	2190	0.51 ug/L	88
49) 2-Hexanone	43	13.397	13.384	0.933	8597	2.79 ug/L	95
50) 1,3-Dichloropropane	76	13.409	13.397	0.933	4486	0.54 ug/L	84
51) Tetrachloroethylene	164	13.451	13.439	0.936	3565	0.60 ug/L	96
52) Dibromochloromethane	129	13.695	13.689	0.953	3389	0.49 ug/L	99
53) 1,2-Dibromoethane	107	13.890	13.872	0.967	2824	0.51 ug/L	97
54) Chlorobenzene	112	14.403	14.390	1.003	9332	0.54 ug/L #	22
55) 1,1,1,2-Tetrachloroethane	131	14.457	14.445	1.006	3769	0.53 ug/L #	66
56) Ethylbenzene	91	14.470	14.457	1.007	16728	0.60 ug/L	96
57) m,p-Xylenes	106	14.585	14.573	1.015	14195	1.27 ug/L	100
58) o-Xylene	91	15.043	15.037	1.047	13405	0.57 ug/L	100
59) Styrene	104	15.049	15.037	1.048	9722	0.53 ug/L	97
61) Bromoform	173	15.317	15.305	0.904	2348	0.49 ug/L	87
62) Isopropylbenzene	105	15.427	15.414	0.911	15593	0.53 ug/L	98
64) 1,1,2,2-Tetrachloroethane	83	15.701	15.695	0.927	3782	0.57 ug/L	93
65) 1,2,3-Trichloropropane	110	15.799	15.792	0.933	1076	0.51 ug/L	93
66) Bromobenzene	156	15.853	15.847	0.936	4623	0.55 ug/L	95
67) n-Propylbenzene	91	15.872	15.866	0.937	19125	0.58 ug/L	99
68) 1,3,5-Trimethylbenzene	105	16.030	16.024	0.946	13561	0.53 ug/L	97
69) 2-Chlorotoluene	126	16.030	16.024	0.946	3976	0.54 ug/L	87
70) 4-Chlorotoluene	91	16.140	16.128	0.953	11855	0.59 ug/L	97
71) tert-Butylbenzene	134	16.433	16.420	0.970	3202	0.55 ug/L	94
72) 1,2,4-Trimethylbenzene	105	16.469	16.463	0.972	14693	0.56 ug/L	98
73) sec-Butylbenzene	105	16.670	16.664	0.984	18285	0.57 ug/L	100
74) 4-Isopropyltoluene	119	16.805	16.792	0.992	16111	0.56 ug/L	97
75) 1,3-Dichlorobenzene	146	16.878	16.865	0.996	8980	0.58 ug/L	84
76) 1,4-Dichlorobenzene	146	16.969	16.957	1.002	8959	0.58 ug/L #	8
77) n-Butylbenzene	91	17.286	17.280	1.021	14652	0.58 ug/L	98
78) 1,2-Dichlorobenzene	146	17.439	17.432	1.030	8313	0.55 ug/L	97
79) 1,2-Dibromo-3-chloropr...	157	18.390	18.383	1.086	875	0.47 ug/L	82
80) 1,2,4-Trichlorobenzene	180	19.591	19.578	1.157	7308	0.58 ug/L	98
81) Hexachlorobutadiene	225	19.792	19.780	1.168	4304	0.59 ug/L	92
82) Naphthalene	128	20.030	20.017	1.182	13750	0.56 ug/L	97
83) 1,2,3-Trichlorobenzene	180	20.408	20.401	1.205	6425	0.55 ug/L	97
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		7.385	7.355	0.674	0m	N.D. d	
87) Isopropyl Alcohol		7.477	7.440	0.683	0m	N.D. d	
88) Allyl chloride		7.763	7.843	0.709	0m	N.D. d	
89) tert-Butyl Alcohol		8.013	7.983	0.732	0m	N.D. d	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY102.D
Acq On : 18 Mar 2024 11:39
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-01|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD0005 SUL/5ML N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 19 09:59:48 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

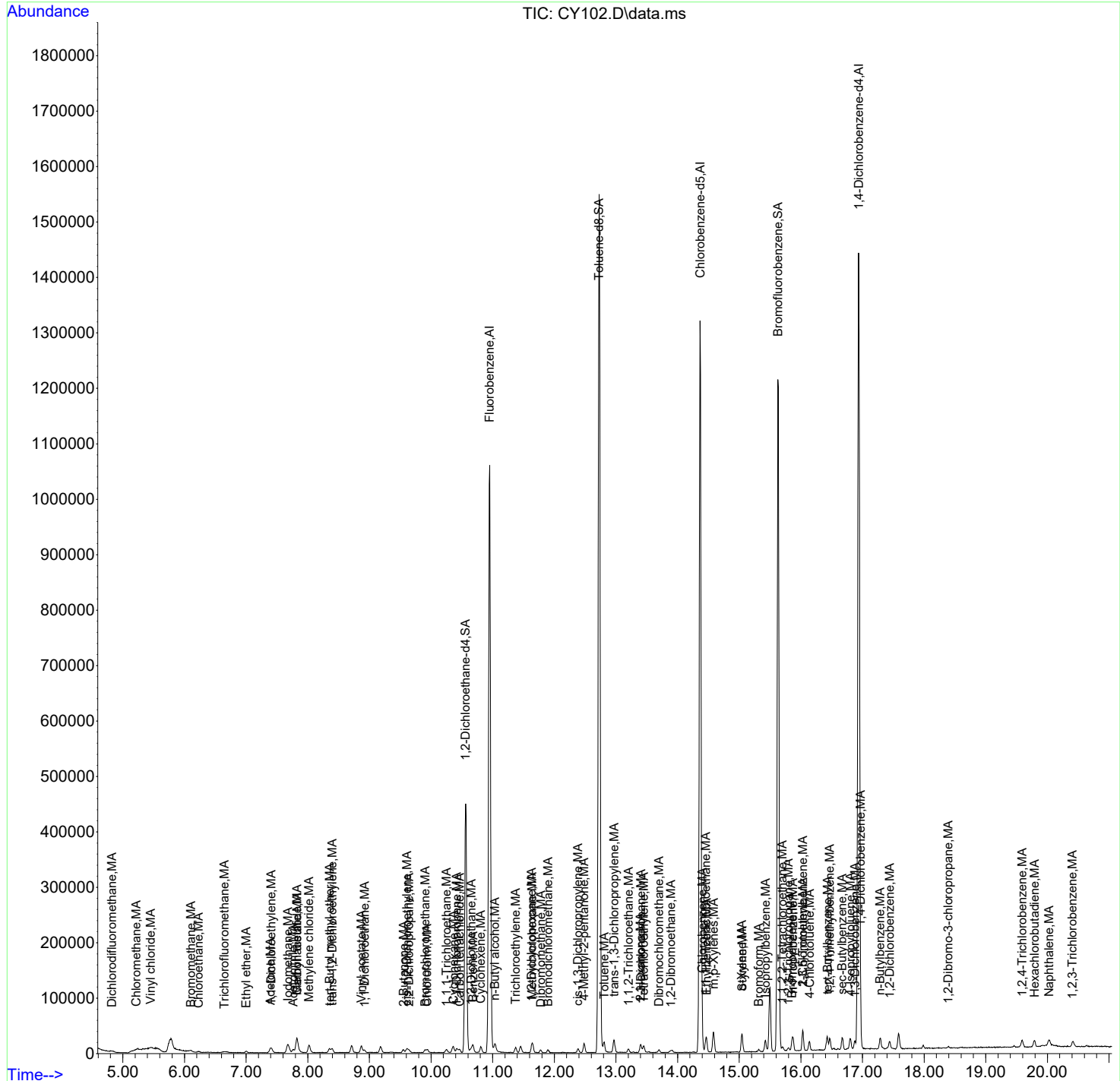
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.342	9.312	0.853	0m	N.D.	d
94) Ethyl acetate		9.556	9.531	0.873	0m	N.D.	d
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		9.824	9.794	0.897	0m	N.D.	d
97) Tetrahydrofuran		9.983	9.940	0.911	0m	N.D.	d
98) Isobutyl alcohol		10.361	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.684	10.671	0.976	0m	N.D.	d
100) Methyl methacrylate		11.647	11.580	1.063	0m	N.D.	d
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		12.135	12.086	1.108	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.256	14.238	0.842	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		17.085	17.073	1.009	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		17.585	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY102.D
Acq On    : 18 Mar 2024  11:39
Operator  : PX11
InstName  : VOAC
Sample    : |WCVM240318-01|ICAL|1|VOAF|1|VOA8260D|
Misc      : VSTD0005 SUL/SML N/A MIX[A]
ALS Vial  : 2    Sample Multiplier: 1
```

Quant Time: Mar 19 09:59:48 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY103.D
Acq On : 18 Mar 2024 12:07
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-02|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD001 SUL/5ML N/A MIX[A]
ALS Vial : 3 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 09:59:51 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.946	10.934	1.000	1280151	50.00	ug/L	0.01
43) Chlorobenzene-d5	117	14.366	14.354	1.000	1035809	50.00	ug/L	0.01
60) 1,4-Dichlorobenzene-d4	152	16.939	16.933	1.000	612342	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.946	10.928	1.000	0m	50.00	ug/L	0.02
103) B Chlorobenzene-d5	117	14.366	14.348	1.000	0m	50.00	ug/L	0.02
105) B 1,4-Dichlorobenzene-d4	152	16.939	16.920	1.000	0m	50.00	ug/L	0.02
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.556	10.543	0.964	386140	49.81	ug/L	0.01
45) Toluene-d8	98	12.726	12.714	0.886	1306796	48.83	ug/L	0.01
63) Bromofluorobenzene	95	15.628	15.622	0.923	498959	47.29	ug/L	0.00
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.807	4.782	0.439	5554	0.78	ug/L	95
3) Chloromethane	50	5.221	5.203	0.477	6742	0.85	ug/L	98
4) Vinyl chloride	62	5.447	5.422	0.498	6332	0.78	ug/L	96
5) Bromomethane	94	6.087	6.075	0.556	4608	0.77	ug/L	# 3
6) Chloroethane	64	6.221	6.197	0.568	3874	0.76	ug/L	99
7) Trichlorofluoromethane	101	6.623	6.629	0.605	8166	0.82	ug/L	98
8) Ethyl ether	59	6.983	6.971	0.638	4076	0.77	ug/L	94
9) Acetone	43	7.385	7.367	0.675	12283	7.16	ug/L	91
10) 1,1-Dichloroethylene	61	7.404	7.392	0.676	8994	1.01	ug/L	99
11) Iodomethane	142	7.672	7.654	0.701	59031	4.89	ug/L	100
12) Acetonitrile	41	7.757	7.739	0.709	18850	27.69	ug/L	93
13) Methyl acetate	43	7.812	7.794	0.714	20424	5.22	ug/L	99
14) Carbon disulfide	76	7.812	7.800	0.714	89588	5.01	ug/L	99
15) Methylene chloride	84	8.013	8.001	0.732	12492	0.95	ug/L	97
16) tert-Butyl methyl ether	73	8.343	8.330	0.762	18131	0.98	ug/L	88
17) trans-1,2-Dichloroethy...	61	8.391	8.373	0.767	8839	0.99	ug/L	95
18) Hexane	57	8.702	8.690	0.795	12580	N.D.		
19) Vinyl acetate	43	8.861	8.849	0.810	45771	3.70	ug/L	97
20) 1,1-Dichloroethane	63	8.910	8.897	0.814	11499	1.03	ug/L	99
21) 2-Butanone	43	9.544	9.525	0.872	12490	5.14	ug/L	96
22) cis-1,2-Dichloroethylene	61	9.598	9.586	0.877	10537	1.00	ug/L	98
23) 2,2-Dichloropropane	77	9.635	9.623	0.880	9592	1.08	ug/L	87
24) Bromochloromethane	128	9.897	9.885	0.904	3761	0.94	ug/L	96
25) Chloroform	83	9.934	9.922	0.908	11685	1.00	ug/L	99
26) 1,1,1-Trichloroethane	97	10.245	10.232	0.936	11044	1.04	ug/L	98
27) Cyclohexane	56	10.354	10.342	0.946	11325	1.07	ug/L	99
28) 1,1-Dichloropropene	75	10.415	10.403	0.952	9064	1.05	ug/L	# 97
29) Carbon tetrachloride	117	10.458	10.446	0.955	9699	1.02	ug/L	98
31) 1,2-Dichloroethane	62	10.647	10.635	0.973	8860	1.00	ug/L	97
32) Benzene	78	10.678	10.665	0.975	25897	1.03	ug/L	# 81
33) Cyclohexene	67	10.806	10.793	0.987	13542	1.08	ug/L	99
34) n-Butyl alcohol	56	11.031	11.019	1.008	17204	95.40	ug/L	92
35) Trichloroethylene	95	11.366	11.354	1.038	7161	1.01	ug/L	98
36) 2-Pentanone	43	11.446	11.434	1.046	22117	5.20	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY103.D
Acq On : 18 Mar 2024 12:07
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-02|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD001 SUL/5ML N/A MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 19 09:59:51 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.629	11.616	1.062	6269	0.98	ug/L 88
38) Methylcyclohexane	83	11.647	11.635	1.064	12392	1.04	ug/L 70
39) Dibromomethane	93	11.775	11.763	1.076	4193	1.00	ug/L 96
40) Bromodichloromethane	83	11.891	11.885	1.086	9089	1.00	ug/L 98
41) 2-Chloroethylvinyl ether	63	12.128	12.122	1.108	757	2.98	ug/L # 43
42) cis-1,3-Dichloropropylene	75	12.378	12.372	1.131	10231	0.95	ug/L 84
44) 4-Methyl-2-pentanone	58	12.482	12.470	0.869	9850	4.69	ug/L 91
46) Toluene	91	12.805	12.793	0.891	27955	1.04	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.958	12.952	0.902	9229	0.97	ug/L 96
48) 1,1,2-Trichloroethane	83	13.201	13.189	0.919	4658	1.00	ug/L 98
49) 2-Hexanone	43	13.390	13.384	0.932	16156	4.84	ug/L 97
50) 1,3-Dichloropropane	76	13.409	13.397	0.933	8543	0.95	ug/L 91
51) Tetrachloroethylene	164	13.451	13.439	0.936	6668	1.03	ug/L 98
52) Dibromochloromethane	129	13.695	13.689	0.953	6844	0.91	ug/L 98
53) 1,2-Dibromoethane	107	13.884	13.872	0.966	5802	0.97	ug/L 98
54) Chlorobenzene	112	14.402	14.390	1.003	18662	0.99	ug/L # 56
55) 1,1,1,2-Tetrachloroethane	131	14.457	14.445	1.006	7444	0.98	ug/L # 65
56) Ethylbenzene	91	14.463	14.457	1.007	31037	1.03	ug/L 94
57) m,p-Xylenes	106	14.579	14.573	1.015	25085	2.07	ug/L 93
58) o-Xylene	91	15.043	15.037	1.047	26491	1.04	ug/L 98
59) Styrene	104	15.043	15.037	1.047	18917	0.95	ug/L 98
61) Bromoform	173	15.317	15.305	0.904	4987	0.93	ug/L 98
62) Isopropylbenzene	105	15.421	15.414	0.910	32334	0.99	ug/L 98
64) 1,1,2,2-Tetrachloroethane	83	15.707	15.695	0.927	7234	0.97	ug/L 99
65) 1,2,3-Trichloropropane	110	15.799	15.792	0.933	2254	0.95	ug/L 87
66) Bromobenzene	156	15.853	15.847	0.936	8760	0.94	ug/L 93
67) n-Propylbenzene	91	15.872	15.866	0.937	36388	0.98	ug/L 100
68) 1,3,5-Trimethylbenzene	105	16.030	16.024	0.946	27975	0.98	ug/L 97
69) 2-Chlorotoluene	126	16.030	16.024	0.946	8334	1.01	ug/L 98
70) 4-Chlorotoluene	91	16.134	16.128	0.952	22313	0.99	ug/L 93
71) tert-Butylbenzene	134	16.426	16.420	0.970	6041	0.93	ug/L 90
72) 1,2,4-Trimethylbenzene	105	16.469	16.463	0.972	28917	0.98	ug/L 99
73) sec-Butylbenzene	105	16.670	16.664	0.984	35948	1.00	ug/L 98
74) 4-Isopropyltoluene	119	16.798	16.792	0.992	31827	0.99	ug/L 98
75) 1,3-Dichlorobenzene	146	16.872	16.865	0.996	17362	1.00	ug/L 85
76) 1,4-Dichlorobenzene	146	16.963	16.957	1.001	17330	1.00	ug/L # 68
77) n-Butylbenzene	91	17.286	17.280	1.021	28442	1.01	ug/L 99
78) 1,2-Dichlorobenzene	146	17.439	17.432	1.030	16694	0.99	ug/L 98
79) 1,2-Dibromo-3-chloropr...	157	18.390	18.383	1.086	1956	0.94	ug/L 82
80) 1,2,4-Trichlorobenzene	180	19.591	19.578	1.157	13857	0.99	ug/L 98
81) Hexachlorobutadiene	225	19.792	19.780	1.168	8606	1.06	ug/L 95
82) Naphthalene	128	20.023	20.017	1.182	26795	0.97	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.414	20.401	1.205	13107	1.01	ug/L 99
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	7.367	7.355	0.673	0m	N.D.	d	
87) Isopropyl Alcohol	7.434	7.440	0.679	0m	N.D.	d	
88) Allyl chloride	0.000	7.843	0.000	0	N.D.		
89) tert-Butyl Alcohol	8.013	7.983	0.732	0m	N.D.	d	
90) Acrylonitrile	0.000	8.257	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY103.D
Acq On : 18 Mar 2024 12:07
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-02|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD001 SUL/5ML N/A MIX[A]
ALS Vial : 3 Sample Multiplier: 1

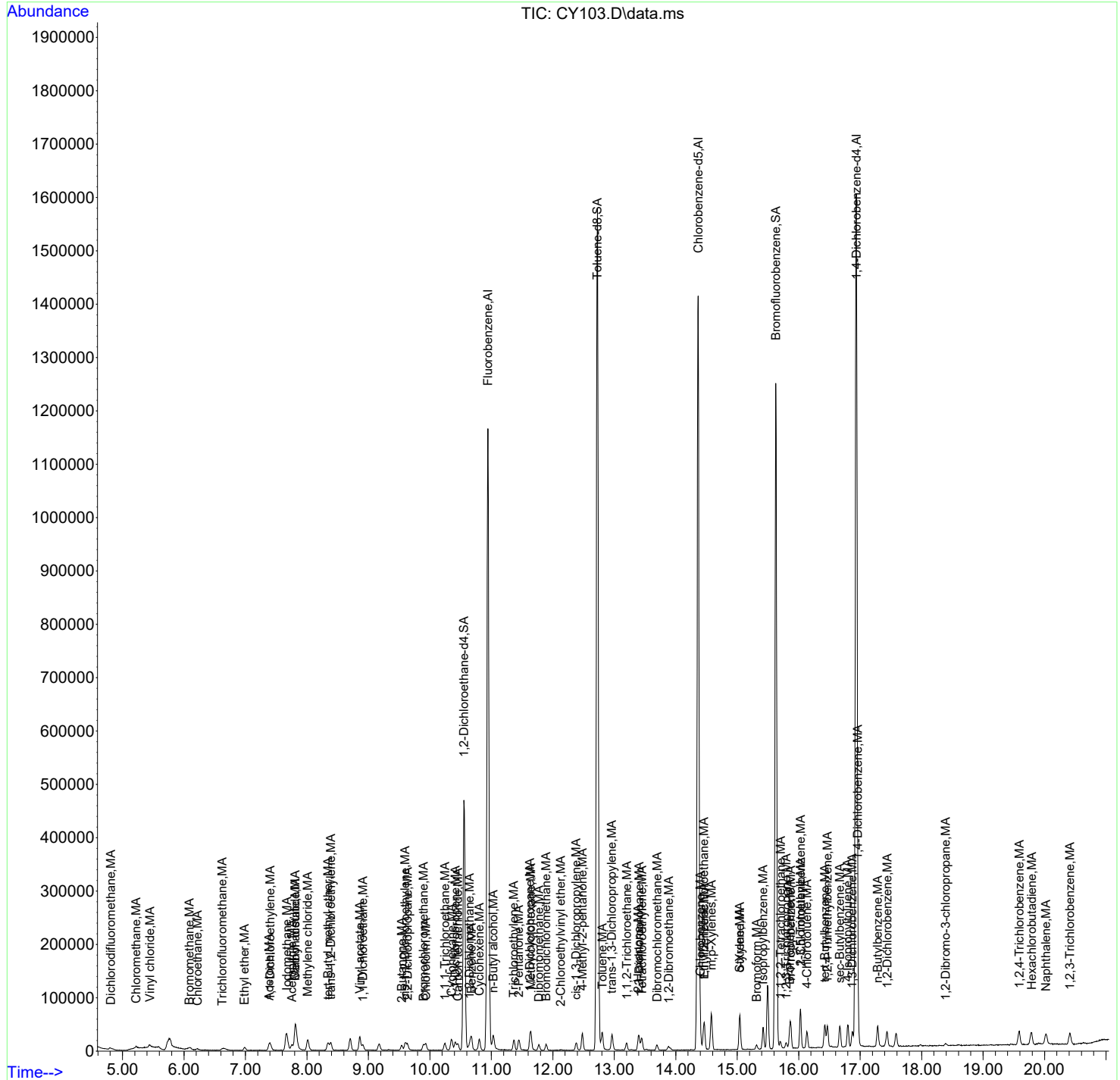
Quant Time: Mar 19 09:59:51 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.861	8.873	0.810	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.336	9.312	0.853	0m	N.D.	d
94) Ethyl acetate		9.544	9.531	0.872	0m	N.D.	d
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		9.806	9.794	0.896	0m	N.D.	d
97) Tetrahydrofuran		9.976	9.940	0.911	0m	N.D.	d
98) Isobutyl alcohol		10.287	10.263	0.940	0m	N.D.	d
99) Methyl tert-amyl ether		10.678	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.647	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		12.128	12.086	1.108	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		15.427	15.439	0.911	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		17.097	17.073	1.009	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		17.573	17.506	1.037	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

Quant Time: Mar 19 09:59:51 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY104.D
Acq On : 18 Mar 2024 12:35
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-03|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD002 SUL/5ML N/A MIX[A]
ALS Vial : 4 Sample Multiplier: 1

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03/19/2024

Quant Time: Mar 19 09:59:53 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.940	10.934	1.000	1260850	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.360	14.354	1.000	1012969	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.933	16.933	1.000	582100	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.940	10.928	1.000	0m	50.00	ug/L	0.01
103) B Chlorobenzene-d5	117	14.360	14.348	1.000	0m	50.00	ug/L	0.01
105) B 1,4-Dichlorobenzene-d4	152	16.933	16.920	1.000	0m	50.00	ug/L	0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.556	10.543	0.965	376291	49.29	ug/L	0.01
45) Toluene-d8	98	12.720	12.714	0.886	1277715	48.82	ug/L	0.00
63) Bromofluorobenzene	95	15.628	15.622	0.923	496025	49.46	ug/L	0.00
Target Compounds								
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.801	4.782	0.439	14736	2.11	ug/L	97
3) Chloromethane	50	5.221	5.203	0.477	17205	2.21	ug/L	98
4) Vinyl chloride	62	5.441	5.422	0.497	17080	2.13	ug/L	98
5) Bromomethane	94	6.087	6.075	0.556	12490	2.12	ug/L	96
6) Chloroethane	64	6.215	6.197	0.568	10374	2.06	ug/L	100
7) Trichlorofluoromethane	101	6.636	6.629	0.607	21617	2.20	ug/L	98
8) Ethyl ether	59	6.989	6.971	0.639	10806	2.07	ug/L	92
9) Acetone	43	7.385	7.367	0.675	18291	10.83	ug/L	97
10) 1,1-Dichloroethylene	61	7.404	7.392	0.677	17702	2.02	ug/L	98
11) Iodomethane	142	7.666	7.654	0.701	110915	9.34	ug/L	100
12) Acetonitrile	41	7.757	7.739	0.709	34471	51.40	ug/L	96
13) Methyl acetate	43	7.812	7.794	0.714	38521	9.99	ug/L	98
14) Carbon disulfide	76	7.812	7.800	0.714	162685	9.25	ug/L	100
15) Methylene chloride	84	8.013	8.001	0.733	18447	1.88	ug/L	99
16) tert-Butyl methyl ether	73	8.343	8.330	0.763	34253	1.88	ug/L	93
17) trans-1,2-Dichloroethy...	61	8.391	8.373	0.767	18602	2.11	ug/L	99
18) Hexane	57	8.702	8.690	0.795	20547	2.30	ug/L	97
19) Vinyl acetate	43	8.861	8.849	0.810	128642	10.57	ug/L	98
20) 1,1-Dichloroethane	63	8.910	8.897	0.814	21610	1.96	ug/L	99
21) 2-Butanone	43	9.544	9.525	0.872	24321	10.17	ug/L	97
22) cis-1,2-Dichloroethylene	61	9.598	9.586	0.877	21518	2.08	ug/L	99
23) 2,2-Dichloropropane	77	9.635	9.623	0.881	17088	1.96	ug/L	92
24) Bromochloromethane	128	9.891	9.885	0.904	7683	1.95	ug/L	98
25) Chloroform	83	9.934	9.922	0.908	22439	1.95	ug/L	100
26) 1,1,1-Trichloroethane	97	10.239	10.232	0.936	20419	1.96	ug/L	98
27) Cyclohexane	56	10.348	10.342	0.946	20746	1.99	ug/L	99
28) 1,1-Dichloropropene	75	10.409	10.403	0.952	16151	1.90	ug/L #	98
29) Carbon tetrachloride	117	10.452	10.446	0.955	18065	1.93	ug/L	100
31) 1,2-Dichloroethane	62	10.641	10.635	0.973	17439	2.01	ug/L	99
32) Benzene	78	10.671	10.665	0.975	48893	1.98	ug/L #	82
33) Cyclohexene	67	10.799	10.793	0.987	24497	1.99	ug/L	97
34) n-Butyl alcohol	56	11.031	11.019	1.008	34816	196.01	ug/L	91
35) Trichloroethylene	95	11.366	11.354	1.039	14012	2.01	ug/L	100
36) 2-Pentanone	43	11.446	11.434	1.046	44000	10.50	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY104.D
Acq On : 18 Mar 2024 12:35
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-03|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD002 SUL/5ML N/A MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 19 09:59:53 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.629	11.616	1.063	11935	1.90	ug/L 89
38) Methylcyclohexane	83	11.641	11.635	1.064	22936	1.96	ug/L 72
39) Dibromomethane	93	11.775	11.763	1.076	7983	1.93	ug/L 94
40) Bromodichloromethane	83	11.891	11.885	1.087	17397	1.95	ug/L 98
41) 2-Chloroethylvinyl ether	63	12.129	12.122	1.109	2737	10.94	ug/L 94
42) cis-1,3-Dichloropropylene	75	12.378	12.372	1.132	20595	1.95	ug/L 94
44) 4-Methyl-2-pentanone	58	12.482	12.470	0.869	20642	10.04	ug/L 96
46) Toluene	91	12.805	12.793	0.892	52220	1.98	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.958	12.952	0.902	18475	1.99	ug/L 97
48) 1,1,2-Trichloroethane	83	13.195	13.189	0.919	9182	2.01	ug/L 99
49) 2-Hexanone	43	13.390	13.384	0.932	32740	10.04	ug/L 98
50) 1,3-Dichloropropane	76	13.403	13.397	0.933	17430	1.98	ug/L 95
51) Tetrachloroethylene	164	13.445	13.439	0.936	12887	2.04	ug/L 99
52) Dibromochloromethane	129	13.689	13.689	0.953	14195	1.94	ug/L 100
53) 1,2-Dibromoethane	107	13.878	13.872	0.966	11847	2.02	ug/L 96
54) Chlorobenzene	112	14.396	14.390	1.003	36977	2.01	ug/L 80
55) 1,1,1,2-Tetrachloroethane	131	14.451	14.445	1.006	14683	1.97	ug/L # 66
56) Ethylbenzene	91	14.463	14.457	1.007	60037	2.03	ug/L 94
57) m,p-Xylenes	106	14.579	14.573	1.015	48067	4.06	ug/L 99
58) o-Xylene	91	15.037	15.037	1.047	49504	1.99	ug/L 100
59) Styrene	104	15.037	15.037	1.047	36710	1.89	ug/L 97
61) Bromoform	173	15.317	15.305	0.905	9861	1.93	ug/L 93
62) Isopropylbenzene	105	15.421	15.414	0.911	63098	2.02	ug/L 98
64) 1,1,2,2-Tetrachloroethane	83	15.701	15.695	0.927	14666	2.07	ug/L 95
65) 1,2,3-Trichloropropane	110	15.792	15.792	0.933	4499	2.00	ug/L # 79
66) Bromobenzene	156	15.853	15.847	0.936	17948	2.02	ug/L 98
67) n-Propylbenzene	91	15.872	15.866	0.937	71086	2.02	ug/L 100
68) 1,3,5-Trimethylbenzene	105	16.024	16.024	0.946	54923	2.02	ug/L 99
69) 2-Chlorotoluene	126	16.024	16.024	0.946	15475	1.98	ug/L 93
70) 4-Chlorotoluene	91	16.134	16.128	0.953	43384	2.02	ug/L 96
71) tert-Butylbenzene	134	16.427	16.420	0.970	12659	2.05	ug/L 99
72) 1,2,4-Trimethylbenzene	105	16.469	16.463	0.973	57845	2.07	ug/L 96
73) sec-Butylbenzene	105	16.670	16.664	0.985	69804	2.03	ug/L 100
74) 4-Isopropyltoluene	119	16.798	16.792	0.992	61814	2.02	ug/L 98
75) 1,3-Dichlorobenzene	146	16.872	16.865	0.996	33820	2.05	ug/L 84
76) 1,4-Dichlorobenzene	146	16.963	16.957	1.002	34770	2.11	ug/L # 73
77) n-Butylbenzene	91	17.286	17.280	1.021	55002	2.06	ug/L 99
78) 1,2-Dichlorobenzene	146	17.432	17.432	1.030	32717	2.03	ug/L 98
79) 1,2-Dibromo-3-chloropr...	157	18.396	18.383	1.086	4053	2.05	ug/L 87
80) 1,2,4-Trichlorobenzene	180	19.584	19.578	1.157	26911	2.02	ug/L 99
81) Hexachlorobutadiene	225	19.786	19.780	1.169	15493	2.00	ug/L 92
82) Naphthalene	128	20.023	20.017	1.183	51830	1.97	ug/L 99
83) 1,2,3-Trichlorobenzene	180	20.407	20.401	1.205	24441	1.98	ug/L 94
85) Acrolein	0.000	7.166	0.000	0	0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.355	0.000	0	0	N.D.	
87) Isopropyl Alcohol	7.422	7.440	0.678	0m	0	N.D.	d
88) Allyl chloride	0.000	7.843	0.000	0	0	N.D.	
89) tert-Butyl Alcohol	8.007	7.983	0.732	0m	0	N.D.	d
90) Acrylonitrile	0.000	8.257	0.000	0	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY104.D
Acq On : 18 Mar 2024 12:35
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-03|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD002 SUL/5ML N/A MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 19 09:59:53 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

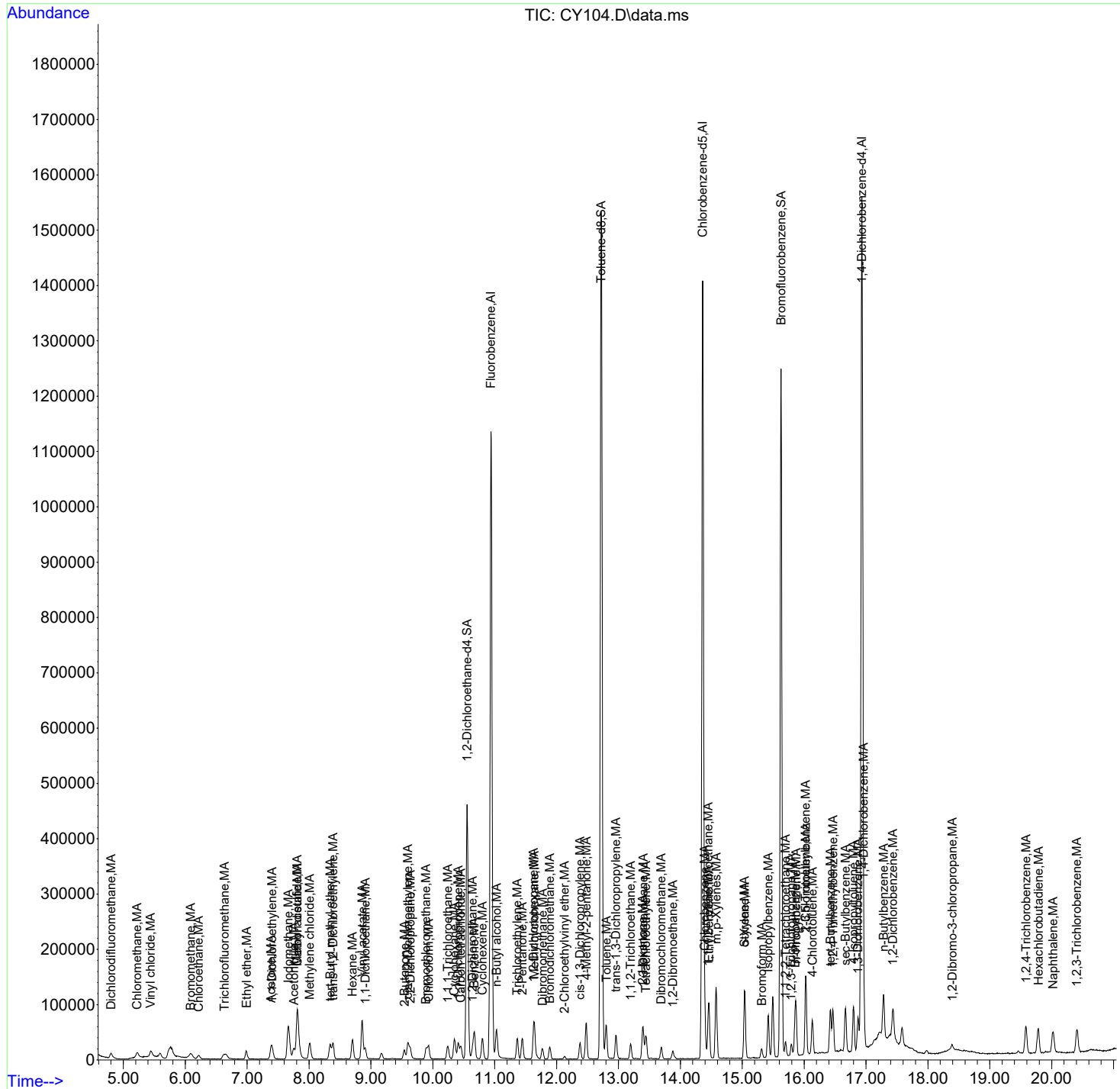
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.855	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.336	9.312	0.853	0m	N.D.	d
94) Ethyl acetate		9.544	9.531	0.872	0m	N.D.	d
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		9.787	9.794	0.895	0m	N.D.	d
97) Tetrahydrofuran		9.964	9.940	0.911	0m	N.D.	d
98) Isobutyl alcohol		10.354	10.263	0.947	0m	N.D.	d
99) Methyl tert-amyl ether		10.678	10.671	0.976	0m	N.D.	d
100) Methyl methacrylate		11.641	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		12.129	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		15.421	15.439	0.911	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		17.073	17.073	1.008	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		17.585	17.506	1.039	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY104.D
Acq On : 18 Mar 2024 12:35
Operator : PX1
InstName : VOAC
Sample : |WCVM240318-03|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD002 SUL/SML N/A MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 19 09:59:53 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY105.D
Acq On : 18 Mar 2024 13:03
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-04|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 SUL/5ML N/A MIX[A]
ALS Vial : 5 Sample Multiplier: 1

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03/19/2024

Quant Time: Mar 19 09:59:55 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.940	10.934	1.000	1246491	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.360	14.354	1.000	1000997	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.932	16.933	1.000	581983	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.940	10.928	1.000	0m	50.00	ug/L	0.01
103) B Chlorobenzene-d5	117	14.360	14.348	1.000	0m	50.00	ug/L	0.01
105) B 1,4-Dichlorobenzene-d4	152	16.932	16.920	1.000	0m	50.00	ug/L	0.01

System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.549	10.543	0.964	371020	49.16	ug/L	0.00
45) Toluene-d8	98	12.720	12.714	0.886	1275883	49.34	ug/L	0.00
63) Bromofluorobenzene	95	15.622	15.622	0.923	491364	49.00	ug/L	0.00

Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.788	4.782	0.438	30183	4.38	ug/L	100
3) Chloromethane	50	5.209	5.203	0.476	35115	4.57	ug/L	100
4) Vinyl chloride	62	5.428	5.422	0.496	36981	4.67	ug/L	99
5) Bromomethane	94	6.069	6.075	0.555	28548	4.91	ug/L	96
6) Chloroethane	64	6.209	6.197	0.568	24911	5.01	ug/L	99
7) Trichlorofluoromethane	101	6.629	6.629	0.606	48220	4.95	ug/L	99
8) Ethyl ether	59	6.977	6.971	0.638	25761	4.99	ug/L	94
9) Acetone	43	7.373	7.367	0.674	40694	24.37	ug/L	95
10) 1,1-Dichloroethylene	61	7.391	7.392	0.676	43043	4.98	ug/L	99
11) Iodomethane	142	7.660	7.654	0.700	294412	25.07	ug/L	100
12) Acetonitrile	41	7.745	7.739	0.708	83313	125.67	ug/L	99
13) Methyl acetate	43	7.800	7.794	0.713	95148	24.95	ug/L	100
14) Carbon disulfide	76	7.806	7.800	0.714	439269	25.25	ug/L	100
15) Methylene chloride	84	8.001	8.001	0.731	39785	5.19	ug/L	99
16) tert-Butyl methyl ether	73	8.336	8.330	0.762	90975	5.04	ug/L	97
17) trans-1,2-Dichloroethy...	61	8.379	8.373	0.766	43735	5.02	ug/L	99
18) Hexane	57	8.696	8.690	0.795	44766	5.08	ug/L	97
19) Vinyl acetate	43	8.855	8.849	0.809	311696	25.90	ug/L	99
20) 1,1-Dichloroethane	63	8.903	8.897	0.814	54729	5.03	ug/L	100
21) 2-Butanone	43	9.531	9.525	0.871	57817	24.46	ug/L	100
22) cis-1,2-Dichloroethylene	61	9.592	9.586	0.877	51603	5.04	ug/L	100
23) 2,2-Dichloropropane	77	9.629	9.623	0.880	45644	5.28	ug/L	96
24) Bromochloromethane	128	9.891	9.885	0.904	19553	5.03	ug/L	99
25) Chloroform	83	9.928	9.922	0.907	57240	5.03	ug/L	99
26) 1,1,1-Trichloroethane	97	10.232	10.232	0.935	52177	5.05	ug/L	99
27) Cyclohexane	56	10.342	10.342	0.945	53283	5.17	ug/L	99
28) 1,1-Dichloropropene	75	10.409	10.403	0.952	42164	5.02	ug/L #	98
29) Carbon tetrachloride	117	10.446	10.446	0.955	47229	5.11	ug/L	99
31) 1,2-Dichloroethane	62	10.641	10.635	0.973	42795	4.98	ug/L	99
32) Benzene	78	10.665	10.665	0.975	122744	5.03	ug/L #	83
33) Cyclohexene	67	10.799	10.793	0.987	61613	5.05	ug/L	100
34) n-Butyl alcohol	56	11.025	11.019	1.008	84905	483.52	ug/L	94
35) Trichloroethylene	95	11.360	11.354	1.038	35055	5.08	ug/L	99
36) 2-Pentanone	43	11.440	11.434	1.046	102730	24.79	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY105.D
Acq On : 18 Mar 2024 13:03
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-04|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 SUL/5ML N/A MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 19 09:59:55 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.622	11.616	1.062	31185	5.02 ug/L	89
38) Methylcyclohexane	83	11.635	11.635	1.064	59402	5.14 ug/L	75
39) Dibromomethane	93	11.763	11.763	1.075	20615	5.05 ug/L	98
40) Bromodichloromethane	83	11.885	11.885	1.086	43259	4.90 ug/L	99
41) 2-Chloroethylvinyl ether	63	12.128	12.122	1.109	5862	23.71 ug/L	98
42) cis-1,3-Dichloropropylene	75	12.378	12.372	1.132	50717	4.86 ug/L	97
44) 4-Methyl-2-pentanone	58	12.476	12.470	0.869	50465	24.85 ug/L	96
46) Toluene	91	12.799	12.793	0.891	130117	4.99 ug/L #	100
47) trans-1,3-Dichloroprop...	75	12.958	12.952	0.902	44885	4.90 ug/L	98
48) 1,1,2-Trichloroethane	83	13.195	13.189	0.919	21981	4.88 ug/L	95
49) 2-Hexanone	43	13.384	13.384	0.932	79512	24.67 ug/L	99
50) 1,3-Dichloropropane	76	13.403	13.397	0.933	42976	4.93 ug/L	96
51) Tetrachloroethylene	164	13.445	13.439	0.936	31567	5.05 ug/L	99
52) Dibromochloromethane	129	13.689	13.689	0.953	35908	4.97 ug/L	100
53) 1,2-Dibromoethane	107	13.878	13.872	0.966	28254	4.87 ug/L	100
54) Chlorobenzene	112	14.396	14.390	1.003	89869	4.94 ug/L	92
55) 1,1,1,2-Tetrachloroethane	131	14.451	14.445	1.006	37025	5.02 ug/L	97
56) Ethylbenzene	91	14.463	14.457	1.007	143659	4.93 ug/L	94
57) m,p-Xylenes	106	14.579	14.573	1.015	116641	9.97 ug/L	100
58) o-Xylene	91	15.036	15.037	1.047	122458	4.99 ug/L	100
59) Styrene	104	15.036	15.037	1.047	94097	4.90 ug/L	99
61) Bromoform	173	15.311	15.305	0.904	24620	4.83 ug/L	91
62) Isopropylbenzene	105	15.421	15.414	0.911	155001	4.97 ug/L	99
64) 1,1,2,2-Tetrachloroethane	83	15.695	15.695	0.927	35371	4.98 ug/L	95
65) 1,2,3-Trichloropropane	110	15.792	15.792	0.933	11030	4.91 ug/L	97
66) Bromobenzene	156	15.853	15.847	0.936	43981	4.95 ug/L	99
67) n-Propylbenzene	91	15.866	15.866	0.937	175280	4.99 ug/L	100
68) 1,3,5-Trimethylbenzene	105	16.024	16.024	0.946	135022	4.96 ug/L	99
69) 2-Chlorotoluene	126	16.024	16.024	0.946	38828	4.97 ug/L	96
70) 4-Chlorotoluene	91	16.134	16.128	0.953	106365	4.96 ug/L	97
71) tert-Butylbenzene	134	16.426	16.420	0.970	30821	4.99 ug/L	99
72) 1,2,4-Trimethylbenzene	105	16.463	16.463	0.972	138147	4.95 ug/L	99
73) sec-Butylbenzene	105	16.664	16.664	0.984	172351	5.02 ug/L	100
74) 4-Isopropyltoluene	119	16.798	16.792	0.992	152669	4.99 ug/L	99
75) 1,3-Dichlorobenzene	146	16.871	16.865	0.996	82308	5.00 ug/L	85
76) 1,4-Dichlorobenzene	146	16.963	16.957	1.002	82581	5.00 ug/L #	75
77) n-Butylbenzene	91	17.280	17.280	1.021	134562	5.04 ug/L	100
78) 1,2-Dichlorobenzene	146	17.432	17.432	1.030	80337	5.00 ug/L	99
79) 1,2-Dibromo-3-chloropr...	157	18.390	18.383	1.086	10129	5.11 ug/L	97
80) 1,2,4-Trichlorobenzene	180	19.584	19.578	1.157	66973	5.03 ug/L	99
81) Hexachlorobutadiene	225	19.779	19.780	1.168	39287	5.08 ug/L	93
82) Naphthalene	128	20.017	20.017	1.182	129013	4.92 ug/L	99
83) 1,2,3-Trichlorobenzene	180	20.407	20.401	1.205	63520	5.15 ug/L	97
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.355	0.000	0	N.D.		
87) Isopropyl Alcohol	7.416	7.440	0.678	0m	N.D. d		
88) Allyl chloride	0.000	7.843	0.000	0	N.D.		
89) tert-Butyl Alcohol	8.007	7.983	0.732	0m	N.D. d		
90) Acrylonitrile	8.336	8.257	0.762	0m	N.D. d		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY105.D
Acq On : 18 Mar 2024 13:03
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-04|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 SUL/5ML N/A MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 19 09:59:55 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

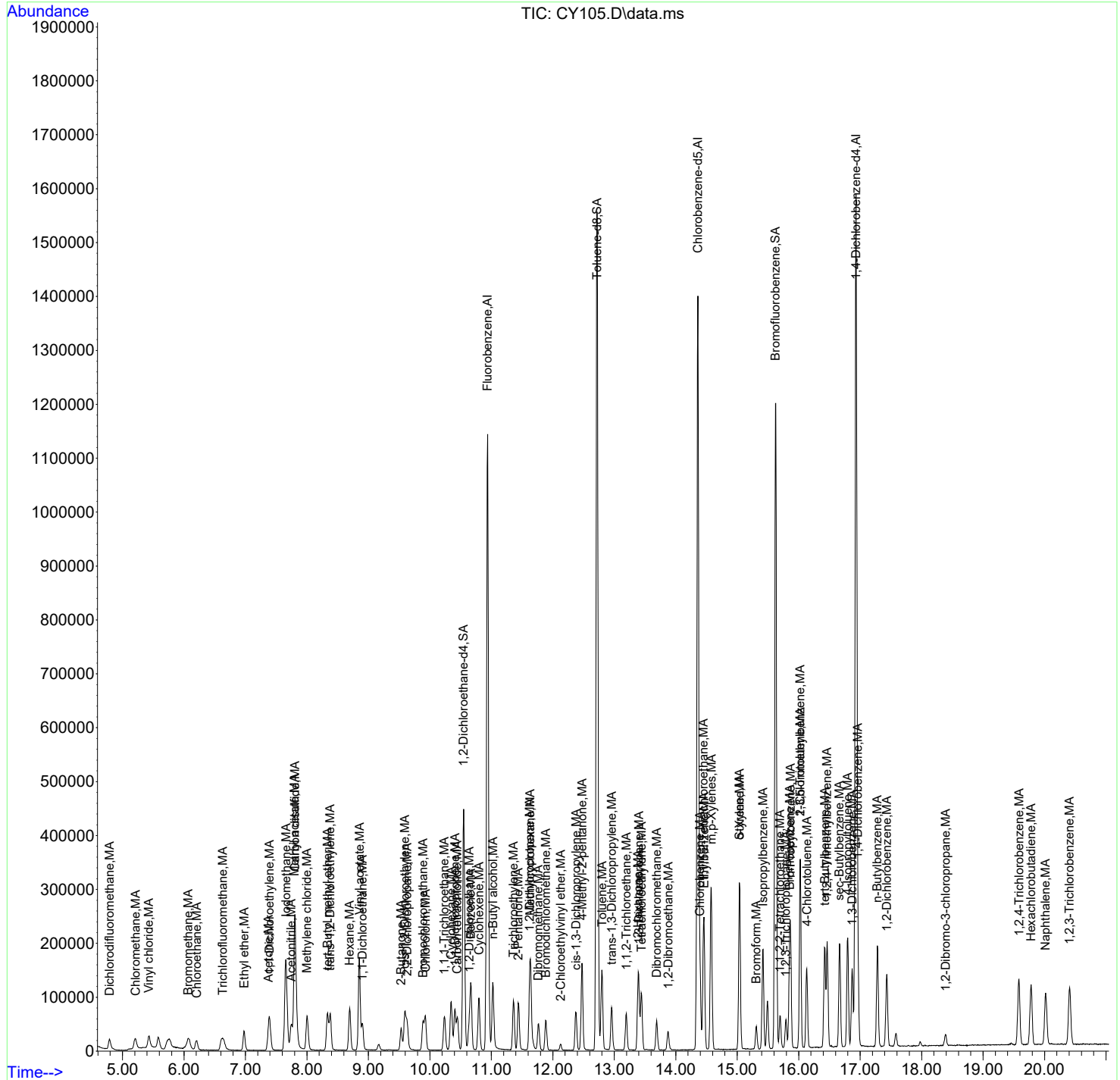
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.842	8.873	0.808	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.318	9.312	0.852	0m	N.D.	d
94) Ethyl acetate		9.531	9.531	0.871	0m	N.D.	d
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		9.806	9.794	0.896	0m	N.D.	d
97) Tetrahydrofuran		9.952	9.940	0.910	0m	N.D.	d
98) Isobutyl alcohol		10.275	10.263	0.939	0m	N.D.	d
99) Methyl tert-amyl ether		10.671	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.635	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		12.128	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		15.414	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		17.097	17.073	1.010	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		17.591	17.506	1.039	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY105.D
Acq On : 18 Mar 2024 13:03
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-04|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 5UL/5ML N/A MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 19 09:59:55 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY106.D
Acq On : 18 Mar 2024 13:31
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-05|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 5UL/5ML N/A MIX[A]
ALS Vial : 6 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 09:59:58 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.940	10.934	1.000	1228469	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.360	14.354	1.000	984680	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.933	16.933	1.000	582500	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.940	10.928	1.000	0m	50.00	ug/L	0.01
103) B Chlorobenzene-d5	117	14.360	14.348	1.000	0m	50.00	ug/L	0.01
105) B 1,4-Dichlorobenzene-d4	152	16.933	16.920	1.000	0m	50.00	ug/L	0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.550	10.543	0.964	374222	50.31	ug/L	0.00
45) Toluene-d8	98	12.720	12.714	0.886	1296352	50.96	ug/L	0.00
63) Bromofluorobenzene	95	15.622	15.622	0.923	496319	49.45	ug/L	0.00
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.801	4.782	0.439	63591	9.36	ug/L	98
3) Chloromethane	50	5.215	5.203	0.477	71912	9.50	ug/L	99
4) Vinyl chloride	62	5.441	5.422	0.497	75040	9.62	ug/L	100
5) Bromomethane	94	6.087	6.075	0.556	56539	9.86	ug/L	99
6) Chloroethane	64	6.215	6.197	0.568	48862	9.96	ug/L	100
7) Trichlorofluoromethane	101	6.636	6.629	0.607	93998	9.80	ug/L	99
8) Ethyl ether	59	6.983	6.971	0.638	50797	9.99	ug/L	94
9) Acetone	43	7.379	7.367	0.675	74262	45.12	ug/L	97
10) 1,1-Dichloroethylene	61	7.398	7.392	0.676	85832	10.07	ug/L	99
11) Iodomethane	142	7.660	7.654	0.700	587678	50.78	ug/L	100
12) Acetonitrile	41	7.751	7.739	0.709	158620	242.77	ug/L	100
13) Methyl acetate	43	7.806	7.794	0.714	185683	49.41	ug/L	99
14) Carbon disulfide	76	7.812	7.800	0.714	880219	51.34	ug/L	100
15) Methylene chloride	84	8.007	8.001	0.732	73884	10.60	ug/L	99
16) tert-Butyl methyl ether	73	8.336	8.330	0.762	180209	10.12	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.385	8.373	0.766	87232	10.16	ug/L	99
18) Hexane	57	8.702	8.690	0.795	88083	10.14	ug/L	98
19) Vinyl acetate	43	8.855	8.849	0.809	585045	49.33	ug/L	100
20) 1,1-Dichloroethane	63	8.903	8.897	0.814	110254	10.29	ug/L	99
21) 2-Butanone	43	9.531	9.525	0.871	111050	47.66	ug/L	98
22) cis-1,2-Dichloroethylene	61	9.592	9.586	0.877	101571	10.06	ug/L	99
23) 2,2-Dichloropropane	77	9.629	9.623	0.880	84802	9.96	ug/L	96
24) Bromochloromethane	128	9.891	9.885	0.904	38583	10.07	ug/L	98
25) Chloroform	83	9.928	9.922	0.907	114599	10.21	ug/L	100
26) 1,1,1-Trichloroethane	97	10.239	10.232	0.936	103393	10.16	ug/L	99
27) Cyclohexane	56	10.348	10.342	0.946	102822	10.12	ug/L	99
28) 1,1-Dichloropropene	75	10.409	10.403	0.952	84923	10.25	ug/L #	100
29) Carbon tetrachloride	117	10.452	10.446	0.955	93380	10.25	ug/L	100
31) 1,2-Dichloroethane	62	10.641	10.635	0.973	86389	10.21	ug/L	99
32) Benzene	78	10.671	10.665	0.975	242469	10.08	ug/L #	83
33) Cyclohexene	67	10.799	10.793	0.987	120769	10.05	ug/L	100
34) n-Butyl alcohol	56	11.025	11.019	1.008	164503	950.57	ug/L	97
35) Trichloroethylene	95	11.360	11.354	1.038	69804	10.26	ug/L	100
36) 2-Pentanone	43	11.440	11.434	1.046	198858	48.69	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY106.D
Acq On : 18 Mar 2024 13:31
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-05|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 5UL/5ML N/A MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 19 09:59:58 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.622	11.616	1.062	62465	10.19	ug/L 88
38) Methylcyclohexane	83	11.641	11.635	1.064	116191	10.19	ug/L 75
39) Dibromomethane	93	11.763	11.763	1.075	39793	9.90	ug/L 96
40) Bromodichloromethane	83	11.891	11.885	1.087	87638	10.07	ug/L 99
41) 2-Chloroethylvinyl ether	63	12.129	12.122	1.109	12575	51.60	ug/L 99
42) cis-1,3-Dichloropropylene	75	12.378	12.372	1.132	102703	9.98	ug/L 99
44) 4-Methyl-2-pentanone	58	12.476	12.470	0.869	99401	49.76	ug/L 98
46) Toluene	91	12.799	12.793	0.891	261055	10.18	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.958	12.952	0.902	90533	10.05	ug/L 98
48) 1,1,2-Trichloroethane	83	13.189	13.189	0.918	44897	10.13	ug/L 99
49) 2-Hexanone	43	13.384	13.384	0.932	158073	49.85	ug/L 98
50) 1,3-Dichloropropane	76	13.403	13.397	0.933	86406	10.09	ug/L 99
51) Tetrachloroethylene	164	13.439	13.439	0.936	62620	10.18	ug/L 100
52) Dibromochloromethane	129	13.689	13.689	0.953	72146	10.14	ug/L 99
53) 1,2-Dibromoethane	107	13.872	13.872	0.966	57682	10.12	ug/L 99
54) Chlorobenzene	112	14.396	14.390	1.003	182081	10.17	ug/L 96
55) 1,1,1,2-Tetrachloroethane	131	14.445	14.445	1.006	74294	10.24	ug/L 98
56) Ethylbenzene	91	14.457	14.457	1.007	288948	10.07	ug/L 92
57) m,p-Xylenes	106	14.573	14.573	1.015	232500	20.20	ug/L 97
58) o-Xylene	91	15.037	15.037	1.047	247426	10.25	ug/L 99
59) Styrene	104	15.037	15.037	1.047	190691	10.09	ug/L 98
61) Bromoform	173	15.311	15.305	0.904	48569	9.52	ug/L 92
62) Isopropylbenzene	105	15.414	15.414	0.910	310966	9.96	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.695	15.695	0.927	68937	9.71	ug/L 100
65) 1,2,3-Trichloropropane	110	15.792	15.792	0.933	22556	10.02	ug/L 96
66) Bromobenzene	156	15.847	15.847	0.936	88101	9.91	ug/L 99
67) n-Propylbenzene	91	15.866	15.866	0.937	349952	9.95	ug/L 99
68) 1,3,5-Trimethylbenzene	105	16.024	16.024	0.946	272972	10.01	ug/L 99
69) 2-Chlorotoluene	126	16.024	16.024	0.946	78284	10.00	ug/L 97
70) 4-Chlorotoluene	91	16.128	16.128	0.952	212904	9.92	ug/L 96
71) tert-Butylbenzene	134	16.420	16.420	0.970	62541	10.12	ug/L 99
72) 1,2,4-Trimethylbenzene	105	16.463	16.463	0.972	278090	9.96	ug/L 100
73) sec-Butylbenzene	105	16.664	16.664	0.984	344781	10.03	ug/L 100
74) 4-Isopropyltoluene	119	16.792	16.792	0.992	305047	9.97	ug/L 99
75) 1,3-Dichlorobenzene	146	16.872	16.865	0.996	164675	9.99	ug/L 86
76) 1,4-Dichlorobenzene	146	16.963	16.957	1.002	163859	9.91	ug/L 95
77) n-Butylbenzene	91	17.280	17.280	1.021	268206	10.04	ug/L 100
78) 1,2-Dichlorobenzene	146	17.432	17.432	1.030	160325	9.96	ug/L 100
79) 1,2-Dibromo-3-chloropr...	157	18.390	18.383	1.086	18506	9.33	ug/L 97
80) 1,2,4-Trichlorobenzene	180	19.578	19.578	1.156	130452	9.79	ug/L 99
81) Hexachlorobutadiene	225	19.780	19.780	1.168	78140	10.09	ug/L 93
82) Naphthalene	128	20.017	20.017	1.182	252888	9.63	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.407	20.401	1.205	121920	9.87	ug/L 97
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.355	0.000	0	N.D.		
87) Isopropyl Alcohol	7.422	7.440	0.678	0m	N.D. d		
88) Allyl chloride	0.000	7.843	0.000	0	N.D.		
89) tert-Butyl Alcohol	8.001	7.983	0.731	0m	N.D. d		
90) Acrylonitrile	8.336	8.257	0.762	0m	N.D. d		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY106.D
Acq On : 18 Mar 2024 13:31
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-05|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 5UL/5ML N/A MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 19 09:59:58 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

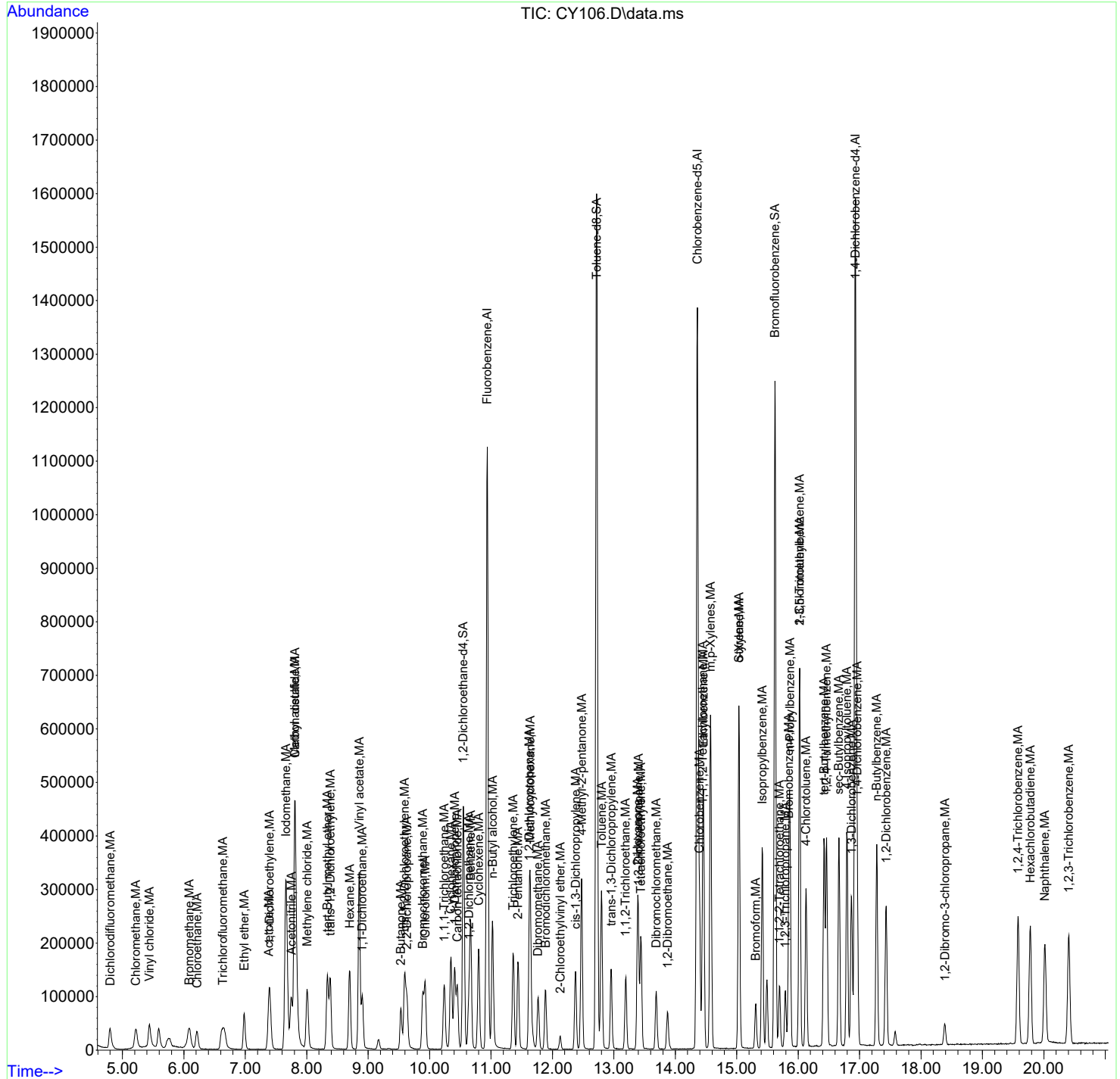
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.855	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.324	9.312	0.852	0m	N.D.	d
94) Ethyl acetate		9.531	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.537	9.592	0.872	0m	N.D.	d
96) Methacrylonitrile		9.806	9.794	0.896	0m	N.D.	d
97) Tetrahydrofuran		9.940	9.940	0.909	0m	N.D.	d
98) Isobutyl alcohol		10.348	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.665	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.635	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		12.019	12.086	1.099	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		15.421	15.439	0.911	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.506	16.487	0.975	0m	N.D.	d
111) Benzyl chloride		17.073	17.073	1.008	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		17.573	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

```
Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY106.D
Acq On    : 18 Mar 2024 13:31
Operator  : PX11
InstName  : VOAC
Sample    : |WCVM240318-05|ICAL|1|VOAF|1|VOA8260D|
Misc      : VSTD010 5UL/5ML N/A MIX[A]
ALS Vial  : 6 Sample Multiplier: 1
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Quant Time: Mar 19 09:59:58 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY107.D
Acq On : 18 Mar 2024 13:59
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-06|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD020 SUL/5ML N/A MIX[A]
ALS Vial : 7 Sample Multiplier: 1

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03/19/2024

Quant Time: Mar 19 10:00:00 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.940	10.934	1.000	1244545	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.360	14.354	1.000	998623	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.932	16.933	1.000	575936	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.940	10.928	1.000	0m	50.00	ug/L	0.01
103) B Chlorobenzene-d5	117	14.360	14.348	1.000	0m	50.00	ug/L	0.01
105) B 1,4-Dichlorobenzene-d4	152	16.932	16.920	1.000	0m	50.00	ug/L	0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.549	10.543	0.964	371619	49.31	ug/L	0.00
45) Toluene-d8	98	12.720	12.714	0.886	1280548	49.64	ug/L	0.00
63) Bromofluorobenzene	95	15.622	15.622	0.923	487967	49.18	ug/L	0.00
Target Compounds								
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.794	4.782	0.438	133948	19.45	ug/L	99
3) Chloromethane	50	5.215	5.203	0.477	153119	19.97	ug/L	100
4) Vinyl chloride	62	5.441	5.422	0.497	161851	20.49	ug/L	100
5) Bromomethane	94	6.087	6.075	0.556	117780	20.28	ug/L	97
6) Chloroethane	64	6.215	6.197	0.568	104183	20.97	ug/L	100
7) Trichlorofluoromethane	101	6.641	6.629	0.607	197259	20.30	ug/L	100
8) Ethyl ether	59	6.983	6.971	0.638	105414	20.46	ug/L	93
9) Acetone	43	7.379	7.367	0.675	149213	89.49	ug/L	98
10) 1,1-Dichloroethylene	61	7.397	7.392	0.676	169286	19.61	ug/L	100
11) Iodomethane	142	7.660	7.654	0.700	1169255	99.72	ug/L	100
12) Acetonitrile	41	7.745	7.739	0.708	324833	490.73	ug/L	99
13) Methyl acetate	43	7.806	7.794	0.714	370016	97.19	ug/L	100
14) Carbon disulfide	76	7.812	7.800	0.714	1722285	99.16	ug/L	100
15) Methylene chloride	84	8.007	8.001	0.732	137407	20.24	ug/L	99
16) tert-Butyl methyl ether	73	8.336	8.330	0.762	364531	20.22	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.379	8.373	0.766	170723	19.63	ug/L	99
18) Hexane	57	8.696	8.690	0.795	170951	19.42	ug/L	99
19) Vinyl acetate	43	8.855	8.849	0.809	1247870	103.87	ug/L	100
20) 1,1-Dichloroethane	63	8.903	8.897	0.814	216987	19.98	ug/L	99
21) 2-Butanone	43	9.531	9.525	0.871	229442	97.21	ug/L	99
22) cis-1,2-Dichloroethylene	61	9.592	9.586	0.877	202224	19.77	ug/L	100
23) 2,2-Dichloropropane	77	9.629	9.623	0.880	163971	19.01	ug/L	99
24) Bromochloromethane	128	9.891	9.885	0.904	77545	19.97	ug/L	99
25) Chloroform	83	9.928	9.922	0.907	226246	19.90	ug/L	100
26) 1,1,1-Trichloroethane	97	10.238	10.232	0.936	203427	19.74	ug/L	100
27) Cyclohexane	56	10.348	10.342	0.946	201247	19.55	ug/L	98
28) 1,1-Dichloropropene	75	10.409	10.403	0.952	165998	19.78	ug/L	# 100
29) Carbon tetrachloride	117	10.452	10.446	0.955	183389	19.88	ug/L	100
31) 1,2-Dichloroethane	62	10.641	10.635	0.973	168385	19.63	ug/L	99
32) Benzene	78	10.665	10.665	0.975	479663	19.68	ug/L	99
33) Cyclohexene	67	10.799	10.793	0.987	238560	19.60	ug/L	99
34) n-Butyl alcohol	56	11.025	11.019	1.008	339636	1937.21	ug/L	97
35) Trichloroethylene	95	11.360	11.354	1.038	135505	19.66	ug/L	99
36) 2-Pentanone	43	11.439	11.434	1.046	408504	98.73	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY107.D
Acq On : 18 Mar 2024 13:59
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-06|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD020 5UL/5ML N/A MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 19 10:00:00 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.622	11.616	1.062	122722	19.77	ug/L 86
38) Methylcyclohexane	83	11.634	11.635	1.064	228583	19.80	ug/L 76
39) Dibromomethane	93	11.769	11.763	1.076	80463	19.76	ug/L 97
40) Bromodichloromethane	83	11.884	11.885	1.086	174216	19.76	ug/L 100
41) 2-Chloroethylvinyl ether	63	12.122	12.122	1.108	24024	97.31	ug/L 99
42) cis-1,3-Dichloropropylene	75	12.372	12.372	1.131	204823	19.65	ug/L 99
44) 4-Methyl-2-pentanone	58	12.476	12.470	0.869	201605	99.52	ug/L 98
46) Toluene	91	12.799	12.793	0.891	511875	19.68	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.957	12.952	0.902	180975	19.81	ug/L 99
48) 1,1,2-Trichloroethane	83	13.195	13.189	0.919	87932	19.57	ug/L 96
49) 2-Hexanone	43	13.384	13.384	0.932	315548	98.12	ug/L 99
50) 1,3-Dichloropropane	76	13.402	13.397	0.933	173346	19.95	ug/L 100
51) Tetrachloroethylene	164	13.439	13.439	0.936	123873	19.86	ug/L 99
52) Dibromochloromethane	129	13.689	13.689	0.953	144549	20.04	ug/L 99
53) 1,2-Dibromoethane	107	13.872	13.872	0.966	112833	19.51	ug/L 99
54) Chlorobenzene	112	14.390	14.390	1.002	360134	19.83	ug/L 98
55) 1,1,1,2-Tetrachloroethane	131	14.445	14.445	1.006	147019	19.99	ug/L 100
56) Ethylbenzene	91	14.457	14.457	1.007	571194	19.63	ug/L 93
57) m,p-Xylenes	106	14.573	14.573	1.015	458301	39.25	ug/L 98
58) o-Xylene	91	15.036	15.037	1.047	483864	19.77	ug/L 100
59) Styrene	104	15.036	15.037	1.047	384906	20.09	ug/L 99
61) Bromoform	173	15.311	15.305	0.904	99325	19.68	ug/L 94
62) Isopropylbenzene	105	15.414	15.414	0.910	613210	19.87	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.695	15.695	0.927	137853	19.63	ug/L 100
65) 1,2,3-Trichloropropane	110	15.792	15.792	0.933	43055	19.35	ug/L 97
66) Bromobenzene	156	15.847	15.847	0.936	173040	19.69	ug/L 99
67) n-Propylbenzene	91	15.865	15.866	0.937	687547	19.78	ug/L 99
68) 1,3,5-Trimethylbenzene	105	16.024	16.024	0.946	537047	19.92	ug/L 99
69) 2-Chlorotoluene	126	16.024	16.024	0.946	152916	19.76	ug/L 97
70) 4-Chlorotoluene	91	16.128	16.128	0.952	419754	19.79	ug/L 97
71) tert-Butylbenzene	134	16.420	16.420	0.970	121779	19.94	ug/L 99
72) 1,2,4-Trimethylbenzene	105	16.463	16.463	0.972	552170	19.99	ug/L 99
73) sec-Butylbenzene	105	16.664	16.664	0.984	672651	19.80	ug/L 100
74) 4-Isopropyltoluene	119	16.792	16.792	0.992	605009	20.00	ug/L 99
75) 1,3-Dichlorobenzene	146	16.871	16.865	0.996	321084	19.70	ug/L 86
76) 1,4-Dichlorobenzene	146	16.963	16.957	1.002	321841	19.69	ug/L 97
77) n-Butylbenzene	91	17.280	17.280	1.021	525648	19.89	ug/L 100
78) 1,2-Dichlorobenzene	146	17.432	17.432	1.030	314831	19.79	ug/L 99
79) 1,2-Dibromo-3-chloropr...	157	18.389	18.383	1.086	38130	19.45	ug/L 99
80) 1,2,4-Trichlorobenzene	180	19.578	19.578	1.156	263928	20.03	ug/L 100
81) Hexachlorobutadiene	225	19.779	19.780	1.168	152560	19.93	ug/L 94
82) Naphthalene	128	20.017	20.017	1.182	512963	19.75	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.407	20.401	1.205	240933	19.72	ug/L 96
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.355	0.000	0	N.D.		
87) Isopropyl Alcohol	7.416	7.440	0.678	0m	N.D.	d	
88) Allyl chloride	0.000	7.843	0.000	0	N.D.		
89) tert-Butyl Alcohol	8.013	7.983	0.733	0m	N.D.	d	
90) Acrylonitrile	8.336	8.257	0.762	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY107.D
Acq On : 18 Mar 2024 13:59
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-06|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD020 SUL/5ML N/A MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 19 10:00:00 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

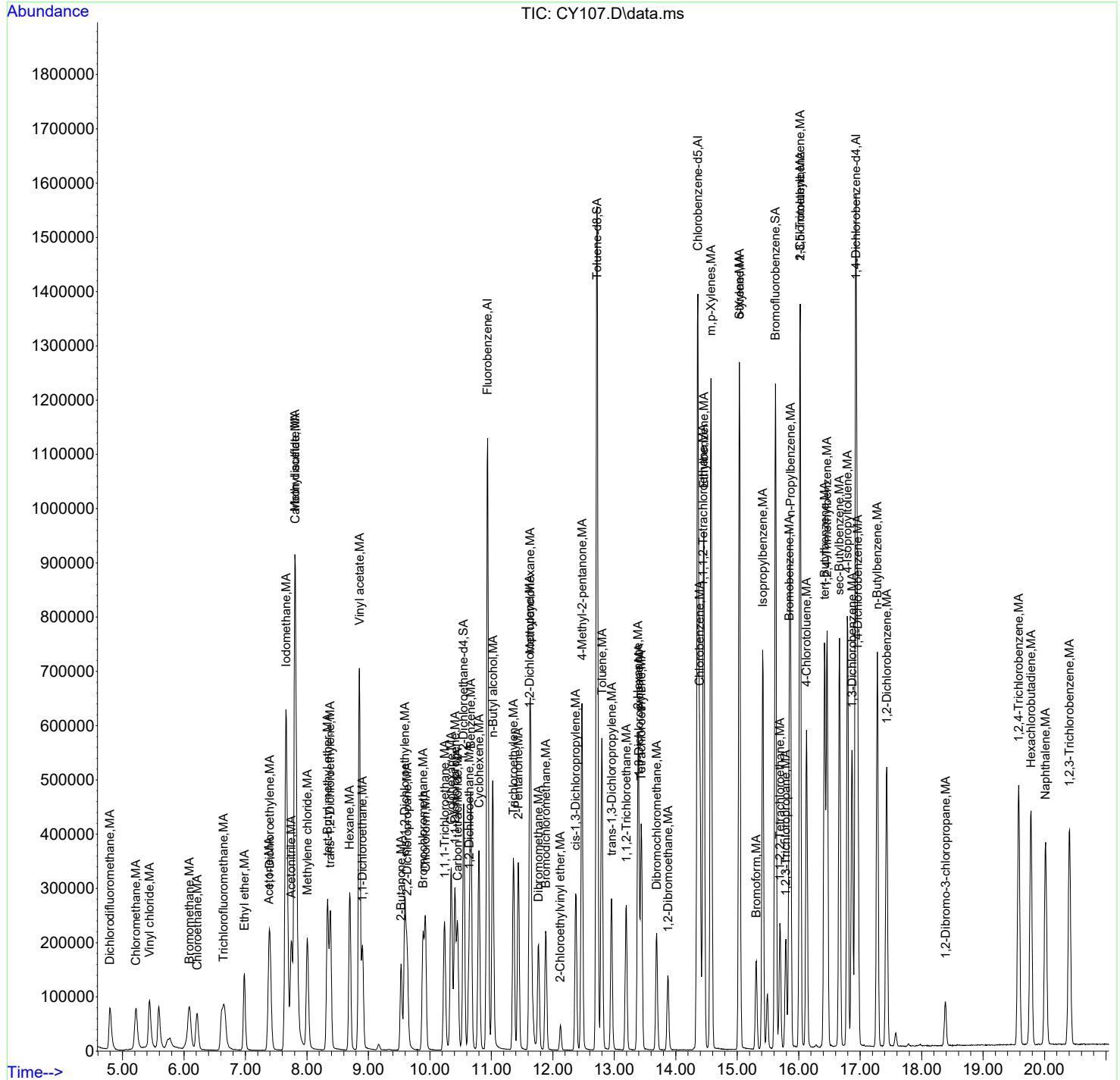
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.855	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.324	9.312	0.852	0m	N.D.	d
94) Ethyl acetate		9.531	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.537	9.592	0.872	0m	N.D.	d
96) Methacrylonitrile		9.873	9.794	0.902	0m	N.D.	d
97) Tetrahydrofuran		9.928	9.940	0.907	0m	N.D.	d
98) Isobutyl alcohol		10.348	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.665	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.634	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.763	11.696	1.075	0m	N.D.	d
102) 2-Nitropropane		12.122	12.086	1.108	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.299	14.238	0.844	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.414	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.499	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.572	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY107.D
Acq On : 18 Mar 2024 13:59
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-06|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD020 5UL/5ML N/A MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 19 10:00:00 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY108.D
Acq On : 18 Mar 2024 14:26
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-07|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[A]
ALS Vial : 8 Sample Multiplier: 1

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03/19/2024

Quant Time: Mar 19 10:00:02 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.934	10.934	1.000	1169849	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.354	14.354	1.000	981150	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.933	16.933	1.000	548845	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.934	10.928	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.354	14.348	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.933	16.920	1.000	0m	50.00	ug/L	0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.543	10.543	0.964	354837	50.09	ug/L	0.00
45) Toluene-d8	98	12.714	12.714	0.886	1272155	50.19	ug/L	0.00
63) Bromofluorobenzene	95	15.622	15.622	0.923	487854	51.59	ug/L	0.00
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.782	4.782	0.437	373362	57.68	ug/L	100
3) Chloromethane	50	5.203	5.203	0.476	394758	54.77	ug/L	100
4) Vinyl chloride	62	5.422	5.422	0.496	413034	55.62	ug/L	100
5) Bromomethane	94	6.075	6.075	0.556	297855	54.55	ug/L	99
6) Chloroethane	64	6.197	6.197	0.567	250948	53.74	ug/L	100
7) Trichlorofluoromethane	101	6.629	6.629	0.606	482400	52.82	ug/L	100
8) Ethyl ether	59	6.971	6.971	0.638	256139	52.89	ug/L	94
9) Acetone	43	7.367	7.367	0.674	352185	224.71	ug/L	99
10) 1,1-Dichloroethylene	61	7.392	7.392	0.676	409929	50.53	ug/L	99
11) Iodomethane	142	7.654	7.654	0.700	2840181	257.70	ug/L	100
12) Acetonitrile	41	7.739	7.739	0.708	751030	1207.04	ug/L	100
13) Methyl acetate	43	7.794	7.794	0.713	896618	250.54	ug/L	100
14) Carbon disulfide	76	7.800	7.800	0.713	4239929	259.69	ug/L	100
15) Methylene chloride	84	8.001	8.001	0.732	312471	50.26	ug/L	100
16) tert-Butyl methyl ether	73	8.330	8.330	0.762	856355	50.52	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.373	8.373	0.766	401863	49.17	ug/L	100
18) Hexane	57	8.690	8.690	0.795	397105	47.99	ug/L	100
19) Vinyl acetate	43	8.849	8.849	0.809	3048588	269.96	ug/L	100
20) 1,1-Dichloroethane	63	8.897	8.897	0.814	504346	49.41	ug/L	100
21) 2-Butanone	43	9.525	9.525	0.871	567781	255.91	ug/L	99
22) cis-1,2-Dichloroethylene	61	9.586	9.586	0.877	473517	49.25	ug/L	100
23) 2,2-Dichloropropane	77	9.623	9.623	0.880	394832	48.71	ug/L	99
24) Bromochloromethane	128	9.885	9.885	0.904	185784	50.90	ug/L	100
25) Chloroform	83	9.922	9.922	0.907	531084	49.70	ug/L	99
26) 1,1,1-Trichloroethane	97	10.232	10.232	0.936	480934	49.65	ug/L	99
27) Cyclohexane	56	10.342	10.342	0.946	477229	49.33	ug/L	99
28) 1,1-Dichloropropene	75	10.403	10.403	0.951	393428	49.87	ug/L #	99
29) Carbon tetrachloride	117	10.446	10.446	0.955	429010	49.47	ug/L	99
31) 1,2-Dichloroethane	62	10.635	10.635	0.973	404131	50.13	ug/L	100
32) Benzene	78	10.665	10.665	0.975	1143138	49.91	ug/L	99
33) Cyclohexene	67	10.793	10.793	0.987	562540	49.16	ug/L	99
34) n-Butyl alcohol	56	11.019	11.019	1.008	846156	5134.45	ug/L	99
35) Trichloroethylene	95	11.354	11.354	1.038	318277	49.14	ug/L	97
36) 2-Pentanone	43	11.434	11.434	1.046	1016970	261.49	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY108.D
Acq On : 18 Mar 2024 14:26
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-07|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 19 10:00:02 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.616	11.616	1.062	302221	51.79	ug/L 88
38) Methylcyclohexane	83	11.635	11.635	1.064	532657	49.08	ug/L 75
39) Dibromomethane	93	11.763	11.763	1.076	195350	51.03	ug/L 97
40) Bromodichloromethane	83	11.885	11.885	1.087	420645	50.77	ug/L 99
41) 2-Chloroethylvinyl ether	63	12.122	12.122	1.109	68049	293.23	ug/L 100
42) cis-1,3-Dichloropropylene	75	12.372	12.372	1.132	515111	52.58	ug/L 99
44) 4-Methyl-2-pentanone	58	12.470	12.470	0.869	510237	256.35	ug/L 100
46) Toluene	91	12.793	12.793	0.891	1270721	49.73	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.952	12.952	0.902	463210	51.62	ug/L 100
48) 1,1,2-Trichloroethane	83	13.189	13.189	0.919	224144	50.77	ug/L 96
49) 2-Hexanone	43	13.384	13.384	0.932	826449	261.56	ug/L 100
50) 1,3-Dichloropropane	76	13.397	13.397	0.933	442490	51.83	ug/L 100
51) Tetrachloroethylene	164	13.439	13.439	0.936	298763	48.74	ug/L 100
52) Dibromochloromethane	129	13.689	13.689	0.954	365582	51.58	ug/L 100
53) 1,2-Dibromoethane	107	13.872	13.872	0.966	291300	51.27	ug/L 100
54) Chlorobenzene	112	14.390	14.390	1.003	893697	50.08	ug/L 100
55) 1,1,1,2-Tetrachloroethane	131	14.445	14.445	1.006	355207	49.15	ug/L 100
56) Ethylbenzene	91	14.457	14.457	1.007	1425028	49.86	ug/L 92
57) m,p-Xylenes	106	14.573	14.573	1.015	1139015	99.30	ug/L 99
58) o-Xylene	91	15.037	15.037	1.048	1172850	48.78	ug/L 100
59) Styrene	104	15.037	15.037	1.048	978072	51.96	ug/L 100
61) Bromoform	173	15.305	15.305	0.904	255019	53.03	ug/L 93
62) Isopropylbenzene	105	15.414	15.414	0.910	1468911	49.95	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.695	15.695	0.927	339845	50.78	ug/L 100
65) 1,2,3-Trichloropropane	110	15.792	15.792	0.933	109605	51.69	ug/L 99
66) Bromobenzene	156	15.847	15.847	0.936	430853	51.44	ug/L 100
67) n-Propylbenzene	91	15.866	15.866	0.937	1672048	50.47	ug/L 99
68) 1,3,5-Trimethylbenzene	105	16.024	16.024	0.946	1286273	50.08	ug/L 100
69) 2-Chlorotoluene	126	16.024	16.024	0.946	371030	50.32	ug/L 98
70) 4-Chlorotoluene	91	16.128	16.128	0.952	1026075	50.75	ug/L 96
71) tert-Butylbenzene	134	16.420	16.420	0.970	290457	49.90	ug/L 100
72) 1,2,4-Trimethylbenzene	105	16.463	16.463	0.972	1304625	49.57	ug/L 100
73) sec-Butylbenzene	105	16.664	16.664	0.984	1604810	49.56	ug/L 100
74) 4-Isopropyltoluene	119	16.792	16.792	0.992	1433822	49.73	ug/L 100
75) 1,3-Dichlorobenzene	146	16.865	16.865	0.996	775624	49.94	ug/L 86
76) 1,4-Dichlorobenzene	146	16.957	16.957	1.001	773846	49.69	ug/L 97
77) n-Butylbenzene	91	17.280	17.280	1.021	1235502	49.06	ug/L 100
78) 1,2-Dichlorobenzene	146	17.432	17.432	1.030	759038	50.07	ug/L 100
79) 1,2-Dibromo-3-chloropr...	157	18.383	18.383	1.086	94721	50.69	ug/L 100
80) 1,2,4-Trichlorobenzene	180	19.578	19.578	1.156	622955	49.61	ug/L 100
81) Hexachlorobutadiene	225	19.780	19.780	1.168	362782	49.74	ug/L 93
82) Naphthalene	128	20.017	20.017	1.182	1260853	50.95	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.401	20.401	1.205	577677	49.62	ug/L 96
85) Acrolein		7.184	7.166	0.657	0m	N.D.	d
86) Trichlorotrifluoroethane		7.361	7.355	0.673	0m	N.D.	d
87) Isopropyl Alcohol		7.410	7.440	0.678	0m	N.D.	d
88) Allyl chloride		7.995	7.843	0.731	0m	N.D.	d
89) tert-Butyl Alcohol		7.995	7.983	0.731	0m	N.D.	d
90) Acrylonitrile		8.330	8.257	0.762	0m	N.D.	d

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY108.D
Acq On : 18 Mar 2024 14:26
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-07|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 19 10:00:02 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

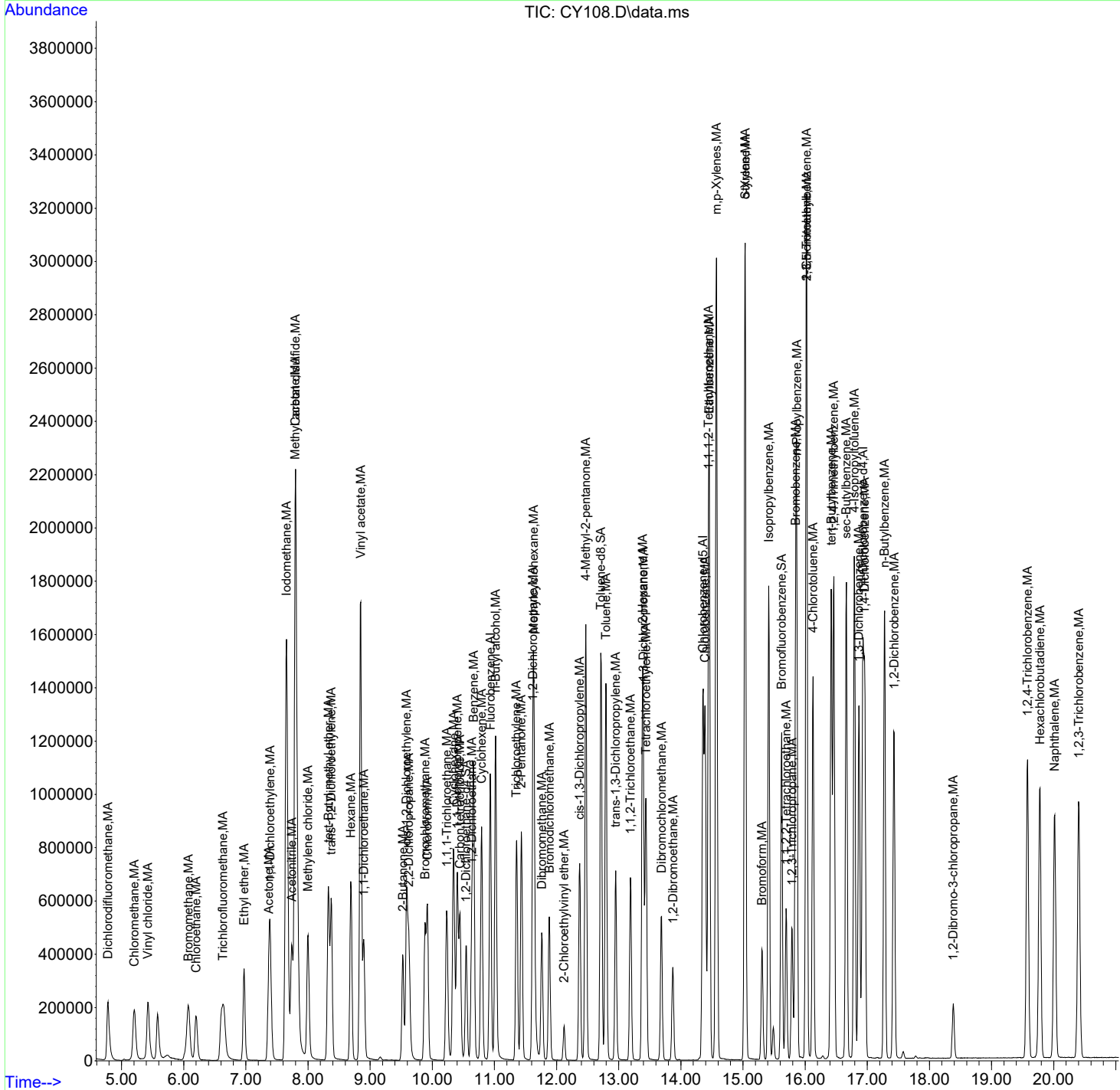
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.842	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate		9.525	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.525	9.592	0.871	0m	N.D.	d
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran		9.909	9.940	0.906	0m	N.D.	d
98) Isobutyl alcohol		10.257	10.263	0.938	0m	N.D.	d
99) Methyl tert-amyl ether		10.665	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.635	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.757	11.696	1.075	0m	N.D.	d
102) 2-Nitropropane		12.122	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.244	14.238	0.841	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.414	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.487	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.573	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

```
Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY108.D
Acq On    : 18 Mar 2024 14:26
Operator  : PX11
InstName  : VOAC
Sample    : |WCVM240318-07|ICAL|1|VOAF|1|VOA8260D|
Misc      : VSTD050 SUL/5ML N/A MIX[A]
ALS Vial  : 8 Sample Multiplier: 1
```

Quant Time: Mar 19 10:00:02 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY109.D
Acq On : 18 Mar 2024 14:54
Operator : PXY1
InstName : VOAC
Sample : |WVCM240318-08|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD080 4UL/5ML N/A MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:04 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.933	10.934	1.000	1193774	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.354	14.354	1.000	983992	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.932	16.933	1.000	553742	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.933	10.928	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.354	14.348	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.932	16.920	1.000	0m	50.00	ug/L	0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.543	10.543	0.964	358300	49.57	ug/L	0.00
45) Toluene-d8	98	12.714	12.714	0.886	1281485	50.41	ug/L	0.00
63) Bromofluorobenzene	95	15.622	15.622	0.923	486061	50.95	ug/L	0.00
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.782	4.782	0.437	606685	91.85	ug/L	99
3) Chloromethane	50	5.203	5.203	0.476	631765	85.90	ug/L	100
4) Vinyl chloride	62	5.428	5.422	0.496	661353	87.27	ug/L	100
5) Bromomethane	94	6.075	6.075	0.556	478708	85.92	ug/L	99
6) Chloroethane	64	6.203	6.197	0.567	412880	86.64	ug/L	100
7) Trichlorofluoromethane	101	6.635	6.629	0.607	779028	83.58	ug/L	99
8) Ethyl ether	59	6.971	6.971	0.638	421353	85.26	ug/L	95
9) Acetone	43	7.367	7.367	0.674	585905	366.34	ug/L	100
10) 1,1-Dichloroethylene	61	7.385	7.392	0.675	683143	82.51	ug/L	100
11) Iodomethane	142	7.654	7.654	0.700	4775219	424.58	ug/L	100
12) Acetonitrile	41	7.739	7.739	0.708	1273791	2006.19	ug/L	100
13) Methyl acetate	43	7.794	7.794	0.713	1474812	403.84	ug/L	99
14) Carbon disulfide	76	7.800	7.800	0.713	6965240	418.07	ug/L	100
15) Methylene chloride	84	8.001	8.001	0.732	522012	82.88	ug/L	100
16) tert-Butyl methyl ether	73	8.330	8.330	0.762	1443259	83.44	ug/L	99
17) trans-1,2-Dichloroethy...	61	8.373	8.373	0.766	682677	81.85	ug/L	100
18) Hexane	57	8.690	8.690	0.795	632083	74.86	ug/L	100
19) Vinyl acetate	43	8.842	8.849	0.809	4777803	414.60	ug/L	100
20) 1,1-Dichloroethane	63	8.897	8.897	0.814	848914	81.51	ug/L	100
21) 2-Butanone	43	9.525	9.525	0.871	923748	408.00	ug/L	99
22) cis-1,2-Dichloroethylene	61	9.586	9.586	0.877	801706	81.72	ug/L	99
23) 2,2-Dichloropropane	77	9.623	9.623	0.880	679055	82.10	ug/L	100
24) Bromochloromethane	128	9.885	9.885	0.904	313758	84.25	ug/L	100
25) Chloroform	83	9.921	9.922	0.907	905776	83.06	ug/L	100
26) 1,1,1-Trichloroethane	97	10.232	10.232	0.936	808624	81.80	ug/L	99
27) Cyclohexane	56	10.342	10.342	0.946	791603	80.18	ug/L	98
28) 1,1-Dichloropropene	75	10.403	10.403	0.951	662770	82.33	ug/L #	99
29) Carbon tetrachloride	117	10.446	10.446	0.955	724001	81.80	ug/L	99
31) 1,2-Dichloroethane	62	10.635	10.635	0.973	672570	81.76	ug/L	100
32) Benzene	78	10.665	10.665	0.975	1911681	81.79	ug/L	100
33) Cyclohexene	67	10.793	10.793	0.987	941136	80.60	ug/L	100
34) n-Butyl alcohol	56	11.019	11.019	1.008	1427267	8487.05	ug/L	100
35) Trichloroethylene	95	11.354	11.354	1.038	541762	81.96	ug/L	98
36) 2-Pentanone	43	11.433	11.434	1.046	1499469	377.83	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY109.D
Acq On : 18 Mar 2024 14:54
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-08|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD080 4UL/5ML N/A MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 19 10:00:04 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.622	11.616	1.063	497417	83.54	ug/L 88
38) Methylcyclohexane	83	11.635	11.635	1.064	901078	81.36	ug/L 75
39) Dibromomethane	93	11.763	11.763	1.076	323915	82.92	ug/L 97
40) Bromodichloromethane	83	11.885	11.885	1.087	707379	83.66	ug/L 99
41) 2-Chloroethylvinyl ether	63	12.122	12.122	1.109	86918	367.03	ug/L 99
42) cis-1,3-Dichloropropylene	75	12.372	12.372	1.132	849540	84.98	ug/L 99
44) 4-Methyl-2-pentanone	58	12.470	12.470	0.869	826873	414.23	ug/L 100
46) Toluene	91	12.793	12.793	0.891	2103374	82.07	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.951	12.952	0.902	747727	83.08	ug/L 100
48) 1,1,2-Trichloroethane	83	13.189	13.189	0.919	365730	82.59	ug/L 97
49) 2-Hexanone	43	13.384	13.384	0.932	1294348	408.46	ug/L 100
50) 1,3-Dichloropropane	76	13.396	13.397	0.933	715736	83.60	ug/L 98
51) Tetrachloroethylene	164	13.439	13.439	0.936	502571	81.76	ug/L 100
52) Dibromochloromethane	129	13.689	13.689	0.954	605436	85.17	ug/L 100
53) 1,2-Dibromoethane	107	13.872	13.872	0.966	474790	83.32	ug/L 100
54) Chlorobenzene	112	14.390	14.390	1.003	1489833	83.24	ug/L 100
55) 1,1,1,2-Tetrachloroethane	131	14.445	14.445	1.006	607854	83.87	ug/L 99
56) Ethylbenzene	91	14.457	14.457	1.007	2360245	82.34	ug/L 92
57) m,p-Xylenes	106	14.573	14.573	1.015	1886785	164.01	ug/L 98
58) o-Xylene	91	15.036	15.037	1.048	1970466	81.72	ug/L 100
59) Styrene	104	15.036	15.037	1.048	1619001	85.76	ug/L 100
61) Bromoform	173	15.305	15.305	0.904	422543	87.08	ug/L 93
62) Isopropylbenzene	105	15.414	15.414	0.910	2488416	83.88	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.695	15.695	0.927	556318	82.40	ug/L 100
65) 1,2,3-Trichloropropane	110	15.792	15.792	0.933	180140	84.20	ug/L 99
66) Bromobenzene	156	15.847	15.847	0.936	720038	85.20	ug/L 99
67) n-Propylbenzene	91	15.866	15.866	0.937	2804845	83.91	ug/L 99
68) 1,3,5-Trimethylbenzene	105	16.024	16.024	0.946	2189272	84.48	ug/L 99
69) 2-Chlorotoluene	126	16.024	16.024	0.946	623680	83.84	ug/L 97
70) 4-Chlorotoluene	91	16.128	16.128	0.952	1710800	83.87	ug/L 96
71) tert-Butylbenzene	134	16.420	16.420	0.970	500163	85.18	ug/L 99
72) 1,2,4-Trimethylbenzene	105	16.463	16.463	0.972	2224891	83.79	ug/L 100
73) sec-Butylbenzene	105	16.664	16.664	0.984	2739057	83.85	ug/L 100
74) 4-Isopropyltoluene	119	16.792	16.792	0.992	2458881	84.53	ug/L 100
75) 1,3-Dichlorobenzene	146	16.865	16.865	0.996	1304533	83.25	ug/L 86
76) 1,4-Dichlorobenzene	146	16.957	16.957	1.001	1302230	82.88	ug/L 98
77) n-Butylbenzene	91	17.280	17.280	1.021	2122634	83.55	ug/L 100
78) 1,2-Dichlorobenzene	146	17.426	17.432	1.029	1282195	83.83	ug/L 100
79) 1,2-Dibromo-3-chloropr...	157	18.383	18.383	1.086	162156	86.01	ug/L 99
80) 1,2,4-Trichlorobenzene	180	19.578	19.578	1.156	1095804	86.49	ug/L 100
81) Hexachlorobutadiene	225	19.779	19.780	1.168	609835	82.88	ug/L 93
82) Naphthalene	128	20.011	20.017	1.182	2172353	87.01	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.401	20.401	1.205	994361	84.65	ug/L 96
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	7.361	7.355	0.673	0m	N.D.	d	
87) Isopropyl Alcohol	7.404	7.440	0.677	0m	N.D.	d	
88) Allyl chloride	0.000	7.843	0.000	0	N.D.		
89) tert-Butyl Alcohol	8.001	7.983	0.732	0m	N.D.	d	
90) Acrylonitrile	8.330	8.257	0.762	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY109.D
Acq On : 18 Mar 2024 14:54
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-08|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD080 4UL/5ML N/A MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 19 10:00:04 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

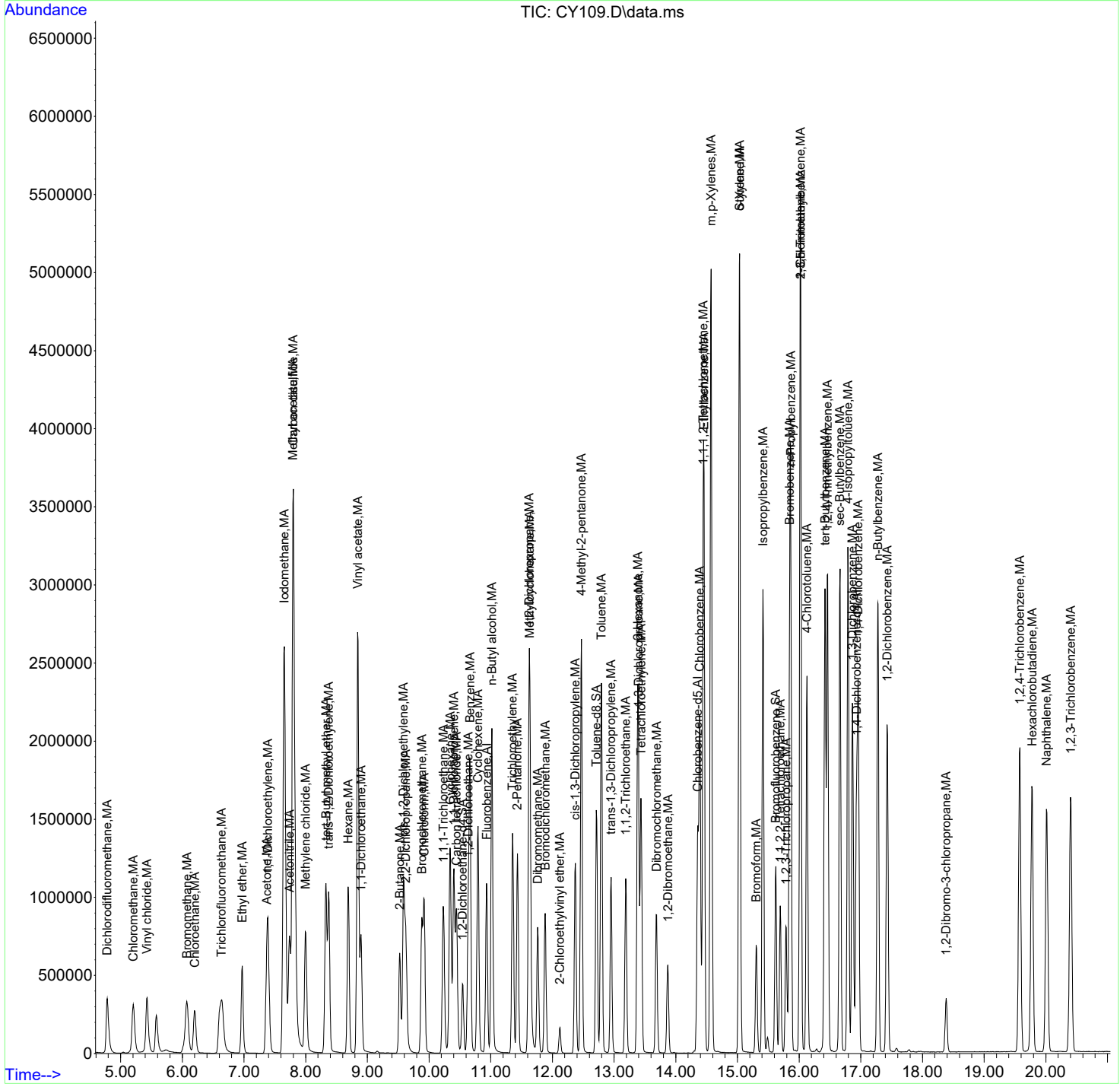
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.842	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.324	9.312	0.853	0m	N.D.	d
94) Ethyl acetate		9.525	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.525	9.592	0.871	0m	N.D.	d
96) Methacrylonitrile		9.848	9.794	0.901	0m	N.D.	d
97) Tetrahydrofuran		9.921	9.940	0.907	0m	N.D.	d
98) Isobutyl alcohol		10.238	10.263	0.936	0m	N.D.	d
99) Methyl tert-amyl ether		10.659	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.635	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.763	11.696	1.076	0m	N.D.	d
102) 2-Nitropropane		12.122	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.293	14.238	0.844	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.414	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.493	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.585	17.506	1.039	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

```
Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY109.D
Acq On    : 18 Mar 2024 14:54
Operator  : PX11
InstName  : VOAC
Sample    : |WCVM240318-08|ICAL|1|VOAF|1|VOA8260D|
Misc      : VSTD080 4UL/5ML N/A MIX[A]
ALS Vial  : 9 Sample Multiplier: 1
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Quant Time: Mar 19 10:00:04 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY110.D
Acq On : 18 Mar 2024 15:22
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-09|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[A]
ALS Vial : 10 Sample Multiplier: 1

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03/19/2024

Quant Time: Mar 19 10:00:06 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.934	10.934	1.000	1248601	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.354	14.354	1.000	1034797	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.926	16.933	1.000	580036	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.934	10.928	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.354	14.348	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.926	16.920	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.543	10.543	0.964	379528	50.20	ug/L	0.00
45) Toluene-d8	98	12.714	12.714	0.886	1338151	50.05	ug/L	0.00
63) Bromofluorobenzene	95	15.622	15.622	0.923	506868	50.72	ug/L	0.00
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.782	4.782	0.437	742220	107.44	ug/L	100 A
3) Chloromethane	50	5.203	5.203	0.476	773331	100.53	ug/L	100 A
4) Vinyl chloride	62	5.428	5.422	0.496	815666	102.91	ug/L	100 A
5) Bromomethane	94	6.075	6.075	0.556	595148	102.13	ug/L	99 A
6) Chloroethane	64	6.203	6.197	0.567	502133	100.74	ug/L	99 A
7) Trichlorofluoromethane	101	6.636	6.629	0.607	972643	99.78	ug/L	100
8) Ethyl ether	59	6.971	6.971	0.638	543525	105.16	ug/L	95 A
9) Acetone	43	7.367	7.367	0.674	751094	449.01	ug/L	100
10) 1,1-Dichloroethylene	61	7.391	7.392	0.676	821692	94.89	ug/L	99
11) Iodomethane	142	7.654	7.654	0.700	5761295	489.77	ug/L	100
12) Acetonitrile	41	7.739	7.739	0.708	1557206	2344.87	ug/L	100
13) Methyl acetate	43	7.794	7.794	0.713	1887628	494.18	ug/L	99
14) Carbon disulfide	76	7.806	7.800	0.714	8366460	480.12	ug/L	100
15) Methylene chloride	84	8.001	8.001	0.732	631498	96.00	ug/L	99
16) tert-Butyl methyl ether	73	8.330	8.330	0.762	1810109	100.06	ug/L	99 A
17) trans-1,2-Dichloroethy...	61	8.373	8.373	0.766	826198	94.71	ug/L	100
18) Hexane	57	8.690	8.690	0.795	841148	95.24	ug/L	99
19) Vinyl acetate	43	8.842	8.849	0.809	6173558	512.20	ug/L	100 A
20) 1,1-Dichloroethane	63	8.897	8.897	0.814	1031512	94.69	ug/L	100
21) 2-Butanone	43	9.525	9.525	0.871	1192080	503.40	ug/L	99 A
22) cis-1,2-Dichloroethylene	61	9.586	9.586	0.877	976331	95.15	ug/L	99
23) 2,2-Dichloropropane	77	9.623	9.623	0.880	809994	93.63	ug/L	99
24) Bromochloromethane	128	9.885	9.885	0.904	389344	99.95	ug/L	99
25) Chloroform	83	9.921	9.922	0.907	1109287	97.26	ug/L	100
26) 1,1,1-Trichloroethane	97	10.232	10.232	0.936	982932	95.07	ug/L	99
27) Cyclohexane	56	10.342	10.342	0.946	953054	92.30	ug/L	98
28) 1,1-Dichloropropene	75	10.403	10.403	0.951	805145	95.63	ug/L #	99
29) Carbon tetrachloride	117	10.446	10.446	0.955	887448	95.87	ug/L	99
31) 1,2-Dichloroethane	62	10.635	10.635	0.973	833558	96.88	ug/L	100
32) Benzene	78	10.665	10.665	0.975	2341389	95.78	ug/L	99
33) Cyclohexene	67	10.793	10.793	0.987	1146530	93.88	ug/L	100
34) n-Butyl alcohol	56	11.019	11.019	1.008	1809531	10287.64	ug/L	100 A
35) Trichloroethylene	95	11.354	11.354	1.038	659255	95.36	ug/L	98
36) 2-Pentanone	43	11.433	11.434	1.046	2089837	503.47	ug/L	100 A

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY110.D
Acq On : 18 Mar 2024 15:22
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-09|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 10:00:06 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.616	11.616	1.062	609228	97.82	ug/L 87
38) Methylcyclohexane	83	11.635	11.635	1.064	1089927	94.09	ug/L 76
39) Dibromomethane	93	11.763	11.763	1.076	402970	98.62	ug/L 97
40) Bromodichloromethane	83	11.885	11.885	1.087	872940	98.71	ug/L 100
41) 2-Chloroethylvinyl ether	63	12.122	12.122	1.109	127382	514.28	ug/L 100 A
42) cis-1,3-Dichloropropylene	75	12.372	12.372	1.132	1049483	100.37	ug/L 99 A
44) 4-Methyl-2-pentanone	58	12.470	12.470	0.869	1062851	506.30	ug/L 99 A
46) Toluene	91	12.793	12.793	0.891	2569974	95.36	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.951	12.952	0.902	928939	98.15	ug/L 100
48) 1,1,2-Trichloroethane	83	13.189	13.189	0.919	455613	97.84	ug/L 97
49) 2-Hexanone	43	13.378	13.384	0.932	1658710	497.75	ug/L 99
50) 1,3-Dichloropropane	76	13.396	13.397	0.933	890388	98.89	ug/L 99
51) Tetrachloroethylene	164	13.439	13.439	0.936	603930	93.42	ug/L 100
52) Dibromochloromethane	129	13.683	13.689	0.953	755383	101.04	ug/L 100 A
53) 1,2-Dibromoethane	107	13.872	13.872	0.966	595947	99.44	ug/L 100
54) Chlorobenzene	112	14.390	14.390	1.003	1824135	96.91	ug/L 99
55) 1,1,1,2-Tetrachloroethane	131	14.445	14.445	1.006	747243	98.04	ug/L 100
56) Ethylbenzene	91	14.457	14.457	1.007	2874141	95.34	ug/L 93
57) m,p-Xylenes	106	14.573	14.573	1.015	2283247	188.73	ug/L 98
58) o-Xylene	91	15.030	15.037	1.047	2406734	94.92	ug/L 100
59) Styrene	104	15.036	15.037	1.048	1983347	99.90	ug/L 100
61) Bromoform	173	15.305	15.305	0.904	535557	105.37	ug/L 93 A
62) Isopropylbenzene	105	15.414	15.414	0.911	3017316	97.09	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.695	15.695	0.927	709546	100.33	ug/L 100 A
65) 1,2,3-Trichloropropane	110	15.786	15.792	0.933	226245	100.96	ug/L 99 A
66) Bromobenzene	156	15.847	15.847	0.936	879221	99.32	ug/L 99
67) n-Propylbenzene	91	15.866	15.866	0.937	3375175	96.40	ug/L 99
68) 1,3,5-Trimethylbenzene	105	16.018	16.024	0.946	2631517	96.94	ug/L 100
69) 2-Chlorotoluene	126	16.024	16.024	0.947	749063	96.13	ug/L 97
70) 4-Chlorotoluene	91	16.128	16.128	0.953	2054872	96.18	ug/L 96
71) tert-Butylbenzene	134	16.420	16.420	0.970	598686	97.33	ug/L 99
72) 1,2,4-Trimethylbenzene	105	16.457	16.463	0.972	2656591	95.51	ug/L 100
73) sec-Butylbenzene	105	16.664	16.664	0.985	3257269	95.19	ug/L 100
74) 4-Isopropyltoluene	119	16.792	16.792	0.992	2903021	95.28	ug/L 100
75) 1,3-Dichlorobenzene	146	16.865	16.865	0.996	1557310	94.87	ug/L 86
76) 1,4-Dichlorobenzene	146	16.957	16.957	1.002	1553694	94.40	ug/L 98
77) n-Butylbenzene	91	17.274	17.280	1.021	2464524	92.61	ug/L 100
78) 1,2-Dichlorobenzene	146	17.426	17.432	1.030	1539228	96.07	ug/L 99
79) 1,2-Dibromo-3-chloropr...	157	18.383	18.383	1.086	201868	102.22	ug/L 99 A
80) 1,2,4-Trichlorobenzene	180	19.578	19.578	1.157	1248601	94.09	ug/L 100
81) Hexachlorobutadiene	225	19.773	19.780	1.168	684473	88.80	ug/L 93
82) Naphthalene	128	20.011	20.017	1.182	2618433	100.13	ug/L 100 A
83) 1,2,3-Trichlorobenzene	180	20.401	20.401	1.205	1167829	94.91	ug/L 96
85) Acrolein	0.000	7.166	0.000	0	0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.355	0.000	0	0	N.D.	
87) Isopropyl Alcohol	7.404	7.440	0.677	0m	0	N.D. d	
88) Allyl chloride	7.995	7.843	0.731	0m	0	N.D. d	
89) tert-Butyl Alcohol	0.000	7.983	0.000	0	0	N.D.	
90) Acrylonitrile	8.324	8.257	0.761	0m	0	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY110.D
Acq On : 18 Mar 2024 15:22
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-09|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 10:00:06 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

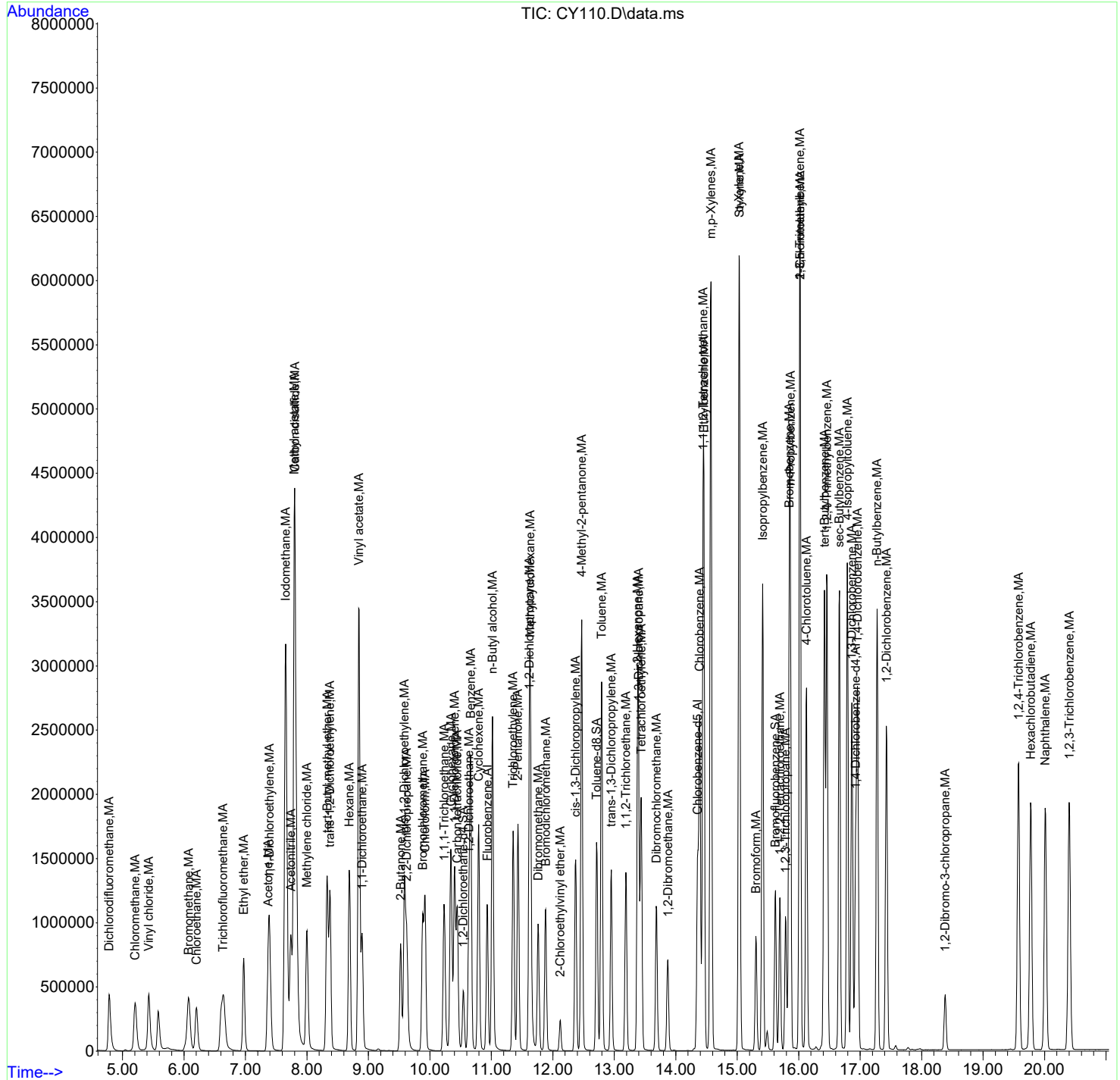
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.842	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.324	9.312	0.853	0m	N.D.	d
94) Ethyl acetate		9.525	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.525	9.592	0.871	0m	N.D.	d
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran		9.921	9.940	0.907	0m	N.D.	d
98) Isobutyl alcohol		10.342	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.665	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.635	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.763	11.696	1.076	0m	N.D.	d
102) 2-Nitropropane		12.122	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.299	14.238	0.845	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.414	15.439	0.911	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.487	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.573	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY110.D
Acq On : 18 Mar 2024 15:22
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-09|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 10:00:06 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Instrument ID: VOAC.I
Data File: data\031824VC_ICAL\CY112.D
Lab Sample ID WCV240318-10
Quant Type ISTD

Client SDG: 660771
Injection Date: 18-MAR-24 16:17
Init. Cal. Date(s) 18-MAR-24 11:39 - 18-MAR-24 20:00
Method: data\031824VC_ICAL\VOAC-031824-8260D.M
Method Update: 19-MAR-24 09:59

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S 1,2-Dichloroethane-d4	0.3028	0.30755		.01		1.56869	30		Averaged
S Toluene-d8	1.2917	1.33091		.01		3.03553	30		Averaged
S Bromofluorobenzene	0.8615	0.88373		.01		2.58038	30		Averaged
Dichlorodifluoromethane	0.2766	0.3275		.01		18.40202	30		Averaged
Chloromethane	0.308	0.30129		.1		-2.17857	30		Averaged
Vinyl chloride	0.3174	0.31412		.01		-1.0334	30		Averaged
Bromomethane	0.2334	0.24382		.01		4.46444	30		Averaged
Chloroethane	0.1996	0.2157		.01		8.06613	30		Averaged
Trichlorofluoromethane	0.3904	0.41401		.01		6.04764	30		Averaged
Acetone	0.067	0.06026		.01		-10.0597	30		Averaged
1,1-Dichloroethylene	0.3468	0.35316		.01		1.83391	30		Averaged
Iodomethane	0.4711	0.51221		.01		8.72639	30		Averaged
Acetonitrile	0.0266	0.02597		.01		-2.36842	30		Averaged
Carbon disulfide	0.6978	0.80262		.01		15.0215	30		Averaged
Methylene chloride	50	51.29	50			2.58	30		Linear
trans-1,2-Dichloroethylene	0.3493	0.34964		.01		0.09734	30		Averaged
Vinyl acetate	0.4827	0.47138		.01		-2.34514	30		Averaged
1,1-Dichloroethane	0.4362	0.43963		.1		0.78634	30		Averaged
2-Butanone	0.0948	0.09199		.01		-2.96414	30		Averaged
Chloroform	0.4567	0.46697		.01		2.24874	30		Averaged
1,1,1-Trichloroethane	0.414	0.40871		.01		-1.27778	30		Averaged
Carbon tetrachloride	0.3707	0.37795		.01		1.95576	30		Averaged
1,2-Dichloroethane	0.3445	0.336		.01		-2.46734	30		Averaged
Benzene	0.979	0.97291		.01		-0.62206	30		Averaged
Trichloroethylene	0.2768	0.27191		.01		-1.76662	30		Averaged
1,2-Dichloropropane	0.2494	0.25165		.01		0.90217	30		Averaged
Dibromomethane	0.1636	0.16523		.01		0.99633	30		Averaged
Bromodichloromethane	0.3541	0.36333		.01		2.60661	30		Averaged
cis-1,3-Dichloropropylene	0.4187	0.42499		.01		1.50227	30		Averaged
4-Methyl-2-pentanone	0.1014	0.10287		.01		1.4497	30		Averaged
Toluene	1.3023	1.29141		.01		-0.83621	30		Averaged
trans-1,3-Dichloropropylene	0.4573	0.4649		.01		1.66193	30		Averaged
1,1,2-Trichloroethane	0.225	0.22386		.01		-0.50667	30		Averaged
2-Hexanone	0.161	0.15609		.01		-3.04969	30		Averaged
Tetrachloroethylene	0.3124	0.31259		.01		0.06082	30		Averaged
Dibromochloromethane	0.3612	0.37614		.01		4.13621	30		Averaged
1,2-Dibromoethane	0.2896	0.29316		.01		1.22928	30		Averaged

Continuing Calibration Summary

Instrument ID: VOAC.I

Injection Date: 18-MAR-24 16:17

Data File: data\031824VC_ICAL\CY112.D

Init. Cal. Date(s) 18-MAR-24 11:39 18-MAR-24 20:00

Lab Sample ID WCVL240318-10

Method: data\031824VC_ICAL\VOAC-031824-8260D.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Chlorobenzene	0.9095	0.91506		.3		0.61132	30		Averaged
1,1,1,2-Tetrachloroethane	0.3683	0.37504		.01		1.83003	30		Averaged
Ethylbenzene	1.4566	1.43397		.01		-1.55362	30		Averaged
m,p-Xylenes	0.5846	0.57224		.01		-2.11427	30		Averaged
Styrene	0.9593	0.96149		.01		0.22829	30		Averaged
o-Xylene	1.2252	1.21035		.01		-1.21205	30		Averaged
Bromoform	0.4381	0.45771		.1		4.47615	30		Averaged
1,1,2,2-Tetrachloroethane	0.6096	0.60711		.3		-0.40846	30		Averaged
1,2,3-Trichloropropane	0.1932	0.19644		.01		1.67702	30		Averaged
1,2-Dibromo-3-chloropropane	0.1702	0.18142		.01		6.59224	30		Averaged
1,2,4-Trichlorobenzene	1.1439	1.16979		.01		2.26331	30		Averaged

PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY112.D
Acq On : 18 Mar 2024 16:17
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-10|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[A]
ALS Vial : 12 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 10:00:10 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.934	10.934	1.000	1178811	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.354	14.354	1.000	945542	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.926	16.933	1.000	526660	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.934	10.928	1.000	1178386	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.354	14.348	1.000	945542	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.926	16.920	1.000	528979	50.00	ug/L	0.00

System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.543	10.543	0.964	362541	50.79	ug/L	0.00
45) Toluene-d8	98	12.714	12.714	0.886	1258429	51.52	ug/L	0.00
63) Bromofluorobenzene	95	15.616	15.622	0.923	465423	51.29	ug/L	0.00

Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.788	4.782	0.438	386061	59.19	ug/L	100
3) Chloromethane	50	5.209	5.203	0.476	355169	48.90	ug/L	99
4) Vinyl chloride	62	5.428	5.422	0.496	370285	49.48	ug/L	100
5) Bromomethane	94	6.081	6.075	0.556	287423	52.24	ug/L	98
6) Chloroethane	64	6.203	6.197	0.567	254269	54.03	ug/L	99
7) Trichlorofluoromethane	101	6.642	6.629	0.607	488038	53.03	ug/L	100
8) Ethyl ether	59	6.971	6.971	0.638	239024	48.98	ug/L	95
9) Acetone	43	7.367	7.367	0.674	355193	224.91	ug/L	99
10) 1,1-Dichloroethylene	61	7.391	7.392	0.676	416310	50.92	ug/L	99
11) Iodomethane	142	7.654	7.654	0.700	3019014	271.84	ug/L	100
12) Acetonitrile	41	7.739	7.739	0.708	765267	1220.58	ug/L	100
13) Methyl acetate	43	7.794	7.794	0.713	886124	245.72	ug/L	99
14) Carbon disulfide	76	7.800	7.800	0.713	4730670	287.55	ug/L	100
15) Methylene chloride	84	8.001	8.001	0.732	321163	51.29	ug/L	100
16) tert-Butyl methyl ether	73	8.330	8.330	0.762	830019	48.60	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.373	8.373	0.766	412159	50.04	ug/L	100
18) Hexane	57	8.690	8.690	0.795	364463	43.71	ug/L	100
19) Vinyl acetate	43	8.842	8.849	0.809	2778318	244.15	ug/L	100
20) 1,1-Dichloroethane	63	8.897	8.897	0.814	518237	50.39	ug/L	100
21) 2-Butanone	43	9.525	9.525	0.871	542204	242.52	ug/L	99
22) cis-1,2-Dichloroethylene	61	9.586	9.586	0.877	480664	49.62	ug/L	99
23) 2,2-Dichloropropane	77	9.623	9.623	0.880	395899	48.47	ug/L	99
24) Bromochloromethane	128	9.879	9.885	0.904	189469	51.52	ug/L	98
25) Chloroform	83	9.922	9.922	0.907	550468	51.12	ug/L	99
26) 1,1,1-Trichloroethane	97	10.232	10.232	0.936	481794	49.36	ug/L	100
27) Cyclohexane	56	10.342	10.342	0.946	482289	49.47	ug/L	98
28) 1,1-Dichloropropene	75	10.397	10.403	0.951	395629	49.77	ug/L	# 99
29) Carbon tetrachloride	117	10.446	10.446	0.955	445535	50.98	ug/L	100
31) 1,2-Dichloroethane	62	10.635	10.635	0.973	396086	48.76	ug/L	100
32) Benzene	78	10.659	10.665	0.975	1146882	49.69	ug/L	99
33) Cyclohexene	67	10.793	10.793	0.987	528452	45.83	ug/L	99
34) n-Butyl alcohol	56	11.019	11.019	1.008	830404	5000.56	ug/L	99
35) Trichloroethylene	95	11.354	11.354	1.038	320532	49.11	ug/L	97
36) 2-Pentanone	43	11.433	11.434	1.046	819571	209.13	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY112.D
Acq On : 18 Mar 2024 16:17
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-10|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[A]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 19 10:00:10 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.616	11.616	1.062	296653	50.45	ug/L 87
38) Methylcyclohexane	83	11.629	11.635	1.064	536584	49.06	ug/L 75
39) Dibromomethane	93	11.763	11.763	1.076	194777	50.49	ug/L 97
40) Bromodichloromethane	83	11.879	11.885	1.086	428301	51.30	ug/L 100
41) 2-Chloroethylvinyl ether	63	12.116	12.122	1.108	70024	299.45	ug/L 100
42) cis-1,3-Dichloropropylene	75	12.366	12.372	1.131	500978	50.75	ug/L 100
44) 4-Methyl-2-pentanone	58	12.470	12.470	0.869	486336	253.54	ug/L 100
46) Toluene	91	12.793	12.793	0.891	1221086	49.58	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.951	12.952	0.902	439580	50.83	ug/L 100
48) 1,1,2-Trichloroethane	83	13.189	13.189	0.919	211666	49.74	ug/L 98
49) 2-Hexanone	43	13.378	13.384	0.932	737952	242.35	ug/L 100
50) 1,3-Dichloropropane	76	13.397	13.397	0.933	414930	50.43	ug/L 98
51) Tetrachloroethylene	164	13.433	13.439	0.936	295565	50.04	ug/L 100
52) Dibromochloromethane	129	13.683	13.689	0.953	355658	52.07	ug/L 100
53) 1,2-Dibromoethane	107	13.866	13.872	0.966	277196	50.62	ug/L 99
54) Chlorobenzene	112	14.390	14.390	1.003	865232	50.31	ug/L 100
55) 1,1,1,2-Tetrachloroethane	131	14.445	14.445	1.006	354612	50.92	ug/L 100
56) Ethylbenzene	91	14.451	14.457	1.007	1355875	49.22	ug/L 92
57) m,p-Xylenes	106	14.567	14.573	1.015	1082150	97.89	ug/L 98
58) o-Xylene	91	15.030	15.037	1.047	1144435	49.39	ug/L 100
59) Styrene	104	15.030	15.037	1.047	909125	50.11	ug/L 99
61) Bromoform	173	15.305	15.305	0.904	241056	52.23	ug/L 93
62) Isopropylbenzene	105	15.408	15.414	0.910	1446302	51.26	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.689	15.695	0.927	319738	49.79	ug/L 100
65) 1,2,3-Trichloropropane	110	15.786	15.792	0.933	103456	50.85	ug/L 98
66) Bromobenzene	156	15.841	15.847	0.936	407649	50.72	ug/L 100
67) n-Propylbenzene	91	15.859	15.866	0.937	1604309	50.46	ug/L 99
68) 1,3,5-Trimethylbenzene	105	16.018	16.024	0.946	1259183	51.09	ug/L 100
69) 2-Chlorotoluene	126	16.018	16.024	0.946	362154	51.19	ug/L 97
70) 4-Chlorotoluene	91	16.122	16.128	0.952	986782	50.87	ug/L 96
71) tert-Butylbenzene	134	16.414	16.420	0.970	288891	51.73	ug/L 99
72) 1,2,4-Trimethylbenzene	105	16.457	16.463	0.972	1273048	50.41	ug/L 100
73) sec-Butylbenzene	105	16.658	16.664	0.984	1582962	50.95	ug/L 99
74) 4-Isopropyltoluene	119	16.792	16.792	0.992	1422427	51.42	ug/L 100
75) 1,3-Dichlorobenzene	146	16.865	16.865	0.996	751777	50.44	ug/L 86
76) 1,4-Dichlorobenzene	146	16.957	16.957	1.002	750564	50.23	ug/L 98
77) n-Butylbenzene	91	17.274	17.280	1.021	1213528	50.22	ug/L 100
78) 1,2-Dichlorobenzene	146	17.426	17.432	1.030	734508	50.49	ug/L 99
79) 1,2-Dibromo-3-chloropr...	157	18.383	18.383	1.086	95549	53.29	ug/L 99
80) 1,2,4-Trichlorobenzene	180	19.572	19.578	1.156	616081	51.13	ug/L 99
81) Hexachlorobutadiene	225	19.773	19.780	1.168	377252	53.90	ug/L 93
82) Naphthalene	128	20.011	20.017	1.182	1240863	52.26	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.401	20.401	1.205	582867	52.17	ug/L 97
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	7.373	7.355	0.674	0m	N.D.	d	
87) Isopropyl Alcohol	7.404	7.440	0.677	0m	N.D.	d	
88) Allyl chloride	0.000	7.843	0.000	0	N.D.		
89) tert-Butyl Alcohol	7.995	7.983	0.731	0m	N.D.	d	
90) Acrylonitrile	8.330	8.257	0.762	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY112.D
Acq On : 18 Mar 2024 16:17
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-10|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[A]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 19 10:00:10 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

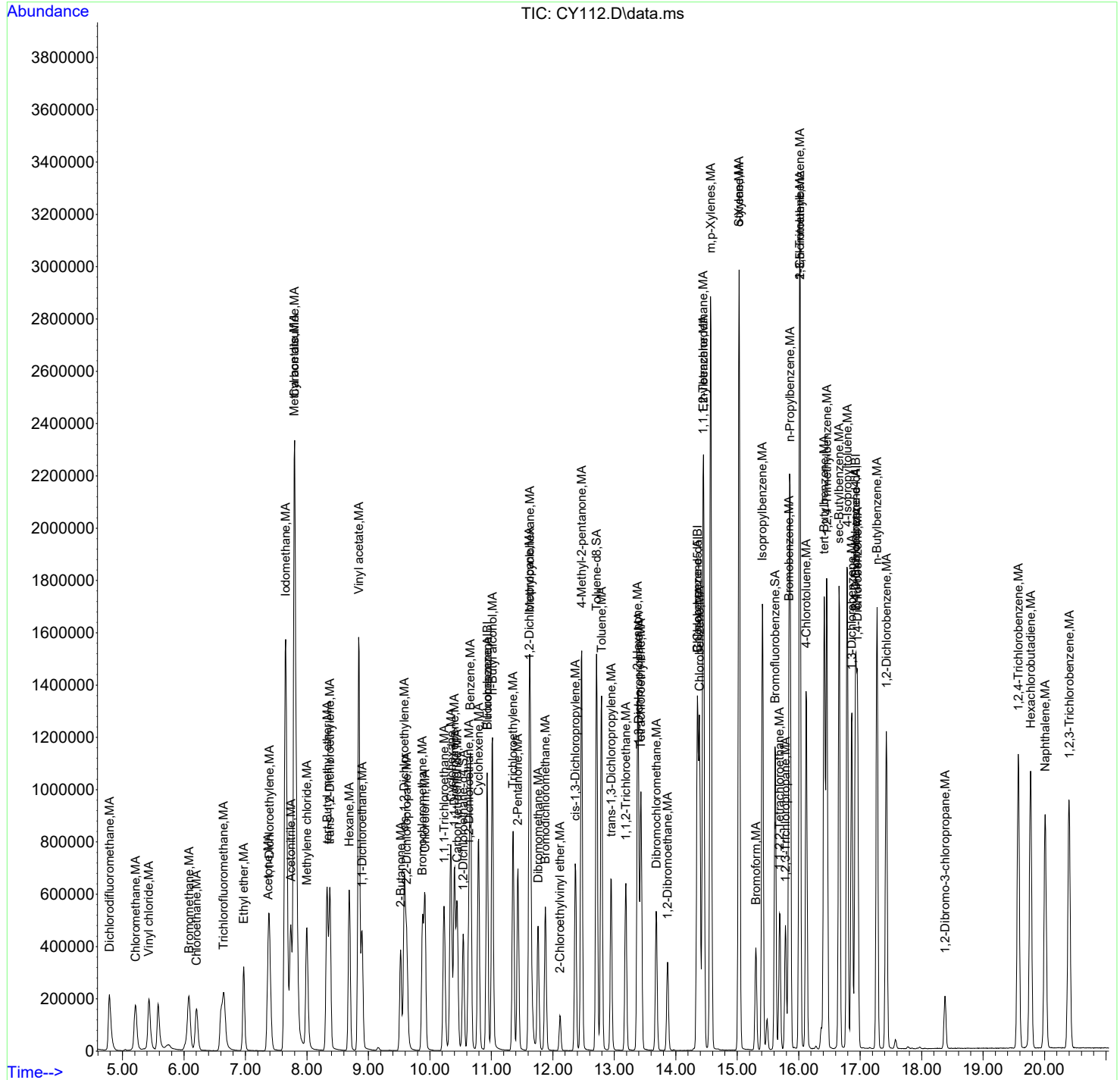
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.842	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate		9.525	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.531	9.592	0.872	0m	N.D.	d
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran		9.928	9.940	0.908	0m	N.D.	d
98) Isobutyl alcohol		10.251	10.263	0.938	0m	N.D.	d
99) Methyl tert-amyl ether		10.659	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.629	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.750	11.696	1.075	0m	N.D.	d
102) 2-Nitropropane		12.116	12.086	1.108	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.244	14.238	0.842	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.408	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.494	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		17.091	17.073	1.010	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		17.567	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

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Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY112.D
Acq On    : 18 Mar 2024 16:17
Operator  : PX1Y1
InstName  : VOAC
Sample    : |WCVM240318-10|ICV|1|VOAF|1|VOA8260D|
Misc      : ICV 5UL/5ML N/A MIX[A]
ALS Vial  : 12 Sample Multiplier: 1
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Quant Time: Mar 19 10:00:10 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY113.D
Acq On : 18 Mar 2024 16:45
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-11|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 SUL/5ML N/A MIX[B]
ALS Vial : 13 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:12 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.927	10.934	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.354	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.926	16.933	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.927	10.928	1.000	918699	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.354	14.348	1.000	635770	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.926	16.920	1.000	346817	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.543	10.543	0.965	0d	0.00	ug/L	
45) Toluene-d8	98	12.714	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.616	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.782	4.782	0.438	0m	N.D.	d	
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone		7.367	7.367	0.674	0m	N.D.	d	
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		7.641	7.654	0.699	0m	N.D.	d	
12) Acetonitrile		7.745	7.739	0.709	0m	N.D.	d	
13) Methyl acetate		7.794	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.794	7.800	0.713	0m	N.D.	d	
15) Methylene chloride		7.989	8.001	0.731	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		8.373	8.373	0.766	0m	N.D.	d	
18) Hexane		8.678	8.690	0.794	0m	N.D.	d	
19) Vinyl acetate		8.855	8.849	0.810	0m	N.D.	d	
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone		9.537	9.525	0.873	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.537	9.586	0.873	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.915	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.275	10.342	0.940	0m	N.D.	d	
28) 1,1-Dichloropropene		10.403	10.403	0.952	0m	N.D.	d	
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.629	10.635	0.973	0m	N.D.	d	
32) Benzene		10.653	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.787	10.793	0.987	0m	N.D.	d	
34) n-Butyl alcohol		11.019	11.019	1.008	0m	N.D.	d	
35) Trichloroethylene		11.360	11.354	1.040	0m	N.D.	d	
36) 2-Pentanone		11.433	11.434	1.046	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY113.D
Acq On : 18 Mar 2024 16:45
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-11|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 SUL/5ML N/A MIX[B]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 19 10:00:12 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.622	11.635	1.064	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		11.885	11.885	1.088	0m	N.D.	d
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		12.366	12.372	1.132	0m	N.D.	d
44) 4-Methyl-2-pentanone		12.470	12.470	0.869	0m	N.D.	d
46) Toluene		12.793	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.951	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		13.183	13.189	0.918	0m	N.D.	d
49) 2-Hexanone		13.384	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		13.397	13.397	0.933	0m	N.D.	d
51) Tetrachloroethylene		13.427	13.439	0.935	0m	N.D.	d
52) Dibromochloromethane		13.683	13.689	0.953	0m	N.D.	d
53) 1,2-Dibromoethane		13.866	13.872	0.966	0m	N.D.	d
54) Chlorobenzene		14.384	14.390	1.002	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene		14.451	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.567	14.573	1.015	0m	N.D.	d
58) o-Xylene		0.000	15.037	0.000	0	N.D.	
59) Styrene		15.030	15.037	1.047	0m	N.D.	d
61) Bromoform		15.305	15.305	0.904	0m	N.D.	d
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		15.689	15.695	0.927	0m	N.D.	d
65) 1,2,3-Trichloropropane		15.780	15.792	0.932	0m	N.D.	d
66) Bromobenzene		15.847	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		15.853	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		16.018	16.024	0.946	0m	N.D.	d
70) 4-Chlorotoluene		16.128	16.128	0.953	0m	N.D.	d
71) tert-Butylbenzene		16.420	16.420	0.970	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.457	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		16.786	16.792	0.992	0m	N.D.	d
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		17.274	17.280	1.021	0m	N.D.	d
78) 1,2-Dichlorobenzene		17.420	17.432	1.029	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		18.383	18.383	1.086	0m	N.D.	d
80) 1,2,4-Trichlorobenzene		19.572	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.773	19.780	1.168	0m	N.D.	d
82) Naphthalene		20.011	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.401	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.178	7.166	0.657	2296	4.74 ug/L	90
86) Trichlorotrifluoroethane	85	7.355	7.355	0.673	11247	5.72 ug/L	96
87) Isopropyl Alcohol	45	7.446	7.440	0.681	19064	67.56 ug/L #	58
88) Allyl chloride	41	7.843	7.843	0.718	31862	4.76 ug/L #	79
89) tert-Butyl Alcohol	59	7.989	7.983	0.731	33281	64.62 ug/L	91
90) Acrylonitrile	53	8.263	8.257	0.756	6987	4.99 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY113.D
Acq On : 18 Mar 2024 16:45
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-11|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 SUL/5ML N/A MIX[B]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 19 10:00:12 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

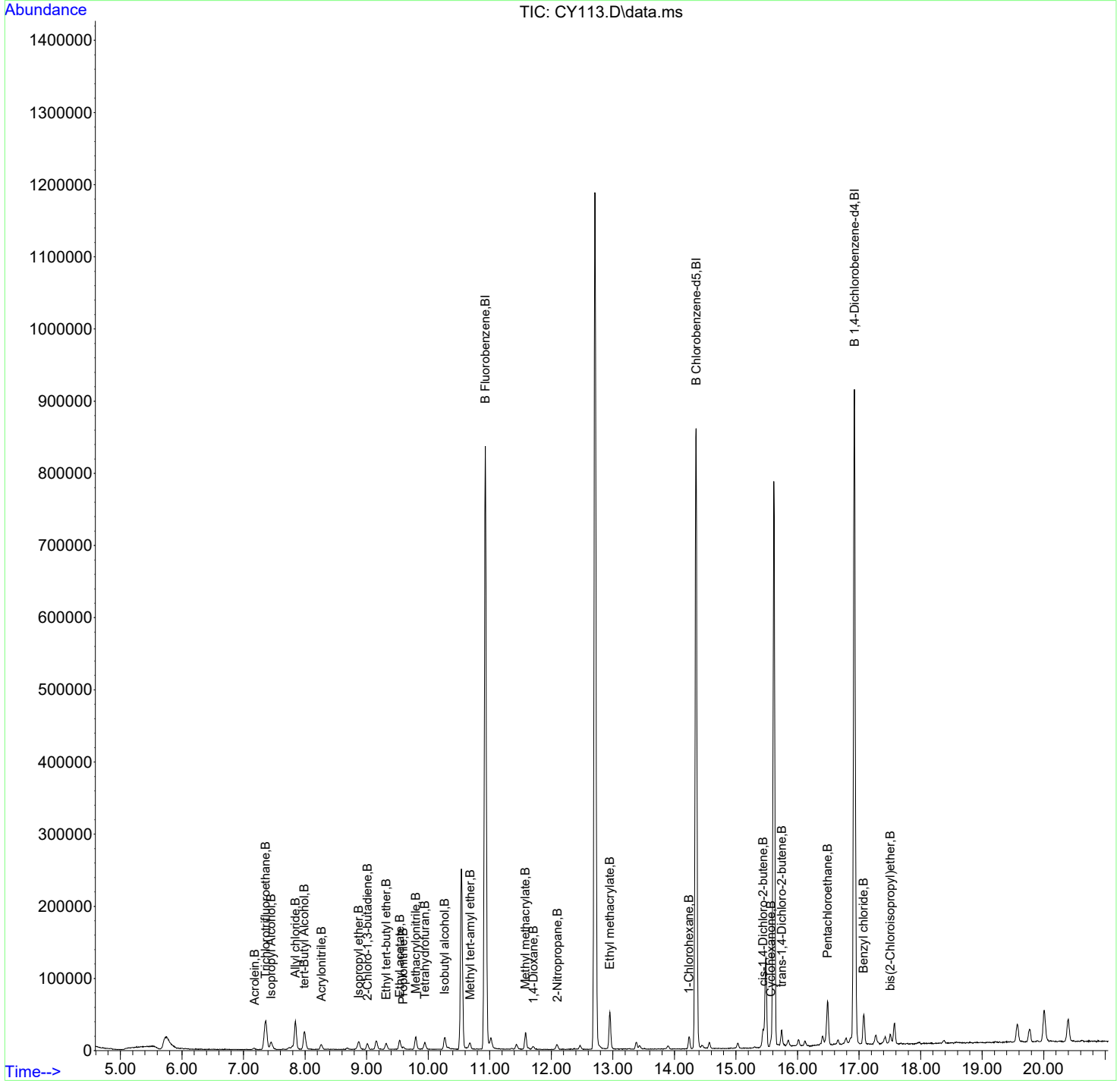
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
91) Isopropyl ether	45	8.873	8.873	0.812	10125	0.76 ug/L	#	58
92) 2-Chloro-1,3-butadiene	53	9.013	9.013	0.825	6248	1.09 ug/L		90
93) Ethyl tert-butyl ether	59	9.318	9.312	0.853	8076	0.70 ug/L		97
94) Ethyl acetate	43	9.537	9.531	0.873	18648	5.32 ug/L		97
95) Propionitrile	54	9.592	9.592	0.878	3308	5.97 ug/L		95
96) Methacrylonitrile	41	9.800	9.794	0.897	10802	4.68 ug/L		97
97) Tetrahydrofuran	42	9.946	9.940	0.910	6981	5.93 ug/L		93
98) Isobutyl alcohol	41	10.269	10.263	0.940	10463	69.27 ug/L		94
99) Methyl tert-amyl ether	73	10.684	10.671	0.978	7964	0.69 ug/L		96
100) Methyl methacrylate	69	11.580	11.580	1.060	11124	4.09 ug/L		93
101) 1,4-Dioxane	88	11.708	11.696	1.071	3224	70.01 ug/L		100
102) 2-Nitropropane	43	12.098	12.086	1.107	6528	5.19 ug/L		93
104) Ethyl methacrylate	69	12.951	12.945	0.902	18161	3.94 ug/L		90
106) 1-Chlorohexane	55	14.238	14.238	0.841	4846	1.38 ug/L	#	80
107) cis-1,4-Dichloro-2-butene	53	15.439	15.439	0.912	6169	4.67 ug/L		94
108) Cyclohexanone	42	15.567	15.567	0.920	3399	34.40 ug/L	#	83
109) trans-1,4-Dichloro-2-b...	53	15.744	15.738	0.930	5300	4.72 ug/L		89
110) Pentachloroethane	167	16.487	16.487	0.974	16047	4.37 ug/L		93
111) Benzyl chloride	91	17.073	17.073	1.009	41871	4.58 ug/L		97
112) bis(2-Chloroisopropyl)...	45	17.506	17.506	1.034	10214	6.09 ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

```
Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY113.D
Acq On    : 18 Mar 2024 16:45
Operator  : PXY1
InstName  : VOAC
Sample    : |WCVM240318-11|ICAL|1|VOAF|1|VOA8260D|
Misc      : VSTD005 5UL/5ML N/A MIX[B]
ALS Vial  : 13 Sample Multiplier: 1
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Quant Time: Mar 19 10:00:12 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY114.D
Acq On : 18 Mar 2024 17:13
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-12|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 5UL/5ML N/A MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:14 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.934	10.934	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.354	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.926	16.933	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.934	10.928	1.000	1296600	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.354	14.348	1.000	1015954	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.926	16.920	1.000	590058	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.543	10.543	0.964	0d	0.00	ug/L	
45) Toluene-d8	98	12.714	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.616	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone		7.367	7.367	0.674	0m	N.D.	d	
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		7.648	7.654	0.699	0m	N.D.	d	
12) Acetonitrile		7.739	7.739	0.708	0m	N.D.	d	
13) Methyl acetate		7.800	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.849	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		8.001	8.001	0.732	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.684	8.690	0.794	0m	N.D.	d	
19) Vinyl acetate		8.873	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone		9.537	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.537	9.586	0.872	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.915	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.342	10.342	0.946	0m	N.D.	d	
28) 1,1-Dichloropropene		10.397	10.403	0.951	0m	N.D.	d	
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.629	10.635	0.972	0m	N.D.	d	
32) Benzene		10.659	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.787	10.793	0.987	0m	N.D.	d	
34) n-Butyl alcohol		11.031	11.019	1.009	0m	N.D.	d	
35) Trichloroethylene		11.354	11.354	1.038	0m	N.D.	d	
36) 2-Pentanone		11.433	11.434	1.046	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY114.D
Acq On : 18 Mar 2024 17:13
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-12|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 5UL/5ML N/A MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 19 10:00:14 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.641	11.635	1.065	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		12.360	12.372	1.130	0m	N.D.	d
44) 4-Methyl-2-pentanone		12.464	12.470	0.868	0m	N.D.	d
46) Toluene		12.787	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.951	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.384	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		13.396	13.397	0.933	0m	N.D.	d
51) Tetrachloroethylene		13.433	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.390	14.390	1.003	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene		14.451	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.573	14.573	1.015	0m	N.D.	d
58) o-Xylene		15.030	15.037	1.047	0m	N.D.	d
59) Styrene		15.036	15.037	1.048	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.408	15.414	0.910	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.689	15.695	0.927	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		15.847	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		15.859	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		16.018	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.018	16.024	0.946	0m	N.D.	d
70) 4-Chlorotoluene		16.122	16.128	0.952	0m	N.D.	d
71) tert-Butylbenzene		16.426	16.420	0.970	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.451	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		16.725	16.792	0.988	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.853	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.951	16.957	1.001	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.426	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		18.383	18.383	1.086	0m	N.D.	d
80) 1,2,4-Trichlorobenzene		19.572	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.773	19.780	1.168	0m	N.D.	d
82) Naphthalene		20.011	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.395	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.178	7.166	0.657	6533	9.56	ug/L 92
86) Trichlorotrifluoroethane	85	7.355	7.355	0.673	26459	9.54	ug/L 93
87) Isopropyl Alcohol	45	7.452	7.440	0.682	37591	94.39	ug/L 97
88) Allyl chloride	41	7.849	7.843	0.718	92522	9.80	ug/L 95
89) tert-Butyl Alcohol	59	7.989	7.983	0.731	69343	95.40	ug/L 92
90) Acrylonitrile	53	8.263	8.257	0.756	19083	9.66	ug/L 99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY114.D
Acq On : 18 Mar 2024 17:13
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-12|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 5UL/5ML N/A MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 19 10:00:14 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

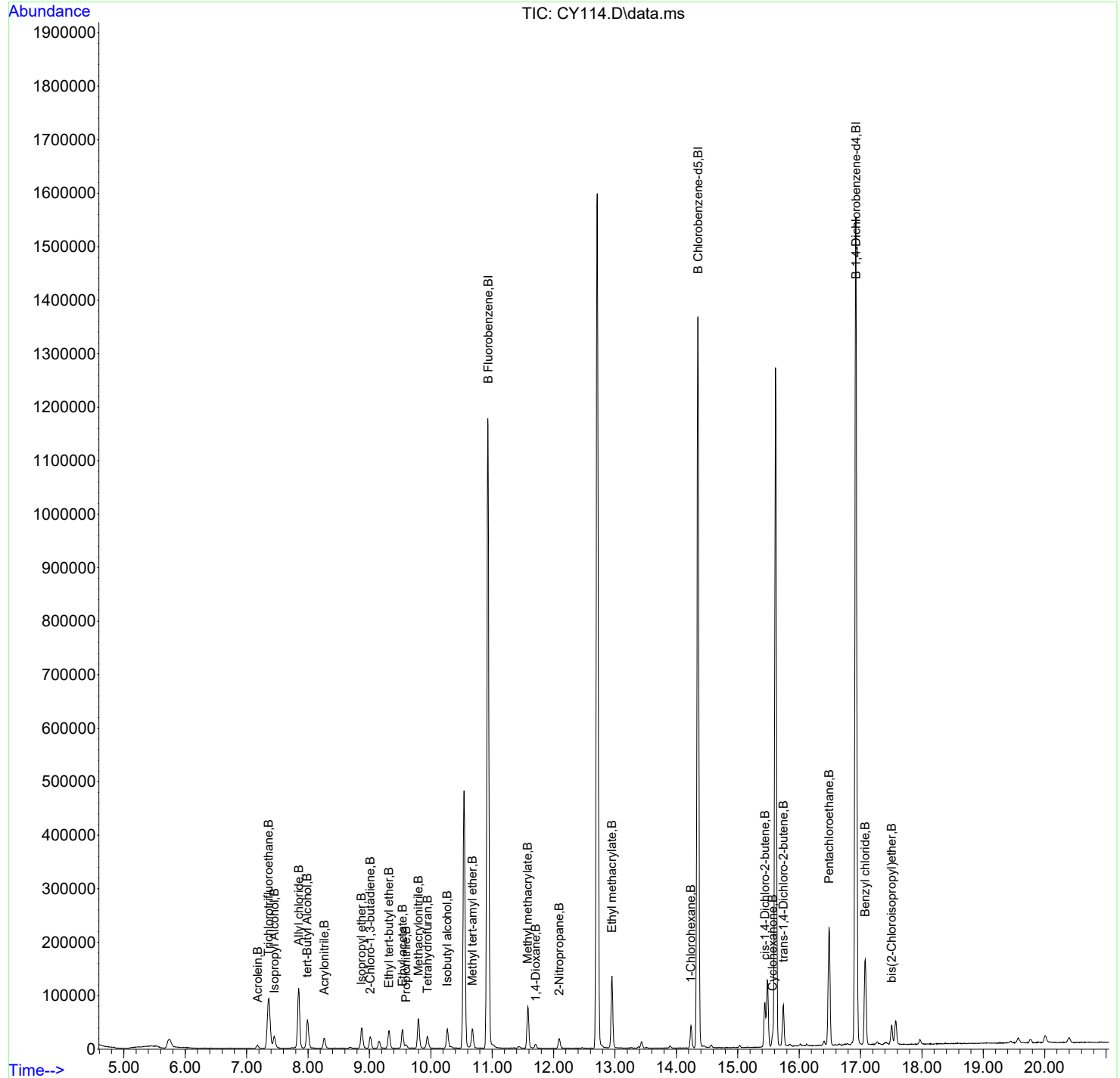
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.873	8.873	0.812	38522	2.06 ug/L	95
92) 2-Chloro-1,3-butadiene	53	9.013	9.013	0.824	16041	1.97 ug/L	99
93) Ethyl tert-butyl ether	59	9.318	9.312	0.852	33865	2.08 ug/L	99
94) Ethyl acetate	43	9.537	9.531	0.872	49482	10.00 ug/L	99
95) Propionitrile	54	9.598	9.592	0.878	7697	9.85 ug/L	99
96) Methacrylonitrile	41	9.800	9.794	0.896	32645	10.01 ug/L	98
97) Tetrahydrofuran	42	9.946	9.940	0.910	16588	9.98 ug/L	99
98) Isobutyl alcohol	41	10.269	10.263	0.939	20627	96.75 ug/L	93
99) Methyl tert-amyl ether	73	10.677	10.671	0.977	33484	2.06 ug/L	98
100) Methyl methacrylate	69	11.580	11.580	1.059	36652	9.55 ug/L	96
101) 1,4-Dioxane	88	11.708	11.696	1.071	6310	97.09 ug/L	96
102) 2-Nitropropane	43	12.092	12.086	1.106	17267	9.73 ug/L	93
104) Ethyl methacrylate	69	12.951	12.945	0.902	70725	9.60 ug/L	98
106) 1-Chlorohexane	55	14.238	14.238	0.841	11151	1.86 ug/L	95
107) cis-1,4-Dichloro-2-butene	53	15.445	15.439	0.912	21239	9.46 ug/L	97
108) Cyclohexanone	42	15.567	15.567	0.920	8093	48.15 ug/L	92
109) trans-1,4-Dichloro-2-b...	53	15.744	15.738	0.930	18063	9.45 ug/L	99
110) Pentachloroethane	167	16.487	16.487	0.974	60791	9.74 ug/L	94
111) Benzyl chloride	91	17.079	17.073	1.009	153048	9.84 ug/L	100
112) bis(2-Chloroisopropyl)...	45	17.505	17.506	1.034	28843	10.10 ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY114.D
Acq On : 18 Mar 2024 17:13
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-12|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 5UL/5ML N/A MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 19 10:00:14 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY115.D
Acq On : 18 Mar 2024 17:41
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-13|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD025 SUL/5ML N/A MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:16 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.927	10.934	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.347	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.926	16.933	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.927	10.928	1.000	1294163	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.347	14.348	1.000	1044673	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.926	16.920	1.000	613155	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.964	0d	0.00	ug/L	
45) Toluene-d8	98	12.708	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.616	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.782	4.782	0.438	0m	N.D.	d	
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone		7.355	7.367	0.673	0m	N.D.	d	
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile		7.733	7.739	0.708	0m	N.D.	d	
13) Methyl acetate		7.788	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.843	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.995	8.001	0.732	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.684	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.873	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		9.013	8.897	0.825	0m	N.D.	d	
21) 2-Butanone		9.531	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.537	9.586	0.873	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.909	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.269	10.342	0.940	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene		10.659	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.781	10.793	0.987	0m	N.D.	d	
34) n-Butyl alcohol		11.019	11.019	1.008	0m	N.D.	d	
35) Trichloroethylene		11.348	11.354	1.038	0m	N.D.	d	
36) 2-Pentanone		11.574	11.434	1.059	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY115.D
Acq On : 18 Mar 2024 17:41
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-13|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD025 5UL/5ML N/A MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 19 10:00:16 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.586	11.635	1.060	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.781	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.933	12.952	0.901	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.378	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		13.433	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.390	14.390	1.003	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.433	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		14.457	14.457	1.008	0m	N.D.	d
57) m,p-Xylenes		14.573	14.573	1.016	0m	N.D.	d
58) o-Xylene		15.030	15.037	1.048	0m	N.D.	d
59) Styrene		15.024	15.037	1.047	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.408	15.414	0.910	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.737	15.695	0.930	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		15.847	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		15.859	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		16.012	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.012	16.024	0.946	0m	N.D.	d
70) 4-Chlorotoluene		16.122	16.128	0.952	0m	N.D.	d
71) tert-Butylbenzene		16.408	16.420	0.969	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.445	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		16.652	16.664	0.984	0m	N.D.	d
74) 4-Isopropyltoluene		16.786	16.792	0.992	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.865	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.945	16.957	1.001	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.426	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.560	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.773	19.780	1.168	0m	N.D.	d
82) Naphthalene		20.005	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.389	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.172	7.166	0.656	16431	24.08	ug/L 100
86) Trichlorotrifluoroethane	85	7.343	7.355	0.672	69394	25.06	ug/L 97
87) Isopropyl Alcohol	45	7.440	7.440	0.681	88167	221.80	ug/L 97
88) Allyl chloride	41	7.843	7.843	0.718	234436	24.87	ug/L 98
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	165816	228.55	ug/L 98
90) Acrylonitrile	53	8.257	8.257	0.756	48495	24.59	ug/L 99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY115.D
Acq On : 18 Mar 2024 17:41
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-13|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD025 5UL/5ML N/A MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 19 10:00:16 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

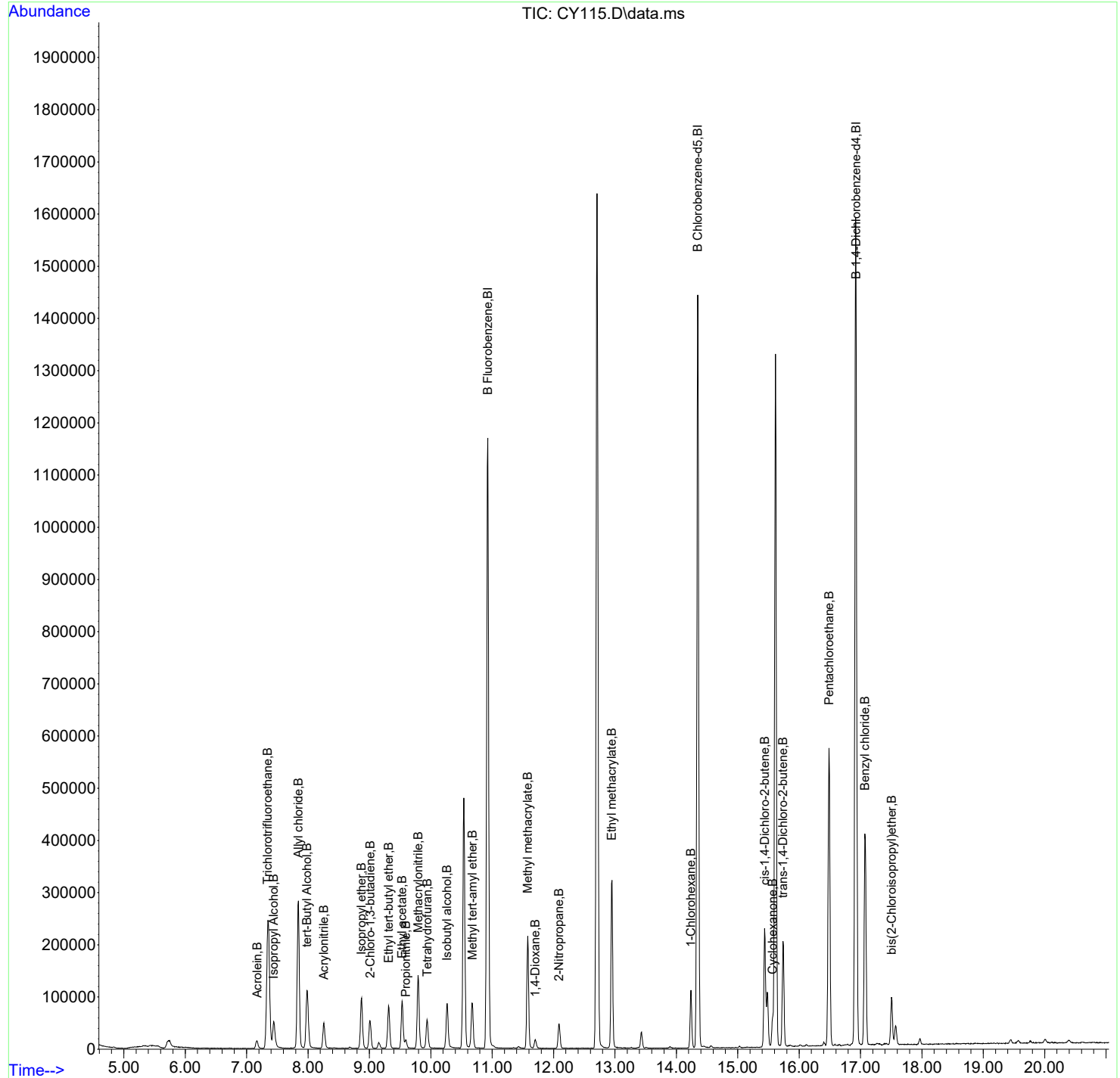
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.873	8.873	0.812	96240	5.15 ug/L	98
92) 2-Chloro-1,3-butadiene	53	9.013	9.013	0.825	39388	4.86 ug/L	99
93) Ethyl tert-butyl ether	59	9.312	9.312	0.852	83862	5.17 ug/L	99
94) Ethyl acetate	43	9.531	9.531	0.872	124900	25.29 ug/L	99
95) Propionitrile	54	9.592	9.592	0.878	18139	23.25 ug/L	98
96) Methacrylonitrile	41	9.793	9.794	0.896	82789	25.44 ug/L	100
97) Tetrahydrofuran	42	9.940	9.940	0.910	39922	24.07 ug/L	100
98) Isobutyl alcohol	41	10.263	10.263	0.939	49392	232.11 ug/L	95
99) Methyl tert-amyl ether	73	10.677	10.671	0.977	84655	5.23 ug/L	99
100) Methyl methacrylate	69	11.580	11.580	1.060	99332	25.92 ug/L	98
101) 1,4-Dioxane	88	11.702	11.696	1.071	14760	227.53 ug/L	98
102) 2-Nitropropane	43	12.086	12.086	1.106	43845	24.75 ug/L	99
104) Ethyl methacrylate	69	12.945	12.945	0.902	190023	25.07 ug/L	98
106) 1-Chlorohexane	55	14.238	14.238	0.841	29632	4.76 ug/L	99
107) cis-1,4-Dichloro-2-butene	53	15.439	15.439	0.912	56403	24.17 ug/L	99
108) Cyclohexanone	42	15.567	15.567	0.920	18206	104.23 ug/L	94
109) trans-1,4-Dichloro-2-b...	53	15.737	15.738	0.930	48191	24.26 ug/L	97
110) Pentachloroethane	167	16.487	16.487	0.974	157109	24.21 ug/L	97
111) Benzyl chloride	91	17.073	17.073	1.009	395124	24.44 ug/L	100
112) bis(2-Chloroisopropyl)...	45	17.505	17.506	1.034	67873	22.88 ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY115.D
Acq On : 18 Mar 2024 17:41
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-13|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD025 5UL/5ML N/A MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 19 10:00:16 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY116.D
Acq On : 18 Mar 2024 18:08
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-14|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.927	10.934	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.347	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.927	10.928	1.000	1321439	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.347	14.348	1.000	1022145	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	603479	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.964	0d	0.00	ug/L	
45) Toluene-d8	98	12.708	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.616	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		6.971	6.971	0.638	0m	N.D.	d	
9) Acetone		7.355	7.367	0.673	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.349	7.392	0.673	0m	N.D.	d	
11) Iodomethane		7.647	7.654	0.700	0m	N.D.	d	
12) Acetonitrile		7.684	7.739	0.703	0m	N.D.	d	
13) Methyl acetate		7.788	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.843	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.989	8.001	0.731	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		8.373	8.373	0.766	0m	N.D.	d	
18) Hexane		8.684	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.867	8.849	0.811	0m	N.D.	d	
20) 1,1-Dichloroethane		9.001	8.897	0.824	0m	N.D.	d	
21) 2-Butanone		9.531	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.531	9.586	0.872	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.921	9.922	0.908	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.336	10.342	0.946	0m	N.D.	d	
28) 1,1-Dichloropropene		10.379	10.403	0.950	0m	N.D.	d	
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.623	10.635	0.972	0m	N.D.	d	
32) Benzene		10.659	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.775	10.793	0.986	0m	N.D.	d	
34) n-Butyl alcohol		11.019	11.019	1.008	0m	N.D.	d	
35) Trichloroethylene		11.348	11.354	1.038	0m	N.D.	d	
36) 2-Pentanone		11.433	11.434	1.046	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY116.D
Acq On : 18 Mar 2024 18:08
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-14|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 19 10:00:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.574	11.635	1.059	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.787	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.939	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.378	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		13.433	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.384	14.390	1.003	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.439	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		14.451	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.567	14.573	1.015	0m	N.D.	d
58) o-Xylene		15.030	15.037	1.048	0m	N.D.	d
59) Styrene		15.024	15.037	1.047	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.414	15.414	0.911	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.737	15.695	0.930	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		15.841	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		15.853	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		16.012	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.018	16.024	0.947	0m	N.D.	d
70) 4-Chlorotoluene		16.122	16.128	0.953	0m	N.D.	d
71) tert-Butylbenzene		16.487	16.420	0.974	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.451	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		16.652	16.664	0.984	0m	N.D.	d
74) 4-Isopropyltoluene		16.780	16.792	0.992	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.865	16.865	0.997	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.957	16.957	1.002	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.426	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.566	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.767	19.780	1.168	0m	N.D.	d
82) Naphthalene		20.011	20.017	1.183	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.389	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.166	7.166	0.656	33236	47.70	ug/L 98
86) Trichlorotrifluoroethane	85	7.349	7.355	0.673	142717	50.47	ug/L 98
87) Isopropyl Alcohol	45	7.440	7.440	0.681	183194	451.35	ug/L 99
88) Allyl chloride	41	7.843	7.843	0.718	490654	50.98	ug/L 99
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	344839	465.50	ug/L 98
90) Acrylonitrile	53	8.257	8.257	0.756	99009	49.17	ug/L 99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY116.D
Acq On : 18 Mar 2024 18:08
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-14|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 19 10:00:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

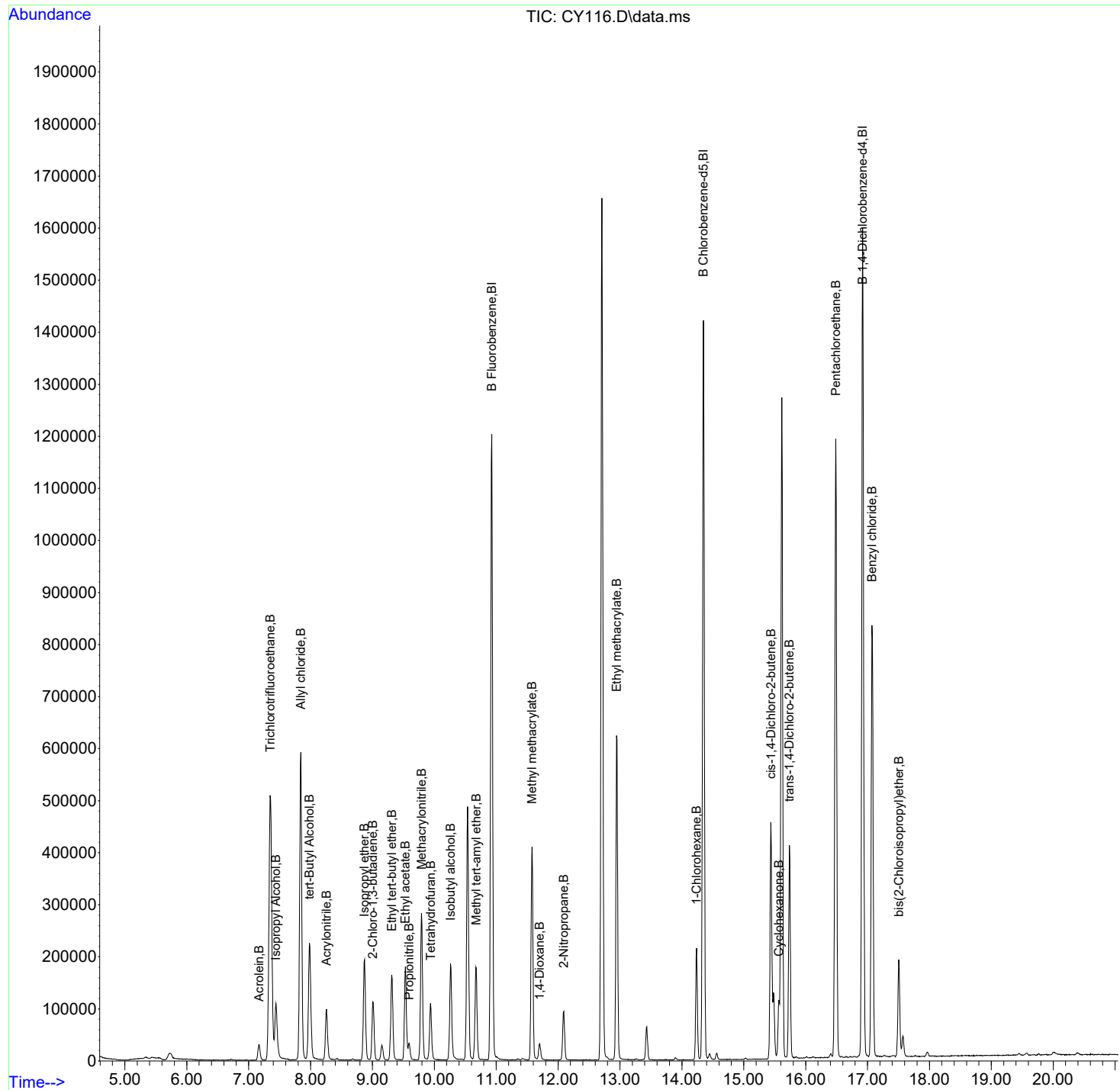
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.873	8.873	0.812	196390	10.30	ug/L 99
92) 2-Chloro-1,3-butadiene	53	9.007	9.013	0.824	82999	10.02	ug/L 99
93) Ethyl tert-butyl ether	59	9.312	9.312	0.852	171289	10.34	ug/L 99
94) Ethyl acetate	43	9.531	9.531	0.872	240829	47.76	ug/L 100
95) Propionitrile	54	9.592	9.592	0.878	37414	46.96	ug/L 98
96) Methacrylonitrile	41	9.793	9.794	0.896	163970	49.35	ug/L 98
97) Tetrahydrofuran	42	9.940	9.940	0.910	78310	46.24	ug/L 99
98) Isobutyl alcohol	41	10.263	10.263	0.939	100407	462.11	ug/L 98
99) Methyl tert-amyl ether	73	10.677	10.671	0.977	172169	10.41	ug/L 99
100) Methyl methacrylate	69	11.580	11.580	1.060	191219	48.87	ug/L 98
101) 1,4-Dioxane	88	11.702	11.696	1.071	29372	443.44	ug/L 98
102) 2-Nitropropane	43	12.092	12.086	1.107	85854	47.47	ug/L 97
104) Ethyl methacrylate	69	12.945	12.945	0.902	375872	50.68	ug/L 98
106) 1-Chlorohexane	55	14.238	14.238	0.841	57739	9.43	ug/L 98
107) cis-1,4-Dichloro-2-butene	53	15.439	15.439	0.912	112793	49.10	ug/L 99
108) Cyclohexanone	42	15.567	15.567	0.920	36067	209.80	ug/L 97
109) trans-1,4-Dichloro-2-b...	53	15.737	15.738	0.930	97477	49.85	ug/L 97
110) Pentachloroethane	167	16.487	16.487	0.974	329088	51.53	ug/L 98
111) Benzyl chloride	91	17.073	17.073	1.009	807930	50.77	ug/L 100
112) bis(2-Chloroisopropyl)...	45	17.505	17.506	1.035	138853	47.55	ug/L 99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY116.D
Acq On : 18 Mar 2024 18:08
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-14|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 19 10:00:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY117.D
Acq On : 18 Mar 2024 18:36
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-15|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[B]
ALS Vial : 17 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 10:00:20 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.928	10.934	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.348	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.928	10.928	1.000	1345363	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.348	14.348	1.000	1031728	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	585680	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.964	0d	0.00	ug/L	
45) Toluene-d8	98	12.708	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.616	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.782	4.782	0.438	0m	N.D.	d	
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		6.971	6.971	0.638	0m	N.D.	d	
9) Acetone		7.361	7.367	0.674	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.355	7.392	0.673	0m	N.D.	d	
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile		7.733	7.739	0.708	0m	N.D.	d	
13) Methyl acetate		7.788	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.843	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.989	8.001	0.731	0m	N.D.	d	
16) tert-Butyl methyl ether		8.324	8.330	0.762	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.690	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.873	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		9.007	8.897	0.824	0m	N.D.	d	
21) 2-Butanone		9.531	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.531	9.586	0.872	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.915	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.263	10.342	0.939	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.623	10.635	0.972	0m	N.D.	d	
32) Benzene		10.653	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.781	10.793	0.987	0m	N.D.	d	
34) n-Butyl alcohol		11.031	11.019	1.009	0m	N.D.	d	
35) Trichloroethylene		11.348	11.354	1.038	0m	N.D.	d	
36) 2-Pentanone		11.434	11.434	1.046	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY117.D
Acq On : 18 Mar 2024 18:36
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-15|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 19 10:00:20 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.574	11.635	1.059	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.793	12.793	0.892	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.958	12.952	0.903	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.378	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		13.390	13.397	0.933	0m	N.D.	d
51) Tetrachloroethylene		13.433	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.372	14.390	1.002	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.439	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		14.451	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.561	14.573	1.015	0m	N.D.	d
58) o-Xylene		15.030	15.037	1.048	0m	N.D.	d
59) Styrene		15.030	15.037	1.048	0m	N.D.	d
61) Bromoform		15.299	15.305	0.904	0m	N.D.	d
62) Isopropylbenzene		15.408	15.414	0.911	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.683	15.695	0.927	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		15.835	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		15.853	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		16.012	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.012	16.024	0.946	0m	N.D.	d
70) 4-Chlorotoluene		16.122	16.128	0.953	0m	N.D.	d
71) tert-Butylbenzene		16.408	16.420	0.970	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.457	16.463	0.973	0m	N.D.	d
73) sec-Butylbenzene		16.658	16.664	0.985	0m	N.D.	d
74) 4-Isopropyltoluene		16.786	16.792	0.992	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.859	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.951	16.957	1.002	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.420	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.572	19.578	1.157	0m	N.D.	d
81) Hexachlorobutadiene		19.773	19.780	1.169	0m	N.D.	d
82) Naphthalene		20.011	20.017	1.183	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.383	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.172	7.166	0.656	71477	100.76	ug/L 98
86) Trichlorotrifluoroethane	85	7.349	7.355	0.673	264517	91.89	ug/L 97
87) Isopropyl Alcohol	45	7.440	7.440	0.681	398211	963.67	ug/L 100
88) Allyl chloride	41	7.843	7.843	0.718	975166	99.52	ug/L 99
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	738347	978.98	ug/L 98
90) Acrylonitrile	53	8.257	8.257	0.756	210806	102.83	ug/L 99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY117.D
Acq On : 18 Mar 2024 18:36
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-15|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 19 10:00:20 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

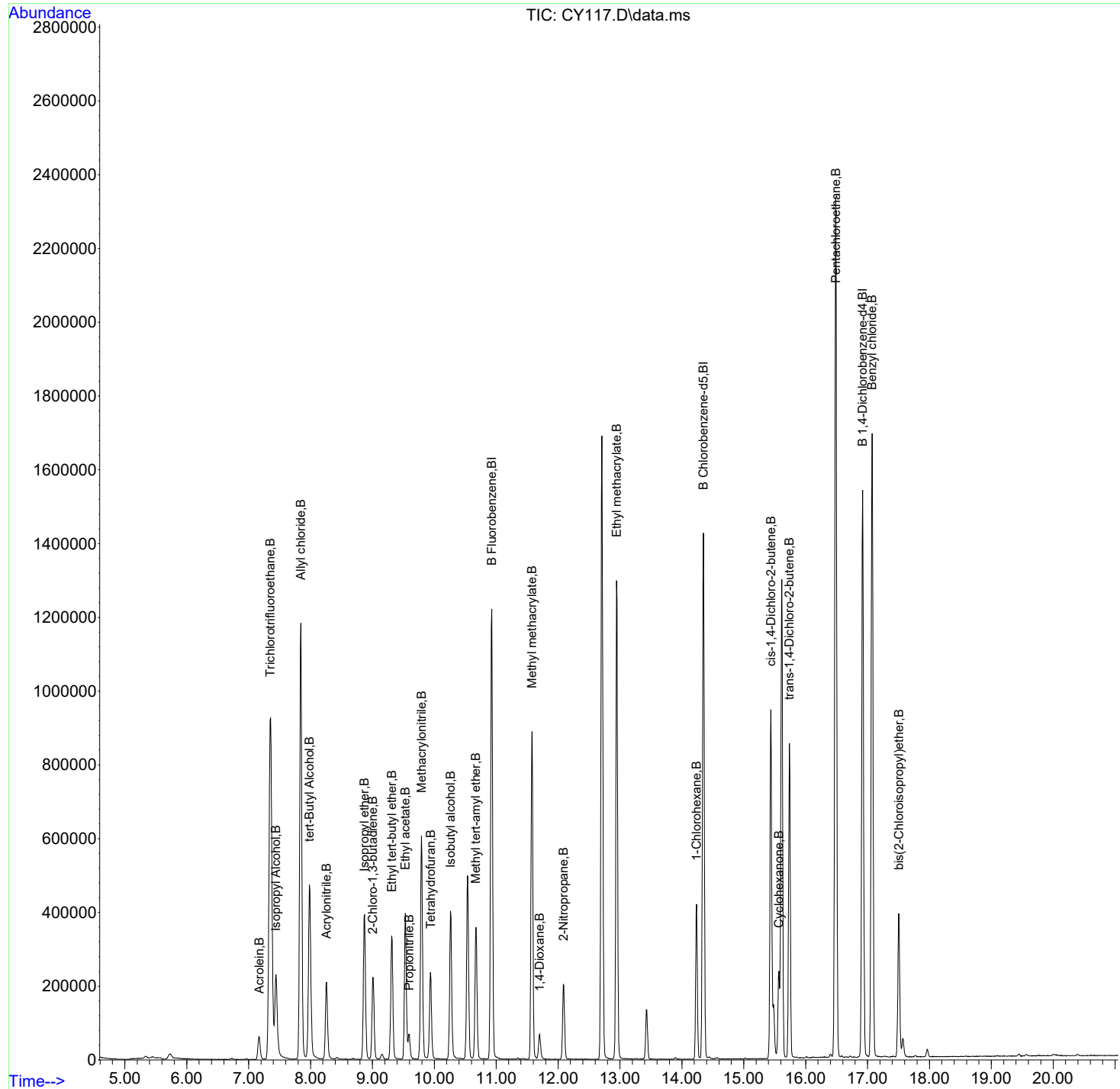
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.873	8.873	0.812	399849	20.59 ug/L	100
92) 2-Chloro-1,3-butadiene	53	9.007	9.013	0.824	164553	19.52 ug/L	100
93) Ethyl tert-butyl ether	59	9.312	9.312	0.852	351193	20.83 ug/L	99
94) Ethyl acetate	43	9.531	9.531	0.872	526754	102.61 ug/L	100
95) Propionitrile	54	9.592	9.592	0.878	80674	99.46 ug/L	99
96) Methacrylonitrile	41	9.794	9.794	0.896	348616	103.05 ug/L	98
97) Tetrahydrofuran	42	9.940	9.940	0.910	172262	99.90 ug/L	100
98) Isobutyl alcohol	41	10.263	10.263	0.939	213367	964.54 ug/L	100
99) Methyl tert-amyl ether	73	10.671	10.671	0.977	353028	20.97 ug/L	100
100) Methyl methacrylate	69	11.580	11.580	1.060	411018	103.18 ug/L	99
101) 1,4-Dioxane	88	11.702	11.696	1.071	62722	930.10 ug/L	99
102) 2-Nitropropane	43	12.086	12.086	1.106	185111	100.52 ug/L	99
104) Ethyl methacrylate	69	12.945	12.945	0.902	789661	105.49 ug/L	99
106) 1-Chlorohexane	55	14.238	14.238	0.841	114183	19.21 ug/L	98
107) cis-1,4-Dichloro-2-butene	53	15.439	15.439	0.912	233019	104.52 ug/L	99
108) Cyclohexanone	42	15.567	15.567	0.920	79096	474.07 ug/L	99
109) trans-1,4-Dichloro-2-b...	53	15.738	15.738	0.930	199136	104.94 ug/L	99
110) Pentachloroethane	167	16.487	16.487	0.974	647435	104.46 ug/L	99
111) Benzyl chloride	91	17.073	17.073	1.009	1627217	105.36 ug/L	100
112) bis(2-Chloroisopropyl)...	45	17.506	17.506	1.035	283824	100.15 ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY117.D
Acq On : 18 Mar 2024 18:36
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-15|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 19 10:00:20 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY118.D
Acq On : 18 Mar 2024 19:04
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-16|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD250 5UL/5ML N/A MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:22 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.928	10.934	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.348	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.928	10.928	1.000	1286756	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.348	14.348	1.000	996877	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	561712	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.964	0d	0.00	ug/L	
45) Toluene-d8	98	12.708	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.610	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.782	4.782	0.438	0m	N.D.	d	
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		6.965	6.971	0.637	0m	N.D.	d	
9) Acetone		7.361	7.367	0.674	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.355	7.392	0.673	0m	N.D.	d	
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile		7.843	7.739	0.718	0m	N.D.	d	
13) Methyl acetate		7.794	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.843	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.995	8.001	0.732	0m	N.D.	d	
16) tert-Butyl methyl ether		8.324	8.330	0.762	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.696	8.690	0.796	0m	N.D.	d	
19) Vinyl acetate		8.873	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		9.007	8.897	0.824	0m	N.D.	d	
21) 2-Butanone		9.531	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.531	9.586	0.872	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.915	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.263	10.342	0.939	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.629	10.635	0.973	0m	N.D.	d	
32) Benzene		10.665	10.665	0.976	0m	N.D.	d	
33) Cyclohexene		10.769	10.793	0.985	0m	N.D.	d	
34) n-Butyl alcohol		11.013	11.019	1.008	0m	N.D.	d	
35) Trichloroethylene		11.348	11.354	1.038	0m	N.D.	d	
36) 2-Pentanone		11.434	11.434	1.046	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY118.D
Acq On : 18 Mar 2024 19:04
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-16|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD250 5UL/5ML N/A MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 19 10:00:22 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.574	11.635	1.059	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.787	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.945	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.378	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		13.427	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.378	14.390	1.002	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.439	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		0.000	14.457	0.000	0	N.D.	
57) m,p-Xylenes		14.561	14.573	1.015	0m	N.D.	d
58) o-Xylene		15.030	15.037	1.048	0m	N.D.	d
59) Styrene		15.030	15.037	1.048	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.415	15.414	0.911	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.738	15.695	0.930	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		15.841	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		16.012	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.018	16.024	0.947	0m	N.D.	d
70) 4-Chlorotoluene		16.122	16.128	0.953	0m	N.D.	d
71) tert-Butylbenzene		16.487	16.420	0.974	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.457	16.463	0.973	0m	N.D.	d
73) sec-Butylbenzene		16.658	16.664	0.985	0m	N.D.	d
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		16.853	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.951	16.957	1.002	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.420	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.572	19.578	1.157	0m	N.D.	d
81) Hexachlorobutadiene		19.767	19.780	1.168	0m	N.D.	d
82) Naphthalene		20.005	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.395	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.166	7.166	0.656	157815	232.60	ug/L 100
86) Trichlorotrifluoroethane	85	7.355	7.355	0.673	671202	243.78	ug/L 96
87) Isopropyl Alcohol	45	7.440	7.440	0.681	941800	2382.95	ug/L 100
88) Allyl chloride	41	7.843	7.843	0.718	2395218	255.58	ug/L 100
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	1731773	2400.75	ug/L 99
90) Acrylonitrile	53	8.257	8.257	0.756	494313	252.11	ug/L 100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY118.D
Acq On : 18 Mar 2024 19:04
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-16|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD250 5UL/5ML N/A MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 19 10:00:22 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

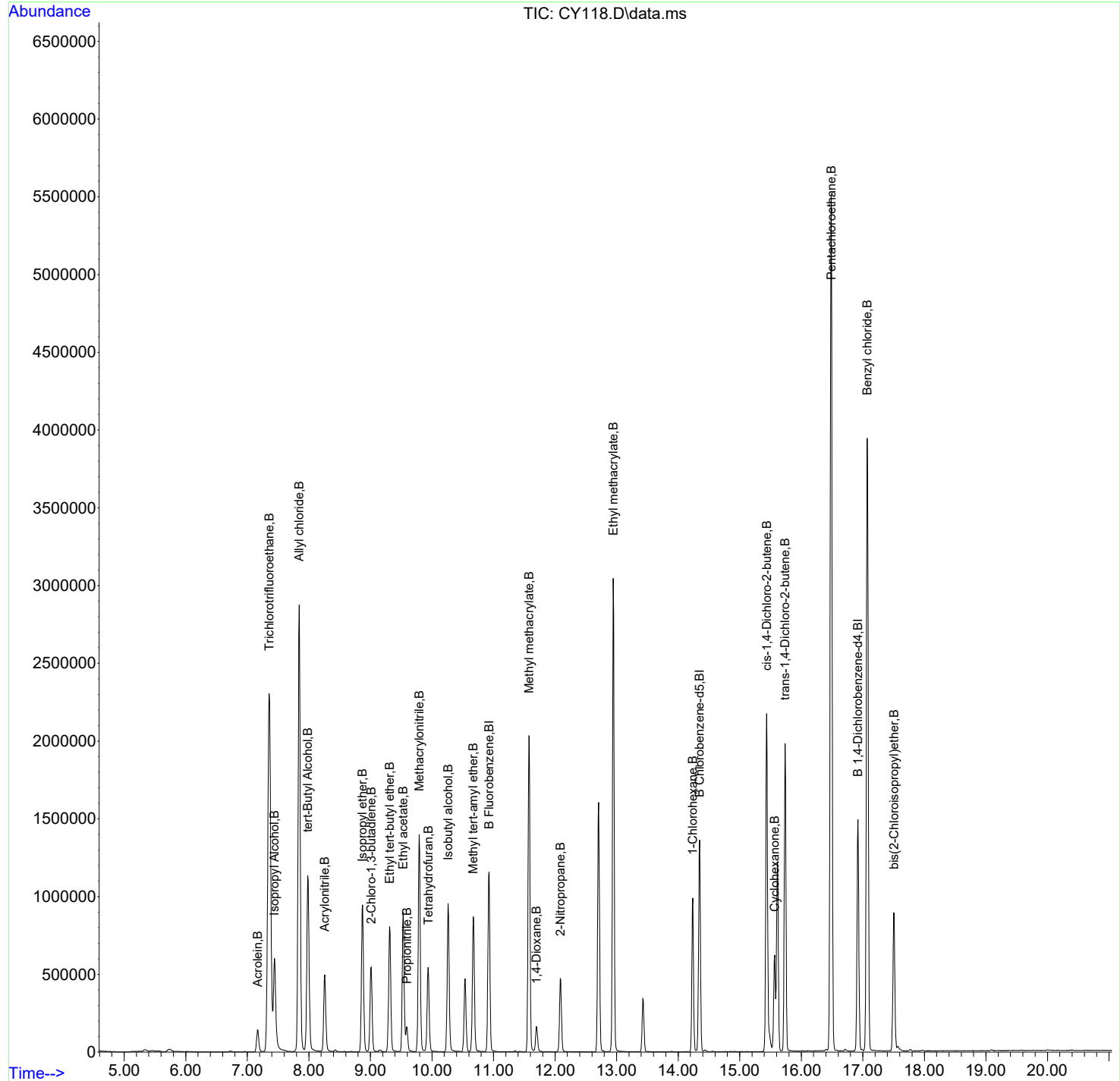
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.873	8.873	0.812	958034	51.58	ug/L 100
92) 2-Chloro-1,3-butadiene	53	9.013	9.013	0.825	402266	49.89	ug/L 100
93) Ethyl tert-butyl ether	59	9.312	9.312	0.852	845037	52.40	ug/L 100
94) Ethyl acetate	43	9.531	9.531	0.872	1186154	241.58	ug/L 100
95) Propionitrile	54	9.592	9.592	0.878	188821	243.39	ug/L 100
96) Methacrylonitrile	41	9.794	9.794	0.896	806432	249.23	ug/L 99
97) Tetrahydrofuran	42	9.940	9.940	0.910	401569	243.49	ug/L 100
98) Isobutyl alcohol	41	10.263	10.263	0.939	486061	2297.35	ug/L 99
99) Methyl tert-amyl ether	73	10.671	10.671	0.977	844544	52.45	ug/L 100
100) Methyl methacrylate	69	11.580	11.580	1.060	958950	251.70	ug/L 100
101) 1,4-Dioxane	88	11.696	11.696	1.070	150537	2333.97	ug/L 100
102) 2-Nitropropane	43	12.086	12.086	1.106	433767	246.28	ug/L 100
104) Ethyl methacrylate	69	12.945	12.945	0.902	1846328	255.28	ug/L 100
106) 1-Chlorohexane	55	14.238	14.238	0.841	265226	46.51	ug/L 98
107) cis-1,4-Dichloro-2-butene	53	15.439	15.439	0.912	543386	254.13	ug/L 100
108) Cyclohexanone	42	15.567	15.567	0.920	202990	1268.56	ug/L 100
109) trans-1,4-Dichloro-2-b...	53	15.738	15.738	0.930	460590	253.08	ug/L 100
110) Pentachloroethane	167	16.487	16.487	0.974	1580585	265.89	ug/L 100
111) Benzyl chloride	91	17.073	17.073	1.009	3809627	257.20	ug/L 100
112) bis(2-Chloroisopropyl)...	45	17.506	17.506	1.035	669377	246.27	ug/L 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY118.D
Acq On : 18 Mar 2024 19:04
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-16|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD250 5UL/5ML N/A MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 19 10:00:22 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY119.D
Acq On : 18 Mar 2024 19:32
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-17|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD300 3UL/5ML N/A MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:25 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.921	10.934	1.000	0m	50.00	ug/L	-0.01
43) Chlorobenzene-d5	117	14.348	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.921	10.928	1.000	1284973	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.348	14.348	1.000	1042032	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	602702	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.531	10.543	0.964	0d	0.00	ug/L	
45) Toluene-d8	98	12.708	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.610	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		6.959	6.971	0.637	0m	N.D.	d	
9) Acetone		7.349	7.367	0.673	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.349	7.392	0.673	0m	N.D.	d	
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile		7.703	7.739	0.705	0m	N.D.	d	
13) Methyl acetate		7.782	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.837	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.983	8.001	0.731	0m	N.D.	d	
16) tert-Butyl methyl ether		8.330	8.330	0.763	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.684	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.867	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		9.007	8.897	0.825	0m	N.D.	d	
21) 2-Butanone		9.525	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.531	9.586	0.873	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.909	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.257	10.342	0.939	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.623	10.635	0.973	0m	N.D.	d	
32) Benzene		10.647	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.775	10.793	0.987	0m	N.D.	d	
34) n-Butyl alcohol		11.019	11.019	1.009	0m	N.D.	d	
35) Trichloroethylene		11.348	11.354	1.039	0m	N.D.	d	
36) 2-Pentanone		11.574	11.434	1.060	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY119.D
Acq On : 18 Mar 2024 19:32
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-17|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD300 3UL/5ML N/A MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 19 10:00:25 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.574	11.635	1.060	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		12.354	12.372	1.131	0m	N.D.	d
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.781	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.946	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.378	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		13.391	13.397	0.933	0m	N.D.	d
51) Tetrachloroethylene		13.427	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.378	14.390	1.002	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.439	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		0.000	14.457	0.000	0	N.D.	
57) m,p-Xylenes		14.561	14.573	1.015	0m	N.D.	d
58) o-Xylene		15.024	15.037	1.047	0m	N.D.	d
59) Styrene		15.018	15.037	1.047	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.408	15.414	0.911	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.738	15.695	0.930	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		15.835	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		16.018	16.024	0.947	0m	N.D.	d
69) 2-Chlorotoluene		16.012	16.024	0.946	0m	N.D.	d
70) 4-Chlorotoluene		16.116	16.128	0.952	0m	N.D.	d
71) tert-Butylbenzene		16.481	16.420	0.974	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.457	16.463	0.973	0m	N.D.	d
73) sec-Butylbenzene		16.652	16.664	0.984	0m	N.D.	d
74) 4-Isopropyltoluene		16.902	16.792	0.999	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.859	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.957	16.957	1.002	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.420	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.566	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.761	19.780	1.168	0m	N.D.	d
82) Naphthalene		20.005	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.395	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.160	7.166	0.656	229985	339.45	ug/L 99
86) Trichlorotrifluoroethane	85	7.349	7.355	0.673	822848	299.27	ug/L 96
87) Isopropyl Alcohol	45	7.434	7.440	0.681	1175908	2979.42	ug/L 100
88) Allyl chloride	41	7.837	7.843	0.718	2828647	302.24	ug/L 100
89) tert-Butyl Alcohol	59	7.977	7.983	0.730	2142832	2974.72	ug/L 99
90) Acrylonitrile	53	8.251	8.257	0.756	601162	307.03	ug/L 100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY119.D
Acq On : 18 Mar 2024 19:32
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-17|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD300 3UL/5ML N/A MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 19 10:00:25 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

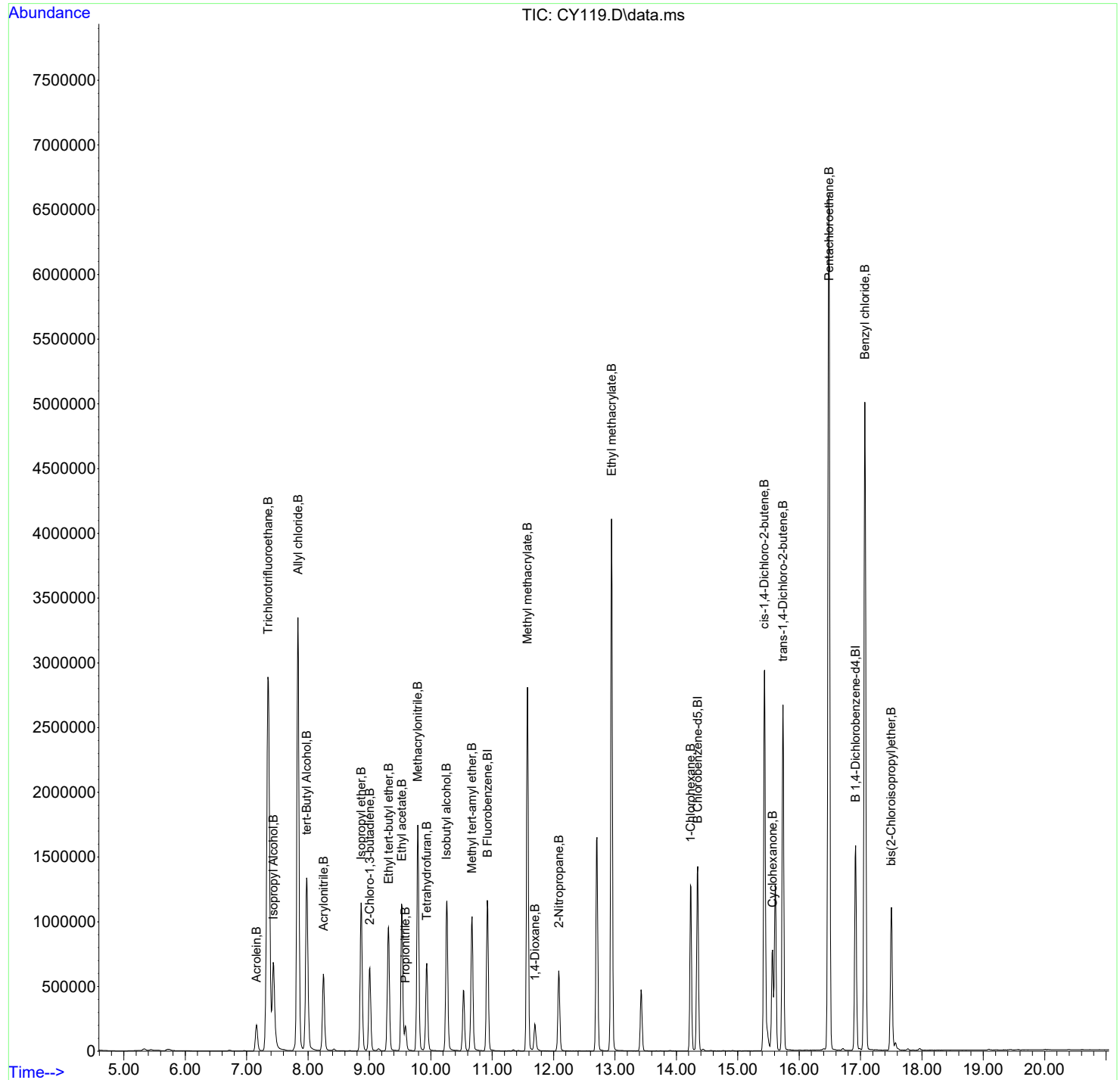
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.867	8.873	0.812	1167110	62.92	ug/L 99
92) 2-Chloro-1,3-butadiene	53	9.007	9.013	0.825	474822	58.97	ug/L 100
93) Ethyl tert-butyl ether	59	9.312	9.312	0.853	1016819	63.13	ug/L 100
94) Ethyl acetate	43	9.525	9.531	0.872	1504549	306.85	ug/L 100
95) Propionitrile	54	9.586	9.592	0.878	232746	300.42	ug/L 99
96) Methacrylonitrile	41	9.788	9.794	0.896	1002484	310.25	ug/L 99
97) Tetrahydrofuran	42	9.934	9.940	0.910	494014	299.96	ug/L 99
98) Isobutyl alcohol	41	10.257	10.263	0.939	615423	2912.81	ug/L 99
99) Methyl tert-amyl ether	73	10.672	10.671	0.977	1012485	62.96	ug/L 100
100) Methyl methacrylate	69	11.574	11.580	1.060	1295727	340.56	ug/L 100
101) 1,4-Dioxane	88	11.696	11.696	1.071	190150	2952.24	ug/L 99
102) 2-Nitropropane	43	12.086	12.086	1.107	563404	320.33	ug/L 99
104) Ethyl methacrylate	69	12.946	12.945	0.902	2530748	334.75	ug/L 100
106) 1-Chlorohexane	55	14.232	14.238	0.841	351595	57.47	ug/L 97
107) cis-1,4-Dichloro-2-butene	53	15.433	15.439	0.912	740484	322.75	ug/L 99
108) Cyclohexanone	42	15.567	15.567	0.920	259071	1508.92	ug/L 100
109) trans-1,4-Dichloro-2-b...	53	15.738	15.738	0.930	623213	319.15	ug/L 99
110) Pentachloroethane	167	16.488	16.487	0.974	1900236	297.92	ug/L 99
111) Benzyl chloride	91	17.073	17.073	1.009	4833155	304.11	ug/L 100
112) bis(2-Chloroisopropyl)...	45	17.500	17.506	1.034	834351	286.08	ug/L 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY119.D
Acq On : 18 Mar 2024 19:32
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-17|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD300 3UL/5ML N/A MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 19 10:00:25 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY120.D
Acq On : 18 Mar 2024 20:00
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-18|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD500 5UL/5ML N/A MIX[B]
ALS Vial : 20 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:27 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.921	10.934	1.000	0m	50.00	ug/L	-0.01
43) Chlorobenzene-d5	117	14.347	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.921	10.928	1.000	1255726	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.347	14.348	1.000	983227	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	560747	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.965	0d	0.00	ug/L	
45) Toluene-d8	98	12.708	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.609	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.782	4.782	0.438	0m	N.D.	d	
3) Chloromethane		5.343	5.203	0.489	0m	N.D.	d	
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		6.971	6.971	0.638	0m	N.D.	d	
9) Acetone		7.355	7.367	0.673	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.349	7.392	0.673	0m	N.D.	d	
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile		7.733	7.739	0.708	0m	N.D.	d	
13) Methyl acetate		7.788	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.836	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.995	8.001	0.732	0m	N.D.	d	
16) tert-Butyl methyl ether		8.318	8.330	0.762	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.684	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.867	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		9.007	8.897	0.825	0m	N.D.	d	
21) 2-Butanone		9.531	9.525	0.873	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.531	9.586	0.873	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.909	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.409	10.342	0.953	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.635	10.635	0.974	0m	N.D.	d	
32) Benzene		10.653	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		0.000	10.793	0.000	0	N.D.		
34) n-Butyl alcohol		11.013	11.019	1.008	0m	N.D.	d	
35) Trichloroethylene		11.348	11.354	1.039	0m	N.D.	d	
36) 2-Pentanone		11.433	11.434	1.047	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY120.D
Acq On : 18 Mar 2024 20:00
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-18|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD500 5UL/5ML N/A MIX[B]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 19 10:00:27 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.574	11.635	1.060	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		12.372	12.372	1.133	0m	N.D.	d
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.787	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.939	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.378	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		13.390	13.397	0.933	0m	N.D.	d
51) Tetrachloroethylene		13.427	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.378	14.390	1.002	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.433	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		14.445	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.555	14.573	1.014	0m	N.D.	d
58) o-Xylene		15.030	15.037	1.048	0m	N.D.	d
59) Styrene		15.036	15.037	1.048	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.408	15.414	0.911	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.737	15.695	0.930	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		16.012	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.018	16.024	0.947	0m	N.D.	d
70) 4-Chlorotoluene		16.115	16.128	0.952	0m	N.D.	d
71) tert-Butylbenzene		16.487	16.420	0.974	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.451	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		16.646	16.664	0.984	0m	N.D.	d
74) 4-Isopropyltoluene		16.865	16.792	0.997	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.859	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.951	16.957	1.002	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.420	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.566	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.779	19.780	1.169	0m	N.D.	d
82) Naphthalene		20.011	20.017	1.183	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.383	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.166	7.166	0.656	367380	554.86	ug/L 99 A
86) Trichlorotrifluoroethane	85	7.355	7.355	0.673	1341619	499.31	ug/L 96
87) Isopropyl Alcohol	45	7.440	7.440	0.681	1938052	5024.85	ug/L 100 A
88) Allyl chloride	41	7.836	7.843	0.718	4703117	514.23	ug/L 99 A
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	3440574	4887.51	ug/L 99
90) Acrylonitrile	53	8.251	8.257	0.755	964993	504.32	ug/L 100 A

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY120.D
Acq On : 18 Mar 2024 20:00
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-18|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD500 5UL/5ML N/A MIX[B]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 19 10:00:27 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

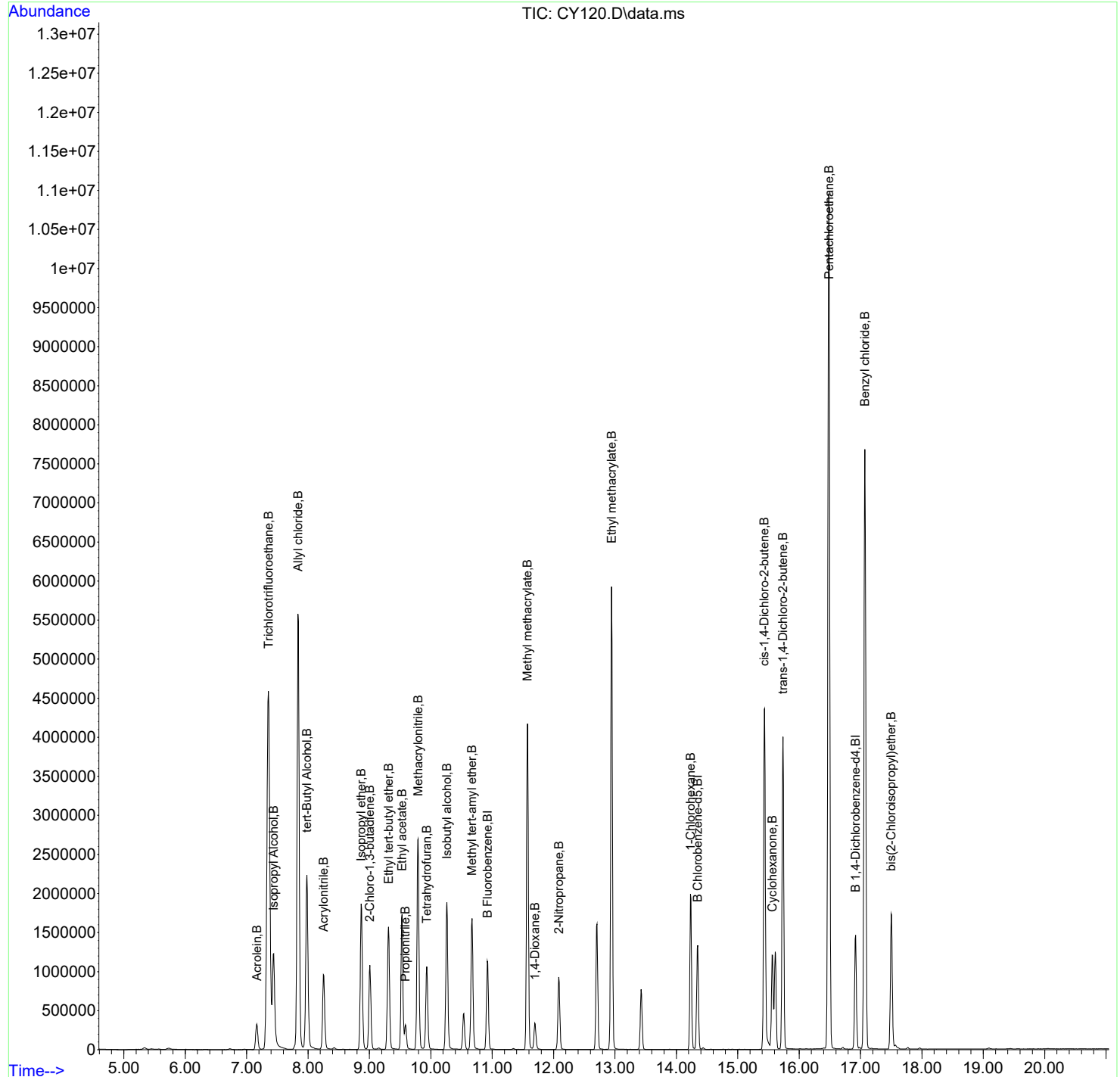
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.867	8.873	0.812	1880668	103.76 ug/L	99 A
92) 2-Chloro-1,3-butadiene	53	9.007	9.013	0.825	784897	99.75 ug/L	99
93) Ethyl tert-butyl ether	59	9.312	9.312	0.853	1647861	104.70 ug/L	100 A
94) Ethyl acetate	43	9.531	9.531	0.873	2285444	476.96 ug/L	100
95) Propionitrile	54	9.586	9.592	0.878	371854	491.16 ug/L	99
96) Methacrylonitrile	41	9.793	9.794	0.897	1574999	498.78 ug/L	100
97) Tetrahydrofuran	42	9.934	9.940	0.910	769096	477.87 ug/L	99
98) Isobutyl alcohol	41	10.263	10.263	0.940	970493	4700.35 ug/L	99
99) Methyl tert-amyl ether	73	10.671	10.671	0.977	1638144	104.24 ug/L	100 A
100) Methyl methacrylate	69	11.574	11.580	1.060	1932007	519.63 ug/L	99 A
101) 1,4-Dioxane	88	11.696	11.696	1.071	309707	4920.45 ug/L	99
102) 2-Nitropropane	43	12.086	12.086	1.107	852013	495.70 ug/L	100
104) Ethyl methacrylate	69	12.945	12.945	0.902	3726122	522.34 ug/L	99 A
106) 1-Chlorohexane	55	14.232	14.238	0.841	540657	94.98 ug/L	97
107) cis-1,4-Dichloro-2-butene	53	15.433	15.439	0.912	1103281	516.87 ug/L	99 A
108) Cyclohexanone	42	15.561	15.567	0.920	406921	2547.38 ug/L	100 A
109) trans-1,4-Dichloro-2-b...	53	15.737	15.738	0.930	925616	509.47 ug/L	98 A
110) Pentachloroethane	167	16.487	16.487	0.974	3120953	525.92 ug/L	99 A
111) Benzyl chloride	91	17.073	17.073	1.009	7478893	505.79 ug/L	100 A
112) bis(2-Chloroisopropyl)...	45	17.499	17.506	1.034	1311219	483.23 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY120.D
Acq On : 18 Mar 2024 20:00
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-18|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD500 5UL/5ML N/A MIX[B]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 19 10:00:27 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Instrument ID: VOAC.I
Data File: data\031824VC_ICAL\CY122.D
Lab Sample ID WCV240318-19
Quant Type ISTD

Client SDG: 660771
Injection Date: 18-MAR-24 20:56
Init. Cal. Date(s): 18-MAR-24 11:39 - 18-MAR-24 20:00
Method: data\031824VC_ICAL\VOAC-031824-8260D.M
Method Update: 19-MAR-24 09:59

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S 1,2-Dichloroethane-d4	0.3028	0.30063		.01		-0.71664	30		Averaged
S Toluene-d8	1.2917	1.34893		.01		4.4306	30		Averaged
S Bromofluorobenzene	0.8615	0.88913		.01		3.2072	30		Averaged
Acrolein	0.0264	0.03241		.01		22.76515	30		Averaged
Allyl chloride	0.3642	0.34923		.01		-4.11038	30		Averaged
Acrylonitrile	0.0762	0.07369		.01		-3.29396	30		Averaged
2-Chloro-1,3-butadiene	0.3133	0.31231		.01		-0.31599	30		Averaged
Propionitrile	0.0301	0.0293		.01		-2.65781	30		Averaged
Methacrylonitrile	0.1257	0.12156		.01		-3.29356	30		Averaged
Isobutyl alcohol	0.0082	0.00755		.01		-7.92683	30		Averaged
Methyl methacrylate	0.148	0.1454		.01		-1.75676	30		Averaged
Ethyl methacrylate	0.3628	0.36297		.01		0.04686	30		Averaged
trans-1,4-Dichloro-2-butene	0.162	0.16251		.01		0.31481	30		Averaged
Pentachloroethane	0.5291	0.53754		.01		1.59516	30		Averaged
bis(2-Chloro-1-methylethyl)eth	0.2419	0.24092		.01		-0.40513	30		Averaged

PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY122.D
Acq On : 18 Mar 2024 20:56
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-19|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[B]
ALS Vial : 22 Sample Multiplier: 1

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03/19/2024

Quant Time: Mar 19 10:00:31 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.921	10.934	1.000	1288673	50.00	ug/L	-0.01
43) Chlorobenzene-d5	117	14.342	14.354	1.000	987081	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	553986	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.921	10.928	1.000	1288673	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.342	14.348	1.000	987081	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	554422	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.531	10.543	0.964	387408	49.65	ug/L	-0.01
45) Toluene-d8	98	12.702	12.714	0.886	1331507	52.21	ug/L	-0.01
63) Bromofluorobenzene	95	15.610	15.622	0.923	492563	51.61	ug/L	-0.01

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		6.630	6.629	0.607	0m	N.D.	d	
8) Ethyl ether		6.959	6.971	0.637	0m	N.D.	d	
9) Acetone		7.355	7.367	0.673	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.343	7.392	0.672	0m	N.D.	d	
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile		7.715	7.739	0.706	0m	N.D.	d	
13) Methyl acetate		7.788	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.843	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.995	8.001	0.732	0m	N.D.	d	
16) tert-Butyl methyl ether		8.318	8.330	0.762	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.684	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.867	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		9.007	8.897	0.825	0m	N.D.	d	
21) 2-Butanone		9.531	9.525	0.873	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.531	9.586	0.873	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.909	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.257	10.342	0.939	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.617	10.635	0.972	0m	N.D.	d	
32) Benzene		10.653	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		0.000	10.793	0.000	0	N.D.		
34) n-Butyl alcohol		11.019	11.019	1.009	0m	N.D.	d	
35) Trichloroethylene		11.342	11.354	1.039	0m	N.D.	d	
36) 2-Pentanone		11.421	11.434	1.046	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY122.D
Acq On : 18 Mar 2024 20:56
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-19|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 19 10:00:31 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.574	11.635	1.060	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.787	12.793	0.892	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.945	12.952	0.903	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.384	13.384	0.933	0m	N.D.	d
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		13.427	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.384	14.390	1.003	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.433	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		14.445	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.561	14.573	1.015	0m	N.D.	d
58) o-Xylene		15.024	15.037	1.048	0m	N.D.	d
59) Styrene		15.018	15.037	1.047	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.402	15.414	0.910	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.732	15.695	0.930	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		15.847	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		16.012	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.018	16.024	0.947	0m	N.D.	d
70) 4-Chlorotoluene		16.116	16.128	0.952	0m	N.D.	d
71) tert-Butylbenzene		16.481	16.420	0.974	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.451	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		16.646	16.664	0.984	0m	N.D.	d
74) 4-Isopropyltoluene		16.902	16.792	0.999	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.853	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.951	16.957	1.002	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.420	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.566	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.767	19.780	1.168	0m	N.D.	d
82) Naphthalene		19.999	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.395	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.166	7.166	0.656	208837	307.35	ug/L 100
86) Trichlorotrifluoroethane	85	7.355	7.355	0.673	627803	227.68	ug/L 97
87) Isopropyl Alcohol	45	7.440	7.440	0.681	979548	2474.77	ug/L 100
88) Allyl chloride	41	7.837	7.843	0.718	2250197	239.74	ug/L 100
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	1815737	2513.40	ug/L 99
90) Acrylonitrile	53	8.251	8.257	0.756	474801	241.80	ug/L 100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY122.D
Acq On : 18 Mar 2024 20:56
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-19|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 19 10:00:31 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

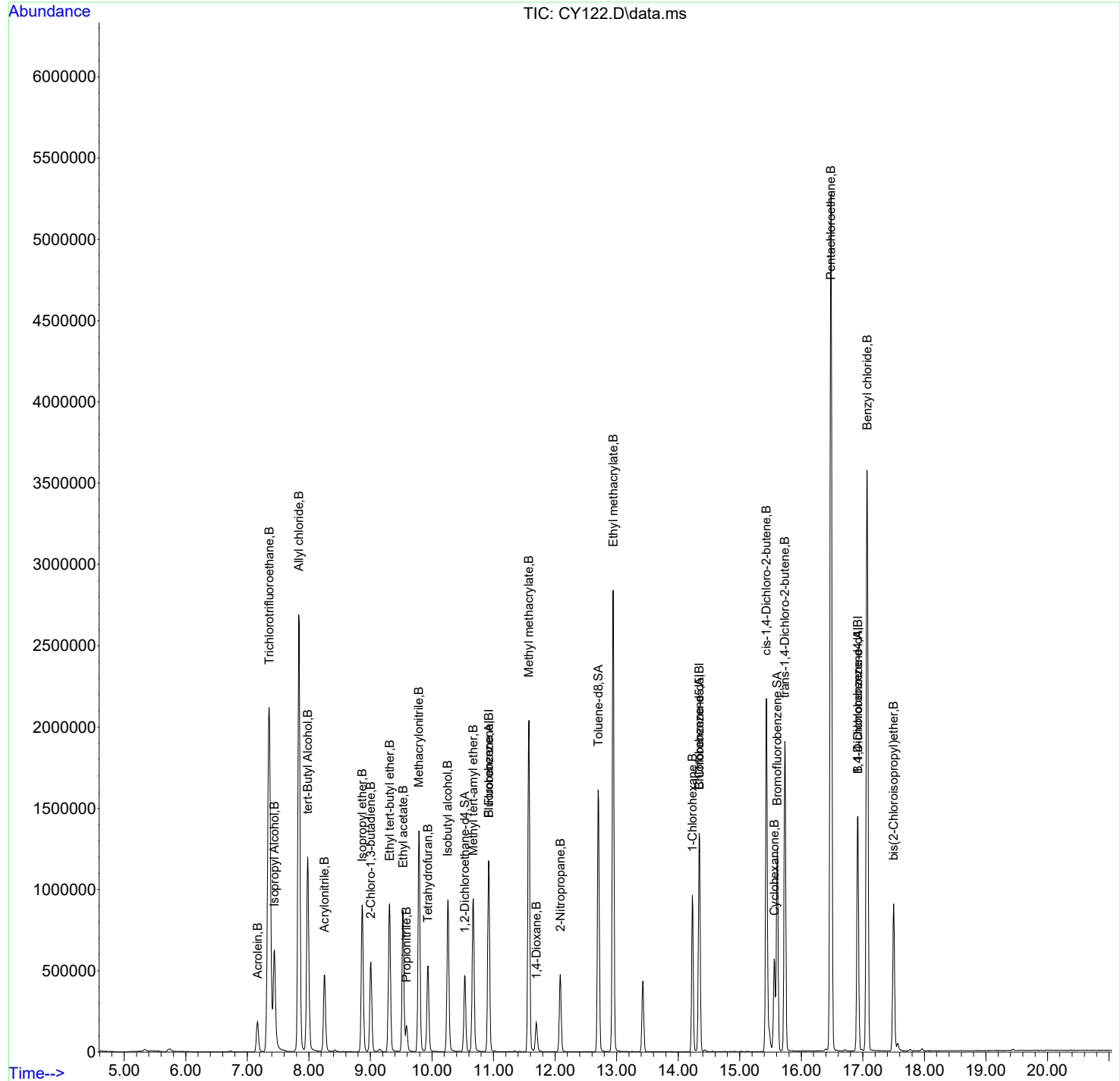
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.867	8.873	0.812	918239	49.36	ug/L 99
92) 2-Chloro-1,3-butadiene	53	9.007	9.013	0.825	402461	49.84	ug/L 100
93) Ethyl tert-butyl ether	59	9.312	9.312	0.853	955118	59.13	ug/L 100
94) Ethyl acetate	43	9.531	9.531	0.873	1152922	234.46	ug/L 100
95) Propionitrile	54	9.586	9.592	0.878	188812	243.01	ug/L 99
96) Methacrylonitrile	41	9.788	9.794	0.896	783277	241.71	ug/L 99
97) Tetrahydrofuran	42	9.934	9.940	0.910	386844	234.21	ug/L 100
98) Isobutyl alcohol	41	10.257	10.263	0.939	486437	2295.71	ug/L 99
99) Methyl tert-amyl ether	73	10.672	10.671	0.977	922566	57.21	ug/L 100
100) Methyl methacrylate	69	11.574	11.580	1.060	936892	245.54	ug/L 99
101) 1,4-Dioxane	88	11.696	11.696	1.071	163939	2537.98	ug/L 100
102) 2-Nitropropane	43	12.086	12.086	1.107	431092	244.40	ug/L 100
104) Ethyl methacrylate	69	12.945	12.945	0.903	1791400	250.14	ug/L 100
106) 1-Chlorohexane	55	14.232	14.238	0.841	256157	45.51	ug/L 98
107) cis-1,4-Dichloro-2-butene	53	15.433	15.439	0.912	535376	253.67	ug/L 100
108) Cyclohexanone	42	15.561	15.567	0.920	189180	1197.80	ug/L 99
109) trans-1,4-Dichloro-2-b...	53	15.732	15.738	0.930	450489	250.78	ug/L 100
110) Pentachloroethane	167	16.481	16.487	0.974	1490121	253.97	ug/L 100
111) Benzyl chloride	91	17.073	17.073	1.009	3494096	239.00	ug/L 100
112) bis(2-Chloroisopropyl)...	45	17.500	17.506	1.034	667865	248.94	ug/L 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY122.D
Acq On : 18 Mar 2024 20:56
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-19|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 19 10:00:31 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Instrument ID: VOAC.I
Data File: data\040324VC\CA302.D
Lab Sample ID WCV M240403-01
Quant Type ISTD

Client SDG: 660771
Injection Date: 03-APR-24 08:28
Init. Cal. Date(s) 18-MAR-24 11:39 - 18-MAR-24 20:00
Method: data\031824VC_ICAL\VOAC-031824-8260D.M
Method Update: 19-MAR-24 09:59

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S 1,2-Dichloroethane-d4	0.3028	0.31927		.01		5.43923	20		Averaged
S Toluene-d8	1.2917	1.32808		.01		2.81644	20		Averaged
S Bromofluorobenzene	0.8615	0.88263		.01		2.4527	20		Averaged
Dichlorodifluoromethane	0.2766	0.33991		.01		22.88865	20	*	Averaged
Chloromethane	0.308	0.29527		.1		-4.13312	20		Averaged
Vinyl chloride	0.3174	0.30101		.01		-5.16383	20		Averaged
Bromomethane	0.2334	0.23767		.01		1.82948	20		Averaged
Chloroethane	0.1996	0.21754		.01		8.98798	20		Averaged
Trichlorofluoromethane	0.3904	0.43402		.01		11.17316	20		Averaged
Acetone	0.067	0.0572		.01		-14.62687	20		Averaged
1,1-Dichloroethylene	0.3468	0.31421		.01		-9.39735	20		Averaged
Iodomethane	0.4711	0.39133		.01		-16.93271	20		Averaged
Acetonitrile	0.0266	0.02367		.01		-11.01504	20		Averaged
Carbon disulfide	0.6978	0.66625		.01		-4.52135	20		Averaged
Methylene chloride	50	41.14	50			-17.72	20		Linear
trans-1,2-Dichloroethylene	0.3493	0.30816		.01		-11.77784	20		Averaged
Vinyl acetate	0.4827	0.52258		.01		8.26186	20		Averaged
1,1-Dichloroethane	0.4362	0.39343		.1		-9.80514	20		Averaged
2-Butanone	0.0948	0.08998		.01		-5.08439	20		Averaged
Chloroform	0.4567	0.40556		.01		-11.19772	20		Averaged
1,1,1-Trichloroethane	0.414	0.36161		.01		-12.65459	20		Averaged
Carbon tetrachloride	0.3707	0.3354		.01		-9.52252	20		Averaged
1,2-Dichloroethane	0.3445	0.30542		.01		-11.34398	20		Averaged
Benzene	0.979	0.82992		.01		-15.22778	20		Averaged
Trichloroethylene	0.2768	0.23436		.01		-15.33237	20		Averaged
1,2-Dichloropropane	0.2494	0.22329		.01		-10.46913	20		Averaged
Dibromomethane	0.1636	0.14259		.01		-12.8423	20		Averaged
Bromodichloromethane	0.3541	0.31616		.01		-10.71449	20		Averaged
cis-1,3-Dichloropropylene	0.4187	0.36417		.01		-13.02364	20		Averaged
4-Methyl-2-pentanone	0.1014	0.09741		.01		-3.93491	20		Averaged
Toluene	1.3023	1.14704		.01		-11.92198	20		Averaged
trans-1,3-Dichloropropylene	0.4573	0.42105		.01		-7.92696	20		Averaged
1,1,2-Trichloroethane	0.225	0.21306		.01		-5.30667	20		Averaged
2-Hexanone	0.161	0.16802		.01		4.36025	20		Averaged
Tetrachloroethylene	0.3124	0.26183		.01		-16.18758	20		Averaged
Dibromochloromethane	0.3612	0.31022		.01		-14.11406	20		Averaged
1,2-Dibromoethane	0.2896	0.2523		.01		-12.87983	20		Averaged

Continuing Calibration Summary

Instrument ID: VOAC.I

Injection Date: 03-APR-24 08:28

Data File: data\040324VC\CA302.D

Init. Cal. Date(s) 18-MAR-24 11:39 18-MAR-24 20:00

Lab Sample ID WCVL240403-01

Method: data\031824VC_ICAL\VOAC-031824-8260D.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Chlorobenzene	0.9095	0.77594		.3		-14.68499	20		Averaged
1,1,1,2-Tetrachloroethane	0.3683	0.30595		.01		-16.92913	20		Averaged
Ethylbenzene	1.4566	1.28961		.01		-11.46437	20		Averaged
m,p-Xylenes	0.5846	0.49939		.01		-14.57578	20		Averaged
o-Xylene	1.2252	1.0414		.01		-15.00163	20		Averaged
Styrene	0.9593	0.81172		.01		-15.38413	20		Averaged
Bromoform	0.4381	0.39266		.1		-10.37206	20		Averaged
1,1,2,2-Tetrachloroethane	0.6096	0.58628		.3		-3.82546	20		Averaged
1,2,3-Trichloropropane	0.1932	0.18267		.01		-5.45031	20		Averaged
1,2-Dibromo-3-chloropropane	0.1702	0.14144		.01		-16.89777	20		Averaged
1,2,4-Trichlorobenzene	1.1439	0.90786		.01		-20.63467	20	*	Averaged

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA302.D
Acq On : 03 Apr 2024 08:28
Operator : PXY1
InstName : VOAC
Sample : |WCV M240403-01|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

MA

04/04/2024

Quant Time: Apr 03 08:59:41 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.934	10.934	1.000	927614	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.354	14.354	1.000	728626	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.926	16.933	1.000	373766	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.934	10.928	1.000	927486	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.354	14.348	1.000	728626	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.926	16.920	1.000	373766	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.549	10.543	0.965	296162	52.73	ug/L	0.00
45) Toluene-d8	98	12.720	12.714	0.886	967670	51.41	ug/L	0.00
63) Bromofluorobenzene	95	15.622	15.622	0.923	329898	51.23	ug/L	0.00
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.794	4.782	0.439	315305	61.43	ug/L	100
3) Chloromethane	50	5.209	5.203	0.476	273896	47.93	ug/L	100
4) Vinyl chloride	62	5.435	5.422	0.497	279225	47.42	ug/L	100
5) Bromomethane	94	6.081	6.075	0.556	220465	50.92	ug/L	99
6) Chloroethane	64	6.209	6.197	0.568	201794	54.50	ug/L	99
7) Trichlorofluoromethane	101	6.629	6.629	0.606	402604	55.59	ug/L	99
8) Ethyl ether	59	6.983	6.971	0.639	177413	46.20	ug/L	90
9) Acetone	43	7.373	7.367	0.674	265312	213.49	ug/L	94
10) 1,1-Dichloroethylene	61	7.398	7.392	0.677	291465	45.31	ug/L	95
11) Iodomethane	142	7.660	7.654	0.701	1815014	207.69	ug/L	96
12) Acetonitrile	41	7.745	7.739	0.708	548952	1112.66	ug/L	98
13) Methyl acetate	43	7.800	7.794	0.713	650391	229.19	ug/L	98
14) Carbon disulfide	76	7.806	7.800	0.714	3090128	238.69	ug/L	100
15) Methylene chloride	84	8.007	8.001	0.732	203585	41.14	ug/L	92
16) tert-Butyl methyl ether	73	8.336	8.330	0.762	539842	40.17	ug/L	98
17) trans-1,2-Dichloroethy...	61	8.379	8.373	0.766	285856	44.11	ug/L	95
18) Hexane	57	8.696	8.690	0.795	280044	42.68	ug/L	94
19) Vinyl acetate	43	8.849	8.849	0.809	2423772	270.68	ug/L	97
20) 1,1-Dichloroethane	63	8.903	8.897	0.814	364948	45.09	ug/L	100
21) 2-Butanone	43	9.531	9.525	0.872	417328	237.22	ug/L	96
22) cis-1,2-Dichloroethylene	61	9.592	9.586	0.877	331296	43.46	ug/L	96
23) 2,2-Dichloropropane	77	9.629	9.623	0.881	257193	40.02	ug/L	89
24) Bromochloromethane	128	9.885	9.885	0.904	114282	39.49	ug/L	87
25) Chloroform	83	9.922	9.922	0.907	376207	44.40	ug/L	99
26) 1,1,1-Trichloroethane	97	10.239	10.232	0.936	335435	43.67	ug/L	97
27) Cyclohexane	56	10.342	10.342	0.946	336228	43.83	ug/L	97
28) 1,1-Dichloropropene	75	10.403	10.403	0.951	277685	44.39	ug/L #	97
29) Carbon tetrachloride	117	10.446	10.446	0.955	311126	45.24	ug/L	99
31) 1,2-Dichloroethane	62	10.635	10.635	0.973	283310	44.32	ug/L	100
32) Benzene	78	10.665	10.665	0.975	769842	42.39	ug/L	97
33) Cyclohexene	67	10.793	10.793	0.987	375765	41.42	ug/L	97
34) n-Butyl alcohol	56	11.019	11.019	1.008	578845	4429.64	ug/L	94
35) Trichloroethylene	95	11.360	11.354	1.039	217392	42.33	ug/L	97
36) 2-Pentanone	43	11.440	11.434	1.046	703688	228.19	ug/L	96

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA302.D
Acq On : 03 Apr 2024 08:28
Operator : PXY1
InstName : VOAC
Sample : |WCV M240403-01|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 03 08:59:41 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.622	11.616	1.063	207127	44.77	ug/L 86
38) Methylcyclohexane	83	11.635	11.635	1.064	367778	42.74	ug/L 73
39) Dibromomethane	93	11.763	11.763	1.076	132268	43.57	ug/L 93
40) Bromodichloromethane	83	11.885	11.885	1.087	293273	44.64	ug/L 100
41) 2-Chloroethylvinyl ether	63	12.122	12.122	1.109	39337	213.77	ug/L 96
42) cis-1,3-Dichloropropylene	75	12.372	12.372	1.132	337809	43.49	ug/L 92
44) 4-Methyl-2-pentanone	58	12.470	12.470	0.869	354876	240.08	ug/L 88
46) Toluene	91	12.793	12.793	0.891	835763	44.04	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.951	12.952	0.902	306785	46.03	ug/L 94
48) 1,1,2-Trichloroethane	83	13.189	13.189	0.919	155243	47.35	ug/L 99
49) 2-Hexanone	43	13.384	13.384	0.932	612116	260.87	ug/L 95
50) 1,3-Dichloropropane	76	13.397	13.397	0.933	293068	46.23	ug/L 94
51) Tetrachloroethylene	164	13.439	13.439	0.936	190773	41.91	ug/L 97
52) Dibromochloromethane	129	13.683	13.689	0.953	226032	42.94	ug/L 99
53) 1,2-Dibromoethane	107	13.872	13.872	0.966	183835	43.57	ug/L 99
54) Chlorobenzene	112	14.390	14.390	1.003	565372	42.66	ug/L 98
55) 1,1,1,2-Tetrachloroethane	131	14.445	14.445	1.006	222925	41.54	ug/L 99
56) Ethylbenzene	91	14.457	14.457	1.007	939642	44.27	ug/L 94
57) m,p-Xylenes	106	14.573	14.573	1.015	727741	85.43	ug/L 95
58) o-Xylene	91	15.030	15.037	1.047	758791	42.50	ug/L 99
59) Styrene	104	15.036	15.037	1.048	591443	42.31	ug/L 96
61) Bromoform	173	15.305	15.305	0.904	146764	44.81	ug/L 93
62) Isopropylbenzene	105	15.414	15.414	0.911	1008846	50.38	ug/L 99
64) 1,1,2,2-Tetrachloroethane	83	15.695	15.695	0.927	219133	48.08	ug/L 99
65) 1,2,3-Trichloropropane	110	15.786	15.792	0.933	68274	47.28	ug/L 93
66) Bromobenzene	156	15.847	15.847	0.936	252394	44.25	ug/L 94
67) n-Propylbenzene	91	15.860	15.866	0.937	1119730	49.63	ug/L 98
68) 1,3,5-Trimethylbenzene	105	16.018	16.024	0.946	807757	46.18	ug/L 99
69) 2-Chlorotoluene	126	16.024	16.024	0.947	234724	46.75	ug/L 94
70) 4-Chlorotoluene	91	16.128	16.128	0.953	648610	47.11	ug/L 98
71) tert-Butylbenzene	134	16.420	16.420	0.970	181306	45.74	ug/L 96
72) 1,2,4-Trimethylbenzene	105	16.457	16.463	0.972	808395	45.10	ug/L 99
73) sec-Butylbenzene	105	16.664	16.664	0.985	1037793	47.07	ug/L 100
74) 4-Isopropyltoluene	119	16.792	16.792	0.992	901613	45.92	ug/L 99
75) 1,3-Dichlorobenzene	146	16.865	16.865	0.996	462959	43.77	ug/L 85
76) 1,4-Dichlorobenzene	146	16.957	16.957	1.002	462064	43.57	ug/L 96
77) n-Butylbenzene	91	17.274	17.280	1.021	818094	47.71	ug/L 98
78) 1,2-Dichlorobenzene	146	17.426	17.432	1.030	443459	42.95	ug/L 99
79) 1,2-Dibromo-3-chloropr...	157	18.383	18.383	1.086	52866	41.55	ug/L 94
80) 1,2,4-Trichlorobenzene	180	19.578	19.578	1.157	339326	39.68	ug/L 100
81) Hexachlorobutadiene	225	19.773	19.780	1.168	207531	41.78	ug/L 93
82) Naphthalene	128	20.011	20.017	1.182	704031	41.78	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.401	20.401	1.205	310140	39.12	ug/L 96
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	7.355	7.355	0.673	0m	N.D.	d	
87) Isopropyl Alcohol	7.410	7.440	0.678	0m	N.D.	d	
88) Allyl chloride	7.995	7.843	0.731	0m	N.D.	d	
89) tert-Butyl Alcohol	8.001	7.983	0.732	0m	N.D.	d	
90) Acrylonitrile	8.343	8.257	0.763	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA302.D
Acq On : 03 Apr 2024 08:28
Operator : PXY1
InstName : VOAC
Sample : |WCVM240403-01|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 03 08:59:41 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

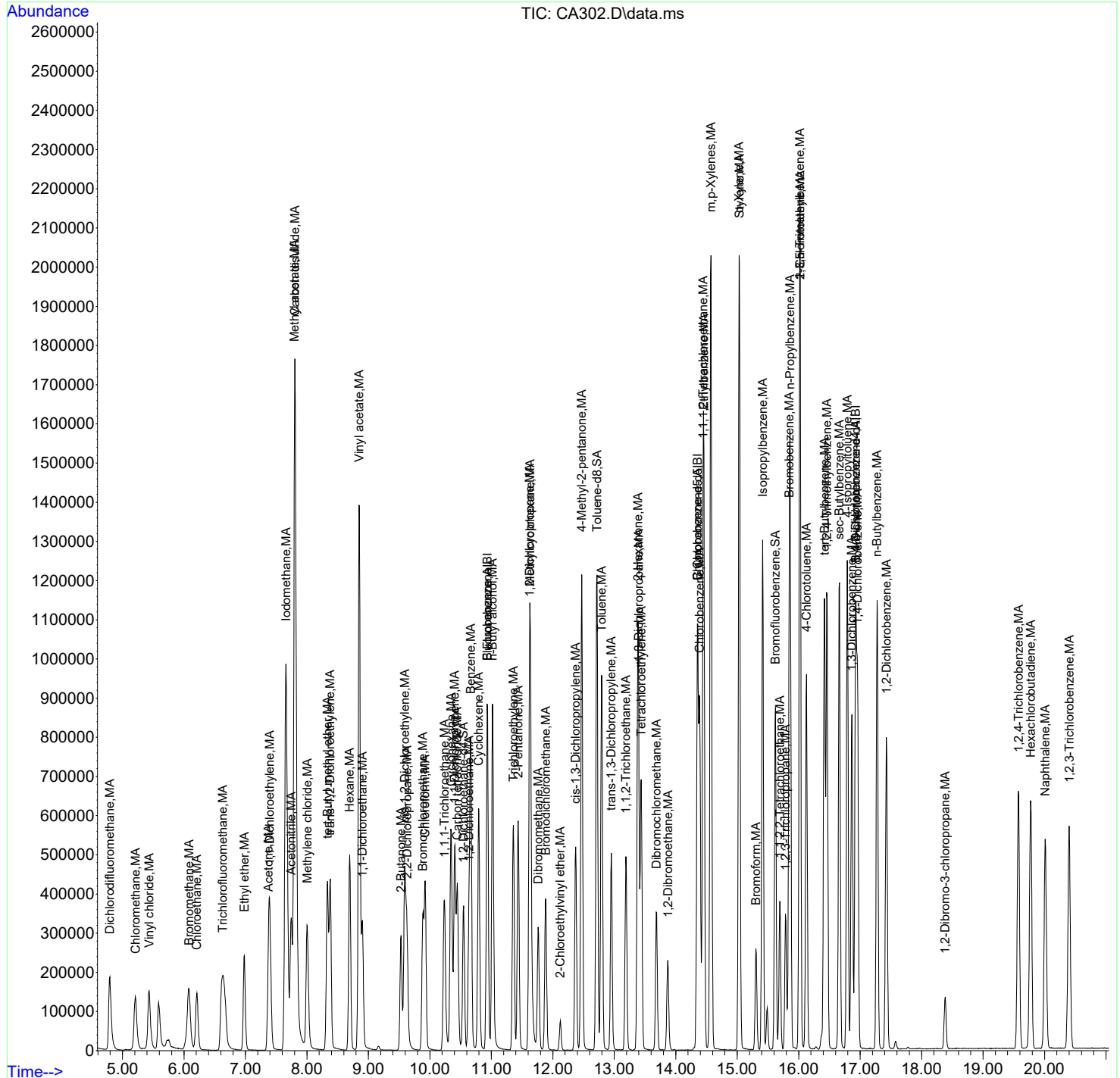
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.849	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate		9.531	9.531	0.872	0m	N.D.	d
95) Propionitrile		9.537	9.592	0.872	0m	N.D.	d
96) Methacrylonitrile		9.848	9.794	0.901	0m	N.D.	d
97) Tetrahydrofuran		9.922	9.940	0.907	0m	N.D.	d
98) Isobutyl alcohol		10.342	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.665	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.635	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.763	11.696	1.076	0m	N.D.	d
102) 2-Nitropropane		12.122	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.293	14.238	0.844	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.414	15.439	0.911	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.494	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.573	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA302.D
Acq On : 03 Apr 2024 08:28
Operator : PXY1
InstName : VOAC
Sample : |WCV M240403-01|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 03 08:59:41 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 660771
Instrument ID: VOAC.I
Injection Date: 03-APR-24 08:56
Data File: data\040324VC\CA303.D
Init. Cal. Date(s): 18-MAR-24 11:39 - 18-MAR-24 20:00
Lab Sample ID: WCV M240403-02
Method: data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Type: ISTD
Method Update: 19-MAR-24 09:59

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S 1,2-Dichloroethane-d4	0.3028	0.3271		.01		8.0251	20		Averaged
S Toluene-d8	1.2917	1.35019		.01		4.52814	20		Averaged
S Bromofluorobenzene	0.8615	0.92374		.01		7.22461	20		Averaged
Acrolein	0.0264	0.02434		.01		-7.80303	20		Averaged
Allyl chloride	0.3642	0.40174		.01		10.30752	20		Averaged
Acrylonitrile	0.0762	0.08153		.01		6.99475	20		Averaged
2-Chloro-1,3-butadiene	0.3133	0.3658		.01		16.7571	20		Averaged
Propionitrile	0.0301	0.03171		.01		5.34884	20		Averaged
Methacrylonitrile	0.1257	0.14244		.01		13.31742	20		Averaged
Isobutyl alcohol	0.0082	0.00862		.01		5.12195	20		Averaged
Methyl methacrylate	0.148	0.15988		.01		8.02703	20		Averaged
Ethyl methacrylate	0.3628	0.40606		.01		11.92393	20		Averaged
trans-1,4-Dichloro-2-butene	0.162	0.21325		.01		31.6358	20	*	Averaged
Pentachloroethane	0.5291	0.59333		.01		12.13948	20		Averaged
bis(2-Chloro-1-methylethyl)eth	0.2419	0.28928		.01		19.58661	20		Averaged

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA303.D
Acq On : 03 Apr 2024 08:56
Operator : PXY1
InstName : VOAC
Sample : |WCVM240403-02|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[B]
ALS Vial : 3 Sample Multiplier: 1

MA

04/04/2024

Quant Time: Apr 03 09:44:38 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.927	10.934	1.000	976757	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.347	14.354	1.000	724426	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.926	16.933	1.000	366939	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.927	10.928	1.000	976566	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.347	14.348	1.000	724426	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.926	16.920	1.000	366939	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.964	319498	54.02	ug/L	0.00
45) Toluene-d8	98	12.708	12.714	0.886	978116	52.26	ug/L	0.00
63) Bromofluorobenzene	95	15.616	15.622	0.923	338957	53.61	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.770	4.782	0.437	0m	N.D.	d	
3) Chloromethane		5.447	5.203	0.498	0m	N.D.	d	
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		6.599	6.629	0.604	0m	N.D.	d	
8) Ethyl ether		6.971	6.971	0.638	0m	N.D.	d	
9) Acetone		7.355	7.367	0.673	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.349	7.392	0.673	0m	N.D.	d	
11) Iodomethane		7.635	7.654	0.699	0m	N.D.	d	
12) Acetonitrile		7.745	7.739	0.709	0m	N.D.	d	
13) Methyl acetate		7.794	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.843	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.995	8.001	0.732	0m	N.D.	d	
16) tert-Butyl methyl ether		8.324	8.330	0.762	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		8.373	8.373	0.766	0m	N.D.	d	
18) Hexane		8.684	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.873	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		9.007	8.897	0.824	0m	N.D.	d	
21) 2-Butanone		9.531	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.531	9.586	0.872	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.909	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.269	10.342	0.940	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.629	10.635	0.973	0m	N.D.	d	
32) Benzene		10.653	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.787	10.793	0.987	0m	N.D.	d	
34) n-Butyl alcohol		11.019	11.019	1.008	0m	N.D.	d	
35) Trichloroethylene		11.348	11.354	1.038	0m	N.D.	d	
36) 2-Pentanone		11.580	11.434	1.060	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA303.D
Acq On : 03 Apr 2024 08:56
Operator : PXY1
InstName : VOAC
Sample : |WCV M240403-02|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 03 09:44:38 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.580	11.635	1.060	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		12.360	12.372	1.131	0m	N.D.	d
44) 4-Methyl-2-pentanone		12.464	12.470	0.869	0m	N.D.	d
46) Toluene		12.787	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.945	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.378	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		13.384	13.397	0.933	0m	N.D.	d
51) Tetrachloroethylene		13.433	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		13.677	13.689	0.953	0m	N.D.	d
53) 1,2-Dibromoethane		13.860	13.872	0.966	0m	N.D.	d
54) Chlorobenzene		14.384	14.390	1.003	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.439	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		14.451	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.579	14.573	1.016	0m	N.D.	d
58) o-Xylene		15.030	15.037	1.048	0m	N.D.	d
59) Styrene		15.024	15.037	1.047	0m	N.D.	d
61) Bromoform		15.311	15.305	0.905	0m	N.D.	d
62) Isopropylbenzene		15.414	15.414	0.911	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.683	15.695	0.927	0m	N.D.	d
65) 1,2,3-Trichloropropane		15.792	15.792	0.933	0m	N.D.	d
66) Bromobenzene		15.847	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		15.853	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		15.957	16.024	0.943	0m	N.D.	d
69) 2-Chlorotoluene		16.012	16.024	0.946	0m	N.D.	d
70) 4-Chlorotoluene		16.122	16.128	0.952	0m	N.D.	d
71) tert-Butylbenzene		16.414	16.420	0.970	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.457	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		16.652	16.664	0.984	0m	N.D.	d
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		16.859	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.426	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		18.383	18.383	1.086	0m	N.D.	d
80) 1,2,4-Trichlorobenzene		19.572	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.773	19.780	1.168	0m	N.D.	d
82) Naphthalene		20.011	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.401	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.172	7.166	0.656	118856	230.83	ug/L 97
86) Trichlorotrifluoroethane	85	7.355	7.355	0.673	552226	264.27	ug/L 93
87) Isopropyl Alcohol	45	7.440	7.440	0.681	754102	2514.09	ug/L 98
88) Allyl chloride	41	7.843	7.843	0.718	1961642	275.80	ug/L 92
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	1416502	2587.42	ug/L 97
90) Acrylonitrile	53	8.257	8.257	0.756	398090	267.52	ug/L 99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA303.D
Acq On : 03 Apr 2024 08:56
Operator : PXY1
InstName : VOAC
Sample : |WCVM240403-02|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 03 09:44:38 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

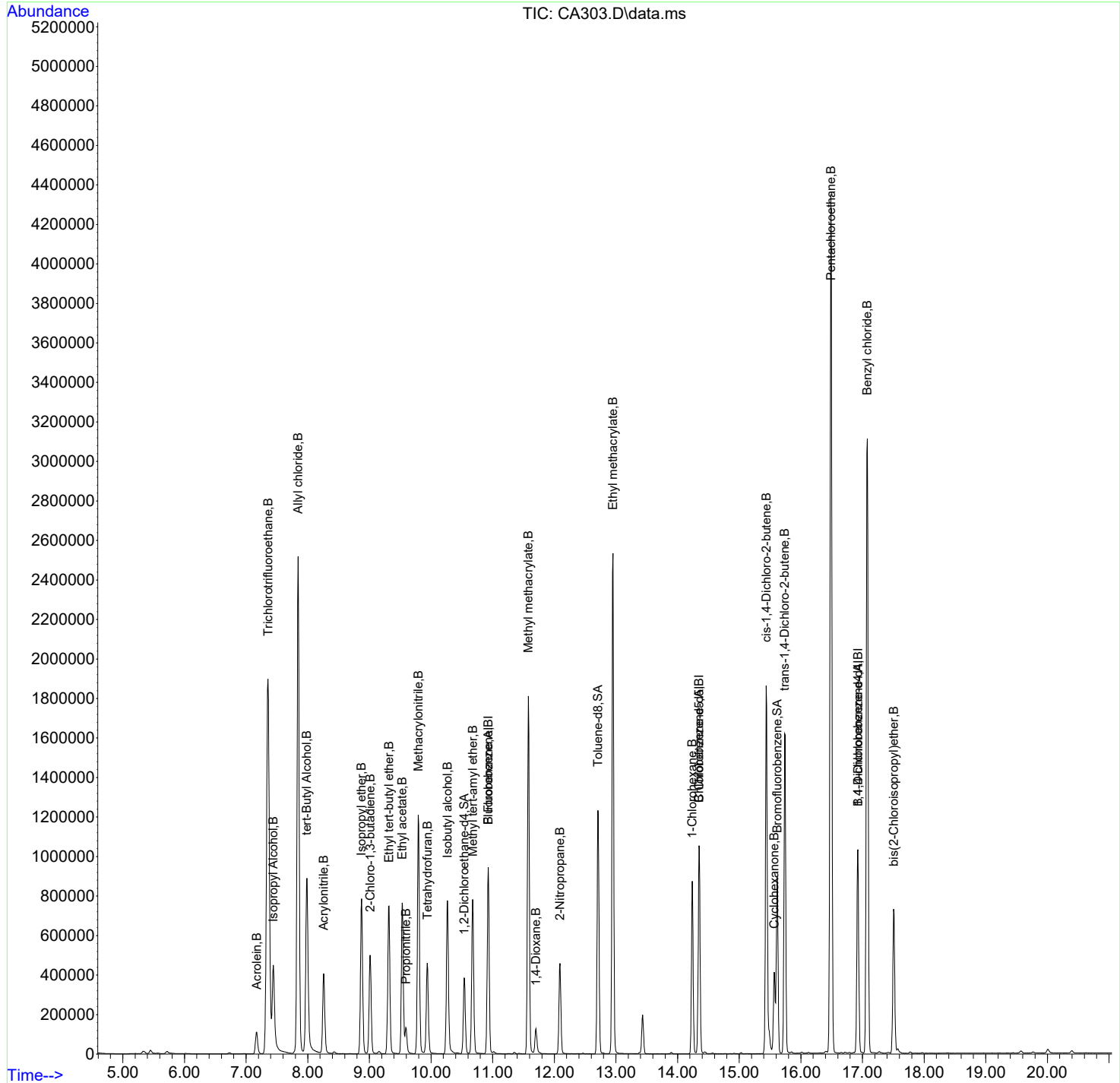
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
91) Isopropyl ether	45	8.873	8.873	0.812	784024	55.62	ug/L	95
92) 2-Chloro-1,3-butadiene	53	9.013	9.013	0.825	357232	58.37	ug/L	93
93) Ethyl tert-butyl ether	59	9.318	9.312	0.853	763920	62.41	ug/L	98
94) Ethyl acetate	43	9.531	9.531	0.872	1049143	281.54	ug/L	96
95) Propionitrile	54	9.592	9.592	0.878	154831	262.97	ug/L	99
96) Methacrylonitrile	41	9.793	9.794	0.896	695522	283.23	ug/L	95
97) Tetrahydrofuran	42	9.940	9.940	0.910	336439	268.80	ug/L	95
98) Isobutyl alcohol	41	10.269	10.263	0.940	420691	2619.96	ug/L	97
99) Methyl tert-amyl ether	73	10.677	10.671	0.977	722746	59.14	ug/L	99
100) Methyl methacrylate	69	11.580	11.580	1.060	780680	269.99	ug/L	93
101) 1,4-Dioxane	88	11.702	11.696	1.071	112240	2292.95	ug/L	97
102) 2-Nitropropane	43	12.092	12.086	1.107	397622	297.46	ug/L	98
104) Ethyl methacrylate	69	12.951	12.945	0.903	1470792	279.84	ug/L	93
106) 1-Chlorohexane	55	14.238	14.238	0.841	231216	62.07	ug/L	96
107) cis-1,4-Dichloro-2-butene	53	15.439	15.439	0.912	464505	332.55	ug/L	94
108) Cyclohexanone	42	15.567	15.567	0.920	146155	1398.20	ug/L	91
109) trans-1,4-Dichloro-2-b...	53	15.737	15.738	0.930	391257	329.10	ug/L	92
110) Pentachloroethane	167	16.487	16.487	0.974	1088575	280.32	ug/L	94
111) Benzyl chloride	91	17.079	17.073	1.009	2899829	299.70	ug/L	99
112) bis(2-Chloroisopropyl)...	45	17.505	17.506	1.034	530749	298.91	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA303.D
Acq On : 03 Apr 2024 08:56
Operator : PXY1
InstName : VOAC
Sample : |WCV M240403-02|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 03 09:44:38 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Quality Control Data

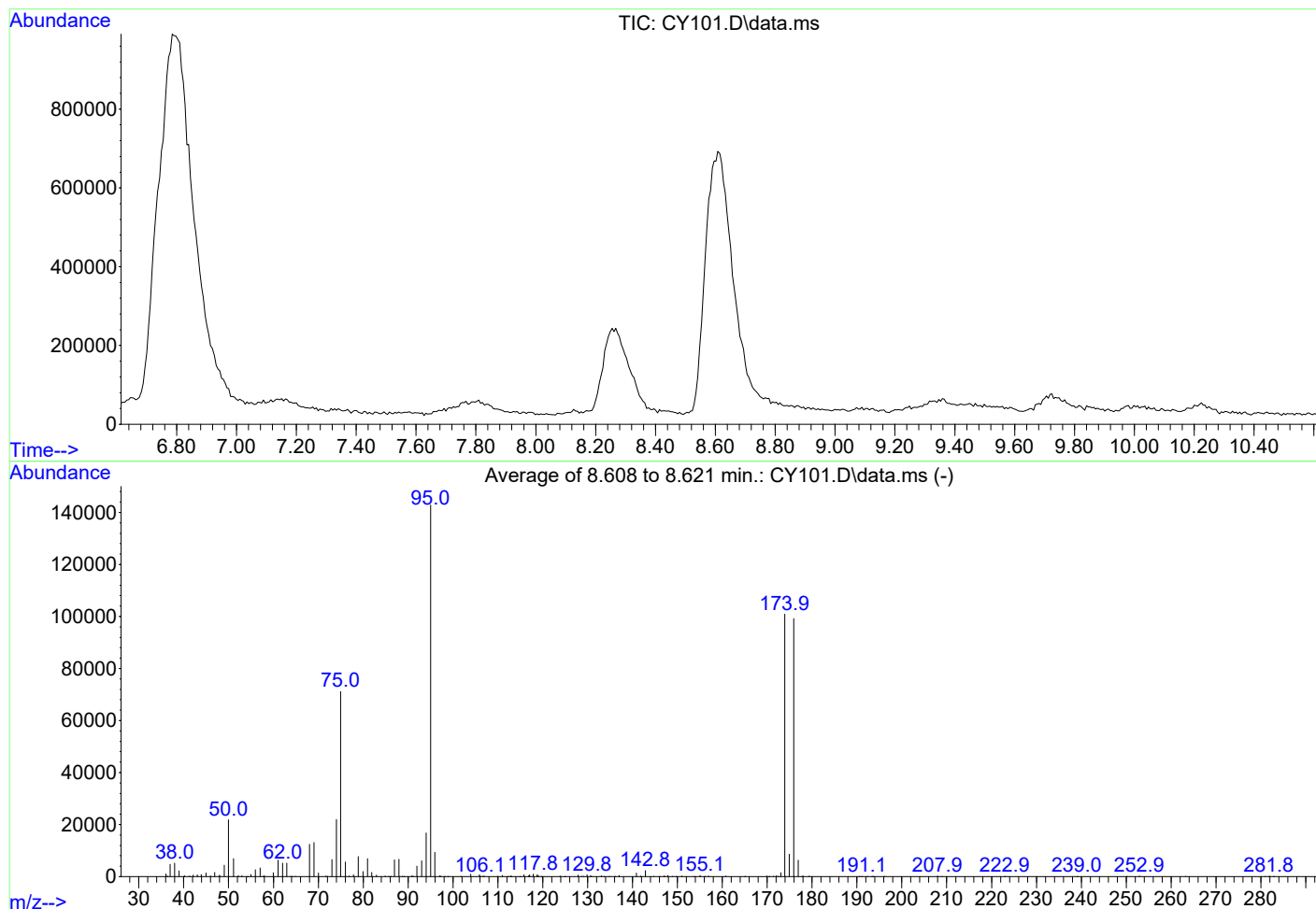
Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY101.D
Acq On : 18 Mar 2024 11:14
Operator : PXY1
Sample : |IVM240304-01|BFB|1|VOAF|1|VOA8260D|
Misc : BFB 1UL/10ML N/A
ALS Vial : 1 Sample Multiplier: 1

03/19/2024

03/19/2024

Integration File:

Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Title : Volatile Organics SubList :
Last Update : Tue Mar 19 09:59:33 2024



AutoFind: Scans 486, 487, 488; Background Corrected with Scan 467

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
Mass	Mass	Limit%	Limit%	Abn%	Abn	Pass/Fail
95	174	50	200	141.6	142848	PASS
96	95	5	9	6.5	9263	PASS
173	174	0.00	2	1.5	1546	PASS
174	95	50	200	70.6	100907	PASS
175	174	5	9	8.6	8670	PASS
176	174	95	105	98.3	99205	PASS
177	176	5	10	6.3	6290	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Matrix:	MISC SOLID
Lab Sample ID:	1205692481		
Client Sample:	QC for batch 2590953	Client:	PERM001
Client ID:	MB for batch 2590953	Method:	SW846 8260D
Batch ID:	2590956	Inst:	VOAC.I
Run Date:	04/03/2024 09:52	Analyst:	PXY1
Prep Date:	04/03/2024 07:01	Aliquot:	5 g
Data File:	data\040324VC\CA305P.D	Column:	DB-624
		Project:	PERM00224
		SOP Ref:	GL-OA-E-038
		Dilution:	1
		Purge Vol:	5 mL
		Final Volume:	5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.333	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.333	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.333	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.333	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.333	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.333	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.67	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.333	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.67	5.00
75-05-8	Acetonitrile	U	25.0	ug/kg	8.33	25.0
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	5.00	ug/kg	1.67	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.67	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	1.67	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.333	1.00
108-05-4	Vinyl acetate	U	5.00	ug/kg	1.67	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.333	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.67	5.00
67-66-3	Chloroform	U	1.00	ug/kg	0.333	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.333	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.333	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.333	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.333	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.333	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.333	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.333	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.333	1.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.333	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.67	5.00
108-88-3	Toluene	U	1.00	ug/kg	0.333	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.333	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.333	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.67	5.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.333	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.333	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.333	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.333	1.00
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.333	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.333	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 1205692481

Client Sample: QC for batch 2590953

Client ID: MB for batch 2590953

Batch ID: 2590956

Run Date: 04/03/2024 09:52

Prep Date: 04/03/2024 07:01

Data File: data\040324VC\CA305P.D

Client: PERM001

Method: SW846 8260D

Inst: VOAC.I

Analyst: PXY1

Aliquot: 5 g

Column: DB-624

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-038

Dilution: 1

Purge Vol: 5 mL

Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	1.00	ug/kg	0.333	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.333	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.333	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.500	1.00
107-02-8	Acrolein	U	5.00	ug/kg	1.67	5.00
107-05-1	Allyl chloride	U	5.00	ug/kg	1.67	5.00
107-13-1	Acrylonitrile	U	5.00	ug/kg	1.67	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/kg	0.333	1.00
107-12-0	Propionitrile	U	5.00	ug/kg	1.67	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/kg	1.67	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/kg	16.7	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/kg	1.67	5.00
97-63-2	Ethyl methacrylate	U	5.00	ug/kg	1.67	5.00
76-01-7	Pentachloroethane	U	5.00	ug/kg	1.67	5.00
110-57-6	trans-1,4-Dichloro-2-butene	U	5.00	ug/kg	1.67	5.00
1330-20-7	Xylenes (total)	U	3.00	ug/kg	1.00	3.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/kg	0.333	1.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.333	1.00

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA305P.D
Acq On : 03 Apr 2024 09:52
Operator : PXY1
InstName : VOAC
Sample : |1205692481|2590956|1|VOAF|1|VOA8260D_S|
Misc : GEL 5G/5ML N/A SOIL
ALS Vial : 5 Sample Multiplier: 1

MA

04/04/2024

Quant Time: Apr 03 10:55:58 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.928	10.934	1.000	947529	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.348	14.354	1.000	686126	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	356954	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.928	10.928	1.000	947529	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.348	14.348	1.000	685927	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	356954	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.964	302087	52.65	ug/L	0.00
45) Toluene-d8	98	12.708	12.714	0.886	933482	52.66	ug/L	0.00
63) Bromofluorobenzene	95	15.610	15.622	0.923	317554	51.63	ug/L	-0.01

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	105%
45) Toluene-d8	50.000	81 - 120	105%
63) Bromofluorobenzene	50.000	74 - 128	103%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.367	7.367	0.674	1020	N.D.		
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.733	7.739	0.708	126	N.D.		
13) Methyl acetate	43	7.788	7.794	0.713	297	N.D.		
14) Carbon disulfide	76	7.794	7.800	0.713	110	N.D.		
15) Methylene chloride	84	8.001	8.001	0.732	1071	Below Cal	#	78
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		0.000	8.690	0.000	0	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.544	9.525	0.873	513	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene		0.000	10.665	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA305P.D
Acq On : 03 Apr 2024 09:52
Operator : PXY1
InstName : VOAC
Sample : |1205692481|2590956|1|VOAF|1|VOA8260D_S|
Misc : GEL 5G/5ML N/A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 03 10:55:58 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone		0.000	11.434	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		0.000	12.793	0.000	0	N.D.	
47) trans-1,3-Dichloroprop...	75	12.952	12.952	0.903	126	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone	43	13.384	13.384	0.933	116	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene	112	14.390	14.390	1.003	117	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene		0.000	14.457	0.000	0	N.D.	
57) m,p-Xylenes		0.000	14.573	0.000	0	N.D.	
58) o-Xylene		0.000	15.037	0.000	0	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.603	15.695	0.922	218	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene	91	15.853	15.866	0.937	285	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene	91	16.109	16.128	0.952	305	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.457	16.463	0.973	155	N.D.	
73) sec-Butylbenzene	105	16.652	16.664	0.984	271	N.D.	
74) 4-Isopropyltoluene	119	16.786	16.792	0.992	339	N.D.	
75) 1,3-Dichlorobenzene	146	16.865	16.865	0.997	215	N.D.	
76) 1,4-Dichlorobenzene	146	16.957	16.957	1.002	528	N.D.	
77) n-Butylbenzene	91	17.262	17.280	1.020	844	N.D.	
78) 1,2-Dichlorobenzene		0.000	17.432	0.000	0	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	19.572	19.578	1.157	724	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	20.011	20.017	1.183	2625	N.D.	
83) 1,2,3-Trichlorobenzene	180	20.395	20.401	1.205	631	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA305P.D
Acq On : 03 Apr 2024 09:52
Operator : PXY1
InstName : VOAC
Sample : |1205692481|2590956|1|VOAF|1|VOA8260D_S|
Misc : GEL 5G/5ML N/A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 03 10:55:58 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

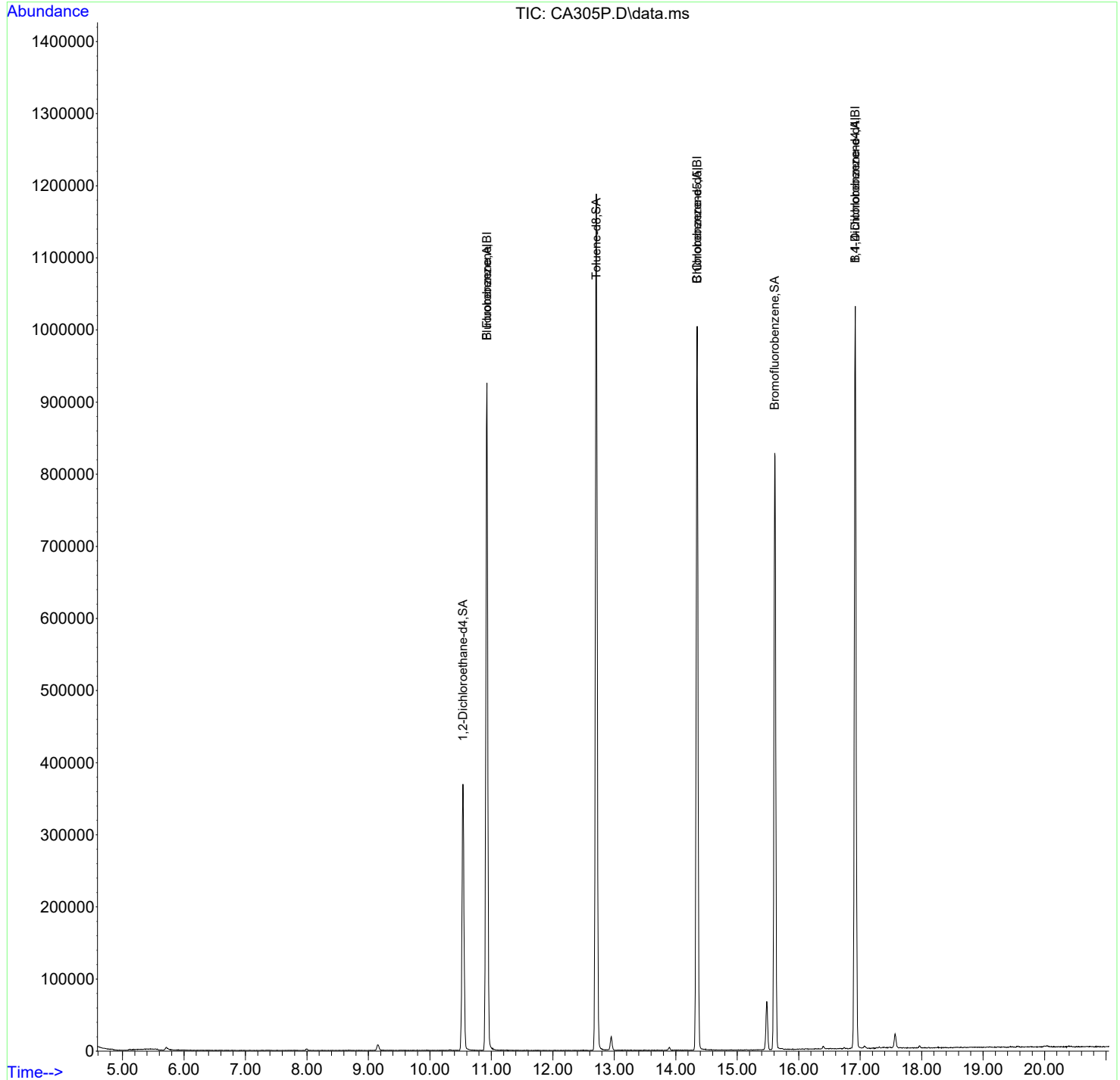
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol		0.000	7.440	0.000	0	N.D.	
88) Allyl chloride		0.000	7.843	0.000	0	N.D.	
89) tert-Butyl Alcohol	59	7.989	7.983	0.731	336	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.544	9.531	0.873	513	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile	41	9.794	9.794	0.896	197	N.D.	
97) Tetrahydrofuran	42	9.946	9.940	0.910	227	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate	69	12.945	12.945	0.902	135	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride	91	17.073	17.073	1.009	4425	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.499	17.506	1.034	1518	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA305P.D
Acq On : 03 Apr 2024 09:52
Operator : PXY1
InstName : VOAC
Sample : |1205692481|2590956|1|VOAF|1|VOA8260D_S|
Misc : GEL 5G/5ML N/A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 03 10:55:58 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Matrix:	MISC SOLID
Lab Sample ID:	1205692482		
Client Sample:	QC for batch 2590953	Client:	PERM001
Client ID:	HB for batch 2590953	Method:	SW846 8260D
Batch ID:	2590956	Inst:	VOAC.I
Run Date:	04/03/2024 10:20	Analyst:	PXY1
Prep Date:	04/03/2024 07:50	Aliquot:	5 g
Data File:	data\040324VC\CA306.D	Column:	DB-624
		Project:	PERM00224
		SOP Ref:	GL-OA-E-038
		Dilution:	50
		Purge Vol:	5 mL
		Final Volume:	10 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	100	ug/kg	33.3	100
74-87-3	Chloromethane	U	100	ug/kg	33.3	100
75-01-4	Vinyl chloride	U	100	ug/kg	33.3	100
74-83-9	Bromomethane	U	100	ug/kg	33.3	100
75-00-3	Chloroethane	U	100	ug/kg	33.3	100
75-69-4	Trichlorofluoromethane	U	100	ug/kg	33.3	100
67-64-1	Acetone	U	500	ug/kg	167	500
75-35-4	1,1-Dichloroethylene	U	100	ug/kg	33.3	100
74-88-4	Iodomethane	U	500	ug/kg	167	500
75-05-8	Acetonitrile	U	2500	ug/kg	833	2500
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	500	ug/kg	167	500
75-15-0	Carbon disulfide	U	500	ug/kg	167	500
75-09-2	Methylene chloride	U	500	ug/kg	167	500
156-60-5	trans-1,2-Dichloroethylene	U	100	ug/kg	33.3	100
108-05-4	Vinyl acetate	U	500	ug/kg	167	500
75-34-3	1,1-Dichloroethane	U	100	ug/kg	33.3	100
78-93-3	2-Butanone	J	214	ug/kg	167	500
67-66-3	Chloroform	U	100	ug/kg	33.3	100
71-55-6	1,1,1-Trichloroethane	U	100	ug/kg	33.3	100
56-23-5	Carbon tetrachloride	U	100	ug/kg	33.3	100
107-06-2	1,2-Dichloroethane	U	100	ug/kg	33.3	100
71-43-2	Benzene	U	100	ug/kg	33.3	100
79-01-6	Trichloroethylene	U	100	ug/kg	33.3	100
78-87-5	1,2-Dichloropropane	U	100	ug/kg	33.3	100
74-95-3	Dibromomethane	U	100	ug/kg	33.3	100
75-27-4	Bromodichloromethane	U	100	ug/kg	33.3	100
10061-01-5	cis-1,3-Dichloropropylene	U	100	ug/kg	33.3	100
108-10-1	4-Methyl-2-pentanone	U	500	ug/kg	167	500
108-88-3	Toluene	U	100	ug/kg	33.3	100
10061-02-6	trans-1,3-Dichloropropylene	U	100	ug/kg	33.3	100
79-00-5	1,1,2-Trichloroethane	U	100	ug/kg	33.3	100
591-78-6	2-Hexanone	U	500	ug/kg	167	500
127-18-4	Tetrachloroethylene	U	100	ug/kg	33.3	100
124-48-1	Dibromochloromethane	U	100	ug/kg	33.3	100
106-93-4	1,2-Dibromoethane	U	100	ug/kg	33.3	100
108-90-7	Chlorobenzene	U	100	ug/kg	33.3	100
100-41-4	Ethylbenzene	U	100	ug/kg	33.3	100
100-42-5	Styrene	U	100	ug/kg	33.3	100

Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 1205692482

Client Sample: QC for batch 2590953

Client ID: HB for batch 2590953

Batch ID: 2590956

Run Date: 04/03/2024 10:20

Prep Date: 04/03/2024 07:50

Data File: data\040324VC\CA306.D

Client: PERM001

Method: SW846 8260D

Inst: VOAC.I

Analyst: PXY1

Aliquot: 5 g

Column: DB-624

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-038

Dilution: 50

Purge Vol: 5 mL

Final Volume: 10 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	100	ug/kg	33.3	100
79-34-5	1,1,2,2-Tetrachloroethane	U	100	ug/kg	33.3	100
96-18-4	1,2,3-Trichloropropane	U	100	ug/kg	33.3	100
96-12-8	1,2-Dibromo-3-chloropropane	U	100	ug/kg	50.0	100
107-02-8	Acrolein	U	500	ug/kg	167	500
107-05-1	Allyl chloride	U	500	ug/kg	167	500
107-13-1	Acrylonitrile	U	500	ug/kg	167	500
126-99-8	2-Chloro-1,3-butadiene	U	100	ug/kg	33.3	100
107-12-0	Propionitrile	U	500	ug/kg	167	500
126-98-7	Methacrylonitrile	U	500	ug/kg	167	500
78-83-1	Isobutyl alcohol	U	5000	ug/kg	1670	5000
80-62-6	Methyl methacrylate	U	500	ug/kg	167	500
97-63-2	Ethyl methacrylate	U	500	ug/kg	167	500
76-01-7	Pentachloroethane	U	500	ug/kg	167	500
110-57-6	trans-1,4-Dichloro-2-butene	U	500	ug/kg	167	500
1330-20-7	Xylenes (total)	U	300	ug/kg	100	300
120-82-1	1,2,4-Trichlorobenzene	U	100	ug/kg	33.3	100
630-20-6	1,1,1,2-Tetrachloroethane	U	100	ug/kg	33.3	100

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA306.D
Acq On : 03 Apr 2024 10:20
Operator : PXY1
InstName : VOAC
Sample : |1205692482|2590956|50|VOAF|1|VOA8260D_S|
Misc : GEL 5.0G/100UL N/A SOIL HB
ALS Vial : 6 Sample Multiplier: 1

MA
04/04/2024

Quant Time: Apr 03 10:56:07 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.921	10.934	1.000	936407	50.00	ug/L	-0.01
43) Chlorobenzene-d5	117	14.347	14.354	1.000	670130	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	342617	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.921	10.928	1.000	936407	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.347	14.348	1.000	669916	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	342764	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.965	305848	53.94	ug/L	0.00
45) Toluene-d8	98	12.708	12.714	0.886	937103	54.13	ug/L	0.00
63) Bromofluorobenzene	95	15.609	15.622	0.923	314822	53.33	ug/L	-0.01

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	108%
45) Toluene-d8	50.000	81 - 120	108%
63) Bromofluorobenzene	50.000	74 - 128	107%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.361	7.367	0.674	1482	N.D.		
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.769	7.739	0.711	128	N.D.		
13) Methyl acetate	43	7.794	7.794	0.714	517	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.995	8.001	0.732	3335	Below Cal		90
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.678	8.690	0.795	2039	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.525	9.525	0.872	3796	2.14 ug/L		77
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene		0.000	10.665	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA306.D
Acq On : 03 Apr 2024 10:20
Operator : PXY1
InstName : VOAC
Sample : |1205692482|2590956|50|VOAF|1|VOA8260D_S|
Misc : GEL 5.0G/100UL N/A SOIL HB
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 03 10:56:07 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.421	11.434	1.046	663	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.781	12.793	0.891	462	N.D.	
47) trans-1,3-Dichloroprop...	75	12.951	12.952	0.903	246	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene		0.000	14.457	0.000	0	N.D.	
57) m,p-Xylenes		0.000	14.573	0.000	0	N.D.	
58) o-Xylene		0.000	15.037	0.000	0	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.609	15.695	0.923	134	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene	91	15.841	15.866	0.936	112	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene	91	16.115	16.128	0.952	175	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.445	16.463	0.972	219	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene	146	16.945	16.957	1.001	274	N.D.	
77) n-Butylbenzene	91	17.262	17.280	1.020	265	N.D.	
78) 1,2-Dichlorobenzene		0.000	17.432	0.000	0	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	19.566	19.578	1.156	283	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	20.011	20.017	1.183	1921	N.D.	
83) 1,2,3-Trichlorobenzene	180	20.383	20.401	1.205	272	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA306.D
Acq On : 03 Apr 2024 10:20
Operator : PXY1
InstName : VOAC
Sample : |1205692482|2590956|50|VOAF|1|VOA8260D_S|
Misc : GEL 5.0G/100UL N/A SOIL HB
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 03 10:56:07 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

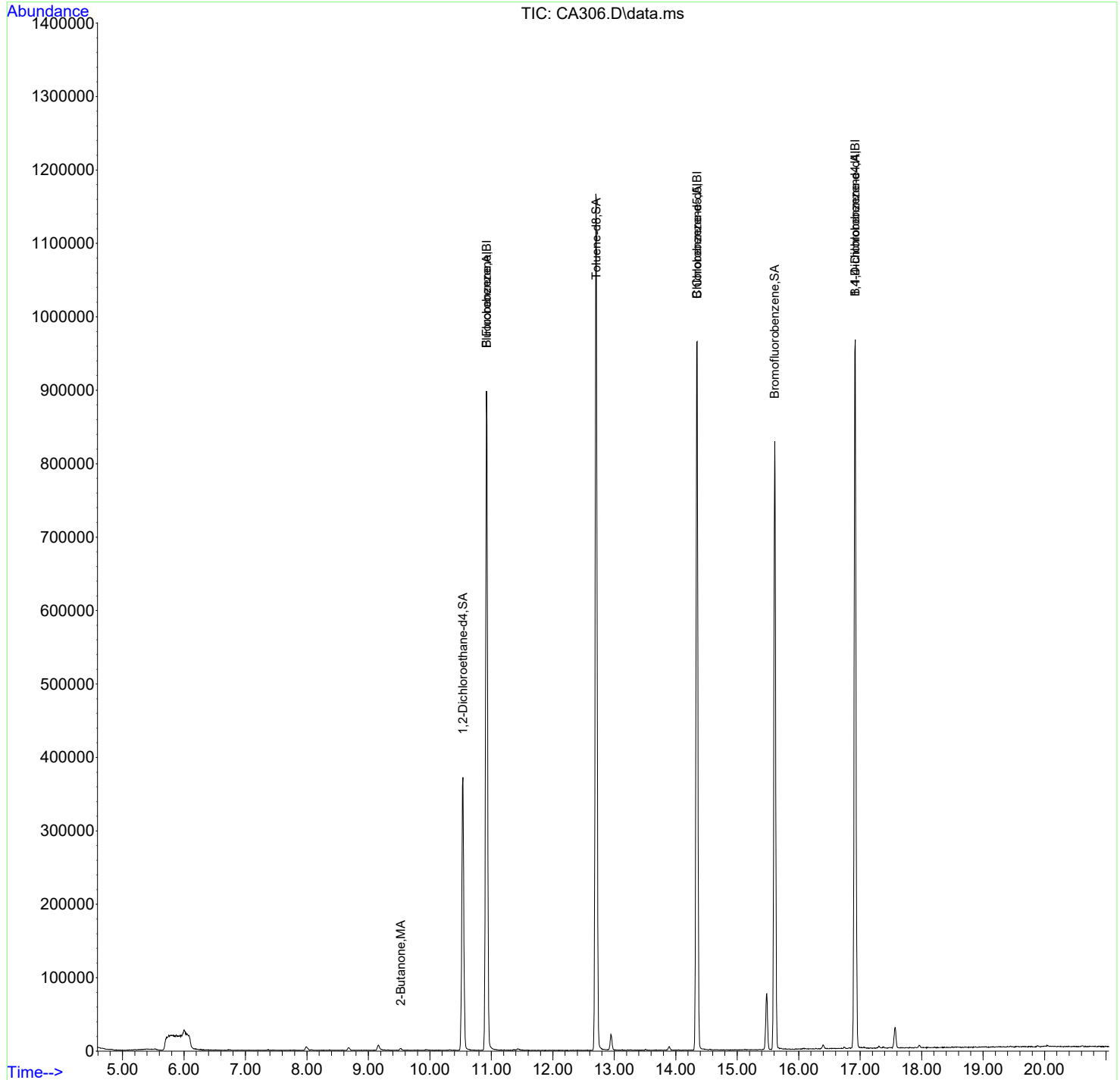
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.458	7.440	0.683	278	N.D.	
88) Allyl chloride	41	7.769	7.843	0.711	128	N.D.	
89) tert-Butyl Alcohol	59	8.086	7.983	0.740	546	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.525	9.531	0.872	3796	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.940	9.940	0.910	584	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride	91	17.066	17.073	1.009	1851	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.499	17.506	1.034	204	N.D.	

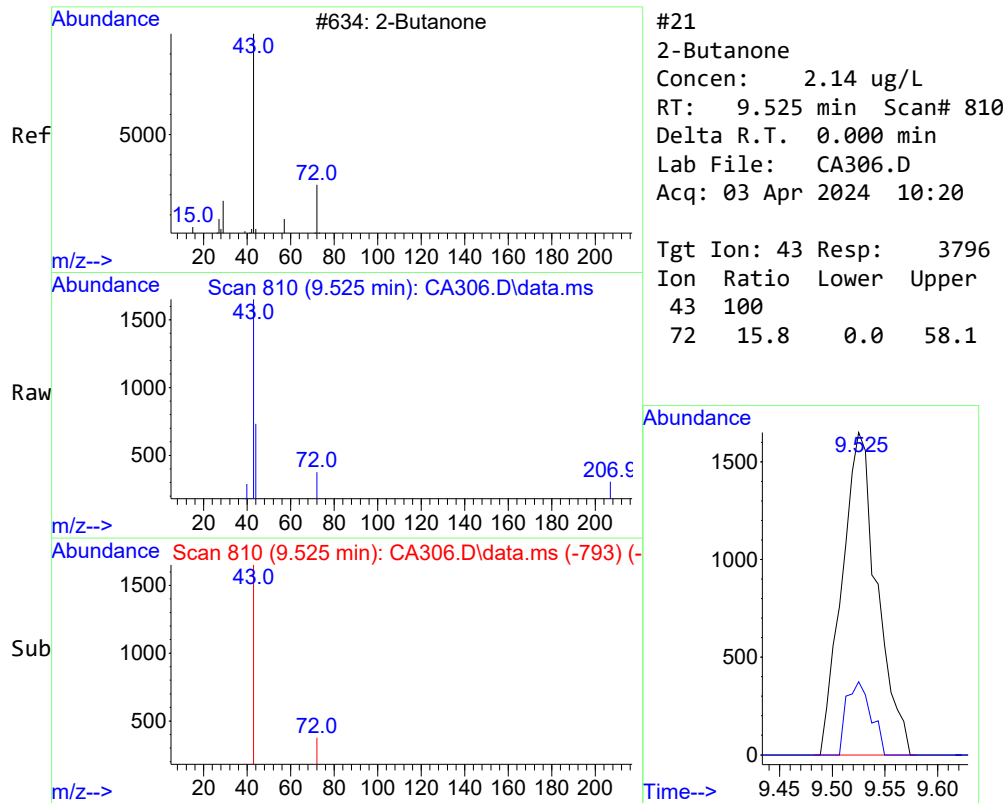
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA306.D
Acq On : 03 Apr 2024 10:20
Operator : PXY1
InstName : VOAC
Sample : |1205692482|2590956|50|VOAF|1|VOA8260D_S|
Misc : GEL 5.0G/100UL N/A SOIL HB
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 03 10:56:07 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Matrix:	MISC SOLID
Lab Sample ID:	1205692480		
Client Sample:	QC for batch 2590953	Client:	PERM001
Client ID:	LCS for batch 2590953	Method:	SW846 8260D
Batch ID:	2590956	Inst:	VOAC.I
Run Date:	04/03/2024 08:28	Analyst:	PXY1
Prep Date:	04/03/2024 07:00	Aliquot:	5 g
Data File:	data\040324VC\CA302P.D	Column:	DB-624
		Project:	PERM00224
		SOP Ref:	GL-OA-E-038
		Dilution:	1
		Purge Vol:	5 mL
		Final Volume:	5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		61.4	ug/kg	0.333	1.00
74-87-3	Chloromethane		47.9	ug/kg	0.333	1.00
75-01-4	Vinyl chloride		47.4	ug/kg	0.333	1.00
74-83-9	Bromomethane		50.9	ug/kg	0.333	1.00
75-00-3	Chloroethane		54.5	ug/kg	0.333	1.00
75-69-4	Trichlorofluoromethane		55.6	ug/kg	0.333	1.00
67-64-1	Acetone		213	ug/kg	1.67	5.00
75-35-4	1,1-Dichloroethylene		45.3	ug/kg	0.333	1.00
74-88-4	Iodomethane		208	ug/kg	1.67	5.00
75-05-8	Acetonitrile		1110	ug/kg	8.33	25.0
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	5.00	ug/kg	1.67	5.00
75-15-0	Carbon disulfide		239	ug/kg	1.67	5.00
75-09-2	Methylene chloride		41.1	ug/kg	1.67	5.00
156-60-5	trans-1,2-Dichloroethylene		44.1	ug/kg	0.333	1.00
108-05-4	Vinyl acetate		271	ug/kg	1.67	5.00
75-34-3	1,1-Dichloroethane		45.1	ug/kg	0.333	1.00
78-93-3	2-Butanone		237	ug/kg	1.67	5.00
67-66-3	Chloroform		44.4	ug/kg	0.333	1.00
71-55-6	1,1,1-Trichloroethane		43.7	ug/kg	0.333	1.00
56-23-5	Carbon tetrachloride		45.2	ug/kg	0.333	1.00
107-06-2	1,2-Dichloroethane		44.3	ug/kg	0.333	1.00
71-43-2	Benzene		42.4	ug/kg	0.333	1.00
79-01-6	Trichloroethylene		42.3	ug/kg	0.333	1.00
78-87-5	1,2-Dichloropropane		44.8	ug/kg	0.333	1.00
74-95-3	Dibromomethane		43.6	ug/kg	0.333	1.00
75-27-4	Bromodichloromethane		44.6	ug/kg	0.333	1.00
10061-01-5	cis-1,3-Dichloropropylene		43.5	ug/kg	0.333	1.00
108-10-1	4-Methyl-2-pentanone		240	ug/kg	1.67	5.00
108-88-3	Toluene		44.0	ug/kg	0.333	1.00
10061-02-6	trans-1,3-Dichloropropylene		46.0	ug/kg	0.333	1.00
79-00-5	1,1,2-Trichloroethane		47.4	ug/kg	0.333	1.00
591-78-6	2-Hexanone		261	ug/kg	1.67	5.00
127-18-4	Tetrachloroethylene		41.9	ug/kg	0.333	1.00
124-48-1	Dibromochloromethane		42.9	ug/kg	0.333	1.00
106-93-4	1,2-Dibromoethane		43.6	ug/kg	0.333	1.00
108-90-7	Chlorobenzene		42.7	ug/kg	0.333	1.00
100-41-4	Ethylbenzene		44.3	ug/kg	0.333	1.00
100-42-5	Styrene		42.3	ug/kg	0.333	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 1205692480

Client Sample: QC for batch 2590953

Client ID: LCS for batch 2590953

Batch ID: 2590956

Run Date: 04/03/2024 08:28

Prep Date: 04/03/2024 07:00

Data File: data\040324VC\CA302P.D

Client: PERM001

Method: SW846 8260D

Inst: VOAC.I

Analyst: PXY1

Aliquot: 5 g

Column: DB-624

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-038

Dilution: 1

Purge Vol: 5 mL

Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform		44.8	ug/kg	0.333	1.00
79-34-5	1,1,2,2-Tetrachloroethane		48.1	ug/kg	0.333	1.00
96-18-4	1,2,3-Trichloropropane		47.3	ug/kg	0.333	1.00
96-12-8	1,2-Dibromo-3-chloropropane		41.6	ug/kg	0.500	1.00
107-02-8	Acrolein	U	5.00	ug/kg	1.67	5.00
107-05-1	Allyl chloride	U	5.00	ug/kg	1.67	5.00
107-13-1	Acrylonitrile	U	5.00	ug/kg	1.67	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/kg	0.333	1.00
107-12-0	Propionitrile	U	5.00	ug/kg	1.67	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/kg	1.67	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/kg	16.7	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/kg	1.67	5.00
97-63-2	Ethyl methacrylate	U	5.00	ug/kg	1.67	5.00
76-01-7	Pentachloroethane	U	5.00	ug/kg	1.67	5.00
110-57-6	trans-1,4-Dichloro-2-butene	U	5.00	ug/kg	1.67	5.00
1330-20-7	Xylenes (total)		128	ug/kg	1.00	3.00
120-82-1	1,2,4-Trichlorobenzene		39.7	ug/kg	0.333	1.00
630-20-6	1,1,1,2-Tetrachloroethane		41.5	ug/kg	0.333	1.00

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA302P.D
Acq On : 03 Apr 2024 08:28
Operator : PXY1
InstName : VOAC
Sample : |1205692480|2590956|1|VOAF|1|VOA8260D_S|
Misc : LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

MA

04/04/2024

Quant Time: Apr 03 08:59:41 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.934	10.934	1.000	927614	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.354	14.354	1.000	728626	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.926	16.933	1.000	373766	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.934	10.928	1.000	927486	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.354	14.348	1.000	728626	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.926	16.920	1.000	373766	50.00	ug/L	0.00

System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.549	10.543	0.965	296162	52.73	ug/L	0.00
45) Toluene-d8	98	12.720	12.714	0.886	967670	51.41	ug/L	0.00
63) Bromofluorobenzene	95	15.622	15.622	0.923	329898	51.23	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	105%
45) Toluene-d8	50.000	81 - 120	103%
63) Bromofluorobenzene	50.000	74 - 128	102%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.794	4.782	0.439	315305	61.43	ug/L	100
3) Chloromethane	50	5.209	5.203	0.476	273896	47.93	ug/L	100
4) Vinyl chloride	62	5.435	5.422	0.497	279225	47.42	ug/L	100
5) Bromomethane	94	6.081	6.075	0.556	220465	50.92	ug/L	99
6) Chloroethane	64	6.209	6.197	0.568	201794	54.50	ug/L	99
7) Trichlorofluoromethane	101	6.629	6.629	0.606	402604	55.59	ug/L	99
8) Ethyl ether	59	6.983	6.971	0.639	177413	46.20	ug/L	90
9) Acetone	43	7.373	7.367	0.674	265312	213.49	ug/L	94
10) 1,1-Dichloroethylene	61	7.398	7.392	0.677	291465	45.31	ug/L	95
11) Iodomethane	142	7.660	7.654	0.701	1815014	207.69	ug/L	96
12) Acetonitrile	41	7.745	7.739	0.708	548952	1112.66	ug/L	98
13) Methyl acetate	43	7.800	7.794	0.713	650391	229.19	ug/L	98
14) Carbon disulfide	76	7.806	7.800	0.714	3090128	238.69	ug/L	100
15) Methylene chloride	84	8.007	8.001	0.732	203585	41.14	ug/L	92
16) tert-Butyl methyl ether	73	8.336	8.330	0.762	539842	40.17	ug/L	98
17) trans-1,2-Dichloroethy...	61	8.379	8.373	0.766	285856	44.11	ug/L	95
18) Hexane	57	8.696	8.690	0.795	280044	42.68	ug/L	94
19) Vinyl acetate	43	8.849	8.849	0.809	2423772	270.68	ug/L	97
20) 1,1-Dichloroethane	63	8.903	8.897	0.814	364948	45.09	ug/L	100
21) 2-Butanone	43	9.531	9.525	0.872	417328	237.22	ug/L	96
22) cis-1,2-Dichloroethylene	61	9.592	9.586	0.877	331296	43.46	ug/L	96
23) 2,2-Dichloropropane	77	9.629	9.623	0.881	257193	40.02	ug/L	89
24) Bromochloromethane	128	9.885	9.885	0.904	114282	39.49	ug/L	87
25) Chloroform	83	9.922	9.922	0.907	376207	44.40	ug/L	99
26) 1,1,1-Trichloroethane	97	10.239	10.232	0.936	335435	43.67	ug/L	97
27) Cyclohexane	56	10.342	10.342	0.946	336228	43.83	ug/L	97
28) 1,1-Dichloropropene	75	10.403	10.403	0.951	277685	44.39	ug/L #	97
29) Carbon tetrachloride	117	10.446	10.446	0.955	311126	45.24	ug/L	99
31) 1,2-Dichloroethane	62	10.635	10.635	0.973	283310	44.32	ug/L	100
32) Benzene	78	10.665	10.665	0.975	769842	42.39	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA302P.D
Acq On : 03 Apr 2024 08:28
Operator : PXY1
InstName : VOAC
Sample : |1205692480|2590956|1|VOAF|1|VOA8260D_S|
Misc : LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 03 08:59:41 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene	67	10.793	10.793	0.987	375765	41.42	ug/L 97
34) n-Butyl alcohol	56	11.019	11.019	1.008	578845	4429.64	ug/L 94
35) Trichloroethylene	95	11.360	11.354	1.039	217392	42.33	ug/L 97
36) 2-Pentanone	43	11.440	11.434	1.046	703688	228.19	ug/L 96
37) 1,2-Dichloropropane	63	11.622	11.616	1.063	207127	44.77	ug/L 86
38) Methylcyclohexane	83	11.635	11.635	1.064	367778	42.74	ug/L 73
39) Dibromomethane	93	11.763	11.763	1.076	132268	43.57	ug/L 93
40) Bromodichloromethane	83	11.885	11.885	1.087	293273	44.64	ug/L 100
41) 2-Chloroethylvinyl ether	63	12.122	12.122	1.109	39337	213.77	ug/L 96
42) cis-1,3-Dichloropropylene	75	12.372	12.372	1.132	337809	43.49	ug/L 92
44) 4-Methyl-2-pentanone	58	12.470	12.470	0.869	354876	240.08	ug/L 88
46) Toluene	91	12.793	12.793	0.891	835763	44.04	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.951	12.952	0.902	306785	46.03	ug/L 94
48) 1,1,2-Trichloroethane	83	13.189	13.189	0.919	155243	47.35	ug/L 99
49) 2-Hexanone	43	13.384	13.384	0.932	612116	260.87	ug/L 95
50) 1,3-Dichloropropane	76	13.397	13.397	0.933	293068	46.23	ug/L 94
51) Tetrachloroethylene	164	13.439	13.439	0.936	190773	41.91	ug/L 97
52) Dibromochloromethane	129	13.683	13.689	0.953	226032	42.94	ug/L 99
53) 1,2-Dibromoethane	107	13.872	13.872	0.966	183835	43.57	ug/L 99
54) Chlorobenzene	112	14.390	14.390	1.003	565372	42.66	ug/L 98
55) 1,1,1,2-Tetrachloroethane	131	14.445	14.445	1.006	222925	41.54	ug/L 99
56) Ethylbenzene	91	14.457	14.457	1.007	939642	44.27	ug/L 94
57) m,p-Xylenes	106	14.573	14.573	1.015	727741	85.43	ug/L 95
58) o-Xylene	91	15.030	15.037	1.047	758791	42.50	ug/L 99
59) Styrene	104	15.036	15.037	1.048	591443	42.31	ug/L 96
61) Bromoform	173	15.305	15.305	0.904	146764	44.81	ug/L 93
62) Isopropylbenzene	105	15.414	15.414	0.911	1008846	50.38	ug/L 99
64) 1,1,2,2-Tetrachloroethane	83	15.695	15.695	0.927	219133	48.08	ug/L 99
65) 1,2,3-Trichloropropane	110	15.786	15.792	0.933	68274	47.28	ug/L 93
66) Bromobenzene	156	15.847	15.847	0.936	252394	44.25	ug/L 94
67) n-Propylbenzene	91	15.860	15.866	0.937	1119730	49.63	ug/L 98
68) 1,3,5-Trimethylbenzene	105	16.018	16.024	0.946	807757	46.18	ug/L 99
69) 2-Chlorotoluene	126	16.024	16.024	0.947	234724	46.75	ug/L 94
70) 4-Chlorotoluene	91	16.128	16.128	0.953	648610	47.11	ug/L 98
71) tert-Butylbenzene	134	16.420	16.420	0.970	181306	45.74	ug/L 96
72) 1,2,4-Trimethylbenzene	105	16.457	16.463	0.972	808395	45.10	ug/L 99
73) sec-Butylbenzene	105	16.664	16.664	0.985	1037793	47.07	ug/L 100
74) 4-Isopropyltoluene	119	16.792	16.792	0.992	901613	45.92	ug/L 99
75) 1,3-Dichlorobenzene	146	16.865	16.865	0.996	462959	43.77	ug/L 85
76) 1,4-Dichlorobenzene	146	16.957	16.957	1.002	462064	43.57	ug/L 96
77) n-Butylbenzene	91	17.274	17.280	1.021	818094	47.71	ug/L 98
78) 1,2-Dichlorobenzene	146	17.426	17.432	1.030	443459	42.95	ug/L 99
79) 1,2-Dibromo-3-chloropr...	157	18.383	18.383	1.086	52866	41.55	ug/L 94
80) 1,2,4-Trichlorobenzene	180	19.578	19.578	1.157	339326	39.68	ug/L 100
81) Hexachlorobutadiene	225	19.773	19.780	1.168	207531	41.78	ug/L 93
82) Naphthalene	128	20.011	20.017	1.182	704031	41.78	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.401	20.401	1.205	310140	39.12	ug/L 96
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		7.355	7.355	0.673	0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA302P.D
Acq On : 03 Apr 2024 08:28
Operator : PXY1
InstName : VOAC
Sample : |1205692480|2590956|1|VOAF|1|VOA8260D_S|
Misc : LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 03 08:59:41 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

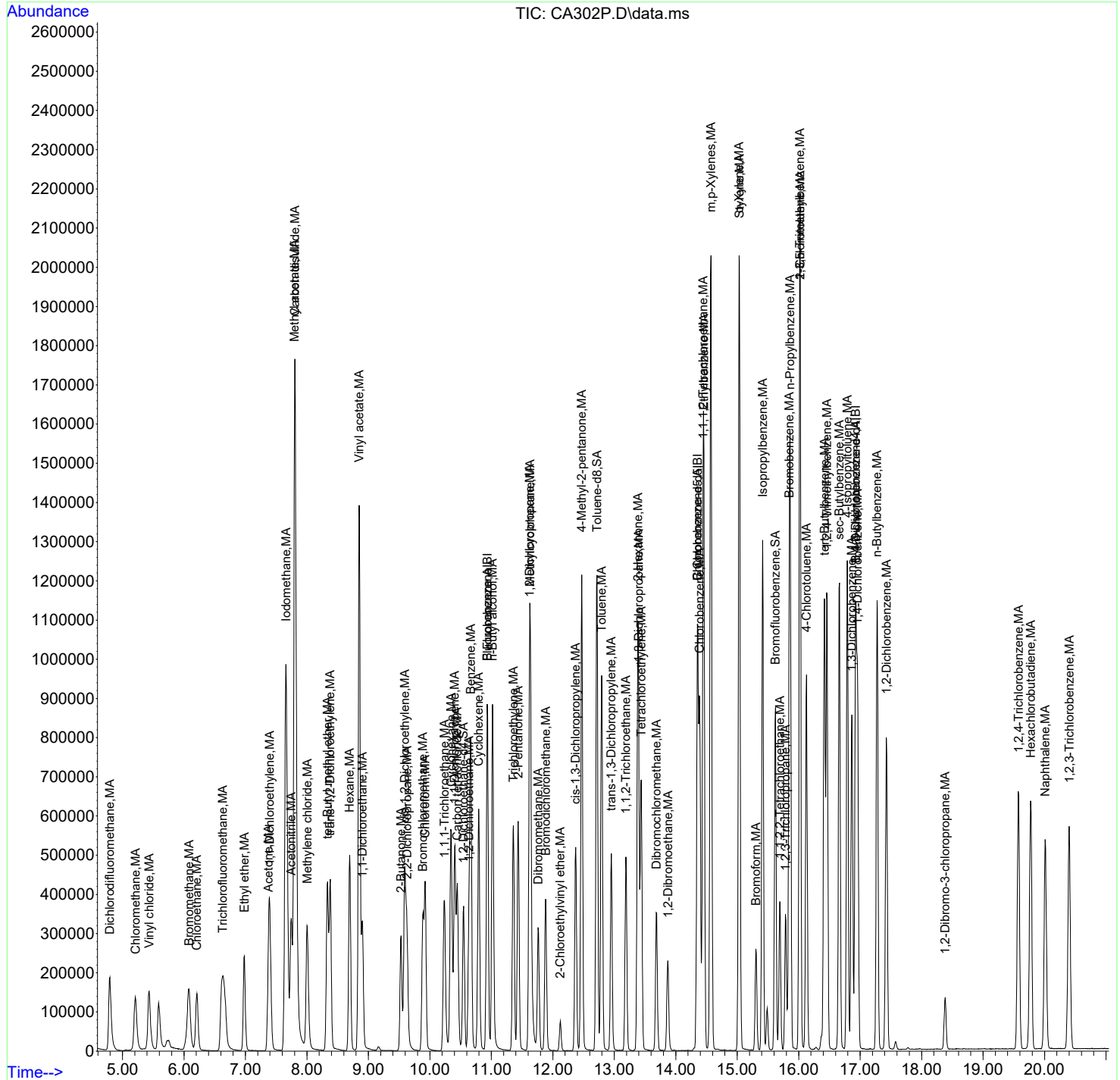
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol		7.410	7.440	0.678	0m	N.D.	d
88) Allyl chloride		7.995	7.843	0.731	0m	N.D.	d
89) tert-Butyl Alcohol		8.001	7.983	0.732	0m	N.D.	d
90) Acrylonitrile		8.343	8.257	0.763	0m	N.D.	d
91) Isopropyl ether		8.849	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate		9.531	9.531	0.872	0m	N.D.	d
95) Propionitrile		9.537	9.592	0.872	0m	N.D.	d
96) Methacrylonitrile		9.848	9.794	0.901	0m	N.D.	d
97) Tetrahydrofuran		9.922	9.940	0.907	0m	N.D.	d
98) Isobutyl alcohol		10.342	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.665	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.635	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.763	11.696	1.076	0m	N.D.	d
102) 2-Nitropropane		12.122	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.293	14.238	0.844	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.414	15.439	0.911	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.494	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.573	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA302P.D
Acq On : 03 Apr 2024 08:28
Operator : PXY1
InstName : VOAC
Sample : |1205692480|2590956|1|VOAF|1|VOA8260D_S|
Misc : LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 03 08:59:41 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:30	Matrix:	MISC SOLID
Lab Sample ID:	1205692483	Date Received:	03/30/2024 09:30		
Client Sample:	QC for batch 2590953	Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Top Front.EPAPS	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 19:09	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:51	Aliquot:	5.7 g	Final Volume:	10 mL
Data File:	data\040324VC\CA325.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		5050	ug/kg	29.2	87.7
74-87-3	Chloromethane		3960	ug/kg	29.2	87.7
75-01-4	Vinyl chloride		3870	ug/kg	29.2	87.7
74-83-9	Bromomethane		5130	ug/kg	29.2	87.7
75-00-3	Chloroethane		4380	ug/kg	29.2	87.7
75-69-4	Trichlorofluoromethane		4480	ug/kg	29.2	87.7
67-64-1	Acetone		17500	ug/kg	146	439
75-35-4	1,1-Dichloroethylene		3860	ug/kg	29.2	87.7
74-88-4	Iodomethane		17600	ug/kg	146	439
75-05-8	Acetonitrile		92500	ug/kg	731	2190
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	439	ug/kg	146	439
75-15-0	Carbon disulfide		20000	ug/kg	146	439
75-09-2	Methylene chloride		3500	ug/kg	146	439
156-60-5	trans-1,2-Dichloroethylene		3840	ug/kg	29.2	87.7
108-05-4	Vinyl acetate		20500	ug/kg	146	439
75-34-3	1,1-Dichloroethane		4000	ug/kg	29.2	87.7
78-93-3	2-Butanone	B	20200	ug/kg	146	439
67-66-3	Chloroform		3900	ug/kg	29.2	87.7
71-55-6	1,1,1-Trichloroethane		3650	ug/kg	29.2	87.7
56-23-5	Carbon tetrachloride		3710	ug/kg	29.2	87.7
107-06-2	1,2-Dichloroethane		3880	ug/kg	29.2	87.7
71-43-2	Benzene		3640	ug/kg	29.2	87.7
79-01-6	Trichloroethylene		3630	ug/kg	29.2	87.7
78-87-5	1,2-Dichloropropane		3840	ug/kg	29.2	87.7
74-95-3	Dibromomethane		3700	ug/kg	29.2	87.7
75-27-4	Bromodichloromethane		3810	ug/kg	29.2	87.7
10061-01-5	cis-1,3-Dichloropropylene		3630	ug/kg	29.2	87.7
108-10-1	4-Methyl-2-pentanone		20400	ug/kg	146	439
108-88-3	Toluene		3930	ug/kg	29.2	87.7
10061-02-6	trans-1,3-Dichloropropylene		4020	ug/kg	29.2	87.7
79-00-5	1,1,2-Trichloroethane		3910	ug/kg	29.2	87.7
591-78-6	2-Hexanone		21100	ug/kg	146	439
127-18-4	Tetrachloroethylene		3560	ug/kg	29.2	87.7
124-48-1	Dibromochloromethane		3680	ug/kg	29.2	87.7
106-93-4	1,2-Dibromoethane		3800	ug/kg	29.2	87.7
108-90-7	Chlorobenzene		3740	ug/kg	29.2	87.7
100-41-4	Ethylbenzene		3830	ug/kg	29.2	87.7
100-42-5	Styrene		3630	ug/kg	29.2	87.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:30	Matrix:	MISC SOLID
Lab Sample ID:	1205692483	Date Received:	03/30/2024 09:30		
Client Sample:	QC for batch 2590953	Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Top Front.EPAPS	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 19:09	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:51	Aliquot:	5.7 g	Final Volume:	10 mL
Data File:	data\040324VC\CA325.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform		3710	ug/kg	29.2	87.7
79-34-5	1,1,2,2-Tetrachloroethane		4160	ug/kg	29.2	87.7
96-18-4	1,2,3-Trichloropropane		4070	ug/kg	29.2	87.7
96-12-8	1,2-Dibromo-3-chloropropane		3530	ug/kg	43.9	87.7
107-02-8	Acrolein	U	439	ug/kg	146	439
107-05-1	Allyl chloride	U	439	ug/kg	146	439
107-13-1	Acrylonitrile	U	439	ug/kg	146	439
126-99-8	2-Chloro-1,3-butadiene	U	87.7	ug/kg	29.2	87.7
107-12-0	Propionitrile	U	439	ug/kg	146	439
126-98-7	Methacrylonitrile	U	439	ug/kg	146	439
78-83-1	Isobutyl alcohol	U	4390	ug/kg	1460	4390
80-62-6	Methyl methacrylate	U	439	ug/kg	146	439
97-63-2	Ethyl methacrylate	U	439	ug/kg	146	439
76-01-7	Pentachloroethane	U	439	ug/kg	146	439
110-57-6	trans-1,4-Dichloro-2-butene	U	439	ug/kg	146	439
1330-20-7	Xylenes (total)		11200	ug/kg	87.7	263
120-82-1	1,2,4-Trichlorobenzene		3510	ug/kg	29.2	87.7
630-20-6	1,1,1,2-Tetrachloroethane		3740	ug/kg	29.2	87.7

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA325.D
Acq On : 03 Apr 2024 19:09
Operator : PXY1
InstName : VOAC
Sample : |1205692483|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.7G/100UL N/A SOIL MIX[A] 660771001PS
ALS Vial : 25 Sample Multiplier: 1

MA
04/04/2024

Quant Time: Apr 04 07:58:25 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.897	10.934	1.000	984408	50.00	ug/L	-0.04
43) Chlorobenzene-d5	117	14.323	14.354	1.000	718690	50.00	ug/L	-0.03
60) 1,4-Dichlorobenzene-d4	152	16.902	16.933	1.000	362268	50.00	ug/L	-0.03
84) B Fluorobenzene	96	10.897	10.928	1.000	984408	50.00	ug/L	-0.03
103) B Chlorobenzene-d5	117	14.323	14.348	1.000	718690	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.902	16.920	1.000	362338	50.00	ug/L	-0.02

System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.513	10.543	0.965	314445	52.75	ug/L	-0.03
45) Toluene-d8	98	12.683	12.714	0.886	970449	52.27	ug/L	-0.03
63) Bromofluorobenzene	95	15.591	15.622	0.922	330520	52.95	ug/L	-0.03

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	106%
45) Toluene-d8	50.000	81 - 120	105%
63) Bromofluorobenzene	50.000	74 - 128	106%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.752	4.782	0.436	313572	57.57	ug/L	99
3) Chloromethane	50	5.172	5.203	0.475	273470	45.09	ug/L	99
4) Vinyl chloride	62	5.386	5.422	0.494	275429	44.08	ug/L	100
5) Bromomethane	94	6.014	6.075	0.552	268747	58.49	ug/L #	3
6) Chloroethane	64	6.148	6.197	0.564	196046	49.89	ug/L	100
7) Trichlorofluoromethane	101	6.587	6.629	0.604	392318	51.05	ug/L	100
8) Ethyl ether	59	6.934	6.971	0.636	183069	44.92	ug/L	88
9) Acetone	43	7.337	7.367	0.673	262898	199.34	ug/L	94
10) 1,1-Dichloroethylene	61	7.349	7.392	0.674	300725	44.05	ug/L	94
11) Iodomethane	142	7.617	7.654	0.699	1861923	200.76	ug/L	95
12) Acetonitrile	41	7.709	7.739	0.707	552174	1054.62	ug/L	100
13) Methyl acetate	43	7.757	7.794	0.712	707737	235.01	ug/L	96
14) Carbon disulfide	76	7.763	7.800	0.712	3128148	227.69	ug/L	100
15) Methylene chloride	84	7.958	8.001	0.730	209927	39.94	ug/L	90
16) tert-Butyl methyl ether	73	8.294	8.330	0.761	572039	40.11	ug/L	98
17) trans-1,2-Dichloroethy...	61	8.336	8.373	0.765	300948	43.76	ug/L	94
18) Hexane	57	8.647	8.690	0.794	278659	40.02	ug/L	92
19) Vinyl acetate	43	8.812	8.849	0.809	2222267	233.86	ug/L	96
20) 1,1-Dichloroethane	63	8.861	8.897	0.813	391470	45.58	ug/L	99
21) 2-Butanone	43	9.495	9.525	0.871	429510	230.05	ug/L	95
22) cis-1,2-Dichloroethylene	61	9.550	9.586	0.876	355029	43.88	ug/L	95
23) 2,2-Dichloropropane	77	9.586	9.623	0.880	297487	43.61	ug/L	89
24) Bromochloromethane	128	9.848	9.885	0.904	118411	38.56	ug/L #	84
25) Chloroform	83	9.885	9.922	0.907	400142	44.50	ug/L	99
26) 1,1,1-Trichloroethane	97	10.196	10.232	0.936	339125	41.60	ug/L	96
27) Cyclohexane	56	10.306	10.342	0.946	344758	42.35	ug/L	96
28) 1,1-Dichloropropene	75	10.367	10.403	0.951	285518	43.01	ug/L #	96
29) Carbon tetrachloride	117	10.409	10.446	0.955	308294	42.24	ug/L	100
31) 1,2-Dichloroethane	62	10.598	10.635	0.973	300152	44.25	ug/L	99
32) Benzene	78	10.629	10.665	0.975	799423	41.48	ug/L	96

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA325.D
Acq On : 03 Apr 2024 19:09
Operator : PXY1
InstName : VOAC
Sample : |1205692483|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.7G/100UL N/A SOIL MIX[A] 660771001PS
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Apr 04 07:58:25 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene	67	10.757	10.793	0.987	381803	39.65	ug/L 95
34) n-Butyl alcohol	56	10.988	11.019	1.008	518721	3740.52	ug/L 93
35) Trichloroethylene	95	11.324	11.354	1.039	225477	41.37	ug/L 96
36) 2-Pentanone	43	11.403	11.434	1.046	646029	197.40	ug/L 95
37) 1,2-Dichloropropane	63	11.586	11.616	1.063	215220	43.83	ug/L 87
38) Methylcyclohexane	83	11.598	11.635	1.064	374045	40.96	ug/L 72
39) Dibromomethane	93	11.726	11.763	1.076	135770	42.15	ug/L 92
40) Bromodichloromethane	83	11.848	11.885	1.087	302747	43.42	ug/L 99
41) 2-Chloroethylvinyl ether	63	12.086	12.122	1.109	59595	305.18	ug/L 97
42) cis-1,3-Dichloropropylene	75	12.336	12.372	1.132	340846	41.35	ug/L 92
44) 4-Methyl-2-pentanone	58	12.439	12.470	0.868	338250	232.00	ug/L 86
46) Toluene	91	12.762	12.793	0.891	838370	44.79	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.921	12.952	0.902	301008	45.79	ug/L 92
48) 1,1,2-Trichloroethane	83	13.159	13.189	0.919	144096	44.55	ug/L 99
49) 2-Hexanone	43	13.354	13.384	0.932	555673	240.09	ug/L 93
50) 1,3-Dichloropropane	76	13.366	13.397	0.933	288361	46.11	ug/L 95
51) Tetrachloroethylene	164	13.403	13.439	0.936	182477	40.64	ug/L 95
52) Dibromochloromethane	129	13.653	13.689	0.953	217698	41.93	ug/L 100
53) 1,2-Dibromoethane	107	13.835	13.872	0.966	180160	43.29	ug/L 99
54) Chlorobenzene	112	14.360	14.390	1.003	557038	42.61	ug/L 97
55) 1,1,1,2-Tetrachloroethane	131	14.415	14.445	1.006	225866	42.67	ug/L 99
56) Ethylbenzene	91	14.427	14.457	1.007	913205	43.62	ug/L 94
57) m,p-Xylenes	106	14.543	14.573	1.015	704796	83.88	ug/L 94
58) o-Xylene	91	15.006	15.037	1.048	761480	43.24	ug/L 98
59) Styrene	104	15.006	15.037	1.048	570704	41.39	ug/L 94
61) Bromoform	173	15.280	15.305	0.904	134130	42.25	ug/L 94
62) Isopropylbenzene	105	15.384	15.414	0.910	935305	48.19	ug/L 99
64) 1,1,2,2-Tetrachloroethane	83	15.664	15.695	0.927	209384	47.40	ug/L 100
65) 1,2,3-Trichloropropane	110	15.762	15.792	0.933	64869	46.35	ug/L 94
66) Bromobenzene	156	15.817	15.847	0.936	244508	44.22	ug/L 92
67) n-Propylbenzene	91	15.835	15.866	0.937	1066761	48.78	ug/L 98
68) 1,3,5-Trimethylbenzene	105	15.994	16.024	0.946	800239	47.20	ug/L 99
69) 2-Chlorotoluene	126	15.994	16.024	0.946	230041	47.27	ug/L 92
70) 4-Chlorotoluene	91	16.097	16.128	0.952	604362	45.29	ug/L 97
71) tert-Butylbenzene	134	16.390	16.420	0.970	179481	46.72	ug/L 96
72) 1,2,4-Trimethylbenzene	105	16.433	16.463	0.972	799433	46.02	ug/L 99
73) sec-Butylbenzene	105	16.634	16.664	0.984	1010976	47.31	ug/L 99
74) 4-Isopropyltoluene	119	16.762	16.792	0.992	871234	45.78	ug/L 98
75) 1,3-Dichlorobenzene	146	16.835	16.865	0.996	442564	43.17	ug/L 85
76) 1,4-Dichlorobenzene	146	16.926	16.957	1.001	444652	43.26	ug/L 96
77) n-Butylbenzene	91	17.249	17.280	1.021	779350	46.89	ug/L 97
78) 1,2-Dichlorobenzene	146	17.396	17.432	1.029	469763	46.95	ug/L 99
79) 1,2-Dibromo-3-chloropr...	157	18.353	18.383	1.086	49566	40.19	ug/L 93
80) 1,2,4-Trichlorobenzene	180	19.542	19.578	1.156	331957	40.05	ug/L 100
81) Hexachlorobutadiene	225	19.743	19.780	1.168	188650	39.19	ug/L 92
82) Naphthalene	128	19.975	20.017	1.182	691939	42.36	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.365	20.401	1.205	308291	40.12	ug/L 97
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA325.D
Acq On : 03 Apr 2024 19:09
Operator : PXY1
InstName : VOAC
Sample : |1205692483|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.7G/100UL N/A SOIL MIX[A] 660771001PS
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Apr 04 07:58:25 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

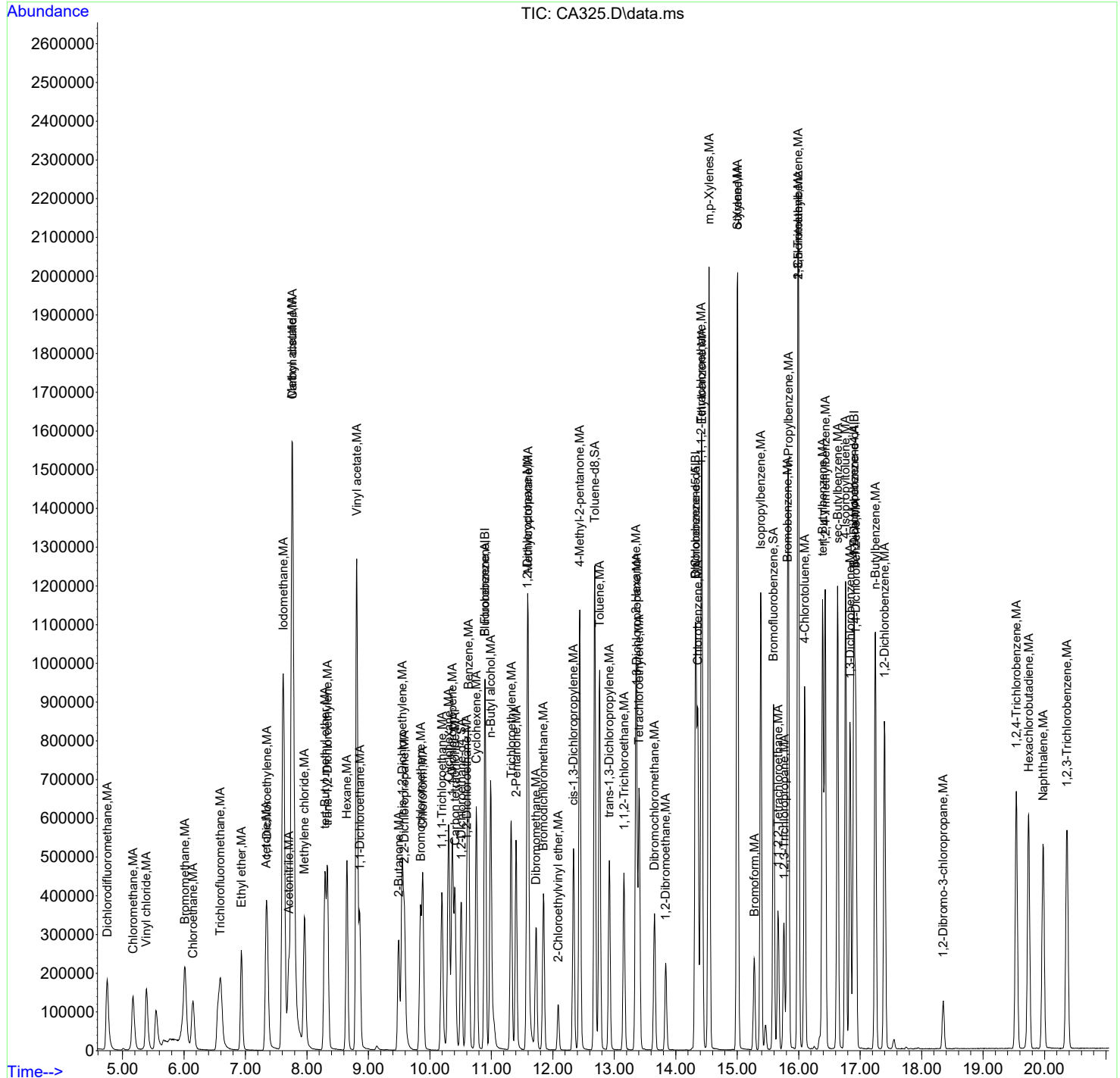
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol		7.367	7.440	0.676	0m	N.D.	d
88) Allyl chloride		0.000	7.843	0.000	0	N.D.	
89) tert-Butyl Alcohol		7.965	7.983	0.731	0m	N.D.	d
90) Acrylonitrile		8.294	8.257	0.761	0m	N.D.	d
91) Isopropyl ether		8.806	8.873	0.808	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate		9.495	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.495	9.592	0.871	0m	N.D.	d
96) Methacrylonitrile		9.879	9.794	0.907	0m	N.D.	d
97) Tetrahydrofuran		9.873	9.940	0.906	0m	N.D.	d
98) Isobutyl alcohol		10.306	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.629	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.598	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.732	11.696	1.077	0m	N.D.	d
102) 2-Nitropropane		12.086	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		15.384	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.457	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.542	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA325.D
Acq On : 03 Apr 2024 19:09
Operator : PXY1
InstName : VOAC
Sample : |1205692483|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.7G/100UL N/A SOIL MIX[A] 660771001PS
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Apr 04 07:58:25 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:30	Matrix:	MISC SOLID
Lab Sample ID:	1205692484	Date Received:	03/30/2024 09:30		
Client Sample:	QC for batch 2590953	Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Top Front.EPAPSD	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 19:37	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:51	Aliquot:	5.7 g	Final Volume:	10 mL
Data File:	data\040324VC\CA326.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		4980	ug/kg	29.2	87.7
74-87-3	Chloromethane		3910	ug/kg	29.2	87.7
75-01-4	Vinyl chloride		3820	ug/kg	29.2	87.7
74-83-9	Bromomethane		4930	ug/kg	29.2	87.7
75-00-3	Chloroethane		4350	ug/kg	29.2	87.7
75-69-4	Trichlorofluoromethane		4380	ug/kg	29.2	87.7
67-64-1	Acetone		16700	ug/kg	146	439
75-35-4	1,1-Dichloroethylene		3650	ug/kg	29.2	87.7
74-88-4	Iodomethane		16800	ug/kg	146	439
75-05-8	Acetonitrile		89200	ug/kg	731	2190
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	439	ug/kg	146	439
75-15-0	Carbon disulfide		18600	ug/kg	146	439
75-09-2	Methylene chloride		3300	ug/kg	146	439
156-60-5	trans-1,2-Dichloroethylene		3630	ug/kg	29.2	87.7
108-05-4	Vinyl acetate		21500	ug/kg	146	439
75-34-3	1,1-Dichloroethane		3830	ug/kg	29.2	87.7
78-93-3	2-Butanone	B	19600	ug/kg	146	439
67-66-3	Chloroform		3710	ug/kg	29.2	87.7
71-55-6	1,1,1-Trichloroethane		3470	ug/kg	29.2	87.7
56-23-5	Carbon tetrachloride		3520	ug/kg	29.2	87.7
107-06-2	1,2-Dichloroethane		3750	ug/kg	29.2	87.7
71-43-2	Benzene		3420	ug/kg	29.2	87.7
79-01-6	Trichloroethylene		3270	ug/kg	29.2	87.7
78-87-5	1,2-Dichloropropane		3660	ug/kg	29.2	87.7
74-95-3	Dibromomethane		3540	ug/kg	29.2	87.7
75-27-4	Bromodichloromethane		3600	ug/kg	29.2	87.7
10061-01-5	cis-1,3-Dichloropropylene		3400	ug/kg	29.2	87.7
108-10-1	4-Methyl-2-pentanone		19800	ug/kg	146	439
108-88-3	Toluene		3480	ug/kg	29.2	87.7
10061-02-6	trans-1,3-Dichloropropylene		3780	ug/kg	29.2	87.7
79-00-5	1,1,2-Trichloroethane		3720	ug/kg	29.2	87.7
591-78-6	2-Hexanone		20600	ug/kg	146	439
127-18-4	Tetrachloroethylene		3040	ug/kg	29.2	87.7
124-48-1	Dibromochloromethane		3480	ug/kg	29.2	87.7
106-93-4	1,2-Dibromoethane		3600	ug/kg	29.2	87.7
108-90-7	Chlorobenzene		3220	ug/kg	29.2	87.7
100-41-4	Ethylbenzene		3160	ug/kg	29.2	87.7
100-42-5	Styrene		3020	ug/kg	29.2	87.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:30	Matrix:	MISC SOLID
Lab Sample ID:	1205692484	Date Received:	03/30/2024 09:30		
Client Sample:	QC for batch 2590953	Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Top Front.EPAPSD	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2590956	Inst:	VOAC.I	Dilution:	50
Run Date:	04/03/2024 19:37	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/03/2024 07:51	Aliquot:	5.7 g	Final Volume:	10 mL
Data File:	data\040324VC\CA326.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform		3400	ug/kg	29.2	87.7
79-34-5	1,1,2,2-Tetrachloroethane		3910	ug/kg	29.2	87.7
96-18-4	1,2,3-Trichloropropane		3820	ug/kg	29.2	87.7
96-12-8	1,2-Dibromo-3-chloropropane		3270	ug/kg	43.9	87.7
107-02-8	Acrolein	U	439	ug/kg	146	439
107-05-1	Allyl chloride	U	439	ug/kg	146	439
107-13-1	Acrylonitrile	U	439	ug/kg	146	439
126-99-8	2-Chloro-1,3-butadiene	U	87.7	ug/kg	29.2	87.7
107-12-0	Propionitrile	U	439	ug/kg	146	439
126-98-7	Methacrylonitrile	U	439	ug/kg	146	439
78-83-1	Isobutyl alcohol	U	4390	ug/kg	1460	4390
80-62-6	Methyl methacrylate	U	439	ug/kg	146	439
97-63-2	Ethyl methacrylate	U	439	ug/kg	146	439
76-01-7	Pentachloroethane	U	439	ug/kg	146	439
110-57-6	trans-1,4-Dichloro-2-butene	U	439	ug/kg	146	439
1330-20-7	Xylenes (total)		9140	ug/kg	87.7	263
120-82-1	1,2,4-Trichlorobenzene		2700	ug/kg	29.2	87.7
630-20-6	1,1,1,2-Tetrachloroethane		3440	ug/kg	29.2	87.7

PS

04/04/2024

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA326.D
Acq On : 03 Apr 2024 19:37
Operator : PXY1
InstName : VOAC
Sample : |1205692484|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.7G/100UL N/A SOIL MIX[A] 660771001PSD
ALS Vial : 26 Sample Multiplier: 1

MA

04/04/2024

Quant Time: Apr 04 07:58:35 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.897	10.934	1.000	998494	50.00	ug/L	-0.04
43) Chlorobenzene-d5	117	14.323	14.354	1.000	729438	50.00	ug/L	-0.03
60) 1,4-Dichlorobenzene-d4	152	16.902	16.933	1.000	374597	50.00	ug/L	-0.03
84) B Fluorobenzene	96	10.897	10.928	1.000	998318	50.00	ug/L	-0.03
103) B Chlorobenzene-d5	117	14.323	14.348	1.000	729462	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.902	16.920	1.000	374723	50.00	ug/L	-0.02

System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.507	10.543	0.964	319067	52.77	ug/L	-0.04
45) Toluene-d8	98	12.683	12.714	0.886	983603	52.19	ug/L	-0.03
63) Bromofluorobenzene	95	15.591	15.622	0.922	338584	52.46	ug/L	-0.03

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	106%
45) Toluene-d8	50.000	81 - 120	104%
63) Bromofluorobenzene	50.000	74 - 128	105%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.752	4.782	0.436	313563	56.76	ug/L	99
3) Chloromethane	50	5.166	5.203	0.474	274453	44.62	ug/L	100
4) Vinyl chloride	62	5.392	5.422	0.495	275908	43.53	ug/L	99
5) Bromomethane	94	6.014	6.075	0.552	261734	56.16	ug/L #	3
6) Chloroethane	64	6.142	6.197	0.564	197700	49.60	ug/L	100
7) Trichlorofluoromethane	101	6.581	6.629	0.604	389148	49.92	ug/L	100
8) Ethyl ether	59	6.934	6.971	0.636	187152	45.28	ug/L	88
9) Acetone	43	7.330	7.367	0.673	254044	189.91	ug/L	96
10) 1,1-Dichloroethylene	61	7.343	7.392	0.674	288099	41.60	ug/L	94
11) Iodomethane	142	7.611	7.654	0.698	1805159	191.89	ug/L	95
12) Acetonitrile	41	7.702	7.739	0.707	539762	1016.37	ug/L	100
13) Methyl acetate	43	7.757	7.794	0.712	681198	223.01	ug/L	97
14) Carbon disulfide	76	7.757	7.800	0.712	2951024	211.77	ug/L	100
15) Methylene chloride	84	7.958	8.001	0.730	200764	37.61	ug/L	90
16) tert-Butyl methyl ether	73	8.294	8.330	0.761	568434	39.29	ug/L	98
17) trans-1,2-Dichloroethy...	61	8.330	8.373	0.764	288635	41.37	ug/L	94
18) Hexane	57	8.647	8.690	0.794	270137	38.25	ug/L	93
19) Vinyl acetate	43	8.806	8.849	0.808	2361015	244.95	ug/L	96
20) 1,1-Dichloroethane	63	8.855	8.897	0.813	380405	43.67	ug/L	99
21) 2-Butanone	43	9.489	9.525	0.871	423447	223.61	ug/L	95
22) cis-1,2-Dichloroethylene	61	9.550	9.586	0.876	342697	41.76	ug/L	94
23) 2,2-Dichloropropane	77	9.586	9.623	0.880	286968	41.48	ug/L	89
24) Bromochloromethane	128	9.842	9.885	0.903	115151	36.97	ug/L #	84
25) Chloroform	83	9.885	9.922	0.907	385350	42.25	ug/L	100
26) 1,1,1-Trichloroethane	97	10.196	10.232	0.936	326898	39.54	ug/L	96
27) Cyclohexane	56	10.306	10.342	0.946	327043	39.61	ug/L	97
28) 1,1-Dichloropropene	75	10.360	10.403	0.951	266125	39.52	ug/L #	97
29) Carbon tetrachloride	117	10.409	10.446	0.955	296768	40.09	ug/L	99
31) 1,2-Dichloroethane	62	10.598	10.635	0.973	294253	42.77	ug/L	100
32) Benzene	78	10.629	10.665	0.975	761271	38.94	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA326.D
Acq On : 03 Apr 2024 19:37
Operator : PXY1
InstName : VOAC
Sample : |1205692484|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.7G/100UL N/A SOIL MIX[A] 660771001PSD
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Apr 04 07:58:35 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
33) Cyclohexene	67	10.757	10.793	0.987	361039	36.97	ug/L	96
34) n-Butyl alcohol	56	10.988	11.019	1.008	525662	3737.10	ug/L	93
35) Trichloroethylene	95	11.318	11.354	1.039	206164	37.29	ug/L	96
36) 2-Pentanone	43	11.403	11.434	1.046	656654	197.82	ug/L	95
37) 1,2-Dichloropropane	63	11.586	11.616	1.063	207917	41.75	ug/L	87
38) Methylcyclohexane	83	11.598	11.635	1.064	349865	37.77	ug/L	73
39) Dibromomethane	93	11.726	11.763	1.076	132005	40.40	ug/L	92
40) Bromodichloromethane	83	11.848	11.885	1.087	290252	41.04	ug/L	99
41) 2-Chloroethylvinyl ether	63	12.086	12.122	1.109	57180	288.68	ug/L	96
42) cis-1,3-Dichloropropylene	75	12.336	12.372	1.132	324354	38.79	ug/L	91
44) 4-Methyl-2-pentanone	58	12.439	12.470	0.868	333244	225.20	ug/L	85
46) Toluene	91	12.762	12.793	0.891	752933	39.63	ug/L #	100
47) trans-1,3-Dichloroprop...	75	12.921	12.952	0.902	287535	43.10	ug/L	92
48) 1,1,2-Trichloroethane	83	13.159	13.189	0.919	139335	42.45	ug/L	98
49) 2-Hexanone	43	13.348	13.384	0.932	552653	235.26	ug/L	94
50) 1,3-Dichloropropane	76	13.366	13.397	0.933	278249	43.84	ug/L	93
51) Tetrachloroethylene	164	13.403	13.439	0.936	157716	34.61	ug/L	96
52) Dibromochloromethane	129	13.653	13.689	0.953	208837	39.63	ug/L	99
53) 1,2-Dibromoethane	107	13.835	13.872	0.966	173485	41.07	ug/L	99
54) Chlorobenzene	112	14.360	14.390	1.003	486936	36.70	ug/L	96
55) 1,1,1,2-Tetrachloroethane	131	14.415	14.445	1.006	210530	39.19	ug/L	99
56) Ethylbenzene	91	14.427	14.457	1.007	764671	35.99	ug/L	94
57) m,p-Xylenes	106	14.543	14.573	1.015	580890	68.12	ug/L	94
58) o-Xylene	91	15.006	15.037	1.048	644754	36.07	ug/L	98
59) Styrene	104	15.006	15.037	1.048	482536	34.48	ug/L	94
61) Bromoform	173	15.274	15.305	0.904	127378	38.81	ug/L	92
62) Isopropylbenzene	105	15.384	15.414	0.910	744799	37.11	ug/L	100
64) 1,1,2,2-Tetrachloroethane	83	15.664	15.695	0.927	203830	44.63	ug/L	100
65) 1,2,3-Trichloropropane	110	15.762	15.792	0.933	62974	43.51	ug/L	95
66) Bromobenzene	156	15.817	15.847	0.936	211233	36.95	ug/L	94
67) n-Propylbenzene	91	15.835	15.866	0.937	795425	35.18	ug/L	98
68) 1,3,5-Trimethylbenzene	105	15.994	16.024	0.946	617105	35.20	ug/L	99
69) 2-Chlorotoluene	126	15.994	16.024	0.946	182069	36.18	ug/L	93
70) 4-Chlorotoluene	91	16.097	16.128	0.952	471643	34.18	ug/L	97
71) tert-Butylbenzene	134	16.390	16.420	0.970	136623	34.39	ug/L	93
72) 1,2,4-Trimethylbenzene	105	16.433	16.463	0.972	613297	34.14	ug/L	99
73) sec-Butylbenzene	105	16.634	16.664	0.984	733343	33.18	ug/L	99
74) 4-Isopropyltoluene	119	16.762	16.792	0.992	616486	31.33	ug/L	98
75) 1,3-Dichlorobenzene	146	16.835	16.865	0.996	350083	33.02	ug/L	85
76) 1,4-Dichlorobenzene	146	16.926	16.957	1.001	351764	33.09	ug/L	95
77) n-Butylbenzene	91	17.249	17.280	1.021	519644	30.24	ug/L	98
78) 1,2-Dichlorobenzene	146	17.396	17.432	1.029	392316	37.92	ug/L	99
79) 1,2-Dibromo-3-chloropr...	157	18.353	18.383	1.086	47592	37.32	ug/L	93
80) 1,2,4-Trichlorobenzene	180	19.542	19.578	1.156	263680	30.77	ug/L	99
81) Hexachlorobutadiene	225	19.743	19.780	1.168	127692	25.65	ug/L	94
82) Naphthalene	128	19.975	20.017	1.182	644285	38.15	ug/L	100
83) 1,2,3-Trichlorobenzene	180	20.365	20.401	1.205	258421	32.52	ug/L	95
85) Acrolein		0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA326.D
Acq On : 03 Apr 2024 19:37
Operator : PXY1
InstName : VOAC
Sample : |1205692484|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.7G/100UL N/A SOIL MIX[A] 660771001PSD
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Apr 04 07:58:35 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

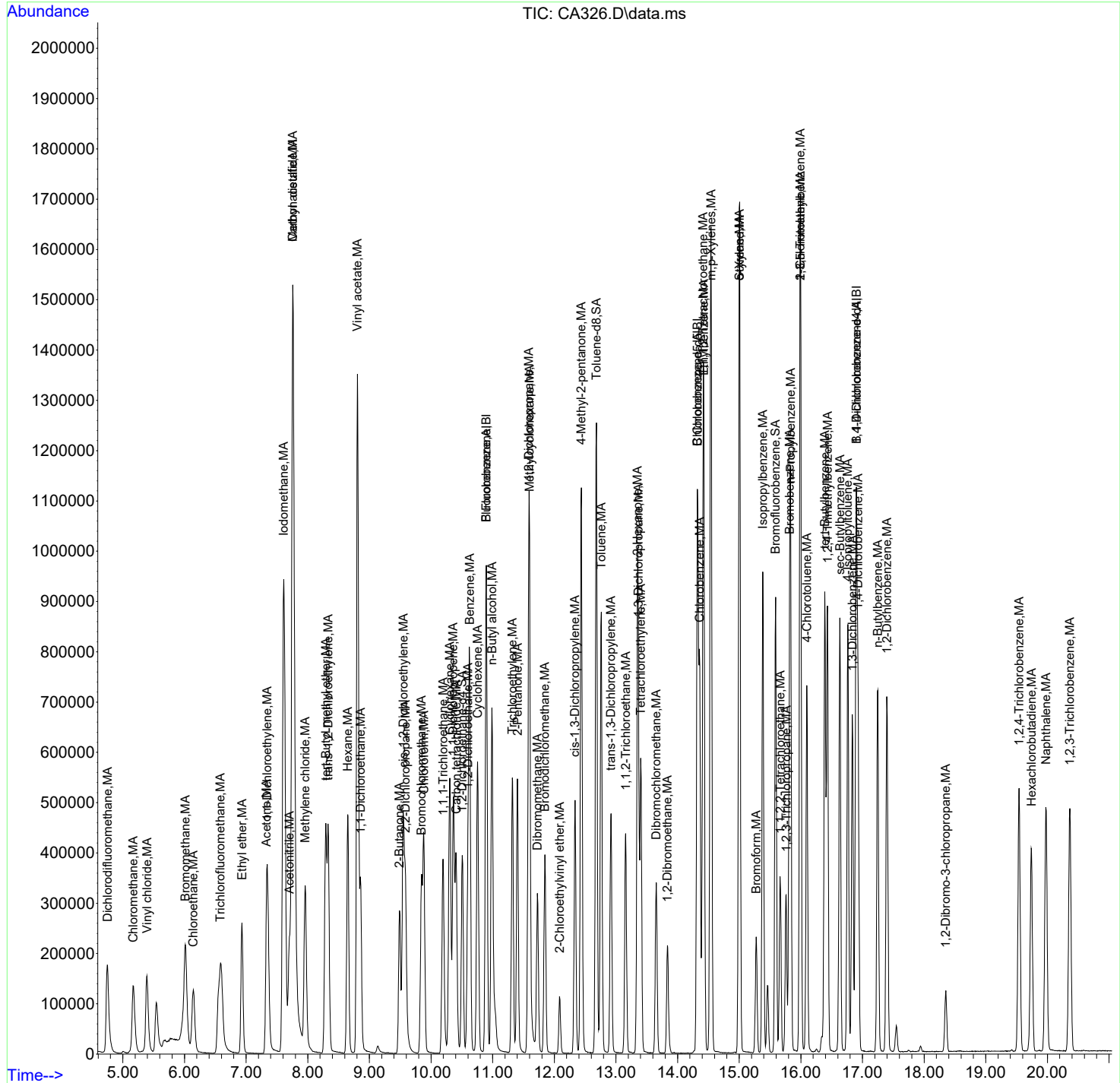
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol		7.361	7.440	0.676	0m	N.D.	d
88) Allyl chloride		0.000	7.843	0.000	0	N.D.	
89) tert-Butyl Alcohol		7.971	7.983	0.731	0m	N.D.	d
90) Acrylonitrile		8.288	8.257	0.761	0m	N.D.	d
91) Isopropyl ether		8.806	8.873	0.808	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate		9.489	9.531	0.871	0m	N.D.	d
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		9.873	9.794	0.906	0m	N.D.	d
97) Tetrahydrofuran		9.915	9.940	0.910	0m	N.D.	d
98) Isobutyl alcohol		10.306	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.623	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.598	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.726	11.696	1.076	0m	N.D.	d
102) 2-Nitropropane		12.086	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.274	14.238	0.845	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.384	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.469	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.548	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040324VC\
Data File : CA326.D
Acq On : 03 Apr 2024 19:37
Operator : PX1
InstName : VOAC
Sample : |1205692484|2590956|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.7G/100UL N/A SOIL MIX[A] 660771001PSD
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Apr 04 07:58:35 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Miscellaneous

Prep Logbook

Closed-System Purge-and-Trap Collection and Extraction: Volatile Organics in Soil and Waste Samples

Batch ID: 2590953
 Analyst: Patrick Yib
 Method: SW846 5035

Verified by: _____

Lab SOP: GL-OA-E-039 REV# 13
 Instrument: VOAB-003 OH AUS Balance

Sample ID	Prep Date	Sample Wt (g)	Preservative Volume (mL)	Final Volume (mL)	Prep Factor (mL/g)	Scanned Container
1205692480 LCS	03-APR-2024 07:00:00	5	DI WATER	5	1	NA
1205692481 MB	03-APR-2024 07:01:00	5	DI WATER	5	1	NA
1205692482 HB	03-APR-2024 07:50:00	5	METHANO	10	2	NA
660771001	03-APR-2024 07:51:00	5.7	METHANO	10	1.75439	660771001.01.01
1205692483 PS (660771001)	03-APR-2024 07:51:00	5.7	METHANO	10	1.75439	NA
1205692484 PSD (660771001)	03-APR-2024 07:51:00	5.7	METHANO	10	1.75439	NA
660771002	03-APR-2024 07:52:00	5.5	METHANO	10	1.81818	660771002.01.01
660771003	03-APR-2024 07:53:00	5.6	METHANO	10	1.78571	660771003.01.01
660771004	03-APR-2024 07:54:00	5.4	METHANO	10	1.85185	660771004.01.01
660771005	03-APR-2024 07:55:00	5.4	METHANO	10	1.85185	660771005.01.01
660771006	03-APR-2024 07:56:00	5.6	METHANO	10	1.78571	660771006.01.01
660771007	03-APR-2024 07:57:00	5.6	METHANO	10	1.78571	660771007.01.01
660771008	03-APR-2024 07:58:00	5.5	METHANO	10	1.81818	660771008.01.01
660771009	03-APR-2024 07:59:00	5.6	METHANO	10	1.78571	660771009.01.01
660771010	03-APR-2024 08:00:00	5.4	METHANO	10	1.85185	660771010.01.01
660771011	03-APR-2024 08:01:00	5.5	METHANO	10	1.81818	660771011.01.01
660771012	03-APR-2024 08:02:00	5.6	METHANO	10	1.78571	660771012.01.01
660771013	03-APR-2024 08:03:00	5.6	METHANO	10	1.78571	660771013.01.01
660771014	03-APR-2024 08:04:00	5.7	METHANO	10	1.75439	660771014.01.01
660771015	03-APR-2024 08:05:00	5.6	METHANO	10	1.78571	660771015.01.01
660771016	03-APR-2024 08:06:00	5.5	METHANO	10	1.81818	660771016.01.01
660771017	03-APR-2024 08:07:00	5.5	METHANO	10	1.81818	660771017.01.01
660771018	03-APR-2024 08:08:00	5.5	METHANO	10	1.81818	660771018.01.01

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
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03/18/2024

Date: 3/18/2024 Method 8260/624 Operator: PXY1

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 50

Daily Instrument Readings:
Multiplier Voltage: 1565

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/19/2024

(See pg. 001-002 for ICAL Std. Ids)

CI test lot # 034815B

Sequence Number: 031824VC

Daily Standard

Volume Added for Purge (ul)

Purge Amount

Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
BFB	IVM240304-01			1
IS	IVM240315-02	1	1	1
SS	IVM240315-01	1	1	1
ICV[A]	WCVM240318-10		5UL	
ICV[B]	WCVM240318-19		5UL	

5ML Water Purge Vol:
5.0G Soil Purge Wt.
N/A Mid level ext. MeOH Vol:
N/A Methanol Lot #
X Heated Purge

Analysis							Wt.(g) or	Dil.	AS		Matrix Analyst	CI test Accepta		
Date	Time	Data File	Lab Sample ID	Client	Batch #	Vol(ml/ul)	Factor	pH	Slot #	w or s		(Y/N)	ble(O/X)	Comments
3/18/2024	11:14	CY101.D	IVM240304-01	GEL	BFB	10ML	1	N/A	1	W	PXY1	N/A	O	
3/18/2024	11:39	CY102.D	WCVM240318-01	VSTD0005	ICAL	5UL/5ML	1	N/A	2	W	PXY1	N/A	O	MIX[A] UVM240301-01/UVM231218-01D/UVM231130-01D
3/18/2024	12:07	CY103.D	WCVM240318-02	VSTD001	ICAL	5UL/5ML	1	N/A	3	W	PXY1	N/A	O	MIX[A] UVM240301-02/UVM231218-02D/UVM231130-02D
3/18/2024	12:35	CY104.D	WCVM240318-03	VSTD002	ICAL	5UL/5ML	1	N/A	4	W	PXY1	N/A	O	MIX[A] UVM240301-03/UVM231218-03D/UVM231130-03D
3/18/2024	13:03	CY105.D	WCVM240318-04	VSTD005	ICAL	5UL/5ML	1	N/A	5	W	PXY1	N/A	O	MIX[A] UVM240301-04/UVM231218-04D/UVM231130-04D
3/18/2024	13:31	CY106.D	WCVM240318-05	VSTD010	ICAL	5UL/5ML	1	N/A	6	W	PXY1	N/A	O	MIX[A] UVM240301-05/UVM231218-05D/UVM231130-05D
3/18/2024	13:59	CY107.D	WCVM240318-06	VSTD020	ICAL	5UL/5ML	1	N/A	7	W	PXY1	N/A	O	MIX[A] UVM240301-06/UVM231218-06D/UVM231130-06D
3/18/2024	14:26	CY108.D	WCVM240318-07	VSTD050	ICAL	5UL/5ML	1	N/A	8	W	PXY1	N/A	O	MIX[A] UVM240301-07/UVM231218-07D/UVM231130-07D
3/18/2024	14:54	CY109.D	WCVM240318-08	VSTD080	ICAL	4UL/5ML	1	N/A	9	W	PXY1	N/A	O	MIX[A] UVM240301-08/UVM231218-08D/UVM231130-08D
3/18/2024	15:22	CY110.D	WCVM240318-09	VSTD100	ICAL	5UL/5ML	1	N/A	10	W	PXY1	N/A	O	MIX[A] UVM240301-08/UVM231218-08D/UVM231130-08D
3/18/2024	15:50	CY111.D	BLANK	GEL	IB	5ML	1	N/A	11	W	PXY1	N/A	X	RINSE
3/18/2024	16:17	CY112.D	WCVM240318-10	GEL	ICV	5UL/5ML	1	N/A	12	W	PXY1	N/A	O	MIX[A] UVM240108-10D/UVM231218-10F/UVM240222-01C
3/18/2024	16:45	CY113.D	WCVM240318-11	VSTD005	ICAL	5UL/5ML	1	N/A	13	W	PXY1	N/A	O	MIX[B] UVM240226-01A/UVM240215-03
3/18/2024	17:13	CY114.D	WCVM240318-12	VSTD010	ICAL	5UL/5ML	1	N/A	14	W	PXY1	N/A	O	MIX[B] UVM240226-02A/UVM240215-04
3/18/2024	17:41	CY115.D	WCVM240318-13	VSTD025	ICAL	5UL/5ML	1	N/A	15	W	PXY1	N/A	O	MIX[B] UVM240226-03A/UVM240215-05
3/18/2024	18:08	CY116.D	WCVM240318-14	VSTD050	ICAL	5UL/5ML	1	N/A	16	W	PXY1	N/A	O	MIX[B] UVM240226-04A/UVM240215-06
3/18/2024	18:36	CY117.D	WCVM240318-15	VSTD100	ICAL	5UL/5ML	1	N/A	17	W	PXY1	N/A	O	MIX[B] UVM240226-05A/UVM240215-07
3/18/2024	19:04	CY118.D	WCVM240318-16	VSTD250	ICAL	5UL/5ML	1	N/A	18	W	PXY1	N/A	O	MIX[B] UVM240226-06A/UVM240215-08
3/18/2024	19:32	CY119.D	WCVM240318-17	VSTD300	ICAL	3UL/5ML	1	N/A	19	W	PXY1	N/A	O	MIX[B] UVM240226-07A/UVM240215-09
3/18/2024	20:00	CY120.D	WCVM240318-18	VSTD500	ICAL	5UL/5ML	1	N/A	20	W	PXY1	N/A	O	MIX[B] UVM240226-07A/UVM240215-09
3/18/2024	20:28	CY121.D	BLANK	GEL	IB	5ML	1	N/A	21	W	PXY1	N/A	X	RINSE
3/18/2024	20:56	CY122.D	WCVM240318-19	GEL	ICV	5UL/5ML	1	N/A	22	W	PXY1	N/A	O	MIX[B] UVM240226-08C/UVM240314-08A
3/18/2024	21:24	CY123.D	BLANK	GEL	IB	5ML	1	N/A	23	W	PXY1	N/A	X	RINSE

04/04/2024
04/04/2024

Date: 4/3/2024 Method 8260/624 Operator: PXY1

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 50

Daily Instrument Readings:
Multiplier Voltage: 1565

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/19/2024

(See pg. 001-002 for ICAL Std. Ids)

Cl test lot # 034815B

Sequence Number: 040324VC

Daily Standard		Volume Added for Purge (ul)			
Solution ID#		Blk/ Smpl	CCV	MS/ LCS	BFB
BFB	IVM240321-01				1
IS	IVM240315-02	1	1	1	
SS	IVM240315-01	1	1	1	
CCV	WCVM240403-01			5UL	
LCS/MS	WCVM240403-01			5UL	
SH CCV	WCVM240403-02			5UL	
SH LCS	WCVM240403-02			5UL	

Purge Amount

5ML Water Purge Vol:
5.0G Soil Purge Wt.
N/A Mid level ext. MeOH Vol:

N/A Methanol Lot #
X Heated Purge

Analysis		Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test Accepta		Comments
Date	Time											(Y/N)	ble(O/X)	
4/3/2024	7:39	CA300.D	1205	GEL	BLANK	5ML	1	N/A	1	W	PXY1	N/A	X	RINSE
4/3/2024	8:04	CA301.D	IVM240321-01	GEL	BFB1	10ML	1	N/A	1	W	PXY1	N/A	O	
4/3/2024	8:28	CA302.D	WCVM240403-01	GEL	CCV/LCS	5G/5ML	1	N/A	2	S	PXY1	N/A	O	SOIL MIX[A] UVM240201-10A/UVM240125-10A/UVM240222-01D
4/3/2024	8:56	CA303.D	WCVM240403-02	GEL	CCV/LCS	5G/5ML	1	N/A	3	S	PXY1	N/A	O	SOIL MIX[B] UVM240226-08D/UVM240314-08A
4/3/2024	9:24	CA304.D	1205	GEL	BLANK	5ML	1	N/A	4	W	PXY1	N/A	O	
4/3/2024	9:52	CA305.D	1205	GEL	BLANK	5G/5ML	1	N/A	5	S	PXY1	N/A	O	SOIL
4/3/2024	10:20	CA306.D	1205692482	GEL	2590956	5.0G/100UL	50	N/A	6	S	PXY1	N/A	O	SOIL HB
4/3/2024	10:47	CA307.D	660771001	PERM	2590956	5.7G/100UL	50	N/A	7	S	PXY1	N/A	O	SOIL
4/3/2024	11:15	CA308.D	660771002	PERM	2590956	5.5G/100UL	50	N/A	8	S	PXY1	N/A	O	SOIL
4/3/2024	11:43	CA309.D	660771003	PERM	2590956	5.6G/100UL	50	N/A	9	S	PXY1	N/A	O	SOIL
4/3/2024	12:11	CA310.D	660771004	PERM	2590956	5.4G/100UL	50	N/A	10	S	PXY1	N/A	O	SOIL
4/3/2024	12:39	CA311.D	660771005	PERM	2590956	5.4G/100UL	50	N/A	11	S	PXY1	N/A	O	SOIL
4/3/2024	13:07	CA312.D	660771006	PERM	2590956	5.6G/100UL	50	N/A	12	S	PXY1	N/A	O	SOIL
4/3/2024	13:34	CA313.D	660771007	PERM	2590956	5.6G/100UL	50	N/A	13	S	PXY1	N/A	O	SOIL
4/3/2024	14:02	CA314.D	660771008	PERM	2590956	5.5G/100UL	50	N/A	14	S	PXY1	N/A	O	SOIL
4/3/2024	14:30	CA315.D	660771009	PERM	2590956	5.6G/100UL	50	N/A	15	S	PXY1	N/A	O	SOIL
4/3/2024	14:58	CA316.D	660771010	PERM	2590956	5.4G/100UL	50	N/A	16	S	PXY1	N/A	O	SOIL
4/3/2024	15:26	CA317.D	660771011	PERM	2590956	5.5G/100UL	50	N/A	17	S	PXY1	N/A	O	SOIL
4/3/2024	15:54	CA318.D	660771012	PERM	2590956	5.6G/100UL	50	N/A	18	S	PXY1	N/A	O	SOIL
4/3/2024	16:21	CA319.D	660771013	PERM	2590956	5.6G/100UL	50	N/A	19	S	PXY1	N/A	O	SOIL
4/3/2024	16:49	CA320.D	660771014	PERM	2590956	5.7G/100UL	50	N/A	20	S	PXY1	N/A	O	SOIL
4/3/2024	17:17	CA321.D	660771015	PERM	2590956	5.6G/100UL	50	N/A	21	S	PXY1	N/A	O	SOIL
4/3/2024	17:45	CA322.D	660771016	PERM	2590956	5.5G/100UL	50	N/A	22	S	PXY1	N/A	O	SOIL
4/3/2024	18:13	CA323.D	660771017	PERM	2590956	5.5G/100UL	50	N/A	23	S	PXY1	N/A	O	SOIL
4/3/2024	18:41	CA324.D	660771018	PERM	2590956	5.5G/100UL	50	N/A	24	S	PXY1	N/A	O	SOIL
4/3/2024	19:09	CA325.D	1205692483	PERM	2590956	5.7G/100UL	50	N/A	25	S	PXY1	N/A	O	SOIL MIX[A] 660771001PS
4/3/2024	19:37	CA326.D	1205692484	PERM	2590956	5.7G/100UL	50	N/A	26	S	PXY1	N/A	O	SOIL MIX[A] 660771001PSD
4/3/2024	20:04	CA327.D	1205	GEL	BLANK	5ML	1	N/A	27	W	PXY1	N/A	X	RINSE

Semi-Volatile Analysis

Case Narrative

**GC/MS Semivolatile
Technical Case Narrative
Perma-Fix of Florida
SDG #: 660771**

Product: Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry

Analytical Method: SW846 3541/8270E

Analytical Procedure: GL-OA-E-009 REV# 48

Analytical Batch: 2589785

Preparation Method: SW846 3541

Preparation Procedure: GL-OA-E-066 REV# 9

Preparation Batch: 2589781

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
660771001	12045.B1.Top Front.EPA
660771002	12045.B1.Middle Front.EPA
660771003	12045.B1.Bottom Front.EPA
660771004	12044.B1.Top Back.EPA
660771005	12044.B1.Middle Back.EPA
660771006	12044.B1.Bottom Back.EPA
660771007	12038.B2.Top Front.EPA
660771008	12038.B2.Middle Front.EPA
660771009	12038.B2.Bottom Front.EPA
660771010	12043.B2.Top Back.EPA
660771011	12043.B2.Middle Back.EPA
660771012	12043.B2.Bottom Back.EPA
660771013	12041.B3.Top Front.EPA
660771014	12041.B3.Middle Front.EPA
660771015	12041.B3.Bottom Front.EPA
660771016	12042.B3.Top Back.EPA
660771017	12042.B3.Middle Back.EPA
660771018	12042.B3.Bottom Back.EPA
1205690502	Method Blank (MB)
1205690503	Laboratory Control Sample (LCS)
1205690504	660751001(NonSDG) Matrix Spike (MS)
1205690505	660751001(NonSDG) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

CCV Requirements

All Calibration Verification Standards (CCV) did not meet the acceptance criteria as outlined in Method 8270D/E for samples 660771001 (12045.B1.Top Front.EPA), 660771002 (12045.B1.Middle Front.EPA), 660771003 (12045.B1.Bottom Front.EPA), 660771004 (12044.B1.Top Back.EPA), 660771005 (12044.B1.Middle Back.EPA),

660771006 (12044.B1.Bottom Back.EPA), 660771007 (12038.B2.Top Front.EPA), 660771009 (12038.B2.Bottom Front.EPA), 660771010 (12043.B2.Top Back.EPA), 660771011 (12043.B2.Middle Back.EPA), 660771012 (12043.B2.Bottom Back.EPA), 660771013 (12041.B3.Top Front.EPA), 660771014 (12041.B3.Middle Front.EPA), 660771015 (12041.B3.Bottom Front.EPA), 660771016 (12042.B3.Top Back.EPA), 660771017 (12042.B3.Middle Back.EPA) and 660771018 (12042.B3.Bottom Back.EPA) and the associated QC. However, the method allows for a designated number of outliers dependent on the requested analyte list. This SDG satisfied the 8270D/E outlier acceptance criteria. If required, a CRDL was analyzed after the CCVs to demonstrate that there is adequate sensitivity to detect the failed compounds at the applicable lower quantitation limit.

Technical Information

Sample Re-extraction/Re-analysis

The initial analysis for samples 660771017 (12042.B3.Middle Back.EPA) and 660771018 (12042.B3.Bottom Back.EPA) was outside of the DFTPP TUNE window. The samples were re-analyzed within a new DFTPP TUNE window. The data results are reported from the re-analysis.

Miscellaneous Information

Manual Integrations

Samples (See Below) required manual integration in order to properly identify one or more peaks and/or to correctly position the baseline as set in the calibration standard injections.

Sample	Analyte	Value
660771002 (12045.B1.Middle Front.EPA)	Benzoic acid	Result 790ug/kg
660771009 (12038.B2.Bottom Front.EPA)	Benzoic acid	Result 783ug/kg
660771011 (12043.B2.Middle Back.EPA)	Benzoic acid	Result 774ug/kg
660771012 (12043.B2.Bottom Back.EPA)	Benzoic acid	Result 796ug/kg
660771014 (12041.B3.Middle Front.EPA)	Benzoic acid	Result 890ug/kg

Additional Comments

Diphenylamine Statement

Diphenylamine has superseded the reporting of N-Nitroso-diphenylamine. As per the EPA, N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine. Studies of these two compounds at GEL, both independent of each other and together, showed that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine are therefore reported as Diphenylamine on all reports and forms.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report for

PERM001 Perma-Fix of Florida

Client SDG: 660771 GEL Work Order: 660771


The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- DL Indicates that sample is diluted.
- RA Indicates that sample is re-analyzed without re-extraction.
- RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: 

Name: Barbara Bailey

Date: 04 APR 2024

Title: Data Validator

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:30	Matrix:	MISC SOLID
Lab Sample ID:	660771001	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 16:08	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.85 g	Final Volume:	1 mL
Data File:	S040224\1D0218.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	922	ug/kg	276	922
110-86-1	Pyridine	U	922	ug/kg	276	922
62-53-3	Aniline	U	922	ug/kg	276	922
108-95-2	Phenol	U	922	ug/kg	276	922
111-44-4	bis(2-Chloroethyl) ether	U	922	ug/kg	276	922
95-57-8	2-Chlorophenol	U	922	ug/kg	276	922
541-73-1	1,3-Dichlorobenzene	U	922	ug/kg	276	922
106-46-7	1,4-Dichlorobenzene	U	922	ug/kg	276	922
95-50-1	1,2-Dichlorobenzene	U	922	ug/kg	276	922
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	922	ug/kg	276	922
100-51-6	Benzyl alcohol	U	922	ug/kg	276	922
95-48-7	o-Cresol	U	922	ug/kg	276	922
65794-96-9	m,p-Cresols	U	922	ug/kg	276	922
621-64-7	N-Nitrosodipropylamine	U	922	ug/kg	276	922
67-72-1	Hexachloroethane	U	922	ug/kg	276	922
98-95-3	Nitrobenzene	U	922	ug/kg	276	922
78-59-1	Isophorone	U	922	ug/kg	276	922
88-75-5	2-Nitrophenol	U	922	ug/kg	276	922
105-67-9	2,4-Dimethylphenol	U	922	ug/kg	276	922
111-91-1	bis(2-Chloroethoxy)methane	U	922	ug/kg	276	922
120-83-2	2,4-Dichlorophenol	U	922	ug/kg	276	922
65-85-0	Benzoic acid	U	1840	ug/kg	461	1840
106-47-8	4-Chloroaniline	U	922	ug/kg	276	922
87-68-3	Hexachlorobutadiene	U	922	ug/kg	276	922
59-50-7	4-Chloro-3-methylphenol	U	922	ug/kg	369	922
91-57-6	2-Methylnaphthalene	U	92.2	ug/kg	27.6	92.2
91-20-3	Naphthalene	U	92.2	ug/kg	27.6	92.2
90-12-0	1-Methylnaphthalene	U	92.2	ug/kg	27.6	92.2
77-47-4	Hexachlorocyclopentadiene	U	922	ug/kg	276	922
88-06-2	2,4,6-Trichlorophenol	U	922	ug/kg	276	922
95-95-4	2,4,5-Trichlorophenol	U	922	ug/kg	276	922
91-58-7	2-Chloronaphthalene	U	92.2	ug/kg	27.6	92.2
88-74-4	o-Nitroaniline	U	922	ug/kg	304	922
99-09-2	m-Nitroaniline	U	922	ug/kg	276	922
131-11-3	Dimethylphthalate	U	92.2	ug/kg	27.6	92.2
99-65-0	m-Dinitrobenzene	U	922	ug/kg	276	922
606-20-2	2,6-Dinitrotoluene	U	922	ug/kg	276	922
121-14-2	2,4-Dinitrotoluene	U	922	ug/kg	276	922

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:30	Matrix:	MISC SOLID
Lab Sample ID:	660771001	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 16:08	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.85 g	Final Volume:	1 mL
Data File:	S040224\1D0218.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	92.2	ug/kg	27.6	92.2
83-32-9	Acenaphthene	U	92.2	ug/kg	27.6	92.2
51-28-5	2,4-Dinitrophenol	U	1840	ug/kg	276	1840
132-64-9	Dibenzofuran	U	922	ug/kg	276	922
58-90-2	2,3,4,6-Tetrachlorophenol	U	922	ug/kg	276	922
84-66-2	Diethylphthalate	U	92.2	ug/kg	27.6	92.2
100-02-7	4-Nitrophenol	U	922	ug/kg	276	922
86-73-7	Fluorene	U	92.2	ug/kg	27.6	92.2
7005-72-3	4-Chlorophenylphenylether	U	922	ug/kg	276	922
100-01-6	p-Nitroaniline	U	922	ug/kg	276	922
534-52-1	2-Methyl-4,6-dinitrophenol	U	922	ug/kg	276	922
122-39-4	Diphenylamine	U	922	ug/kg	276	922
122-66-7	1,2-Diphenylhydrazine	U	922	ug/kg	276	922
101-55-3	4-Bromophenylphenylether	U	922	ug/kg	276	922
118-74-1	Hexachlorobenzene	U	922	ug/kg	276	922
87-86-5	Pentachlorophenol	U	922	ug/kg	276	922
88-85-7	Dinoseb	U	922	ug/kg	276	922
85-01-8	Phenanthrene	U	92.2	ug/kg	27.6	92.2
120-12-7	Anthracene	U	92.2	ug/kg	27.6	92.2
86-74-8	Carbazole	U	92.2	ug/kg	27.6	92.2
84-74-2	Di-n-butylphthalate	U	92.2	ug/kg	27.6	92.2
206-44-0	Fluoranthene	U	92.2	ug/kg	27.6	92.2
129-00-0	Pyrene	U	92.2	ug/kg	27.6	92.2
85-68-7	Butylbenzylphthalate	U	92.2	ug/kg	27.6	92.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	92.2	ug/kg	27.6	92.2
56-55-3	Benzo(a)anthracene	U	92.2	ug/kg	27.6	92.2
218-01-9	Chrysene	U	92.2	ug/kg	27.6	92.2
72-43-5	Methoxychlor	U	922	ug/kg	276	922
117-84-0	Di-n-octylphthalate	U	92.2	ug/kg	27.6	92.2
205-99-2	Benzo(b)fluoranthene	U	92.2	ug/kg	27.6	92.2
207-08-9	Benzo(k)fluoranthene	U	92.2	ug/kg	27.6	92.2
50-32-8	Benzo(a)pyrene	U	92.2	ug/kg	27.6	92.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	92.2	ug/kg	27.6	92.2
53-70-3	Dibenzo(a,h)anthracene	U	92.2	ug/kg	27.6	92.2
191-24-2	Benzo(ghi)perylene	U	92.2	ug/kg	27.6	92.2
123-91-1	1,4-Dioxane	U	922	ug/kg	276	922
80-62-6	Methyl methacrylate	U	922	ug/kg	276	922
97-63-2	Ethyl methacrylate	U	922	ug/kg	276	922

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:30	Matrix:	MISC SOLID
Lab Sample ID:	660771001	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 16:08	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.85 g	Final Volume:	1 mL
Data File:	S040224\1D0218.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	922	ug/kg	276	922
10595-95-6	N-Nitrosomethylethylamine	U	922	ug/kg	276	922
66-27-3	Methyl methanesulfonate	U	922	ug/kg	276	922
55-18-5	N-Nitrosodiethylamine	U	922	ug/kg	276	922
62-50-0	Ethyl Methanesulfonate	U	922	ug/kg	276	922
76-01-7	Pentachloroethane	U	922	ug/kg	276	922
930-55-2	N-Nitrosopyrrolidine	U	922	ug/kg	276	922
98-86-2	Acetophenone	U	922	ug/kg	276	922
59-89-2	N-Nitrosomorpholine	U	922	ug/kg	276	922
95-53-4	o-Toluidine	U	922	ug/kg	276	922
100-75-4	N-Nitrosopiperidine	U	922	ug/kg	276	922
122-09-8	a,a-Dimethylphenethylamine	U	922	ug/kg	323	922
87-65-0	2,6-Dichlorophenol	U	922	ug/kg	276	922
1888-71-7	Hexachloropropene	U	922	ug/kg	276	922
924-16-3	N-Nitrosodi-n-butylamine	U	922	ug/kg	276	922
94-59-7	Safrole	U	922	ug/kg	276	922
95-94-3	1,2,4,5-Tetrachlorobenzene	U	922	ug/kg	276	922
120-58-1	Isosafrole	U	922	ug/kg	276	922
130-15-4	1,4-Naphthoquinone	U	922	ug/kg	276	922
608-93-5	Pentachlorobenzene	U	922	ug/kg	276	922
134-32-7	1-Naphthylamine	U	922	ug/kg	276	922
91-59-8	2-Naphthylamine	U	922	ug/kg	276	922
99-55-8	5-Nitro-o-toluidine	U	922	ug/kg	276	922
62-44-2	Phenacetin	U	922	ug/kg	276	922
99-35-4	1,3,5-Trinitrobenzene	U	922	ug/kg	276	922
2303-16-4	Diallate	U	922	ug/kg	276	922
92-67-1	4-Aminobiphenyl	U	922	ug/kg	276	922
82-68-8	Pentachloronitrobenzene	U	922	ug/kg	276	922
23950-58-5	Pronamide	U	922	ug/kg	276	922
56-57-5	4-Nitroquinoline-1-oxide	U	922	ug/kg	276	922
91-80-5	Methapyrilene	U	922	ug/kg	276	922
465-73-6	Isodrin	U	922	ug/kg	184	922
140-57-8	Aramite	U	922	ug/kg	276	922
143-50-0	Kepone	U	922	ug/kg	276	922
60-11-7	p-(Dimethylamino)azobenzene	U	922	ug/kg	276	922
510-15-6	Chlorobenzilate	U	922	ug/kg	276	922
119-93-7	3,3'-Dimethylbenzidine	U	922	ug/kg	276	922
53-96-3	2-Acetylaminofluorene	U	922	ug/kg	276	922

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771001

Client ID: 12045.B1.Top Front.EPA

Batch ID: 2589785

Run Date: 04/02/2024 16:08

Prep Date: 04/02/2024 07:52

Data File: S040224\1D0218.D

Date Collected: 03/27/2024 08:30

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.85 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	922	ug/kg	276	922
57-97-6	7,12-Dimethylbenz(a)anthracene	U	922	ug/kg	276	922
56-49-5	3-Methylcholanthrene	U	922	ug/kg	276	922
126-68-1	Triethylphosphorothioate	U	922	ug/kg	276	922
297-97-2	Thionazin	U	922	ug/kg	276	922
126-73-8	Tributylphosphate	U	922	ug/kg	276	922
3689-24-5	Sulfotepp	U	922	ug/kg	276	922
298-02-2	Phorate	U	922	ug/kg	276	922
60-51-5	Dimethoate	U	922	ug/kg	276	922
298-04-4	Disulfoton	U	922	ug/kg	276	922
298-00-0	Methyl parathion	U	922	ug/kg	276	922
56-38-2	Parathion	U	922	ug/kg	276	922
52-85-7	Famphur	U	922	ug/kg	276	922
106-50-3	p-Phenylenediamine	U	46100	ug/kg	9220	46100
70-30-4	Hexachlorophene	U	46100	ug/kg	10700	46100
120-82-1	1,2,4-Trichlorobenzene	U	922	ug/kg	276	922

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:40	Matrix:	MISC SOLID
Lab Sample ID:	660771002	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 16:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.35 g	Final Volume:	1 mL
Data File:	S040224\1D0219.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	966	ug/kg	290	966
110-86-1	Pyridine	U	966	ug/kg	290	966
62-53-3	Aniline	U	966	ug/kg	290	966
108-95-2	Phenol	U	966	ug/kg	290	966
111-44-4	bis(2-Chloroethyl) ether	U	966	ug/kg	290	966
95-57-8	2-Chlorophenol	U	966	ug/kg	290	966
541-73-1	1,3-Dichlorobenzene	U	966	ug/kg	290	966
106-46-7	1,4-Dichlorobenzene	U	966	ug/kg	290	966
95-50-1	1,2-Dichlorobenzene	U	966	ug/kg	290	966
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	966	ug/kg	290	966
100-51-6	Benzyl alcohol	U	966	ug/kg	290	966
95-48-7	o-Cresol	U	966	ug/kg	290	966
65794-96-9	m,p-Cresols	U	966	ug/kg	290	966
621-64-7	N-Nitrosodipropylamine	U	966	ug/kg	290	966
67-72-1	Hexachloroethane	U	966	ug/kg	290	966
98-95-3	Nitrobenzene	U	966	ug/kg	290	966
78-59-1	Isophorone	U	966	ug/kg	290	966
88-75-5	2-Nitrophenol	U	966	ug/kg	290	966
105-67-9	2,4-Dimethylphenol	U	966	ug/kg	290	966
111-91-1	bis(2-Chloroethoxy)methane	U	966	ug/kg	290	966
120-83-2	2,4-Dichlorophenol	U	966	ug/kg	290	966
65-85-0	Benzoic acid	J	790	ug/kg	483	1930
106-47-8	4-Chloroaniline	U	966	ug/kg	290	966
87-68-3	Hexachlorobutadiene	U	966	ug/kg	290	966
59-50-7	4-Chloro-3-methylphenol	U	966	ug/kg	386	966
91-57-6	2-Methylnaphthalene	U	96.6	ug/kg	29.0	96.6
91-20-3	Naphthalene	U	96.6	ug/kg	29.0	96.6
90-12-0	1-Methylnaphthalene	U	96.6	ug/kg	29.0	96.6
77-47-4	Hexachlorocyclopentadiene	U	966	ug/kg	290	966
88-06-2	2,4,6-Trichlorophenol	U	966	ug/kg	290	966
95-95-4	2,4,5-Trichlorophenol	U	966	ug/kg	290	966
91-58-7	2-Chloronaphthalene	U	96.6	ug/kg	29.0	96.6
88-74-4	o-Nitroaniline	U	966	ug/kg	319	966
99-09-2	m-Nitroaniline	U	966	ug/kg	290	966
131-11-3	Dimethylphthalate	U	96.6	ug/kg	29.0	96.6
99-65-0	m-Dinitrobenzene	U	966	ug/kg	290	966
606-20-2	2,6-Dinitrotoluene	U	966	ug/kg	290	966
121-14-2	2,4-Dinitrotoluene	U	966	ug/kg	290	966

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:40	Matrix:	MISC SOLID
Lab Sample ID:	660771002	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 16:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.35 g	Final Volume:	1 mL
Data File:	S040224\1D0219.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	96.6	ug/kg	29.0	96.6
83-32-9	Acenaphthene	U	96.6	ug/kg	29.0	96.6
51-28-5	2,4-Dinitrophenol	U	1930	ug/kg	290	1930
132-64-9	Dibenzofuran	U	966	ug/kg	290	966
58-90-2	2,3,4,6-Tetrachlorophenol	U	966	ug/kg	290	966
84-66-2	Diethylphthalate	U	96.6	ug/kg	29.0	96.6
100-02-7	4-Nitrophenol	U	966	ug/kg	290	966
86-73-7	Fluorene	U	96.6	ug/kg	29.0	96.6
7005-72-3	4-Chlorophenylphenylether	U	966	ug/kg	290	966
100-01-6	p-Nitroaniline	U	966	ug/kg	290	966
534-52-1	2-Methyl-4,6-dinitrophenol	U	966	ug/kg	290	966
122-39-4	Diphenylamine	U	966	ug/kg	290	966
122-66-7	1,2-Diphenylhydrazine	U	966	ug/kg	290	966
101-55-3	4-Bromophenylphenylether	U	966	ug/kg	290	966
118-74-1	Hexachlorobenzene	U	966	ug/kg	290	966
87-86-5	Pentachlorophenol	U	966	ug/kg	290	966
88-85-7	Dinoseb	U	966	ug/kg	290	966
85-01-8	Phenanthrene	U	96.6	ug/kg	29.0	96.6
120-12-7	Anthracene	U	96.6	ug/kg	29.0	96.6
86-74-8	Carbazole	U	96.6	ug/kg	29.0	96.6
84-74-2	Di-n-butylphthalate	U	96.6	ug/kg	29.0	96.6
206-44-0	Fluoranthene	U	96.6	ug/kg	29.0	96.6
129-00-0	Pyrene	U	96.6	ug/kg	29.0	96.6
85-68-7	Butylbenzylphthalate	U	96.6	ug/kg	29.0	96.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	96.6	ug/kg	29.0	96.6
56-55-3	Benzo(a)anthracene	U	96.6	ug/kg	29.0	96.6
218-01-9	Chrysene	U	96.6	ug/kg	29.0	96.6
72-43-5	Methoxychlor	U	966	ug/kg	290	966
117-84-0	Di-n-octylphthalate	U	96.6	ug/kg	29.0	96.6
205-99-2	Benzo(b)fluoranthene	U	96.6	ug/kg	29.0	96.6
207-08-9	Benzo(k)fluoranthene	U	96.6	ug/kg	29.0	96.6
50-32-8	Benzo(a)pyrene	U	96.6	ug/kg	29.0	96.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	96.6	ug/kg	29.0	96.6
53-70-3	Dibenzo(a,h)anthracene	U	96.6	ug/kg	29.0	96.6
191-24-2	Benzo(ghi)perylene	U	96.6	ug/kg	29.0	96.6
123-91-1	1,4-Dioxane	U	966	ug/kg	290	966
80-62-6	Methyl methacrylate	U	966	ug/kg	290	966
97-63-2	Ethyl methacrylate	U	966	ug/kg	290	966

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:40	Matrix:	MISC SOLID
Lab Sample ID:	660771002	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 16:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.35 g	Final Volume:	1 mL
Data File:	S040224\1D0219.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	966	ug/kg	290	966
10595-95-6	N-Nitrosomethylethylamine	U	966	ug/kg	290	966
66-27-3	Methyl methanesulfonate	U	966	ug/kg	290	966
55-18-5	N-Nitrosodiethylamine	U	966	ug/kg	290	966
62-50-0	Ethyl Methanesulfonate	U	966	ug/kg	290	966
76-01-7	Pentachloroethane	U	966	ug/kg	290	966
930-55-2	N-Nitrosopyrrolidine	U	966	ug/kg	290	966
98-86-2	Acetophenone	U	966	ug/kg	290	966
59-89-2	N-Nitrosomorpholine	U	966	ug/kg	290	966
95-53-4	o-Toluidine	U	966	ug/kg	290	966
100-75-4	N-Nitrosopiperidine	U	966	ug/kg	290	966
122-09-8	a,a-Dimethylphenethylamine	U	966	ug/kg	338	966
87-65-0	2,6-Dichlorophenol	U	966	ug/kg	290	966
1888-71-7	Hexachloropropene	U	966	ug/kg	290	966
924-16-3	N-Nitrosodi-n-butylamine	U	966	ug/kg	290	966
94-59-7	Safrole	U	966	ug/kg	290	966
95-94-3	1,2,4,5-Tetrachlorobenzene	U	966	ug/kg	290	966
120-58-1	Isosafrole	U	966	ug/kg	290	966
130-15-4	1,4-Naphthoquinone	U	966	ug/kg	290	966
608-93-5	Pentachlorobenzene	U	966	ug/kg	290	966
134-32-7	1-Naphthylamine	U	966	ug/kg	290	966
91-59-8	2-Naphthylamine	U	966	ug/kg	290	966
99-55-8	5-Nitro-o-toluidine	U	966	ug/kg	290	966
62-44-2	Phenacetin	U	966	ug/kg	290	966
99-35-4	1,3,5-Trinitrobenzene	U	966	ug/kg	290	966
2303-16-4	Diallate	U	966	ug/kg	290	966
92-67-1	4-Aminobiphenyl	U	966	ug/kg	290	966
82-68-8	Pentachloronitrobenzene	U	966	ug/kg	290	966
23950-58-5	Pronamide	U	966	ug/kg	290	966
56-57-5	4-Nitroquinoline-1-oxide	U	966	ug/kg	290	966
91-80-5	Methapyrilene	U	966	ug/kg	290	966
465-73-6	Isodrin	U	966	ug/kg	193	966
140-57-8	Aramite	U	966	ug/kg	290	966
143-50-0	Kepone	U	966	ug/kg	290	966
60-11-7	p-(Dimethylamino)azobenzene	U	966	ug/kg	290	966
510-15-6	Chlorobenzilate	U	966	ug/kg	290	966
119-93-7	3,3'-Dimethylbenzidine	U	966	ug/kg	290	966
53-96-3	2-Acetylaminofluorene	U	966	ug/kg	290	966

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:40	Matrix:	MISC SOLID
Lab Sample ID:	660771002	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 16:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.35 g	Final Volume:	1 mL
Data File:	S040224\s1D0219.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	966	ug/kg	290	966
57-97-6	7,12-Dimethylbenz(a)anthracene	U	966	ug/kg	290	966
56-49-5	3-Methylcholanthrene	U	966	ug/kg	290	966
126-68-1	Triethylphosphorothioate	U	966	ug/kg	290	966
297-97-2	Thionazin	U	966	ug/kg	290	966
126-73-8	Tributylphosphate	U	966	ug/kg	290	966
3689-24-5	Sulfotepp	U	966	ug/kg	290	966
298-02-2	Phorate	U	966	ug/kg	290	966
60-51-5	Dimethoate	U	966	ug/kg	290	966
298-04-4	Disulfoton	U	966	ug/kg	290	966
298-00-0	Methyl parathion	U	966	ug/kg	290	966
56-38-2	Parathion	U	966	ug/kg	290	966
52-85-7	Famphur	U	966	ug/kg	290	966
106-50-3	p-Phenylenediamine	U	48300	ug/kg	9660	48300
70-30-4	Hexachlorophene	U	48300	ug/kg	11200	48300
120-82-1	1,2,4-Trichlorobenzene	U	966	ug/kg	290	966

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:50	Matrix:	MISC SOLID
Lab Sample ID:	660771003	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 16:52	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.09 g	Final Volume:	1 mL
Data File:	S040224\1D0220.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	991	ug/kg	297	991
110-86-1	Pyridine	U	991	ug/kg	297	991
62-53-3	Aniline	U	991	ug/kg	297	991
108-95-2	Phenol	U	991	ug/kg	297	991
111-44-4	bis(2-Chloroethyl) ether	U	991	ug/kg	297	991
95-57-8	2-Chlorophenol	U	991	ug/kg	297	991
541-73-1	1,3-Dichlorobenzene	U	991	ug/kg	297	991
106-46-7	1,4-Dichlorobenzene	U	991	ug/kg	297	991
95-50-1	1,2-Dichlorobenzene	U	991	ug/kg	297	991
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	991	ug/kg	297	991
100-51-6	Benzyl alcohol	U	991	ug/kg	297	991
95-48-7	o-Cresol	U	991	ug/kg	297	991
65794-96-9	m,p-Cresols	U	991	ug/kg	297	991
621-64-7	N-Nitrosodipropylamine	U	991	ug/kg	297	991
67-72-1	Hexachloroethane	U	991	ug/kg	297	991
98-95-3	Nitrobenzene	U	991	ug/kg	297	991
78-59-1	Isophorone	U	991	ug/kg	297	991
88-75-5	2-Nitrophenol	U	991	ug/kg	297	991
105-67-9	2,4-Dimethylphenol	U	991	ug/kg	297	991
111-91-1	bis(2-Chloroethoxy)methane	U	991	ug/kg	297	991
120-83-2	2,4-Dichlorophenol	U	991	ug/kg	297	991
65-85-0	Benzoic acid	J	867	ug/kg	496	1980
106-47-8	4-Chloroaniline	U	991	ug/kg	297	991
87-68-3	Hexachlorobutadiene	U	991	ug/kg	297	991
59-50-7	4-Chloro-3-methylphenol	U	991	ug/kg	396	991
91-57-6	2-Methylnaphthalene	U	99.1	ug/kg	29.7	99.1
91-20-3	Naphthalene	U	99.1	ug/kg	29.7	99.1
90-12-0	1-Methylnaphthalene	U	99.1	ug/kg	29.7	99.1
77-47-4	Hexachlorocyclopentadiene	U	991	ug/kg	297	991
88-06-2	2,4,6-Trichlorophenol	U	991	ug/kg	297	991
95-95-4	2,4,5-Trichlorophenol	U	991	ug/kg	297	991
91-58-7	2-Chloronaphthalene	U	99.1	ug/kg	29.7	99.1
88-74-4	o-Nitroaniline	U	991	ug/kg	327	991
99-09-2	m-Nitroaniline	U	991	ug/kg	297	991
131-11-3	Dimethylphthalate	U	99.1	ug/kg	29.7	99.1
99-65-0	m-Dinitrobenzene	U	991	ug/kg	297	991
606-20-2	2,6-Dinitrotoluene	U	991	ug/kg	297	991
121-14-2	2,4-Dinitrotoluene	U	991	ug/kg	297	991

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:50	Matrix:	MISC SOLID
Lab Sample ID:	660771003	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 16:52	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.09 g	Final Volume:	1 mL
Data File:	S040224\1D0220.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	99.1	ug/kg	29.7	99.1
83-32-9	Acenaphthene	U	99.1	ug/kg	29.7	99.1
51-28-5	2,4-Dinitrophenol	U	1980	ug/kg	297	1980
132-64-9	Dibenzofuran	U	991	ug/kg	297	991
58-90-2	2,3,4,6-Tetrachlorophenol	U	991	ug/kg	297	991
84-66-2	Diethylphthalate	U	99.1	ug/kg	29.7	99.1
100-02-7	4-Nitrophenol	U	991	ug/kg	297	991
86-73-7	Fluorene	U	99.1	ug/kg	29.7	99.1
7005-72-3	4-Chlorophenylphenylether	U	991	ug/kg	297	991
100-01-6	p-Nitroaniline	U	991	ug/kg	297	991
534-52-1	2-Methyl-4,6-dinitrophenol	U	991	ug/kg	297	991
122-39-4	Diphenylamine	U	991	ug/kg	297	991
122-66-7	1,2-Diphenylhydrazine	U	991	ug/kg	297	991
101-55-3	4-Bromophenylphenylether	U	991	ug/kg	297	991
118-74-1	Hexachlorobenzene	U	991	ug/kg	297	991
87-86-5	Pentachlorophenol	U	991	ug/kg	297	991
88-85-7	Dinoseb	U	991	ug/kg	297	991
85-01-8	Phenanthrene	U	99.1	ug/kg	29.7	99.1
120-12-7	Anthracene	U	99.1	ug/kg	29.7	99.1
86-74-8	Carbazole	U	99.1	ug/kg	29.7	99.1
84-74-2	Di-n-butylphthalate	U	99.1	ug/kg	29.7	99.1
206-44-0	Fluoranthene	U	99.1	ug/kg	29.7	99.1
129-00-0	Pyrene	U	99.1	ug/kg	29.7	99.1
85-68-7	Butylbenzylphthalate	U	99.1	ug/kg	29.7	99.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	99.1	ug/kg	29.7	99.1
56-55-3	Benzo(a)anthracene	U	99.1	ug/kg	29.7	99.1
218-01-9	Chrysene	U	99.1	ug/kg	29.7	99.1
72-43-5	Methoxychlor	U	991	ug/kg	297	991
117-84-0	Di-n-octylphthalate	U	99.1	ug/kg	29.7	99.1
205-99-2	Benzo(b)fluoranthene	U	99.1	ug/kg	29.7	99.1
207-08-9	Benzo(k)fluoranthene	U	99.1	ug/kg	29.7	99.1
50-32-8	Benzo(a)pyrene	U	99.1	ug/kg	29.7	99.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	99.1	ug/kg	29.7	99.1
53-70-3	Dibenzo(a,h)anthracene	U	99.1	ug/kg	29.7	99.1
191-24-2	Benzo(ghi)perylene	U	99.1	ug/kg	29.7	99.1
123-91-1	1,4-Dioxane	U	991	ug/kg	297	991
80-62-6	Methyl methacrylate	U	991	ug/kg	297	991
97-63-2	Ethyl methacrylate	U	991	ug/kg	297	991

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:50	Matrix:	MISC SOLID
Lab Sample ID:	660771003	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 16:52	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.09 g	Final Volume:	1 mL
Data File:	S040224\1D0220.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	991	ug/kg	297	991
10595-95-6	N-Nitrosomethylethylamine	U	991	ug/kg	297	991
66-27-3	Methyl methanesulfonate	U	991	ug/kg	297	991
55-18-5	N-Nitrosodiethylamine	U	991	ug/kg	297	991
62-50-0	Ethyl Methanesulfonate	U	991	ug/kg	297	991
76-01-7	Pentachloroethane	U	991	ug/kg	297	991
930-55-2	N-Nitrosopyrrolidine	U	991	ug/kg	297	991
98-86-2	Acetophenone	U	991	ug/kg	297	991
59-89-2	N-Nitrosomorpholine	U	991	ug/kg	297	991
95-53-4	o-Toluidine	U	991	ug/kg	297	991
100-75-4	N-Nitrosopiperidine	U	991	ug/kg	297	991
122-09-8	a,a-Dimethylphenethylamine	U	991	ug/kg	347	991
87-65-0	2,6-Dichlorophenol	U	991	ug/kg	297	991
1888-71-7	Hexachloropropene	U	991	ug/kg	297	991
924-16-3	N-Nitrosodi-n-butylamine	U	991	ug/kg	297	991
94-59-7	Safrole	U	991	ug/kg	297	991
95-94-3	1,2,4,5-Tetrachlorobenzene	U	991	ug/kg	297	991
120-58-1	Isosafrole	U	991	ug/kg	297	991
130-15-4	1,4-Naphthoquinone	U	991	ug/kg	297	991
608-93-5	Pentachlorobenzene	U	991	ug/kg	297	991
134-32-7	1-Naphthylamine	U	991	ug/kg	297	991
91-59-8	2-Naphthylamine	U	991	ug/kg	297	991
99-55-8	5-Nitro-o-toluidine	U	991	ug/kg	297	991
62-44-2	Phenacetin	U	991	ug/kg	297	991
99-35-4	1,3,5-Trinitrobenzene	U	991	ug/kg	297	991
2303-16-4	Diallate	U	991	ug/kg	297	991
92-67-1	4-Aminobiphenyl	U	991	ug/kg	297	991
82-68-8	Pentachloronitrobenzene	U	991	ug/kg	297	991
23950-58-5	Pronamide	U	991	ug/kg	297	991
56-57-5	4-Nitroquinoline-1-oxide	U	991	ug/kg	297	991
91-80-5	Methapyrilene	U	991	ug/kg	297	991
465-73-6	Isodrin	U	991	ug/kg	198	991
140-57-8	Aramite	U	991	ug/kg	297	991
143-50-0	Kepone	U	991	ug/kg	297	991
60-11-7	p-(Dimethylamino)azobenzene	U	991	ug/kg	297	991
510-15-6	Chlorobenzilate	U	991	ug/kg	297	991
119-93-7	3,3'-Dimethylbenzidine	U	991	ug/kg	297	991
53-96-3	2-Acetylaminofluorene	U	991	ug/kg	297	991

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771003

Client ID: 12045.B1.Bottom Front.EPA

Batch ID: 2589785

Run Date: 04/02/2024 16:52

Prep Date: 04/02/2024 07:52

Data File: S040224\1D0220.D

Date Collected: 03/27/2024 08:50

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.09 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	991	ug/kg	297	991
57-97-6	7,12-Dimethylbenz(a)anthracene	U	991	ug/kg	297	991
56-49-5	3-Methylcholanthrene	U	991	ug/kg	297	991
126-68-1	Triethylphosphorothioate	U	991	ug/kg	297	991
297-97-2	Thionazin	U	991	ug/kg	297	991
126-73-8	Tributylphosphate	U	991	ug/kg	297	991
3689-24-5	Sulfotepp	U	991	ug/kg	297	991
298-02-2	Phorate	U	991	ug/kg	297	991
60-51-5	Dimethoate	U	991	ug/kg	297	991
298-04-4	Disulfoton	U	991	ug/kg	297	991
298-00-0	Methyl parathion	U	991	ug/kg	297	991
56-38-2	Parathion	U	991	ug/kg	297	991
52-85-7	Famphur	U	991	ug/kg	297	991
106-50-3	p-Phenylenediamine	U	49600	ug/kg	9910	49600
70-30-4	Hexachlorophene	U	49600	ug/kg	11500	49600
120-82-1	1,2,4-Trichlorobenzene	U	991	ug/kg	297	991

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660771004	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 17:15	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.88 g	Final Volume:	1 mL
Data File:	S040224\1D0221.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	919	ug/kg	276	919
110-86-1	Pyridine	U	919	ug/kg	276	919
62-53-3	Aniline	U	919	ug/kg	276	919
108-95-2	Phenol	U	919	ug/kg	276	919
111-44-4	bis(2-Chloroethyl) ether	U	919	ug/kg	276	919
95-57-8	2-Chlorophenol	U	919	ug/kg	276	919
541-73-1	1,3-Dichlorobenzene	U	919	ug/kg	276	919
106-46-7	1,4-Dichlorobenzene	U	919	ug/kg	276	919
95-50-1	1,2-Dichlorobenzene	J	416	ug/kg	276	919
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	919	ug/kg	276	919
100-51-6	Benzyl alcohol	U	919	ug/kg	276	919
95-48-7	o-Cresol	U	919	ug/kg	276	919
65794-96-9	m,p-Cresols	U	919	ug/kg	276	919
621-64-7	N-Nitrosodipropylamine	U	919	ug/kg	276	919
67-72-1	Hexachloroethane	U	919	ug/kg	276	919
98-95-3	Nitrobenzene	U	919	ug/kg	276	919
78-59-1	Isophorone	U	919	ug/kg	276	919
88-75-5	2-Nitrophenol	U	919	ug/kg	276	919
105-67-9	2,4-Dimethylphenol	U	919	ug/kg	276	919
111-91-1	bis(2-Chloroethoxy)methane	U	919	ug/kg	276	919
120-83-2	2,4-Dichlorophenol	U	919	ug/kg	276	919
65-85-0	Benzoic acid	U	1840	ug/kg	460	1840
106-47-8	4-Chloroaniline	U	919	ug/kg	276	919
87-68-3	Hexachlorobutadiene	U	919	ug/kg	276	919
59-50-7	4-Chloro-3-methylphenol	U	919	ug/kg	368	919
91-57-6	2-Methylnaphthalene	U	91.9	ug/kg	27.6	91.9
91-20-3	Naphthalene	J	35.8	ug/kg	27.6	91.9
90-12-0	1-Methylnaphthalene	U	91.9	ug/kg	27.6	91.9
77-47-4	Hexachlorocyclopentadiene	U	919	ug/kg	276	919
88-06-2	2,4,6-Trichlorophenol	U	919	ug/kg	276	919
95-95-4	2,4,5-Trichlorophenol	U	919	ug/kg	276	919
91-58-7	2-Chloronaphthalene	U	91.9	ug/kg	27.6	91.9
88-74-4	o-Nitroaniline	U	919	ug/kg	303	919
99-09-2	m-Nitroaniline	U	919	ug/kg	276	919
131-11-3	Dimethylphthalate	U	91.9	ug/kg	27.6	91.9
99-65-0	m-Dinitrobenzene	U	919	ug/kg	276	919
606-20-2	2,6-Dinitrotoluene	U	919	ug/kg	276	919
121-14-2	2,4-Dinitrotoluene	U	919	ug/kg	276	919

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660771004	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 17:15	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.88 g	Final Volume:	1 mL
Data File:	S040224s1D0221.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	91.9	ug/kg	27.6	91.9
83-32-9	Acenaphthene	U	91.9	ug/kg	27.6	91.9
51-28-5	2,4-Dinitrophenol	U	1840	ug/kg	276	1840
132-64-9	Dibenzofuran	U	919	ug/kg	276	919
58-90-2	2,3,4,6-Tetrachlorophenol	U	919	ug/kg	276	919
84-66-2	Diethylphthalate	U	91.9	ug/kg	27.6	91.9
100-02-7	4-Nitrophenol	U	919	ug/kg	276	919
86-73-7	Fluorene	U	91.9	ug/kg	27.6	91.9
7005-72-3	4-Chlorophenylphenylether	U	919	ug/kg	276	919
100-01-6	p-Nitroaniline	U	919	ug/kg	276	919
534-52-1	2-Methyl-4,6-dinitrophenol	U	919	ug/kg	276	919
122-39-4	Diphenylamine	U	919	ug/kg	276	919
122-66-7	1,2-Diphenylhydrazine	U	919	ug/kg	276	919
101-55-3	4-Bromophenylphenylether	U	919	ug/kg	276	919
118-74-1	Hexachlorobenzene	U	919	ug/kg	276	919
87-86-5	Pentachlorophenol	U	919	ug/kg	276	919
88-85-7	Dinoseb	U	919	ug/kg	276	919
85-01-8	Phenanthrene	U	91.9	ug/kg	27.6	91.9
120-12-7	Anthracene	U	91.9	ug/kg	27.6	91.9
86-74-8	Carbazole	U	91.9	ug/kg	27.6	91.9
84-74-2	Di-n-butylphthalate	U	91.9	ug/kg	27.6	91.9
206-44-0	Fluoranthene	U	91.9	ug/kg	27.6	91.9
129-00-0	Pyrene	U	91.9	ug/kg	27.6	91.9
85-68-7	Butylbenzylphthalate	U	91.9	ug/kg	27.6	91.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	91.9	ug/kg	27.6	91.9
56-55-3	Benzo(a)anthracene	U	91.9	ug/kg	27.6	91.9
218-01-9	Chrysene	U	91.9	ug/kg	27.6	91.9
72-43-5	Methoxychlor	U	919	ug/kg	276	919
117-84-0	Di-n-octylphthalate	U	91.9	ug/kg	27.6	91.9
205-99-2	Benzo(b)fluoranthene	U	91.9	ug/kg	27.6	91.9
207-08-9	Benzo(k)fluoranthene	U	91.9	ug/kg	27.6	91.9
50-32-8	Benzo(a)pyrene	U	91.9	ug/kg	27.6	91.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	91.9	ug/kg	27.6	91.9
53-70-3	Dibenzo(a,h)anthracene	U	91.9	ug/kg	27.6	91.9
191-24-2	Benzo(ghi)perylene	U	91.9	ug/kg	27.6	91.9
123-91-1	1,4-Dioxane	U	919	ug/kg	276	919
80-62-6	Methyl methacrylate	U	919	ug/kg	276	919
97-63-2	Ethyl methacrylate	U	919	ug/kg	276	919

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771004

Client ID: 12044.B1.Top Back.EPA

Batch ID: 2589785

Run Date: 04/02/2024 17:15

Prep Date: 04/02/2024 07:52

Data File: S040224\1D0221.D

Date Collected: 03/27/2024 09:00

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.88 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	919	ug/kg	276	919
10595-95-6	N-Nitrosomethylethylamine	U	919	ug/kg	276	919
66-27-3	Methyl methanesulfonate	U	919	ug/kg	276	919
55-18-5	N-Nitrosodiethylamine	U	919	ug/kg	276	919
62-50-0	Ethyl Methanesulfonate	U	919	ug/kg	276	919
76-01-7	Pentachloroethane	U	919	ug/kg	276	919
930-55-2	N-Nitrosopyrrolidine	U	919	ug/kg	276	919
98-86-2	Acetophenone	U	919	ug/kg	276	919
59-89-2	N-Nitrosomorpholine	U	919	ug/kg	276	919
95-53-4	o-Toluidine	U	919	ug/kg	276	919
100-75-4	N-Nitrosopiperidine	U	919	ug/kg	276	919
122-09-8	a,a-Dimethylphenethylamine	U	919	ug/kg	322	919
87-65-0	2,6-Dichlorophenol	U	919	ug/kg	276	919
1888-71-7	Hexachloropropene	U	919	ug/kg	276	919
924-16-3	N-Nitrosodi-n-butylamine	U	919	ug/kg	276	919
94-59-7	Safrole	U	919	ug/kg	276	919
95-94-3	1,2,4,5-Tetrachlorobenzene	U	919	ug/kg	276	919
120-58-1	Isosafrole	U	919	ug/kg	276	919
130-15-4	1,4-Naphthoquinone	U	919	ug/kg	276	919
608-93-5	Pentachlorobenzene	U	919	ug/kg	276	919
134-32-7	1-Naphthylamine	U	919	ug/kg	276	919
91-59-8	2-Naphthylamine	U	919	ug/kg	276	919
99-55-8	5-Nitro-o-toluidine	U	919	ug/kg	276	919
62-44-2	Phenacetin	U	919	ug/kg	276	919
99-35-4	1,3,5-Trinitrobenzene	U	919	ug/kg	276	919
2303-16-4	Diallate	U	919	ug/kg	276	919
92-67-1	4-Aminobiphenyl	U	919	ug/kg	276	919
82-68-8	Pentachloronitrobenzene	U	919	ug/kg	276	919
23950-58-5	Pronamide	U	919	ug/kg	276	919
56-57-5	4-Nitroquinoline-1-oxide	U	919	ug/kg	276	919
91-80-5	Methapyrilene	U	919	ug/kg	276	919
465-73-6	Isodrin	U	919	ug/kg	184	919
140-57-8	Aramite	U	919	ug/kg	276	919
143-50-0	Kepone	U	919	ug/kg	276	919
60-11-7	p-(Dimethylamino)azobenzene	U	919	ug/kg	276	919
510-15-6	Chlorobenzilate	U	919	ug/kg	276	919
119-93-7	3,3'-Dimethylbenzidine	U	919	ug/kg	276	919
53-96-3	2-Acetylaminofluorene	U	919	ug/kg	276	919

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660771004	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 17:15	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.88 g	Final Volume:	1 mL
Data File:	S040224\s1D0221.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	919	ug/kg	276	919
57-97-6	7,12-Dimethylbenz(a)anthracene	U	919	ug/kg	276	919
56-49-5	3-Methylcholanthrene	U	919	ug/kg	276	919
126-68-1	Triethylphosphorothioate	U	919	ug/kg	276	919
297-97-2	Thionazin	U	919	ug/kg	276	919
126-73-8	Tributylphosphate	U	919	ug/kg	276	919
3689-24-5	Sulfotepp	U	919	ug/kg	276	919
298-02-2	Phorate	U	919	ug/kg	276	919
60-51-5	Dimethoate	U	919	ug/kg	276	919
298-04-4	Disulfoton	U	919	ug/kg	276	919
298-00-0	Methyl parathion	U	919	ug/kg	276	919
56-38-2	Parathion	U	919	ug/kg	276	919
52-85-7	Famphur	U	919	ug/kg	276	919
106-50-3	p-Phenylenediamine	U	46000	ug/kg	9190	46000
70-30-4	Hexachlorophene	U	46000	ug/kg	10700	46000
120-82-1	1,2,4-Trichlorobenzene	U	919	ug/kg	276	919

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660771005	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 17:37	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.24 g	Final Volume:	1 mL
Data File:	S040224\1D0222.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	977	ug/kg	293	977
110-86-1	Pyridine	U	977	ug/kg	293	977
62-53-3	Aniline	U	977	ug/kg	293	977
108-95-2	Phenol	U	977	ug/kg	293	977
111-44-4	bis(2-Chloroethyl) ether	U	977	ug/kg	293	977
95-57-8	2-Chlorophenol	U	977	ug/kg	293	977
541-73-1	1,3-Dichlorobenzene	U	977	ug/kg	293	977
106-46-7	1,4-Dichlorobenzene	U	977	ug/kg	293	977
95-50-1	1,2-Dichlorobenzene	U	977	ug/kg	293	977
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	977	ug/kg	293	977
100-51-6	Benzyl alcohol	U	977	ug/kg	293	977
95-48-7	o-Cresol	U	977	ug/kg	293	977
65794-96-9	m,p-Cresols	U	977	ug/kg	293	977
621-64-7	N-Nitrosodipropylamine	U	977	ug/kg	293	977
67-72-1	Hexachloroethane	U	977	ug/kg	293	977
98-95-3	Nitrobenzene	U	977	ug/kg	293	977
78-59-1	Isophorone	U	977	ug/kg	293	977
88-75-5	2-Nitrophenol	U	977	ug/kg	293	977
105-67-9	2,4-Dimethylphenol	U	977	ug/kg	293	977
111-91-1	bis(2-Chloroethoxy)methane	U	977	ug/kg	293	977
120-83-2	2,4-Dichlorophenol	U	977	ug/kg	293	977
65-85-0	Benzoic acid	J	902	ug/kg	488	1950
106-47-8	4-Chloroaniline	U	977	ug/kg	293	977
87-68-3	Hexachlorobutadiene	U	977	ug/kg	293	977
59-50-7	4-Chloro-3-methylphenol	U	977	ug/kg	391	977
91-57-6	2-Methylnaphthalene	U	97.7	ug/kg	29.3	97.7
91-20-3	Naphthalene	U	97.7	ug/kg	29.3	97.7
90-12-0	1-Methylnaphthalene	U	97.7	ug/kg	29.3	97.7
77-47-4	Hexachlorocyclopentadiene	U	977	ug/kg	293	977
88-06-2	2,4,6-Trichlorophenol	U	977	ug/kg	293	977
95-95-4	2,4,5-Trichlorophenol	U	977	ug/kg	293	977
91-58-7	2-Chloronaphthalene	U	97.7	ug/kg	29.3	97.7
88-74-4	o-Nitroaniline	U	977	ug/kg	322	977
99-09-2	m-Nitroaniline	U	977	ug/kg	293	977
131-11-3	Dimethylphthalate	U	97.7	ug/kg	29.3	97.7
99-65-0	m-Dinitrobenzene	U	977	ug/kg	293	977
606-20-2	2,6-Dinitrotoluene	U	977	ug/kg	293	977
121-14-2	2,4-Dinitrotoluene	U	977	ug/kg	293	977

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660771005	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 17:37	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.24 g	Final Volume:	1 mL
Data File:	S040224\1D0222.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	97.7	ug/kg	29.3	97.7
83-32-9	Acenaphthene	U	97.7	ug/kg	29.3	97.7
51-28-5	2,4-Dinitrophenol	U	1950	ug/kg	293	1950
132-64-9	Dibenzofuran	U	977	ug/kg	293	977
58-90-2	2,3,4,6-Tetrachlorophenol	U	977	ug/kg	293	977
84-66-2	Diethylphthalate	U	97.7	ug/kg	29.3	97.7
100-02-7	4-Nitrophenol	U	977	ug/kg	293	977
86-73-7	Fluorene	U	97.7	ug/kg	29.3	97.7
7005-72-3	4-Chlorophenylphenylether	U	977	ug/kg	293	977
100-01-6	p-Nitroaniline	U	977	ug/kg	293	977
534-52-1	2-Methyl-4,6-dinitrophenol	U	977	ug/kg	293	977
122-39-4	Diphenylamine	U	977	ug/kg	293	977
122-66-7	1,2-Diphenylhydrazine	U	977	ug/kg	293	977
101-55-3	4-Bromophenylphenylether	U	977	ug/kg	293	977
118-74-1	Hexachlorobenzene	U	977	ug/kg	293	977
87-86-5	Pentachlorophenol	U	977	ug/kg	293	977
88-85-7	Dinoseb	U	977	ug/kg	293	977
85-01-8	Phenanthrene	U	97.7	ug/kg	29.3	97.7
120-12-7	Anthracene	U	97.7	ug/kg	29.3	97.7
86-74-8	Carbazole	U	97.7	ug/kg	29.3	97.7
84-74-2	Di-n-butylphthalate	U	97.7	ug/kg	29.3	97.7
206-44-0	Fluoranthene	U	97.7	ug/kg	29.3	97.7
129-00-0	Pyrene	U	97.7	ug/kg	29.3	97.7
85-68-7	Butylbenzylphthalate	U	97.7	ug/kg	29.3	97.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	97.7	ug/kg	29.3	97.7
56-55-3	Benzo(a)anthracene	U	97.7	ug/kg	29.3	97.7
218-01-9	Chrysene	U	97.7	ug/kg	29.3	97.7
72-43-5	Methoxychlor	U	977	ug/kg	293	977
117-84-0	Di-n-octylphthalate	U	97.7	ug/kg	29.3	97.7
205-99-2	Benzo(b)fluoranthene	U	97.7	ug/kg	29.3	97.7
207-08-9	Benzo(k)fluoranthene	U	97.7	ug/kg	29.3	97.7
50-32-8	Benzo(a)pyrene	U	97.7	ug/kg	29.3	97.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	97.7	ug/kg	29.3	97.7
53-70-3	Dibenzo(a,h)anthracene	U	97.7	ug/kg	29.3	97.7
191-24-2	Benzo(ghi)perylene	U	97.7	ug/kg	29.3	97.7
123-91-1	1,4-Dioxane	U	977	ug/kg	293	977
80-62-6	Methyl methacrylate	U	977	ug/kg	293	977
97-63-2	Ethyl methacrylate	U	977	ug/kg	293	977

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660771005	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 17:37	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.24 g	Final Volume:	1 mL
Data File:	S040224\1D0222.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	977	ug/kg	293	977
10595-95-6	N-Nitrosomethylethylamine	U	977	ug/kg	293	977
66-27-3	Methyl methanesulfonate	U	977	ug/kg	293	977
55-18-5	N-Nitrosodiethylamine	U	977	ug/kg	293	977
62-50-0	Ethyl Methanesulfonate	U	977	ug/kg	293	977
76-01-7	Pentachloroethane	U	977	ug/kg	293	977
930-55-2	N-Nitrosopyrrolidine	U	977	ug/kg	293	977
98-86-2	Acetophenone	U	977	ug/kg	293	977
59-89-2	N-Nitrosomorpholine	U	977	ug/kg	293	977
95-53-4	o-Toluidine	U	977	ug/kg	293	977
100-75-4	N-Nitrosopiperidine	U	977	ug/kg	293	977
122-09-8	a,a-Dimethylphenethylamine	U	977	ug/kg	342	977
87-65-0	2,6-Dichlorophenol	U	977	ug/kg	293	977
1888-71-7	Hexachloropropene	U	977	ug/kg	293	977
924-16-3	N-Nitrosodi-n-butylamine	U	977	ug/kg	293	977
94-59-7	Safrole	U	977	ug/kg	293	977
95-94-3	1,2,4,5-Tetrachlorobenzene	U	977	ug/kg	293	977
120-58-1	Isosafrole	U	977	ug/kg	293	977
130-15-4	1,4-Naphthoquinone	U	977	ug/kg	293	977
608-93-5	Pentachlorobenzene	U	977	ug/kg	293	977
134-32-7	1-Naphthylamine	U	977	ug/kg	293	977
91-59-8	2-Naphthylamine	U	977	ug/kg	293	977
99-55-8	5-Nitro-o-toluidine	U	977	ug/kg	293	977
62-44-2	Phenacetin	U	977	ug/kg	293	977
99-35-4	1,3,5-Trinitrobenzene	U	977	ug/kg	293	977
2303-16-4	Diallate	U	977	ug/kg	293	977
92-67-1	4-Aminobiphenyl	U	977	ug/kg	293	977
82-68-8	Pentachloronitrobenzene	U	977	ug/kg	293	977
23950-58-5	Pronamide	U	977	ug/kg	293	977
56-57-5	4-Nitroquinoline-1-oxide	U	977	ug/kg	293	977
91-80-5	Methapyrilene	U	977	ug/kg	293	977
465-73-6	Isodrin	U	977	ug/kg	195	977
140-57-8	Aramite	U	977	ug/kg	293	977
143-50-0	Kepone	U	977	ug/kg	293	977
60-11-7	p-(Dimethylamino)azobenzene	U	977	ug/kg	293	977
510-15-6	Chlorobenzilate	U	977	ug/kg	293	977
119-93-7	3,3'-Dimethylbenzidine	U	977	ug/kg	293	977
53-96-3	2-Acetylaminofluorene	U	977	ug/kg	293	977

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660771005	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 17:37	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.24 g	Final Volume:	1 mL
Data File:	S040224\s1D0222.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	977	ug/kg	293	977
57-97-6	7,12-Dimethylbenz(a)anthracene	U	977	ug/kg	293	977
56-49-5	3-Methylcholanthrene	U	977	ug/kg	293	977
126-68-1	Triethylphosphorothioate	U	977	ug/kg	293	977
297-97-2	Thionazin	U	977	ug/kg	293	977
126-73-8	Tributylphosphate	U	977	ug/kg	293	977
3689-24-5	Sulfotepp	U	977	ug/kg	293	977
298-02-2	Phorate	U	977	ug/kg	293	977
60-51-5	Dimethoate	U	977	ug/kg	293	977
298-04-4	Disulfoton	U	977	ug/kg	293	977
298-00-0	Methyl parathion	U	977	ug/kg	293	977
56-38-2	Parathion	U	977	ug/kg	293	977
52-85-7	Famphur	U	977	ug/kg	293	977
106-50-3	p-Phenylenediamine	U	48800	ug/kg	9770	48800
70-30-4	Hexachlorophene	U	48800	ug/kg	11300	48800
120-82-1	1,2,4-Trichlorobenzene	U	977	ug/kg	293	977

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660771006	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 18:00	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.74 g	Final Volume:	1 mL
Data File:	S040224\1D0223.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	931	ug/kg	279	931
110-86-1	Pyridine	U	931	ug/kg	279	931
62-53-3	Aniline	U	931	ug/kg	279	931
108-95-2	Phenol	U	931	ug/kg	279	931
111-44-4	bis(2-Chloroethyl) ether	U	931	ug/kg	279	931
95-57-8	2-Chlorophenol	U	931	ug/kg	279	931
541-73-1	1,3-Dichlorobenzene	U	931	ug/kg	279	931
106-46-7	1,4-Dichlorobenzene	U	931	ug/kg	279	931
95-50-1	1,2-Dichlorobenzene	U	931	ug/kg	279	931
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	931	ug/kg	279	931
100-51-6	Benzyl alcohol	U	931	ug/kg	279	931
95-48-7	o-Cresol	U	931	ug/kg	279	931
65794-96-9	m,p-Cresols	U	931	ug/kg	279	931
621-64-7	N-Nitrosodipropylamine	U	931	ug/kg	279	931
67-72-1	Hexachloroethane	U	931	ug/kg	279	931
98-95-3	Nitrobenzene	U	931	ug/kg	279	931
78-59-1	Isophorone	U	931	ug/kg	279	931
88-75-5	2-Nitrophenol	U	931	ug/kg	279	931
105-67-9	2,4-Dimethylphenol	U	931	ug/kg	279	931
111-91-1	bis(2-Chloroethoxy)methane	U	931	ug/kg	279	931
120-83-2	2,4-Dichlorophenol	U	931	ug/kg	279	931
65-85-0	Benzoic acid	U	1860	ug/kg	466	1860
106-47-8	4-Chloroaniline	U	931	ug/kg	279	931
87-68-3	Hexachlorobutadiene	U	931	ug/kg	279	931
59-50-7	4-Chloro-3-methylphenol	U	931	ug/kg	372	931
91-57-6	2-Methylnaphthalene	U	93.1	ug/kg	27.9	93.1
91-20-3	Naphthalene	U	93.1	ug/kg	27.9	93.1
90-12-0	1-Methylnaphthalene	U	93.1	ug/kg	27.9	93.1
77-47-4	Hexachlorocyclopentadiene	U	931	ug/kg	279	931
88-06-2	2,4,6-Trichlorophenol	U	931	ug/kg	279	931
95-95-4	2,4,5-Trichlorophenol	U	931	ug/kg	279	931
91-58-7	2-Chloronaphthalene	U	93.1	ug/kg	27.9	93.1
88-74-4	o-Nitroaniline	U	931	ug/kg	307	931
99-09-2	m-Nitroaniline	U	931	ug/kg	279	931
131-11-3	Dimethylphthalate	U	93.1	ug/kg	27.9	93.1
99-65-0	m-Dinitrobenzene	U	931	ug/kg	279	931
606-20-2	2,6-Dinitrotoluene	U	931	ug/kg	279	931
121-14-2	2,4-Dinitrotoluene	U	931	ug/kg	279	931

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660771006	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 18:00	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.74 g	Final Volume:	1 mL
Data File:	S040224\1D0223.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	93.1	ug/kg	27.9	93.1
83-32-9	Acenaphthene	U	93.1	ug/kg	27.9	93.1
51-28-5	2,4-Dinitrophenol	U	1860	ug/kg	279	1860
132-64-9	Dibenzofuran	U	931	ug/kg	279	931
58-90-2	2,3,4,6-Tetrachlorophenol	U	931	ug/kg	279	931
84-66-2	Diethylphthalate	U	93.1	ug/kg	27.9	93.1
100-02-7	4-Nitrophenol	U	931	ug/kg	279	931
86-73-7	Fluorene	U	93.1	ug/kg	27.9	93.1
7005-72-3	4-Chlorophenylphenylether	U	931	ug/kg	279	931
100-01-6	p-Nitroaniline	U	931	ug/kg	279	931
534-52-1	2-Methyl-4,6-dinitrophenol	U	931	ug/kg	279	931
122-39-4	Diphenylamine	U	931	ug/kg	279	931
122-66-7	1,2-Diphenylhydrazine	U	931	ug/kg	279	931
101-55-3	4-Bromophenylphenylether	U	931	ug/kg	279	931
118-74-1	Hexachlorobenzene	U	931	ug/kg	279	931
87-86-5	Pentachlorophenol	U	931	ug/kg	279	931
88-85-7	Dinoseb	U	931	ug/kg	279	931
85-01-8	Phenanthrene	U	93.1	ug/kg	27.9	93.1
120-12-7	Anthracene	U	93.1	ug/kg	27.9	93.1
86-74-8	Carbazole	U	93.1	ug/kg	27.9	93.1
84-74-2	Di-n-butylphthalate	U	93.1	ug/kg	27.9	93.1
206-44-0	Fluoranthene	U	93.1	ug/kg	27.9	93.1
129-00-0	Pyrene	U	93.1	ug/kg	27.9	93.1
85-68-7	Butylbenzylphthalate	U	93.1	ug/kg	27.9	93.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	93.1	ug/kg	27.9	93.1
56-55-3	Benzo(a)anthracene	U	93.1	ug/kg	27.9	93.1
218-01-9	Chrysene	U	93.1	ug/kg	27.9	93.1
72-43-5	Methoxychlor	U	931	ug/kg	279	931
117-84-0	Di-n-octylphthalate	U	93.1	ug/kg	27.9	93.1
205-99-2	Benzo(b)fluoranthene	U	93.1	ug/kg	27.9	93.1
207-08-9	Benzo(k)fluoranthene	U	93.1	ug/kg	27.9	93.1
50-32-8	Benzo(a)pyrene	U	93.1	ug/kg	27.9	93.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	93.1	ug/kg	27.9	93.1
53-70-3	Dibenzo(a,h)anthracene	U	93.1	ug/kg	27.9	93.1
191-24-2	Benzo(ghi)perylene	U	93.1	ug/kg	27.9	93.1
123-91-1	1,4-Dioxane	U	931	ug/kg	279	931
80-62-6	Methyl methacrylate	U	931	ug/kg	279	931
97-63-2	Ethyl methacrylate	U	931	ug/kg	279	931

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660771006	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 18:00	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.74 g	Final Volume:	1 mL
Data File:	S040224\1D0223.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	931	ug/kg	279	931
10595-95-6	N-Nitrosomethylethylamine	U	931	ug/kg	279	931
66-27-3	Methyl methanesulfonate	U	931	ug/kg	279	931
55-18-5	N-Nitrosodiethylamine	U	931	ug/kg	279	931
62-50-0	Ethyl Methanesulfonate	U	931	ug/kg	279	931
76-01-7	Pentachloroethane	U	931	ug/kg	279	931
930-55-2	N-Nitrosopyrrolidine	U	931	ug/kg	279	931
98-86-2	Acetophenone	U	931	ug/kg	279	931
59-89-2	N-Nitrosomorpholine	U	931	ug/kg	279	931
95-53-4	o-Toluidine	U	931	ug/kg	279	931
100-75-4	N-Nitrosopiperidine	U	931	ug/kg	279	931
122-09-8	a,a-Dimethylphenethylamine	U	931	ug/kg	326	931
87-65-0	2,6-Dichlorophenol	U	931	ug/kg	279	931
1888-71-7	Hexachloropropene	U	931	ug/kg	279	931
924-16-3	N-Nitrosodi-n-butylamine	U	931	ug/kg	279	931
94-59-7	Safrole	U	931	ug/kg	279	931
95-94-3	1,2,4,5-Tetrachlorobenzene	U	931	ug/kg	279	931
120-58-1	Isosafrole	U	931	ug/kg	279	931
130-15-4	1,4-Naphthoquinone	U	931	ug/kg	279	931
608-93-5	Pentachlorobenzene	U	931	ug/kg	279	931
134-32-7	1-Naphthylamine	U	931	ug/kg	279	931
91-59-8	2-Naphthylamine	U	931	ug/kg	279	931
99-55-8	5-Nitro-o-toluidine	U	931	ug/kg	279	931
62-44-2	Phenacetin	U	931	ug/kg	279	931
99-35-4	1,3,5-Trinitrobenzene	U	931	ug/kg	279	931
2303-16-4	Diallate	U	931	ug/kg	279	931
92-67-1	4-Aminobiphenyl	U	931	ug/kg	279	931
82-68-8	Pentachloronitrobenzene	U	931	ug/kg	279	931
23950-58-5	Pronamide	U	931	ug/kg	279	931
56-57-5	4-Nitroquinoline-1-oxide	U	931	ug/kg	279	931
91-80-5	Methapyrilene	U	931	ug/kg	279	931
465-73-6	Isodrin	U	931	ug/kg	186	931
140-57-8	Aramite	U	931	ug/kg	279	931
143-50-0	Kepone	U	931	ug/kg	279	931
60-11-7	p-(Dimethylamino)azobenzene	U	931	ug/kg	279	931
510-15-6	Chlorobenzilate	U	931	ug/kg	279	931
119-93-7	3,3'-Dimethylbenzidine	U	931	ug/kg	279	931
53-96-3	2-Acetylaminofluorene	U	931	ug/kg	279	931

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660771006	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 18:00	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.74 g	Final Volume:	1 mL
Data File:	S040224\s1D0223.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	931	ug/kg	279	931
57-97-6	7,12-Dimethylbenz(a)anthracene	U	931	ug/kg	279	931
56-49-5	3-Methylcholanthrene	U	931	ug/kg	279	931
126-68-1	Triethylphosphorothioate	U	931	ug/kg	279	931
297-97-2	Thionazin	U	931	ug/kg	279	931
126-73-8	Tributylphosphate	U	931	ug/kg	279	931
3689-24-5	Sulfotepp	U	931	ug/kg	279	931
298-02-2	Phorate	U	931	ug/kg	279	931
60-51-5	Dimethoate	U	931	ug/kg	279	931
298-04-4	Disulfoton	U	931	ug/kg	279	931
298-00-0	Methyl parathion	U	931	ug/kg	279	931
56-38-2	Parathion	U	931	ug/kg	279	931
52-85-7	Famphur	U	931	ug/kg	279	931
106-50-3	p-Phenylenediamine	U	46600	ug/kg	9310	46600
70-30-4	Hexachlorophene	U	46600	ug/kg	10800	46600
120-82-1	1,2,4-Trichlorobenzene	U	931	ug/kg	279	931

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:05	Matrix:	MISC SOLID
Lab Sample ID:	660771007	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 18:22	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.52 g	Final Volume:	1 mL
Data File:	S040224\1D0224.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	951	ug/kg	285	951
110-86-1	Pyridine	U	951	ug/kg	285	951
62-53-3	Aniline	U	951	ug/kg	285	951
108-95-2	Phenol	U	951	ug/kg	285	951
111-44-4	bis(2-Chloroethyl) ether	U	951	ug/kg	285	951
95-57-8	2-Chlorophenol	U	951	ug/kg	285	951
541-73-1	1,3-Dichlorobenzene	U	951	ug/kg	285	951
106-46-7	1,4-Dichlorobenzene	U	951	ug/kg	285	951
95-50-1	1,2-Dichlorobenzene	U	951	ug/kg	285	951
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	951	ug/kg	285	951
100-51-6	Benzyl alcohol	U	951	ug/kg	285	951
95-48-7	o-Cresol	U	951	ug/kg	285	951
65794-96-9	m,p-Cresols	U	951	ug/kg	285	951
621-64-7	N-Nitrosodipropylamine	U	951	ug/kg	285	951
67-72-1	Hexachloroethane	U	951	ug/kg	285	951
98-95-3	Nitrobenzene	U	951	ug/kg	285	951
78-59-1	Isophorone	U	951	ug/kg	285	951
88-75-5	2-Nitrophenol	U	951	ug/kg	285	951
105-67-9	2,4-Dimethylphenol	U	951	ug/kg	285	951
111-91-1	bis(2-Chloroethoxy)methane	U	951	ug/kg	285	951
120-83-2	2,4-Dichlorophenol	U	951	ug/kg	285	951
65-85-0	Benzoic acid	U	1900	ug/kg	475	1900
106-47-8	4-Chloroaniline	U	951	ug/kg	285	951
87-68-3	Hexachlorobutadiene	U	951	ug/kg	285	951
59-50-7	4-Chloro-3-methylphenol	U	951	ug/kg	380	951
91-57-6	2-Methylnaphthalene	U	95.1	ug/kg	28.5	95.1
91-20-3	Naphthalene	U	95.1	ug/kg	28.5	95.1
90-12-0	1-Methylnaphthalene	U	95.1	ug/kg	28.5	95.1
77-47-4	Hexachlorocyclopentadiene	U	951	ug/kg	285	951
88-06-2	2,4,6-Trichlorophenol	U	951	ug/kg	285	951
95-95-4	2,4,5-Trichlorophenol	U	951	ug/kg	285	951
91-58-7	2-Chloronaphthalene	U	95.1	ug/kg	28.5	95.1
88-74-4	o-Nitroaniline	U	951	ug/kg	314	951
99-09-2	m-Nitroaniline	U	951	ug/kg	285	951
131-11-3	Dimethylphthalate	U	95.1	ug/kg	28.5	95.1
99-65-0	m-Dinitrobenzene	U	951	ug/kg	285	951
606-20-2	2,6-Dinitrotoluene	U	951	ug/kg	285	951
121-14-2	2,4-Dinitrotoluene	U	951	ug/kg	285	951

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771007

Client ID: 12038.B2.Top Front.EPA

Batch ID: 2589785

Run Date: 04/02/2024 18:22

Prep Date: 04/02/2024 07:52

Data File: S040224s1D0224.D

Date Collected: 03/28/2024 07:05

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.52 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	95.1	ug/kg	28.5	95.1
83-32-9	Acenaphthene	U	95.1	ug/kg	28.5	95.1
51-28-5	2,4-Dinitrophenol	U	1900	ug/kg	285	1900
132-64-9	Dibenzofuran	U	951	ug/kg	285	951
58-90-2	2,3,4,6-Tetrachlorophenol	U	951	ug/kg	285	951
84-66-2	Diethylphthalate	U	95.1	ug/kg	28.5	95.1
100-02-7	4-Nitrophenol	U	951	ug/kg	285	951
86-73-7	Fluorene	U	95.1	ug/kg	28.5	95.1
7005-72-3	4-Chlorophenylphenylether	U	951	ug/kg	285	951
100-01-6	p-Nitroaniline	U	951	ug/kg	285	951
534-52-1	2-Methyl-4,6-dinitrophenol	U	951	ug/kg	285	951
122-39-4	Diphenylamine	U	951	ug/kg	285	951
122-66-7	1,2-Diphenylhydrazine	U	951	ug/kg	285	951
101-55-3	4-Bromophenylphenylether	U	951	ug/kg	285	951
118-74-1	Hexachlorobenzene	U	951	ug/kg	285	951
87-86-5	Pentachlorophenol	U	951	ug/kg	285	951
88-85-7	Dinoseb	U	951	ug/kg	285	951
85-01-8	Phenanthrene	U	95.1	ug/kg	28.5	95.1
120-12-7	Anthracene	U	95.1	ug/kg	28.5	95.1
86-74-8	Carbazole	U	95.1	ug/kg	28.5	95.1
84-74-2	Di-n-butylphthalate	U	95.1	ug/kg	28.5	95.1
206-44-0	Fluoranthene	U	95.1	ug/kg	28.5	95.1
129-00-0	Pyrene	U	95.1	ug/kg	28.5	95.1
85-68-7	Butylbenzylphthalate	U	95.1	ug/kg	28.5	95.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	95.1	ug/kg	28.5	95.1
56-55-3	Benzo(a)anthracene	U	95.1	ug/kg	28.5	95.1
218-01-9	Chrysene	U	95.1	ug/kg	28.5	95.1
72-43-5	Methoxychlor	U	951	ug/kg	285	951
117-84-0	Di-n-octylphthalate	U	95.1	ug/kg	28.5	95.1
205-99-2	Benzo(b)fluoranthene	U	95.1	ug/kg	28.5	95.1
207-08-9	Benzo(k)fluoranthene	U	95.1	ug/kg	28.5	95.1
50-32-8	Benzo(a)pyrene	U	95.1	ug/kg	28.5	95.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	95.1	ug/kg	28.5	95.1
53-70-3	Dibenzo(a,h)anthracene	U	95.1	ug/kg	28.5	95.1
191-24-2	Benzo(ghi)perylene	U	95.1	ug/kg	28.5	95.1
123-91-1	1,4-Dioxane	U	951	ug/kg	285	951
80-62-6	Methyl methacrylate	U	951	ug/kg	285	951
97-63-2	Ethyl methacrylate	U	951	ug/kg	285	951

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:05	Matrix:	MISC SOLID
Lab Sample ID:	660771007	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 18:22	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.52 g	Final Volume:	1 mL
Data File:	S040224\1D0224.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	951	ug/kg	285	951
10595-95-6	N-Nitrosomethylethylamine	U	951	ug/kg	285	951
66-27-3	Methyl methanesulfonate	U	951	ug/kg	285	951
55-18-5	N-Nitrosodiethylamine	U	951	ug/kg	285	951
62-50-0	Ethyl Methanesulfonate	U	951	ug/kg	285	951
76-01-7	Pentachloroethane	U	951	ug/kg	285	951
930-55-2	N-Nitrosopyrrolidine	U	951	ug/kg	285	951
98-86-2	Acetophenone	U	951	ug/kg	285	951
59-89-2	N-Nitrosomorpholine	U	951	ug/kg	285	951
95-53-4	o-Toluidine	U	951	ug/kg	285	951
100-75-4	N-Nitrosopiperidine	U	951	ug/kg	285	951
122-09-8	a,a-Dimethylphenethylamine	U	951	ug/kg	333	951
87-65-0	2,6-Dichlorophenol	U	951	ug/kg	285	951
1888-71-7	Hexachloropropene	U	951	ug/kg	285	951
924-16-3	N-Nitrosodi-n-butylamine	U	951	ug/kg	285	951
94-59-7	Safrole	U	951	ug/kg	285	951
95-94-3	1,2,4,5-Tetrachlorobenzene	U	951	ug/kg	285	951
120-58-1	Isosafrole	U	951	ug/kg	285	951
130-15-4	1,4-Naphthoquinone	U	951	ug/kg	285	951
608-93-5	Pentachlorobenzene	U	951	ug/kg	285	951
134-32-7	1-Naphthylamine	U	951	ug/kg	285	951
91-59-8	2-Naphthylamine	U	951	ug/kg	285	951
99-55-8	5-Nitro-o-toluidine	U	951	ug/kg	285	951
62-44-2	Phenacetin	U	951	ug/kg	285	951
99-35-4	1,3,5-Trinitrobenzene	U	951	ug/kg	285	951
2303-16-4	Diallate	U	951	ug/kg	285	951
92-67-1	4-Aminobiphenyl	U	951	ug/kg	285	951
82-68-8	Pentachloronitrobenzene	U	951	ug/kg	285	951
23950-58-5	Pronamide	U	951	ug/kg	285	951
56-57-5	4-Nitroquinoline-1-oxide	U	951	ug/kg	285	951
91-80-5	Methapyrilene	U	951	ug/kg	285	951
465-73-6	Isodrin	U	951	ug/kg	190	951
140-57-8	Aramite	U	951	ug/kg	285	951
143-50-0	Kepone	U	951	ug/kg	285	951
60-11-7	p-(Dimethylamino)azobenzene	U	951	ug/kg	285	951
510-15-6	Chlorobenzilate	U	951	ug/kg	285	951
119-93-7	3,3'-Dimethylbenzidine	U	951	ug/kg	285	951
53-96-3	2-Acetylaminofluorene	U	951	ug/kg	285	951

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:05	Matrix:	MISC SOLID
Lab Sample ID:	660771007	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 18:22	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.52 g	Final Volume:	1 mL
Data File:	S040224\s1D0224.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	951	ug/kg	285	951
57-97-6	7,12-Dimethylbenz(a)anthracene	U	951	ug/kg	285	951
56-49-5	3-Methylcholanthrene	U	951	ug/kg	285	951
126-68-1	Triethylphosphorothioate	U	951	ug/kg	285	951
297-97-2	Thionazin	U	951	ug/kg	285	951
126-73-8	Tributylphosphate	U	951	ug/kg	285	951
3689-24-5	Sulfotepp	U	951	ug/kg	285	951
298-02-2	Phorate	U	951	ug/kg	285	951
60-51-5	Dimethoate	U	951	ug/kg	285	951
298-04-4	Disulfoton	U	951	ug/kg	285	951
298-00-0	Methyl parathion	U	951	ug/kg	285	951
56-38-2	Parathion	U	951	ug/kg	285	951
52-85-7	Famphur	U	951	ug/kg	285	951
106-50-3	p-Phenylenediamine	U	47500	ug/kg	9510	47500
70-30-4	Hexachlorophene	U	47500	ug/kg	11000	47500
120-82-1	1,2,4-Trichlorobenzene	U	951	ug/kg	285	951

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	966	ug/kg	290	966
110-86-1	Pyridine	U	966	ug/kg	290	966
62-53-3	Aniline	U	966	ug/kg	290	966
108-95-2	Phenol	U	966	ug/kg	290	966
111-44-4	bis(2-Chloroethyl) ether	U	966	ug/kg	290	966
95-57-8	2-Chlorophenol	U	966	ug/kg	290	966
541-73-1	1,3-Dichlorobenzene	U	966	ug/kg	290	966
106-46-7	1,4-Dichlorobenzene	U	966	ug/kg	290	966
95-50-1	1,2-Dichlorobenzene	U	966	ug/kg	290	966
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	966	ug/kg	290	966
100-51-6	Benzyl alcohol	U	966	ug/kg	290	966
95-48-7	o-Cresol	U	966	ug/kg	290	966
65794-96-9	m,p-Cresols	U	966	ug/kg	290	966
621-64-7	N-Nitrosodipropylamine	U	966	ug/kg	290	966
67-72-1	Hexachloroethane	U	966	ug/kg	290	966
98-95-3	Nitrobenzene	U	966	ug/kg	290	966
78-59-1	Isophorone	U	966	ug/kg	290	966
88-75-5	2-Nitrophenol	U	966	ug/kg	290	966
105-67-9	2,4-Dimethylphenol	U	966	ug/kg	290	966
111-91-1	bis(2-Chloroethoxy)methane	U	966	ug/kg	290	966
120-83-2	2,4-Dichlorophenol	U	966	ug/kg	290	966
65-85-0	Benzoic acid	U	1930	ug/kg	483	1930
106-47-8	4-Chloroaniline	U	966	ug/kg	290	966
87-68-3	Hexachlorobutadiene	U	966	ug/kg	290	966
59-50-7	4-Chloro-3-methylphenol	U	966	ug/kg	386	966
91-57-6	2-Methylnaphthalene	U	96.6	ug/kg	29.0	96.6
91-20-3	Naphthalene	U	96.6	ug/kg	29.0	96.6
90-12-0	1-Methylnaphthalene	U	96.6	ug/kg	29.0	96.6
77-47-4	Hexachlorocyclopentadiene	U	966	ug/kg	290	966
88-06-2	2,4,6-Trichlorophenol	U	966	ug/kg	290	966
95-95-4	2,4,5-Trichlorophenol	U	966	ug/kg	290	966
91-58-7	2-Chloronaphthalene	U	96.6	ug/kg	29.0	96.6
88-74-4	o-Nitroaniline	U	966	ug/kg	319	966
99-09-2	m-Nitroaniline	U	966	ug/kg	290	966
131-11-3	Dimethylphthalate	U	96.6	ug/kg	29.0	96.6
99-65-0	m-Dinitrobenzene	U	966	ug/kg	290	966
606-20-2	2,6-Dinitrotoluene	U	966	ug/kg	290	966
121-14-2	2,4-Dinitrotoluene	U	966	ug/kg	290	966

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:10	Matrix:	MISC SOLID
Lab Sample ID:	660771008	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 18:45	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.35 g	Final Volume:	1 mL
Data File:	S040224\1D0225.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	96.6	ug/kg	29.0	96.6
83-32-9	Acenaphthene	U	96.6	ug/kg	29.0	96.6
51-28-5	2,4-Dinitrophenol	U	1930	ug/kg	290	1930
132-64-9	Dibenzofuran	U	966	ug/kg	290	966
58-90-2	2,3,4,6-Tetrachlorophenol	U	966	ug/kg	290	966
84-66-2	Diethylphthalate	U	96.6	ug/kg	29.0	96.6
100-02-7	4-Nitrophenol	U	966	ug/kg	290	966
86-73-7	Fluorene	U	96.6	ug/kg	29.0	96.6
7005-72-3	4-Chlorophenylphenylether	U	966	ug/kg	290	966
100-01-6	p-Nitroaniline	U	966	ug/kg	290	966
534-52-1	2-Methyl-4,6-dinitrophenol	U	966	ug/kg	290	966
122-39-4	Diphenylamine	U	966	ug/kg	290	966
122-66-7	1,2-Diphenylhydrazine	U	966	ug/kg	290	966
101-55-3	4-Bromophenylphenylether	U	966	ug/kg	290	966
118-74-1	Hexachlorobenzene	U	966	ug/kg	290	966
87-86-5	Pentachlorophenol	U	966	ug/kg	290	966
88-85-7	Dinoseb	U	966	ug/kg	290	966
85-01-8	Phenanthrene	U	96.6	ug/kg	29.0	96.6
120-12-7	Anthracene	U	96.6	ug/kg	29.0	96.6
86-74-8	Carbazole	U	96.6	ug/kg	29.0	96.6
84-74-2	Di-n-butylphthalate	U	96.6	ug/kg	29.0	96.6
206-44-0	Fluoranthene	U	96.6	ug/kg	29.0	96.6
129-00-0	Pyrene	U	96.6	ug/kg	29.0	96.6
85-68-7	Butylbenzylphthalate	U	96.6	ug/kg	29.0	96.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	96.6	ug/kg	29.0	96.6
56-55-3	Benzo(a)anthracene	U	96.6	ug/kg	29.0	96.6
218-01-9	Chrysene	U	96.6	ug/kg	29.0	96.6
72-43-5	Methoxychlor	U	966	ug/kg	290	966
117-84-0	Di-n-octylphthalate	U	96.6	ug/kg	29.0	96.6
205-99-2	Benzo(b)fluoranthene	U	96.6	ug/kg	29.0	96.6
207-08-9	Benzo(k)fluoranthene	U	96.6	ug/kg	29.0	96.6
50-32-8	Benzo(a)pyrene	U	96.6	ug/kg	29.0	96.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	96.6	ug/kg	29.0	96.6
53-70-3	Dibenzo(a,h)anthracene	U	96.6	ug/kg	29.0	96.6
191-24-2	Benzo(ghi)perylene	U	96.6	ug/kg	29.0	96.6
123-91-1	1,4-Dioxane	U	966	ug/kg	290	966
80-62-6	Methyl methacrylate	U	966	ug/kg	290	966
97-63-2	Ethyl methacrylate	U	966	ug/kg	290	966

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:10	Matrix:	MISC SOLID
Lab Sample ID:	660771008	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 18:45	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.35 g	Final Volume:	1 mL
Data File:	S040224\1D0225.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	966	ug/kg	290	966
10595-95-6	N-Nitrosomethylethylamine	U	966	ug/kg	290	966
66-27-3	Methyl methanesulfonate	U	966	ug/kg	290	966
55-18-5	N-Nitrosodiethylamine	U	966	ug/kg	290	966
62-50-0	Ethyl Methanesulfonate	U	966	ug/kg	290	966
76-01-7	Pentachloroethane	U	966	ug/kg	290	966
930-55-2	N-Nitrosopyrrolidine	U	966	ug/kg	290	966
98-86-2	Acetophenone	U	966	ug/kg	290	966
59-89-2	N-Nitrosomorpholine	U	966	ug/kg	290	966
95-53-4	o-Toluidine	U	966	ug/kg	290	966
100-75-4	N-Nitrosopiperidine	U	966	ug/kg	290	966
122-09-8	a,a-Dimethylphenethylamine	U	966	ug/kg	338	966
87-65-0	2,6-Dichlorophenol	U	966	ug/kg	290	966
1888-71-7	Hexachloropropene	U	966	ug/kg	290	966
924-16-3	N-Nitrosodi-n-butylamine	U	966	ug/kg	290	966
94-59-7	Safrole	U	966	ug/kg	290	966
95-94-3	1,2,4,5-Tetrachlorobenzene	U	966	ug/kg	290	966
120-58-1	Isosafrole	U	966	ug/kg	290	966
130-15-4	1,4-Naphthoquinone	U	966	ug/kg	290	966
608-93-5	Pentachlorobenzene	U	966	ug/kg	290	966
134-32-7	1-Naphthylamine	U	966	ug/kg	290	966
91-59-8	2-Naphthylamine	U	966	ug/kg	290	966
99-55-8	5-Nitro-o-toluidine	U	966	ug/kg	290	966
62-44-2	Phenacetin	U	966	ug/kg	290	966
99-35-4	1,3,5-Trinitrobenzene	U	966	ug/kg	290	966
2303-16-4	Diallate	U	966	ug/kg	290	966
92-67-1	4-Aminobiphenyl	U	966	ug/kg	290	966
82-68-8	Pentachloronitrobenzene	U	966	ug/kg	290	966
23950-58-5	Pronamide	U	966	ug/kg	290	966
56-57-5	4-Nitroquinoline-1-oxide	U	966	ug/kg	290	966
91-80-5	Methapyrilene	U	966	ug/kg	290	966
465-73-6	Isodrin	U	966	ug/kg	193	966
140-57-8	Aramite	U	966	ug/kg	290	966
143-50-0	Kepone	U	966	ug/kg	290	966
60-11-7	p-(Dimethylamino)azobenzene	U	966	ug/kg	290	966
510-15-6	Chlorobenzilate	U	966	ug/kg	290	966
119-93-7	3,3'-Dimethylbenzidine	U	966	ug/kg	290	966
53-96-3	2-Acetylaminofluorene	U	966	ug/kg	290	966

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:10	Matrix:	MISC SOLID
Lab Sample ID:	660771008	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 18:45	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.35 g	Final Volume:	1 mL
Data File:	S040224\1D0225.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	966	ug/kg	290	966
57-97-6	7,12-Dimethylbenz(a)anthracene	U	966	ug/kg	290	966
56-49-5	3-Methylcholanthrene	U	966	ug/kg	290	966
126-68-1	Triethylphosphorothioate	U	966	ug/kg	290	966
297-97-2	Thionazin	U	966	ug/kg	290	966
126-73-8	Tributylphosphate	U	966	ug/kg	290	966
3689-24-5	Sulfotepp	U	966	ug/kg	290	966
298-02-2	Phorate	U	966	ug/kg	290	966
60-51-5	Dimethoate	U	966	ug/kg	290	966
298-04-4	Disulfoton	U	966	ug/kg	290	966
298-00-0	Methyl parathion	U	966	ug/kg	290	966
56-38-2	Parathion	U	966	ug/kg	290	966
52-85-7	Famphur	U	966	ug/kg	290	966
106-50-3	p-Phenylenediamine	U	48300	ug/kg	9660	48300
70-30-4	Hexachlorophene	U	48300	ug/kg	11200	48300
120-82-1	1,2,4-Trichlorobenzene	U	966	ug/kg	290	966

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771009	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:07	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.79 g	Final Volume:	1 mL
Data File:	S040224\1D0226.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	927	ug/kg	278	927
110-86-1	Pyridine	U	927	ug/kg	278	927
62-53-3	Aniline	U	927	ug/kg	278	927
108-95-2	Phenol	U	927	ug/kg	278	927
111-44-4	bis(2-Chloroethyl) ether	U	927	ug/kg	278	927
95-57-8	2-Chlorophenol	U	927	ug/kg	278	927
541-73-1	1,3-Dichlorobenzene	U	927	ug/kg	278	927
106-46-7	1,4-Dichlorobenzene	U	927	ug/kg	278	927
95-50-1	1,2-Dichlorobenzene	U	927	ug/kg	278	927
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	927	ug/kg	278	927
100-51-6	Benzyl alcohol	U	927	ug/kg	278	927
95-48-7	o-Cresol	U	927	ug/kg	278	927
65794-96-9	m,p-Cresols	U	927	ug/kg	278	927
621-64-7	N-Nitrosodipropylamine	U	927	ug/kg	278	927
67-72-1	Hexachloroethane	U	927	ug/kg	278	927
98-95-3	Nitrobenzene	U	927	ug/kg	278	927
78-59-1	Isophorone	U	927	ug/kg	278	927
88-75-5	2-Nitrophenol	U	927	ug/kg	278	927
105-67-9	2,4-Dimethylphenol	U	927	ug/kg	278	927
111-91-1	bis(2-Chloroethoxy)methane	U	927	ug/kg	278	927
120-83-2	2,4-Dichlorophenol	U	927	ug/kg	278	927
65-85-0	Benzoic acid	J	783	ug/kg	463	1850
106-47-8	4-Chloroaniline	U	927	ug/kg	278	927
87-68-3	Hexachlorobutadiene	U	927	ug/kg	278	927
59-50-7	4-Chloro-3-methylphenol	U	927	ug/kg	371	927
91-57-6	2-Methylnaphthalene	U	92.7	ug/kg	27.8	92.7
91-20-3	Naphthalene	U	92.7	ug/kg	27.8	92.7
90-12-0	1-Methylnaphthalene	U	92.7	ug/kg	27.8	92.7
77-47-4	Hexachlorocyclopentadiene	U	927	ug/kg	278	927
88-06-2	2,4,6-Trichlorophenol	U	927	ug/kg	278	927
95-95-4	2,4,5-Trichlorophenol	U	927	ug/kg	278	927
91-58-7	2-Chloronaphthalene	U	92.7	ug/kg	27.8	92.7
88-74-4	o-Nitroaniline	U	927	ug/kg	306	927
99-09-2	m-Nitroaniline	U	927	ug/kg	278	927
131-11-3	Dimethylphthalate	U	92.7	ug/kg	27.8	92.7
99-65-0	m-Dinitrobenzene	U	927	ug/kg	278	927
606-20-2	2,6-Dinitrotoluene	U	927	ug/kg	278	927
121-14-2	2,4-Dinitrotoluene	U	927	ug/kg	278	927

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771009	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:07	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.79 g	Final Volume:	1 mL
Data File:	S040224s1D0226.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	92.7	ug/kg	27.8	92.7
83-32-9	Acenaphthene	U	92.7	ug/kg	27.8	92.7
51-28-5	2,4-Dinitrophenol	U	1850	ug/kg	278	1850
132-64-9	Dibenzofuran	U	927	ug/kg	278	927
58-90-2	2,3,4,6-Tetrachlorophenol	U	927	ug/kg	278	927
84-66-2	Diethylphthalate	U	92.7	ug/kg	27.8	92.7
100-02-7	4-Nitrophenol	U	927	ug/kg	278	927
86-73-7	Fluorene	U	92.7	ug/kg	27.8	92.7
7005-72-3	4-Chlorophenylphenylether	U	927	ug/kg	278	927
100-01-6	p-Nitroaniline	U	927	ug/kg	278	927
534-52-1	2-Methyl-4,6-dinitrophenol	U	927	ug/kg	278	927
122-39-4	Diphenylamine	U	927	ug/kg	278	927
122-66-7	1,2-Diphenylhydrazine	U	927	ug/kg	278	927
101-55-3	4-Bromophenylphenylether	U	927	ug/kg	278	927
118-74-1	Hexachlorobenzene	U	927	ug/kg	278	927
87-86-5	Pentachlorophenol	U	927	ug/kg	278	927
88-85-7	Dinoseb	U	927	ug/kg	278	927
85-01-8	Phenanthrene	U	92.7	ug/kg	27.8	92.7
120-12-7	Anthracene	U	92.7	ug/kg	27.8	92.7
86-74-8	Carbazole	U	92.7	ug/kg	27.8	92.7
84-74-2	Di-n-butylphthalate	U	92.7	ug/kg	27.8	92.7
206-44-0	Fluoranthene	U	92.7	ug/kg	27.8	92.7
129-00-0	Pyrene	U	92.7	ug/kg	27.8	92.7
85-68-7	Butylbenzylphthalate	U	92.7	ug/kg	27.8	92.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	92.7	ug/kg	27.8	92.7
56-55-3	Benzo(a)anthracene	U	92.7	ug/kg	27.8	92.7
218-01-9	Chrysene	U	92.7	ug/kg	27.8	92.7
72-43-5	Methoxychlor	U	927	ug/kg	278	927
117-84-0	Di-n-octylphthalate	U	92.7	ug/kg	27.8	92.7
205-99-2	Benzo(b)fluoranthene	U	92.7	ug/kg	27.8	92.7
207-08-9	Benzo(k)fluoranthene	U	92.7	ug/kg	27.8	92.7
50-32-8	Benzo(a)pyrene	U	92.7	ug/kg	27.8	92.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	92.7	ug/kg	27.8	92.7
53-70-3	Dibenzo(a,h)anthracene	U	92.7	ug/kg	27.8	92.7
191-24-2	Benzo(ghi)perylene	U	92.7	ug/kg	27.8	92.7
123-91-1	1,4-Dioxane	U	927	ug/kg	278	927
80-62-6	Methyl methacrylate	U	927	ug/kg	278	927
97-63-2	Ethyl methacrylate	U	927	ug/kg	278	927

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771009	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:07	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.79 g	Final Volume:	1 mL
Data File:	S040224\1D0226.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	927	ug/kg	278	927
10595-95-6	N-Nitrosomethylethylamine	U	927	ug/kg	278	927
66-27-3	Methyl methanesulfonate	U	927	ug/kg	278	927
55-18-5	N-Nitrosodiethylamine	U	927	ug/kg	278	927
62-50-0	Ethyl Methanesulfonate	U	927	ug/kg	278	927
76-01-7	Pentachloroethane	U	927	ug/kg	278	927
930-55-2	N-Nitrosopyrrolidine	U	927	ug/kg	278	927
98-86-2	Acetophenone	U	927	ug/kg	278	927
59-89-2	N-Nitrosomorpholine	U	927	ug/kg	278	927
95-53-4	o-Toluidine	U	927	ug/kg	278	927
100-75-4	N-Nitrosopiperidine	U	927	ug/kg	278	927
122-09-8	a,a-Dimethylphenethylamine	U	927	ug/kg	324	927
87-65-0	2,6-Dichlorophenol	U	927	ug/kg	278	927
1888-71-7	Hexachloropropene	U	927	ug/kg	278	927
924-16-3	N-Nitrosodi-n-butylamine	U	927	ug/kg	278	927
94-59-7	Safrole	U	927	ug/kg	278	927
95-94-3	1,2,4,5-Tetrachlorobenzene	U	927	ug/kg	278	927
120-58-1	Isosafrole	U	927	ug/kg	278	927
130-15-4	1,4-Naphthoquinone	U	927	ug/kg	278	927
608-93-5	Pentachlorobenzene	U	927	ug/kg	278	927
134-32-7	1-Naphthylamine	U	927	ug/kg	278	927
91-59-8	2-Naphthylamine	U	927	ug/kg	278	927
99-55-8	5-Nitro-o-toluidine	U	927	ug/kg	278	927
62-44-2	Phenacetin	U	927	ug/kg	278	927
99-35-4	1,3,5-Trinitrobenzene	U	927	ug/kg	278	927
2303-16-4	Diallate	U	927	ug/kg	278	927
92-67-1	4-Aminobiphenyl	U	927	ug/kg	278	927
82-68-8	Pentachloronitrobenzene	U	927	ug/kg	278	927
23950-58-5	Pronamide	U	927	ug/kg	278	927
56-57-5	4-Nitroquinoline-1-oxide	U	927	ug/kg	278	927
91-80-5	Methapyrilene	U	927	ug/kg	278	927
465-73-6	Isodrin	U	927	ug/kg	185	927
140-57-8	Aramite	U	927	ug/kg	278	927
143-50-0	Kepone	U	927	ug/kg	278	927
60-11-7	p-(Dimethylamino)azobenzene	U	927	ug/kg	278	927
510-15-6	Chlorobenzilate	U	927	ug/kg	278	927
119-93-7	3,3'-Dimethylbenzidine	U	927	ug/kg	278	927
53-96-3	2-Acetylaminofluorene	U	927	ug/kg	278	927

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771009	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:07	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.79 g	Final Volume:	1 mL
Data File:	S040224\s1D0226.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	927	ug/kg	278	927
57-97-6	7,12-Dimethylbenz(a)anthracene	U	927	ug/kg	278	927
56-49-5	3-Methylcholanthrene	U	927	ug/kg	278	927
126-68-1	Triethylphosphorothioate	U	927	ug/kg	278	927
297-97-2	Thionazin	U	927	ug/kg	278	927
126-73-8	Tributylphosphate	U	927	ug/kg	278	927
3689-24-5	Sulfotepp	U	927	ug/kg	278	927
298-02-2	Phorate	U	927	ug/kg	278	927
60-51-5	Dimethoate	U	927	ug/kg	278	927
298-04-4	Disulfoton	U	927	ug/kg	278	927
298-00-0	Methyl parathion	U	927	ug/kg	278	927
56-38-2	Parathion	U	927	ug/kg	278	927
52-85-7	Famphur	U	927	ug/kg	278	927
106-50-3	p-Phenylenediamine	U	46300	ug/kg	9270	46300
70-30-4	Hexachlorophene	U	46300	ug/kg	10800	46300
120-82-1	1,2,4-Trichlorobenzene	U	927	ug/kg	278	927

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:25	Matrix:	MISC SOLID
Lab Sample ID:	660771010	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.88 g	Final Volume:	1 mL
Data File:	S040224\1D0227.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	919	ug/kg	276	919
110-86-1	Pyridine	U	919	ug/kg	276	919
62-53-3	Aniline	U	919	ug/kg	276	919
108-95-2	Phenol	U	919	ug/kg	276	919
111-44-4	bis(2-Chloroethyl) ether	U	919	ug/kg	276	919
95-57-8	2-Chlorophenol	U	919	ug/kg	276	919
541-73-1	1,3-Dichlorobenzene	U	919	ug/kg	276	919
106-46-7	1,4-Dichlorobenzene	U	919	ug/kg	276	919
95-50-1	1,2-Dichlorobenzene	U	919	ug/kg	276	919
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	919	ug/kg	276	919
100-51-6	Benzyl alcohol	U	919	ug/kg	276	919
95-48-7	o-Cresol	U	919	ug/kg	276	919
65794-96-9	m,p-Cresols	U	919	ug/kg	276	919
621-64-7	N-Nitrosodipropylamine	U	919	ug/kg	276	919
67-72-1	Hexachloroethane	U	919	ug/kg	276	919
98-95-3	Nitrobenzene	U	919	ug/kg	276	919
78-59-1	Isophorone	U	919	ug/kg	276	919
88-75-5	2-Nitrophenol	U	919	ug/kg	276	919
105-67-9	2,4-Dimethylphenol	U	919	ug/kg	276	919
111-91-1	bis(2-Chloroethoxy)methane	U	919	ug/kg	276	919
120-83-2	2,4-Dichlorophenol	U	919	ug/kg	276	919
65-85-0	Benzoic acid	U	1840	ug/kg	460	1840
106-47-8	4-Chloroaniline	U	919	ug/kg	276	919
87-68-3	Hexachlorobutadiene	U	919	ug/kg	276	919
59-50-7	4-Chloro-3-methylphenol	U	919	ug/kg	368	919
91-57-6	2-Methylnaphthalene	U	91.9	ug/kg	27.6	91.9
91-20-3	Naphthalene	U	91.9	ug/kg	27.6	91.9
90-12-0	1-Methylnaphthalene	U	91.9	ug/kg	27.6	91.9
77-47-4	Hexachlorocyclopentadiene	U	919	ug/kg	276	919
88-06-2	2,4,6-Trichlorophenol	U	919	ug/kg	276	919
95-95-4	2,4,5-Trichlorophenol	U	919	ug/kg	276	919
91-58-7	2-Chloronaphthalene	U	91.9	ug/kg	27.6	91.9
88-74-4	o-Nitroaniline	U	919	ug/kg	303	919
99-09-2	m-Nitroaniline	U	919	ug/kg	276	919
131-11-3	Dimethylphthalate	U	91.9	ug/kg	27.6	91.9
99-65-0	m-Dinitrobenzene	U	919	ug/kg	276	919
606-20-2	2,6-Dinitrotoluene	U	919	ug/kg	276	919
121-14-2	2,4-Dinitrotoluene	U	919	ug/kg	276	919

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:25	Matrix:	MISC SOLID
Lab Sample ID:	660771010	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.88 g	Final Volume:	1 mL
Data File:	S040224\1D0227.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	91.9	ug/kg	27.6	91.9
83-32-9	Acenaphthene	U	91.9	ug/kg	27.6	91.9
51-28-5	2,4-Dinitrophenol	U	1840	ug/kg	276	1840
132-64-9	Dibenzofuran	U	919	ug/kg	276	919
58-90-2	2,3,4,6-Tetrachlorophenol	U	919	ug/kg	276	919
84-66-2	Diethylphthalate	U	91.9	ug/kg	27.6	91.9
100-02-7	4-Nitrophenol	U	919	ug/kg	276	919
86-73-7	Fluorene	U	91.9	ug/kg	27.6	91.9
7005-72-3	4-Chlorophenylphenylether	U	919	ug/kg	276	919
100-01-6	p-Nitroaniline	U	919	ug/kg	276	919
534-52-1	2-Methyl-4,6-dinitrophenol	U	919	ug/kg	276	919
122-39-4	Diphenylamine	U	919	ug/kg	276	919
122-66-7	1,2-Diphenylhydrazine	U	919	ug/kg	276	919
101-55-3	4-Bromophenylphenylether	U	919	ug/kg	276	919
118-74-1	Hexachlorobenzene	U	919	ug/kg	276	919
87-86-5	Pentachlorophenol	U	919	ug/kg	276	919
88-85-7	Dinoseb	U	919	ug/kg	276	919
85-01-8	Phenanthrene	U	91.9	ug/kg	27.6	91.9
120-12-7	Anthracene	U	91.9	ug/kg	27.6	91.9
86-74-8	Carbazole	U	91.9	ug/kg	27.6	91.9
84-74-2	Di-n-butylphthalate	U	91.9	ug/kg	27.6	91.9
206-44-0	Fluoranthene	U	91.9	ug/kg	27.6	91.9
129-00-0	Pyrene	U	91.9	ug/kg	27.6	91.9
85-68-7	Butylbenzylphthalate	U	91.9	ug/kg	27.6	91.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	91.9	ug/kg	27.6	91.9
56-55-3	Benzo(a)anthracene	U	91.9	ug/kg	27.6	91.9
218-01-9	Chrysene	U	91.9	ug/kg	27.6	91.9
72-43-5	Methoxychlor	U	919	ug/kg	276	919
117-84-0	Di-n-octylphthalate	U	91.9	ug/kg	27.6	91.9
205-99-2	Benzo(b)fluoranthene	U	91.9	ug/kg	27.6	91.9
207-08-9	Benzo(k)fluoranthene	U	91.9	ug/kg	27.6	91.9
50-32-8	Benzo(a)pyrene	U	91.9	ug/kg	27.6	91.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	91.9	ug/kg	27.6	91.9
53-70-3	Dibenzo(a,h)anthracene	U	91.9	ug/kg	27.6	91.9
191-24-2	Benzo(ghi)perylene	U	91.9	ug/kg	27.6	91.9
123-91-1	1,4-Dioxane	U	919	ug/kg	276	919
80-62-6	Methyl methacrylate	U	919	ug/kg	276	919
97-63-2	Ethyl methacrylate	U	919	ug/kg	276	919

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:25	Matrix:	MISC SOLID
Lab Sample ID:	660771010	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.88 g	Final Volume:	1 mL
Data File:	S040224\1D0227.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	919	ug/kg	276	919
10595-95-6	N-Nitrosomethylethylamine	U	919	ug/kg	276	919
66-27-3	Methyl methanesulfonate	U	919	ug/kg	276	919
55-18-5	N-Nitrosodiethylamine	U	919	ug/kg	276	919
62-50-0	Ethyl Methanesulfonate	U	919	ug/kg	276	919
76-01-7	Pentachloroethane	U	919	ug/kg	276	919
930-55-2	N-Nitrosopyrrolidine	U	919	ug/kg	276	919
98-86-2	Acetophenone	U	919	ug/kg	276	919
59-89-2	N-Nitrosomorpholine	U	919	ug/kg	276	919
95-53-4	o-Toluidine	U	919	ug/kg	276	919
100-75-4	N-Nitrosopiperidine	U	919	ug/kg	276	919
122-09-8	a,a-Dimethylphenethylamine	U	919	ug/kg	322	919
87-65-0	2,6-Dichlorophenol	U	919	ug/kg	276	919
1888-71-7	Hexachloropropene	U	919	ug/kg	276	919
924-16-3	N-Nitrosodi-n-butylamine	U	919	ug/kg	276	919
94-59-7	Safrole	U	919	ug/kg	276	919
95-94-3	1,2,4,5-Tetrachlorobenzene	U	919	ug/kg	276	919
120-58-1	Isosafrole	U	919	ug/kg	276	919
130-15-4	1,4-Naphthoquinone	U	919	ug/kg	276	919
608-93-5	Pentachlorobenzene	U	919	ug/kg	276	919
134-32-7	1-Naphthylamine	U	919	ug/kg	276	919
91-59-8	2-Naphthylamine	U	919	ug/kg	276	919
99-55-8	5-Nitro-o-toluidine	U	919	ug/kg	276	919
62-44-2	Phenacetin	U	919	ug/kg	276	919
99-35-4	1,3,5-Trinitrobenzene	U	919	ug/kg	276	919
2303-16-4	Diallate	U	919	ug/kg	276	919
92-67-1	4-Aminobiphenyl	U	919	ug/kg	276	919
82-68-8	Pentachloronitrobenzene	U	919	ug/kg	276	919
23950-58-5	Pronamide	U	919	ug/kg	276	919
56-57-5	4-Nitroquinoline-1-oxide	U	919	ug/kg	276	919
91-80-5	Methapyrilene	U	919	ug/kg	276	919
465-73-6	Isodrin	U	919	ug/kg	184	919
140-57-8	Aramite	U	919	ug/kg	276	919
143-50-0	Kepone	U	919	ug/kg	276	919
60-11-7	p-(Dimethylamino)azobenzene	U	919	ug/kg	276	919
510-15-6	Chlorobenzilate	U	919	ug/kg	276	919
119-93-7	3,3'-Dimethylbenzidine	U	919	ug/kg	276	919
53-96-3	2-Acetylaminofluorene	U	919	ug/kg	276	919

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771010

Client ID: 12043.B2.Top Back.EPA

Batch ID: 2589785

Run Date: 04/02/2024 19:30

Prep Date: 04/02/2024 07:52

Data File: S040224\1D0227.D

Date Collected: 03/28/2024 07:25

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.88 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	919	ug/kg	276	919
57-97-6	7,12-Dimethylbenz(a)anthracene	U	919	ug/kg	276	919
56-49-5	3-Methylcholanthrene	U	919	ug/kg	276	919
126-68-1	Triethylphosphorothioate	U	919	ug/kg	276	919
297-97-2	Thionazin	U	919	ug/kg	276	919
126-73-8	Tributylphosphate	U	919	ug/kg	276	919
3689-24-5	Sulfotepp	U	919	ug/kg	276	919
298-02-2	Phorate	U	919	ug/kg	276	919
60-51-5	Dimethoate	U	919	ug/kg	276	919
298-04-4	Disulfoton	U	919	ug/kg	276	919
298-00-0	Methyl parathion	U	919	ug/kg	276	919
56-38-2	Parathion	U	919	ug/kg	276	919
52-85-7	Famphur	U	919	ug/kg	276	919
106-50-3	p-Phenylenediamine	U	46000	ug/kg	9190	46000
70-30-4	Hexachlorophene	U	46000	ug/kg	10700	46000
120-82-1	1,2,4-Trichlorobenzene	U	919	ug/kg	276	919

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:30	Matrix:	MISC SOLID
Lab Sample ID:	660771011	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:52	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.87 g	Final Volume:	1 mL
Data File:	S040224\1D0228.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	920	ug/kg	276	920
110-86-1	Pyridine	U	920	ug/kg	276	920
62-53-3	Aniline	U	920	ug/kg	276	920
108-95-2	Phenol	U	920	ug/kg	276	920
111-44-4	bis(2-Chloroethyl) ether	U	920	ug/kg	276	920
95-57-8	2-Chlorophenol	U	920	ug/kg	276	920
541-73-1	1,3-Dichlorobenzene	U	920	ug/kg	276	920
106-46-7	1,4-Dichlorobenzene	U	920	ug/kg	276	920
95-50-1	1,2-Dichlorobenzene	U	920	ug/kg	276	920
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	920	ug/kg	276	920
100-51-6	Benzyl alcohol	U	920	ug/kg	276	920
95-48-7	o-Cresol	U	920	ug/kg	276	920
65794-96-9	m,p-Cresols	U	920	ug/kg	276	920
621-64-7	N-Nitrosodipropylamine	U	920	ug/kg	276	920
67-72-1	Hexachloroethane	U	920	ug/kg	276	920
98-95-3	Nitrobenzene	U	920	ug/kg	276	920
78-59-1	Isophorone	U	920	ug/kg	276	920
88-75-5	2-Nitrophenol	U	920	ug/kg	276	920
105-67-9	2,4-Dimethylphenol	U	920	ug/kg	276	920
111-91-1	bis(2-Chloroethoxy)methane	U	920	ug/kg	276	920
120-83-2	2,4-Dichlorophenol	U	920	ug/kg	276	920
65-85-0	Benzoic acid	J	774	ug/kg	460	1840
106-47-8	4-Chloroaniline	U	920	ug/kg	276	920
87-68-3	Hexachlorobutadiene	U	920	ug/kg	276	920
59-50-7	4-Chloro-3-methylphenol	U	920	ug/kg	368	920
91-57-6	2-Methylnaphthalene	U	92.0	ug/kg	27.6	92.0
91-20-3	Naphthalene	U	92.0	ug/kg	27.6	92.0
90-12-0	1-Methylnaphthalene	U	92.0	ug/kg	27.6	92.0
77-47-4	Hexachlorocyclopentadiene	U	920	ug/kg	276	920
88-06-2	2,4,6-Trichlorophenol	U	920	ug/kg	276	920
95-95-4	2,4,5-Trichlorophenol	U	920	ug/kg	276	920
91-58-7	2-Chloronaphthalene	U	92.0	ug/kg	27.6	92.0
88-74-4	o-Nitroaniline	U	920	ug/kg	304	920
99-09-2	m-Nitroaniline	U	920	ug/kg	276	920
131-11-3	Dimethylphthalate	U	92.0	ug/kg	27.6	92.0
99-65-0	m-Dinitrobenzene	U	920	ug/kg	276	920
606-20-2	2,6-Dinitrotoluene	U	920	ug/kg	276	920
121-14-2	2,4-Dinitrotoluene	U	920	ug/kg	276	920

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:30	Matrix:	MISC SOLID
Lab Sample ID:	660771011	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:52	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.87 g	Final Volume:	1 mL
Data File:	S040224\1D0228.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	92.0	ug/kg	27.6	92.0
83-32-9	Acenaphthene	U	92.0	ug/kg	27.6	92.0
51-28-5	2,4-Dinitrophenol	U	1840	ug/kg	276	1840
132-64-9	Dibenzofuran	U	920	ug/kg	276	920
58-90-2	2,3,4,6-Tetrachlorophenol	U	920	ug/kg	276	920
84-66-2	Diethylphthalate	U	92.0	ug/kg	27.6	92.0
100-02-7	4-Nitrophenol	U	920	ug/kg	276	920
86-73-7	Fluorene	U	92.0	ug/kg	27.6	92.0
7005-72-3	4-Chlorophenylphenylether	U	920	ug/kg	276	920
100-01-6	p-Nitroaniline	U	920	ug/kg	276	920
534-52-1	2-Methyl-4,6-dinitrophenol	U	920	ug/kg	276	920
122-39-4	Diphenylamine	U	920	ug/kg	276	920
122-66-7	1,2-Diphenylhydrazine	U	920	ug/kg	276	920
101-55-3	4-Bromophenylphenylether	U	920	ug/kg	276	920
118-74-1	Hexachlorobenzene	U	920	ug/kg	276	920
87-86-5	Pentachlorophenol	U	920	ug/kg	276	920
88-85-7	Dinoseb	U	920	ug/kg	276	920
85-01-8	Phenanthrene	U	92.0	ug/kg	27.6	92.0
120-12-7	Anthracene	U	92.0	ug/kg	27.6	92.0
86-74-8	Carbazole	U	92.0	ug/kg	27.6	92.0
84-74-2	Di-n-butylphthalate	U	92.0	ug/kg	27.6	92.0
206-44-0	Fluoranthene	U	92.0	ug/kg	27.6	92.0
129-00-0	Pyrene	U	92.0	ug/kg	27.6	92.0
85-68-7	Butylbenzylphthalate	U	92.0	ug/kg	27.6	92.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	92.0	ug/kg	27.6	92.0
56-55-3	Benzo(a)anthracene	U	92.0	ug/kg	27.6	92.0
218-01-9	Chrysene	U	92.0	ug/kg	27.6	92.0
72-43-5	Methoxychlor	U	920	ug/kg	276	920
117-84-0	Di-n-octylphthalate	U	92.0	ug/kg	27.6	92.0
205-99-2	Benzo(b)fluoranthene	U	92.0	ug/kg	27.6	92.0
207-08-9	Benzo(k)fluoranthene	U	92.0	ug/kg	27.6	92.0
50-32-8	Benzo(a)pyrene	U	92.0	ug/kg	27.6	92.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	92.0	ug/kg	27.6	92.0
53-70-3	Dibenzo(a,h)anthracene	U	92.0	ug/kg	27.6	92.0
191-24-2	Benzo(ghi)perylene	U	92.0	ug/kg	27.6	92.0
123-91-1	1,4-Dioxane	U	920	ug/kg	276	920
80-62-6	Methyl methacrylate	U	920	ug/kg	276	920
97-63-2	Ethyl methacrylate	U	920	ug/kg	276	920

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:30	Matrix:	MISC SOLID
Lab Sample ID:	660771011	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:52	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.87 g	Final Volume:	1 mL
Data File:	S040224\1D0228.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	920	ug/kg	276	920
10595-95-6	N-Nitrosomethylethylamine	U	920	ug/kg	276	920
66-27-3	Methyl methanesulfonate	U	920	ug/kg	276	920
55-18-5	N-Nitrosodiethylamine	U	920	ug/kg	276	920
62-50-0	Ethyl Methanesulfonate	U	920	ug/kg	276	920
76-01-7	Pentachloroethane	U	920	ug/kg	276	920
930-55-2	N-Nitrosopyrrolidine	U	920	ug/kg	276	920
98-86-2	Acetophenone	U	920	ug/kg	276	920
59-89-2	N-Nitrosomorpholine	U	920	ug/kg	276	920
95-53-4	o-Toluidine	U	920	ug/kg	276	920
100-75-4	N-Nitrosopiperidine	U	920	ug/kg	276	920
122-09-8	a,a-Dimethylphenethylamine	U	920	ug/kg	322	920
87-65-0	2,6-Dichlorophenol	U	920	ug/kg	276	920
1888-71-7	Hexachloropropene	U	920	ug/kg	276	920
924-16-3	N-Nitrosodi-n-butylamine	U	920	ug/kg	276	920
94-59-7	Safrole	U	920	ug/kg	276	920
95-94-3	1,2,4,5-Tetrachlorobenzene	U	920	ug/kg	276	920
120-58-1	Isosafrole	U	920	ug/kg	276	920
130-15-4	1,4-Naphthoquinone	U	920	ug/kg	276	920
608-93-5	Pentachlorobenzene	U	920	ug/kg	276	920
134-32-7	1-Naphthylamine	U	920	ug/kg	276	920
91-59-8	2-Naphthylamine	U	920	ug/kg	276	920
99-55-8	5-Nitro-o-toluidine	U	920	ug/kg	276	920
62-44-2	Phenacetin	U	920	ug/kg	276	920
99-35-4	1,3,5-Trinitrobenzene	U	920	ug/kg	276	920
2303-16-4	Diallate	U	920	ug/kg	276	920
92-67-1	4-Aminobiphenyl	U	920	ug/kg	276	920
82-68-8	Pentachloronitrobenzene	U	920	ug/kg	276	920
23950-58-5	Pronamide	U	920	ug/kg	276	920
56-57-5	4-Nitroquinoline-1-oxide	U	920	ug/kg	276	920
91-80-5	Methapyrilene	U	920	ug/kg	276	920
465-73-6	Isodrin	U	920	ug/kg	184	920
140-57-8	Aramite	U	920	ug/kg	276	920
143-50-0	Kepone	U	920	ug/kg	276	920
60-11-7	p-(Dimethylamino)azobenzene	U	920	ug/kg	276	920
510-15-6	Chlorobenzilate	U	920	ug/kg	276	920
119-93-7	3,3'-Dimethylbenzidine	U	920	ug/kg	276	920
53-96-3	2-Acetylaminofluorene	U	920	ug/kg	276	920

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:30	Matrix:	MISC SOLID
Lab Sample ID:	660771011	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:52	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.87 g	Final Volume:	1 mL
Data File:	S040224\s1D0228.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	920	ug/kg	276	920
57-97-6	7,12-Dimethylbenz(a)anthracene	U	920	ug/kg	276	920
56-49-5	3-Methylcholanthrene	U	920	ug/kg	276	920
126-68-1	Triethylphosphorothioate	U	920	ug/kg	276	920
297-97-2	Thionazin	U	920	ug/kg	276	920
126-73-8	Tributylphosphate	U	920	ug/kg	276	920
3689-24-5	Sulfotepp	U	920	ug/kg	276	920
298-02-2	Phorate	U	920	ug/kg	276	920
60-51-5	Dimethoate	U	920	ug/kg	276	920
298-04-4	Disulfoton	U	920	ug/kg	276	920
298-00-0	Methyl parathion	U	920	ug/kg	276	920
56-38-2	Parathion	U	920	ug/kg	276	920
52-85-7	Famphur	U	920	ug/kg	276	920
106-50-3	p-Phenylenediamine	U	46000	ug/kg	9200	46000
70-30-4	Hexachlorophene	U	46000	ug/kg	10700	46000
120-82-1	1,2,4-Trichlorobenzene	U	920	ug/kg	276	920

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:35	Matrix:	MISC SOLID
Lab Sample ID:	660771012	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:15	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.9 g	Final Volume:	1 mL
Data File:	S040224\1D0229.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	917	ug/kg	275	917
110-86-1	Pyridine	U	917	ug/kg	275	917
62-53-3	Aniline	U	917	ug/kg	275	917
108-95-2	Phenol	U	917	ug/kg	275	917
111-44-4	bis(2-Chloroethyl) ether	U	917	ug/kg	275	917
95-57-8	2-Chlorophenol	U	917	ug/kg	275	917
541-73-1	1,3-Dichlorobenzene	U	917	ug/kg	275	917
106-46-7	1,4-Dichlorobenzene	U	917	ug/kg	275	917
95-50-1	1,2-Dichlorobenzene	U	917	ug/kg	275	917
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	917	ug/kg	275	917
100-51-6	Benzyl alcohol	U	917	ug/kg	275	917
95-48-7	o-Cresol	U	917	ug/kg	275	917
65794-96-9	m,p-Cresols	U	917	ug/kg	275	917
621-64-7	N-Nitrosodipropylamine	U	917	ug/kg	275	917
67-72-1	Hexachloroethane	U	917	ug/kg	275	917
98-95-3	Nitrobenzene	U	917	ug/kg	275	917
78-59-1	Isophorone	U	917	ug/kg	275	917
88-75-5	2-Nitrophenol	U	917	ug/kg	275	917
105-67-9	2,4-Dimethylphenol	U	917	ug/kg	275	917
111-91-1	bis(2-Chloroethoxy)methane	U	917	ug/kg	275	917
120-83-2	2,4-Dichlorophenol	U	917	ug/kg	275	917
65-85-0	Benzoic acid	J	796	ug/kg	459	1830
106-47-8	4-Chloroaniline	U	917	ug/kg	275	917
87-68-3	Hexachlorobutadiene	U	917	ug/kg	275	917
59-50-7	4-Chloro-3-methylphenol	U	917	ug/kg	367	917
91-57-6	2-Methylnaphthalene	U	91.7	ug/kg	27.5	91.7
91-20-3	Naphthalene	U	91.7	ug/kg	27.5	91.7
90-12-0	1-Methylnaphthalene	U	91.7	ug/kg	27.5	91.7
77-47-4	Hexachlorocyclopentadiene	U	917	ug/kg	275	917
88-06-2	2,4,6-Trichlorophenol	U	917	ug/kg	275	917
95-95-4	2,4,5-Trichlorophenol	U	917	ug/kg	275	917
91-58-7	2-Chloronaphthalene	U	91.7	ug/kg	27.5	91.7
88-74-4	o-Nitroaniline	U	917	ug/kg	303	917
99-09-2	m-Nitroaniline	U	917	ug/kg	275	917
131-11-3	Dimethylphthalate	U	91.7	ug/kg	27.5	91.7
99-65-0	m-Dinitrobenzene	U	917	ug/kg	275	917
606-20-2	2,6-Dinitrotoluene	U	917	ug/kg	275	917
121-14-2	2,4-Dinitrotoluene	U	917	ug/kg	275	917

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:35	Matrix:	MISC SOLID
Lab Sample ID:	660771012	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:15	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.9 g	Final Volume:	1 mL
Data File:	S040224s1D0229.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	91.7	ug/kg	27.5	91.7
83-32-9	Acenaphthene	U	91.7	ug/kg	27.5	91.7
51-28-5	2,4-Dinitrophenol	U	1830	ug/kg	275	1830
132-64-9	Dibenzofuran	U	917	ug/kg	275	917
58-90-2	2,3,4,6-Tetrachlorophenol	U	917	ug/kg	275	917
84-66-2	Diethylphthalate	U	91.7	ug/kg	27.5	91.7
100-02-7	4-Nitrophenol	U	917	ug/kg	275	917
86-73-7	Fluorene	U	91.7	ug/kg	27.5	91.7
7005-72-3	4-Chlorophenylphenylether	U	917	ug/kg	275	917
100-01-6	p-Nitroaniline	U	917	ug/kg	275	917
534-52-1	2-Methyl-4,6-dinitrophenol	U	917	ug/kg	275	917
122-39-4	Diphenylamine	U	917	ug/kg	275	917
122-66-7	1,2-Diphenylhydrazine	U	917	ug/kg	275	917
101-55-3	4-Bromophenylphenylether	U	917	ug/kg	275	917
118-74-1	Hexachlorobenzene	U	917	ug/kg	275	917
87-86-5	Pentachlorophenol	U	917	ug/kg	275	917
88-85-7	Dinoseb	U	917	ug/kg	275	917
85-01-8	Phenanthrene	U	91.7	ug/kg	27.5	91.7
120-12-7	Anthracene	U	91.7	ug/kg	27.5	91.7
86-74-8	Carbazole	U	91.7	ug/kg	27.5	91.7
84-74-2	Di-n-butylphthalate	U	91.7	ug/kg	27.5	91.7
206-44-0	Fluoranthene	U	91.7	ug/kg	27.5	91.7
129-00-0	Pyrene	U	91.7	ug/kg	27.5	91.7
85-68-7	Butylbenzylphthalate	U	91.7	ug/kg	27.5	91.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	91.7	ug/kg	27.5	91.7
56-55-3	Benzo(a)anthracene	U	91.7	ug/kg	27.5	91.7
218-01-9	Chrysene	U	91.7	ug/kg	27.5	91.7
72-43-5	Methoxychlor	U	917	ug/kg	275	917
117-84-0	Di-n-octylphthalate	U	91.7	ug/kg	27.5	91.7
205-99-2	Benzo(b)fluoranthene	U	91.7	ug/kg	27.5	91.7
207-08-9	Benzo(k)fluoranthene	U	91.7	ug/kg	27.5	91.7
50-32-8	Benzo(a)pyrene	U	91.7	ug/kg	27.5	91.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	91.7	ug/kg	27.5	91.7
53-70-3	Dibenzo(a,h)anthracene	U	91.7	ug/kg	27.5	91.7
191-24-2	Benzo(ghi)perylene	U	91.7	ug/kg	27.5	91.7
123-91-1	1,4-Dioxane	U	917	ug/kg	275	917
80-62-6	Methyl methacrylate	U	917	ug/kg	275	917
97-63-2	Ethyl methacrylate	U	917	ug/kg	275	917

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:35	Matrix:	MISC SOLID
Lab Sample ID:	660771012	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:15	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.9 g	Final Volume:	1 mL
Data File:	S040224\1D0229.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	917	ug/kg	275	917
10595-95-6	N-Nitrosomethylethylamine	U	917	ug/kg	275	917
66-27-3	Methyl methanesulfonate	U	917	ug/kg	275	917
55-18-5	N-Nitrosodiethylamine	U	917	ug/kg	275	917
62-50-0	Ethyl Methanesulfonate	U	917	ug/kg	275	917
76-01-7	Pentachloroethane	U	917	ug/kg	275	917
930-55-2	N-Nitrosopyrrolidine	U	917	ug/kg	275	917
98-86-2	Acetophenone	U	917	ug/kg	275	917
59-89-2	N-Nitrosomorpholine	U	917	ug/kg	275	917
95-53-4	o-Toluidine	U	917	ug/kg	275	917
100-75-4	N-Nitrosopiperidine	U	917	ug/kg	275	917
122-09-8	a,a-Dimethylphenethylamine	U	917	ug/kg	321	917
87-65-0	2,6-Dichlorophenol	U	917	ug/kg	275	917
1888-71-7	Hexachloropropene	U	917	ug/kg	275	917
924-16-3	N-Nitrosodi-n-butylamine	U	917	ug/kg	275	917
94-59-7	Safrole	U	917	ug/kg	275	917
95-94-3	1,2,4,5-Tetrachlorobenzene	U	917	ug/kg	275	917
120-58-1	Isosafrole	U	917	ug/kg	275	917
130-15-4	1,4-Naphthoquinone	U	917	ug/kg	275	917
608-93-5	Pentachlorobenzene	U	917	ug/kg	275	917
134-32-7	1-Naphthylamine	U	917	ug/kg	275	917
91-59-8	2-Naphthylamine	U	917	ug/kg	275	917
99-55-8	5-Nitro-o-toluidine	U	917	ug/kg	275	917
62-44-2	Phenacetin	U	917	ug/kg	275	917
99-35-4	1,3,5-Trinitrobenzene	U	917	ug/kg	275	917
2303-16-4	Diallate	U	917	ug/kg	275	917
92-67-1	4-Aminobiphenyl	U	917	ug/kg	275	917
82-68-8	Pentachloronitrobenzene	U	917	ug/kg	275	917
23950-58-5	Pronamide	U	917	ug/kg	275	917
56-57-5	4-Nitroquinoline-1-oxide	U	917	ug/kg	275	917
91-80-5	Methapyrilene	U	917	ug/kg	275	917
465-73-6	Isodrin	U	917	ug/kg	183	917
140-57-8	Aramite	U	917	ug/kg	275	917
143-50-0	Kepone	U	917	ug/kg	275	917
60-11-7	p-(Dimethylamino)azobenzene	U	917	ug/kg	275	917
510-15-6	Chlorobenzilate	U	917	ug/kg	275	917
119-93-7	3,3'-Dimethylbenzidine	U	917	ug/kg	275	917
53-96-3	2-Acetylaminofluorene	U	917	ug/kg	275	917

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771012

Client ID: 12043.B2.Bottom Back.EPA

Batch ID: 2589785

Run Date: 04/02/2024 20:15

Prep Date: 04/02/2024 07:52

Data File: S040224\s1D0229.D

Date Collected: 03/28/2024 07:35

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.9 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	917	ug/kg	275	917
57-97-6	7,12-Dimethylbenz(a)anthracene	U	917	ug/kg	275	917
56-49-5	3-Methylcholanthrene	U	917	ug/kg	275	917
126-68-1	Triethylphosphorothioate	U	917	ug/kg	275	917
297-97-2	Thionazin	U	917	ug/kg	275	917
126-73-8	Tributylphosphate	U	917	ug/kg	275	917
3689-24-5	Sulfotepp	U	917	ug/kg	275	917
298-02-2	Phorate	U	917	ug/kg	275	917
60-51-5	Dimethoate	U	917	ug/kg	275	917
298-04-4	Disulfoton	U	917	ug/kg	275	917
298-00-0	Methyl parathion	U	917	ug/kg	275	917
56-38-2	Parathion	U	917	ug/kg	275	917
52-85-7	Famphur	U	917	ug/kg	275	917
106-50-3	p-Phenylenediamine	U	45900	ug/kg	9170	45900
70-30-4	Hexachlorophene	U	45900	ug/kg	10600	45900
120-82-1	1,2,4-Trichlorobenzene	U	917	ug/kg	275	917

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:45	Matrix:	MISC SOLID
Lab Sample ID:	660771013	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:37	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.29 g	Final Volume:	1 mL
Data File:	S040224\1D0230.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	972	ug/kg	292	972
110-86-1	Pyridine	U	972	ug/kg	292	972
62-53-3	Aniline	U	972	ug/kg	292	972
108-95-2	Phenol	U	972	ug/kg	292	972
111-44-4	bis(2-Chloroethyl) ether	U	972	ug/kg	292	972
95-57-8	2-Chlorophenol	U	972	ug/kg	292	972
541-73-1	1,3-Dichlorobenzene	U	972	ug/kg	292	972
106-46-7	1,4-Dichlorobenzene	U	972	ug/kg	292	972
95-50-1	1,2-Dichlorobenzene	U	972	ug/kg	292	972
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	972	ug/kg	292	972
100-51-6	Benzyl alcohol	U	972	ug/kg	292	972
95-48-7	o-Cresol	U	972	ug/kg	292	972
65794-96-9	m,p-Cresols	U	972	ug/kg	292	972
621-64-7	N-Nitrosodipropylamine	U	972	ug/kg	292	972
67-72-1	Hexachloroethane	U	972	ug/kg	292	972
98-95-3	Nitrobenzene	U	972	ug/kg	292	972
78-59-1	Isophorone	U	972	ug/kg	292	972
88-75-5	2-Nitrophenol	U	972	ug/kg	292	972
105-67-9	2,4-Dimethylphenol	U	972	ug/kg	292	972
111-91-1	bis(2-Chloroethoxy)methane	U	972	ug/kg	292	972
120-83-2	2,4-Dichlorophenol	U	972	ug/kg	292	972
65-85-0	Benzoic acid	U	1940	ug/kg	486	1940
106-47-8	4-Chloroaniline	U	972	ug/kg	292	972
87-68-3	Hexachlorobutadiene	U	972	ug/kg	292	972
59-50-7	4-Chloro-3-methylphenol	U	972	ug/kg	389	972
91-57-6	2-Methylnaphthalene	U	97.2	ug/kg	29.2	97.2
91-20-3	Naphthalene	U	97.2	ug/kg	29.2	97.2
90-12-0	1-Methylnaphthalene	U	97.2	ug/kg	29.2	97.2
77-47-4	Hexachlorocyclopentadiene	U	972	ug/kg	292	972
88-06-2	2,4,6-Trichlorophenol	U	972	ug/kg	292	972
95-95-4	2,4,5-Trichlorophenol	U	972	ug/kg	292	972
91-58-7	2-Chloronaphthalene	U	97.2	ug/kg	29.2	97.2
88-74-4	o-Nitroaniline	U	972	ug/kg	321	972
99-09-2	m-Nitroaniline	U	972	ug/kg	292	972
131-11-3	Dimethylphthalate	U	97.2	ug/kg	29.2	97.2
99-65-0	m-Dinitrobenzene	U	972	ug/kg	292	972
606-20-2	2,6-Dinitrotoluene	U	972	ug/kg	292	972
121-14-2	2,4-Dinitrotoluene	U	972	ug/kg	292	972

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:45	Matrix:	MISC SOLID
Lab Sample ID:	660771013	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:37	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.29 g	Final Volume:	1 mL
Data File:	S040224\1D0230.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	97.2	ug/kg	29.2	97.2
83-32-9	Acenaphthene	U	97.2	ug/kg	29.2	97.2
51-28-5	2,4-Dinitrophenol	U	1940	ug/kg	292	1940
132-64-9	Dibenzofuran	U	972	ug/kg	292	972
58-90-2	2,3,4,6-Tetrachlorophenol	U	972	ug/kg	292	972
84-66-2	Diethylphthalate	U	97.2	ug/kg	29.2	97.2
100-02-7	4-Nitrophenol	U	972	ug/kg	292	972
86-73-7	Fluorene	U	97.2	ug/kg	29.2	97.2
7005-72-3	4-Chlorophenylphenylether	U	972	ug/kg	292	972
100-01-6	p-Nitroaniline	U	972	ug/kg	292	972
534-52-1	2-Methyl-4,6-dinitrophenol	U	972	ug/kg	292	972
122-39-4	Diphenylamine	U	972	ug/kg	292	972
122-66-7	1,2-Diphenylhydrazine	U	972	ug/kg	292	972
101-55-3	4-Bromophenylphenylether	U	972	ug/kg	292	972
118-74-1	Hexachlorobenzene	U	972	ug/kg	292	972
87-86-5	Pentachlorophenol	U	972	ug/kg	292	972
88-85-7	Dinoseb	U	972	ug/kg	292	972
85-01-8	Phenanthrene	U	97.2	ug/kg	29.2	97.2
120-12-7	Anthracene	U	97.2	ug/kg	29.2	97.2
86-74-8	Carbazole	U	97.2	ug/kg	29.2	97.2
84-74-2	Di-n-butylphthalate	U	97.2	ug/kg	29.2	97.2
206-44-0	Fluoranthene	U	97.2	ug/kg	29.2	97.2
129-00-0	Pyrene	U	97.2	ug/kg	29.2	97.2
85-68-7	Butylbenzylphthalate	U	97.2	ug/kg	29.2	97.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	97.2	ug/kg	29.2	97.2
56-55-3	Benzo(a)anthracene	U	97.2	ug/kg	29.2	97.2
218-01-9	Chrysene	U	97.2	ug/kg	29.2	97.2
72-43-5	Methoxychlor	U	972	ug/kg	292	972
117-84-0	Di-n-octylphthalate	U	97.2	ug/kg	29.2	97.2
205-99-2	Benzo(b)fluoranthene	U	97.2	ug/kg	29.2	97.2
207-08-9	Benzo(k)fluoranthene	U	97.2	ug/kg	29.2	97.2
50-32-8	Benzo(a)pyrene	U	97.2	ug/kg	29.2	97.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	97.2	ug/kg	29.2	97.2
53-70-3	Dibenzo(a,h)anthracene	U	97.2	ug/kg	29.2	97.2
191-24-2	Benzo(ghi)perylene	U	97.2	ug/kg	29.2	97.2
123-91-1	1,4-Dioxane	U	972	ug/kg	292	972
80-62-6	Methyl methacrylate	U	972	ug/kg	292	972
97-63-2	Ethyl methacrylate	U	972	ug/kg	292	972

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:45	Matrix:	MISC SOLID
Lab Sample ID:	660771013	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:37	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.29 g	Final Volume:	1 mL
Data File:	S040224\1D0230.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	972	ug/kg	292	972
10595-95-6	N-Nitrosomethylethylamine	U	972	ug/kg	292	972
66-27-3	Methyl methanesulfonate	U	972	ug/kg	292	972
55-18-5	N-Nitrosodiethylamine	U	972	ug/kg	292	972
62-50-0	Ethyl Methanesulfonate	U	972	ug/kg	292	972
76-01-7	Pentachloroethane	U	972	ug/kg	292	972
930-55-2	N-Nitrosopyrrolidine	U	972	ug/kg	292	972
98-86-2	Acetophenone	U	972	ug/kg	292	972
59-89-2	N-Nitrosomorpholine	U	972	ug/kg	292	972
95-53-4	o-Toluidine	U	972	ug/kg	292	972
100-75-4	N-Nitrosopiperidine	U	972	ug/kg	292	972
122-09-8	a,a-Dimethylphenethylamine	U	972	ug/kg	340	972
87-65-0	2,6-Dichlorophenol	U	972	ug/kg	292	972
1888-71-7	Hexachloropropene	U	972	ug/kg	292	972
924-16-3	N-Nitrosodi-n-butylamine	U	972	ug/kg	292	972
94-59-7	Safrole	U	972	ug/kg	292	972
95-94-3	1,2,4,5-Tetrachlorobenzene	U	972	ug/kg	292	972
120-58-1	Isosafrole	U	972	ug/kg	292	972
130-15-4	1,4-Naphthoquinone	U	972	ug/kg	292	972
608-93-5	Pentachlorobenzene	U	972	ug/kg	292	972
134-32-7	1-Naphthylamine	U	972	ug/kg	292	972
91-59-8	2-Naphthylamine	U	972	ug/kg	292	972
99-55-8	5-Nitro-o-toluidine	U	972	ug/kg	292	972
62-44-2	Phenacetin	U	972	ug/kg	292	972
99-35-4	1,3,5-Trinitrobenzene	U	972	ug/kg	292	972
2303-16-4	Diallate	U	972	ug/kg	292	972
92-67-1	4-Aminobiphenyl	U	972	ug/kg	292	972
82-68-8	Pentachloronitrobenzene	U	972	ug/kg	292	972
23950-58-5	Pronamide	U	972	ug/kg	292	972
56-57-5	4-Nitroquinoline-1-oxide	U	972	ug/kg	292	972
91-80-5	Methapyrilene	U	972	ug/kg	292	972
465-73-6	Isodrin	U	972	ug/kg	194	972
140-57-8	Aramite	U	972	ug/kg	292	972
143-50-0	Kepone	U	972	ug/kg	292	972
60-11-7	p-(Dimethylamino)azobenzene	U	972	ug/kg	292	972
510-15-6	Chlorobenzilate	U	972	ug/kg	292	972
119-93-7	3,3'-Dimethylbenzidine	U	972	ug/kg	292	972
53-96-3	2-Acetylaminofluorene	U	972	ug/kg	292	972

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:45	Matrix:	MISC SOLID
Lab Sample ID:	660771013	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:37	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.29 g	Final Volume:	1 mL
Data File:	S040224\1D0230.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	972	ug/kg	292	972
57-97-6	7,12-Dimethylbenz(a)anthracene	U	972	ug/kg	292	972
56-49-5	3-Methylcholanthrene	U	972	ug/kg	292	972
126-68-1	Triethylphosphorothioate	U	972	ug/kg	292	972
297-97-2	Thionazin	U	972	ug/kg	292	972
126-73-8	Tributylphosphate	U	972	ug/kg	292	972
3689-24-5	Sulfotepp	U	972	ug/kg	292	972
298-02-2	Phorate	U	972	ug/kg	292	972
60-51-5	Dimethoate	U	972	ug/kg	292	972
298-04-4	Disulfoton	U	972	ug/kg	292	972
298-00-0	Methyl parathion	U	972	ug/kg	292	972
56-38-2	Parathion	U	972	ug/kg	292	972
52-85-7	Famphur	U	972	ug/kg	292	972
106-50-3	p-Phenylenediamine	U	48600	ug/kg	9720	48600
70-30-4	Hexachlorophene	U	48600	ug/kg	11300	48600
120-82-1	1,2,4-Trichlorobenzene	U	972	ug/kg	292	972

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:55	Matrix:	MISC SOLID
Lab Sample ID:	660771014	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:59	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.22 g	Final Volume:	1 mL
Data File:	S040224\1D0231.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	978	ug/kg	294	978
110-86-1	Pyridine	U	978	ug/kg	294	978
62-53-3	Aniline	U	978	ug/kg	294	978
108-95-2	Phenol	U	978	ug/kg	294	978
111-44-4	bis(2-Chloroethyl) ether	U	978	ug/kg	294	978
95-57-8	2-Chlorophenol	U	978	ug/kg	294	978
541-73-1	1,3-Dichlorobenzene	U	978	ug/kg	294	978
106-46-7	1,4-Dichlorobenzene	U	978	ug/kg	294	978
95-50-1	1,2-Dichlorobenzene	U	978	ug/kg	294	978
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	978	ug/kg	294	978
100-51-6	Benzyl alcohol	U	978	ug/kg	294	978
95-48-7	o-Cresol	U	978	ug/kg	294	978
65794-96-9	m,p-Cresols	U	978	ug/kg	294	978
621-64-7	N-Nitrosodipropylamine	U	978	ug/kg	294	978
67-72-1	Hexachloroethane	U	978	ug/kg	294	978
98-95-3	Nitrobenzene	U	978	ug/kg	294	978
78-59-1	Isophorone	U	978	ug/kg	294	978
88-75-5	2-Nitrophenol	U	978	ug/kg	294	978
105-67-9	2,4-Dimethylphenol	U	978	ug/kg	294	978
111-91-1	bis(2-Chloroethoxy)methane	U	978	ug/kg	294	978
120-83-2	2,4-Dichlorophenol	U	978	ug/kg	294	978
65-85-0	Benzoic acid	J	890	ug/kg	489	1960
106-47-8	4-Chloroaniline	U	978	ug/kg	294	978
87-68-3	Hexachlorobutadiene	U	978	ug/kg	294	978
59-50-7	4-Chloro-3-methylphenol	U	978	ug/kg	391	978
91-57-6	2-Methylnaphthalene	U	97.8	ug/kg	29.4	97.8
91-20-3	Naphthalene	U	97.8	ug/kg	29.4	97.8
90-12-0	1-Methylnaphthalene	U	97.8	ug/kg	29.4	97.8
77-47-4	Hexachlorocyclopentadiene	U	978	ug/kg	294	978
88-06-2	2,4,6-Trichlorophenol	U	978	ug/kg	294	978
95-95-4	2,4,5-Trichlorophenol	U	978	ug/kg	294	978
91-58-7	2-Chloronaphthalene	U	97.8	ug/kg	29.4	97.8
88-74-4	o-Nitroaniline	U	978	ug/kg	323	978
99-09-2	m-Nitroaniline	U	978	ug/kg	294	978
131-11-3	Dimethylphthalate	U	97.8	ug/kg	29.4	97.8
99-65-0	m-Dinitrobenzene	U	978	ug/kg	294	978
606-20-2	2,6-Dinitrotoluene	U	978	ug/kg	294	978
121-14-2	2,4-Dinitrotoluene	U	978	ug/kg	294	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:55	Matrix:	MISC SOLID
Lab Sample ID:	660771014	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:59	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.22 g	Final Volume:	1 mL
Data File:	S040224\1D0231.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	97.8	ug/kg	29.4	97.8
83-32-9	Acenaphthene	U	97.8	ug/kg	29.4	97.8
51-28-5	2,4-Dinitrophenol	U	1960	ug/kg	294	1960
132-64-9	Dibenzofuran	U	978	ug/kg	294	978
58-90-2	2,3,4,6-Tetrachlorophenol	U	978	ug/kg	294	978
84-66-2	Diethylphthalate	U	97.8	ug/kg	29.4	97.8
100-02-7	4-Nitrophenol	U	978	ug/kg	294	978
86-73-7	Fluorene	U	97.8	ug/kg	29.4	97.8
7005-72-3	4-Chlorophenylphenylether	U	978	ug/kg	294	978
100-01-6	p-Nitroaniline	U	978	ug/kg	294	978
534-52-1	2-Methyl-4,6-dinitrophenol	U	978	ug/kg	294	978
122-39-4	Diphenylamine	U	978	ug/kg	294	978
122-66-7	1,2-Diphenylhydrazine	U	978	ug/kg	294	978
101-55-3	4-Bromophenylphenylether	U	978	ug/kg	294	978
118-74-1	Hexachlorobenzene	U	978	ug/kg	294	978
87-86-5	Pentachlorophenol	U	978	ug/kg	294	978
88-85-7	Dinoseb	U	978	ug/kg	294	978
85-01-8	Phenanthrene	U	97.8	ug/kg	29.4	97.8
120-12-7	Anthracene	U	97.8	ug/kg	29.4	97.8
86-74-8	Carbazole	U	97.8	ug/kg	29.4	97.8
84-74-2	Di-n-butylphthalate	U	97.8	ug/kg	29.4	97.8
206-44-0	Fluoranthene	U	97.8	ug/kg	29.4	97.8
129-00-0	Pyrene	U	97.8	ug/kg	29.4	97.8
85-68-7	Butylbenzylphthalate	U	97.8	ug/kg	29.4	97.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	97.8	ug/kg	29.4	97.8
56-55-3	Benzo(a)anthracene	U	97.8	ug/kg	29.4	97.8
218-01-9	Chrysene	U	97.8	ug/kg	29.4	97.8
72-43-5	Methoxychlor	U	978	ug/kg	294	978
117-84-0	Di-n-octylphthalate	U	97.8	ug/kg	29.4	97.8
205-99-2	Benzo(b)fluoranthene	U	97.8	ug/kg	29.4	97.8
207-08-9	Benzo(k)fluoranthene	U	97.8	ug/kg	29.4	97.8
50-32-8	Benzo(a)pyrene	U	97.8	ug/kg	29.4	97.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	97.8	ug/kg	29.4	97.8
53-70-3	Dibenzo(a,h)anthracene	U	97.8	ug/kg	29.4	97.8
191-24-2	Benzo(ghi)perylene	U	97.8	ug/kg	29.4	97.8
123-91-1	1,4-Dioxane	U	978	ug/kg	294	978
80-62-6	Methyl methacrylate	U	978	ug/kg	294	978
97-63-2	Ethyl methacrylate	U	978	ug/kg	294	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:55	Matrix:	MISC SOLID
Lab Sample ID:	660771014	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:59	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.22 g	Final Volume:	1 mL
Data File:	S040224\1D0231.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	978	ug/kg	294	978
10595-95-6	N-Nitrosomethylethylamine	U	978	ug/kg	294	978
66-27-3	Methyl methanesulfonate	U	978	ug/kg	294	978
55-18-5	N-Nitrosodiethylamine	U	978	ug/kg	294	978
62-50-0	Ethyl Methanesulfonate	U	978	ug/kg	294	978
76-01-7	Pentachloroethane	U	978	ug/kg	294	978
930-55-2	N-Nitrosopyrrolidine	U	978	ug/kg	294	978
98-86-2	Acetophenone	U	978	ug/kg	294	978
59-89-2	N-Nitrosomorpholine	U	978	ug/kg	294	978
95-53-4	o-Toluidine	U	978	ug/kg	294	978
100-75-4	N-Nitrosopiperidine	U	978	ug/kg	294	978
122-09-8	a,a-Dimethylphenethylamine	U	978	ug/kg	342	978
87-65-0	2,6-Dichlorophenol	U	978	ug/kg	294	978
1888-71-7	Hexachloropropene	U	978	ug/kg	294	978
924-16-3	N-Nitrosodi-n-butylamine	U	978	ug/kg	294	978
94-59-7	Safrole	U	978	ug/kg	294	978
95-94-3	1,2,4,5-Tetrachlorobenzene	U	978	ug/kg	294	978
120-58-1	Isosafrole	U	978	ug/kg	294	978
130-15-4	1,4-Naphthoquinone	U	978	ug/kg	294	978
608-93-5	Pentachlorobenzene	U	978	ug/kg	294	978
134-32-7	1-Naphthylamine	U	978	ug/kg	294	978
91-59-8	2-Naphthylamine	U	978	ug/kg	294	978
99-55-8	5-Nitro-o-toluidine	U	978	ug/kg	294	978
62-44-2	Phenacetin	U	978	ug/kg	294	978
99-35-4	1,3,5-Trinitrobenzene	U	978	ug/kg	294	978
2303-16-4	Diallate	U	978	ug/kg	294	978
92-67-1	4-Aminobiphenyl	U	978	ug/kg	294	978
82-68-8	Pentachloronitrobenzene	U	978	ug/kg	294	978
23950-58-5	Pronamide	U	978	ug/kg	294	978
56-57-5	4-Nitroquinoline-1-oxide	U	978	ug/kg	294	978
91-80-5	Methapyrilene	U	978	ug/kg	294	978
465-73-6	Isodrin	U	978	ug/kg	196	978
140-57-8	Aramite	U	978	ug/kg	294	978
143-50-0	Kepone	U	978	ug/kg	294	978
60-11-7	p-(Dimethylamino)azobenzene	U	978	ug/kg	294	978
510-15-6	Chlorobenzilate	U	978	ug/kg	294	978
119-93-7	3,3'-Dimethylbenzidine	U	978	ug/kg	294	978
53-96-3	2-Acetylaminofluorene	U	978	ug/kg	294	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:55	Matrix:	MISC SOLID
Lab Sample ID:	660771014	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:59	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.22 g	Final Volume:	1 mL
Data File:	S040224\1D0231.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	978	ug/kg	294	978
57-97-6	7,12-Dimethylbenz(a)anthracene	U	978	ug/kg	294	978
56-49-5	3-Methylcholanthrene	U	978	ug/kg	294	978
126-68-1	Triethylphosphorothioate	U	978	ug/kg	294	978
297-97-2	Thionazin	U	978	ug/kg	294	978
126-73-8	Tributylphosphate	U	978	ug/kg	294	978
3689-24-5	Sulfotepp	U	978	ug/kg	294	978
298-02-2	Phorate	U	978	ug/kg	294	978
60-51-5	Dimethoate	U	978	ug/kg	294	978
298-04-4	Disulfoton	U	978	ug/kg	294	978
298-00-0	Methyl parathion	U	978	ug/kg	294	978
56-38-2	Parathion	U	978	ug/kg	294	978
52-85-7	Famphur	U	978	ug/kg	294	978
106-50-3	p-Phenylenediamine	U	48900	ug/kg	9780	48900
70-30-4	Hexachlorophene	U	48900	ug/kg	11400	48900
120-82-1	1,2,4-Trichlorobenzene	U	978	ug/kg	294	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:05	Matrix:	MISC SOLID
Lab Sample ID:	660771015	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 21:22	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.91 g	Final Volume:	1 mL
Data File:	S040224\1D0232.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	917	ug/kg	275	917
110-86-1	Pyridine	U	917	ug/kg	275	917
62-53-3	Aniline	U	917	ug/kg	275	917
108-95-2	Phenol	U	917	ug/kg	275	917
111-44-4	bis(2-Chloroethyl) ether	U	917	ug/kg	275	917
95-57-8	2-Chlorophenol	U	917	ug/kg	275	917
541-73-1	1,3-Dichlorobenzene	U	917	ug/kg	275	917
106-46-7	1,4-Dichlorobenzene	U	917	ug/kg	275	917
95-50-1	1,2-Dichlorobenzene	U	917	ug/kg	275	917
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	917	ug/kg	275	917
100-51-6	Benzyl alcohol	U	917	ug/kg	275	917
95-48-7	o-Cresol	U	917	ug/kg	275	917
65794-96-9	m,p-Cresols	U	917	ug/kg	275	917
621-64-7	N-Nitrosodipropylamine	U	917	ug/kg	275	917
67-72-1	Hexachloroethane	U	917	ug/kg	275	917
98-95-3	Nitrobenzene	U	917	ug/kg	275	917
78-59-1	Isophorone	U	917	ug/kg	275	917
88-75-5	2-Nitrophenol	U	917	ug/kg	275	917
105-67-9	2,4-Dimethylphenol	U	917	ug/kg	275	917
111-91-1	bis(2-Chloroethoxy)methane	U	917	ug/kg	275	917
120-83-2	2,4-Dichlorophenol	U	917	ug/kg	275	917
65-85-0	Benzoic acid	U	1830	ug/kg	458	1830
106-47-8	4-Chloroaniline	U	917	ug/kg	275	917
87-68-3	Hexachlorobutadiene	U	917	ug/kg	275	917
59-50-7	4-Chloro-3-methylphenol	U	917	ug/kg	367	917
91-57-6	2-Methylnaphthalene	U	91.7	ug/kg	27.5	91.7
91-20-3	Naphthalene	U	91.7	ug/kg	27.5	91.7
90-12-0	1-Methylnaphthalene	U	91.7	ug/kg	27.5	91.7
77-47-4	Hexachlorocyclopentadiene	U	917	ug/kg	275	917
88-06-2	2,4,6-Trichlorophenol	U	917	ug/kg	275	917
95-95-4	2,4,5-Trichlorophenol	U	917	ug/kg	275	917
91-58-7	2-Chloronaphthalene	U	91.7	ug/kg	27.5	91.7
88-74-4	o-Nitroaniline	U	917	ug/kg	302	917
99-09-2	m-Nitroaniline	U	917	ug/kg	275	917
131-11-3	Dimethylphthalate	U	91.7	ug/kg	27.5	91.7
99-65-0	m-Dinitrobenzene	U	917	ug/kg	275	917
606-20-2	2,6-Dinitrotoluene	U	917	ug/kg	275	917
121-14-2	2,4-Dinitrotoluene	U	917	ug/kg	275	917

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:05	Matrix:	MISC SOLID
Lab Sample ID:	660771015	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 21:22	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.91 g	Final Volume:	1 mL
Data File:	S040224s1D0232.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	91.7	ug/kg	27.5	91.7
83-32-9	Acenaphthene	U	91.7	ug/kg	27.5	91.7
51-28-5	2,4-Dinitrophenol	U	1830	ug/kg	275	1830
132-64-9	Dibenzofuran	U	917	ug/kg	275	917
58-90-2	2,3,4,6-Tetrachlorophenol	U	917	ug/kg	275	917
84-66-2	Diethylphthalate	U	91.7	ug/kg	27.5	91.7
100-02-7	4-Nitrophenol	U	917	ug/kg	275	917
86-73-7	Fluorene	U	91.7	ug/kg	27.5	91.7
7005-72-3	4-Chlorophenylphenylether	U	917	ug/kg	275	917
100-01-6	p-Nitroaniline	U	917	ug/kg	275	917
534-52-1	2-Methyl-4,6-dinitrophenol	U	917	ug/kg	275	917
122-39-4	Diphenylamine	U	917	ug/kg	275	917
122-66-7	1,2-Diphenylhydrazine	U	917	ug/kg	275	917
101-55-3	4-Bromophenylphenylether	U	917	ug/kg	275	917
118-74-1	Hexachlorobenzene	U	917	ug/kg	275	917
87-86-5	Pentachlorophenol	U	917	ug/kg	275	917
88-85-7	Dinoseb	U	917	ug/kg	275	917
85-01-8	Phenanthrene	U	91.7	ug/kg	27.5	91.7
120-12-7	Anthracene	U	91.7	ug/kg	27.5	91.7
86-74-8	Carbazole	U	91.7	ug/kg	27.5	91.7
84-74-2	Di-n-butylphthalate	U	91.7	ug/kg	27.5	91.7
206-44-0	Fluoranthene	U	91.7	ug/kg	27.5	91.7
129-00-0	Pyrene	U	91.7	ug/kg	27.5	91.7
85-68-7	Butylbenzylphthalate	U	91.7	ug/kg	27.5	91.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	91.7	ug/kg	27.5	91.7
56-55-3	Benzo(a)anthracene	U	91.7	ug/kg	27.5	91.7
218-01-9	Chrysene	U	91.7	ug/kg	27.5	91.7
72-43-5	Methoxychlor	U	917	ug/kg	275	917
117-84-0	Di-n-octylphthalate	U	91.7	ug/kg	27.5	91.7
205-99-2	Benzo(b)fluoranthene	U	91.7	ug/kg	27.5	91.7
207-08-9	Benzo(k)fluoranthene	U	91.7	ug/kg	27.5	91.7
50-32-8	Benzo(a)pyrene	U	91.7	ug/kg	27.5	91.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	91.7	ug/kg	27.5	91.7
53-70-3	Dibenzo(a,h)anthracene	U	91.7	ug/kg	27.5	91.7
191-24-2	Benzo(ghi)perylene	U	91.7	ug/kg	27.5	91.7
123-91-1	1,4-Dioxane	U	917	ug/kg	275	917
80-62-6	Methyl methacrylate	U	917	ug/kg	275	917
97-63-2	Ethyl methacrylate	U	917	ug/kg	275	917

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:05	Matrix:	MISC SOLID
Lab Sample ID:	660771015	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 21:22	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.91 g	Final Volume:	1 mL
Data File:	S040224\1D0232.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	917	ug/kg	275	917
10595-95-6	N-Nitrosomethylethylamine	U	917	ug/kg	275	917
66-27-3	Methyl methanesulfonate	U	917	ug/kg	275	917
55-18-5	N-Nitrosodiethylamine	U	917	ug/kg	275	917
62-50-0	Ethyl Methanesulfonate	U	917	ug/kg	275	917
76-01-7	Pentachloroethane	U	917	ug/kg	275	917
930-55-2	N-Nitrosopyrrolidine	U	917	ug/kg	275	917
98-86-2	Acetophenone	U	917	ug/kg	275	917
59-89-2	N-Nitrosomorpholine	U	917	ug/kg	275	917
95-53-4	o-Toluidine	U	917	ug/kg	275	917
100-75-4	N-Nitrosopiperidine	U	917	ug/kg	275	917
122-09-8	a,a-Dimethylphenethylamine	U	917	ug/kg	321	917
87-65-0	2,6-Dichlorophenol	U	917	ug/kg	275	917
1888-71-7	Hexachloropropene	U	917	ug/kg	275	917
924-16-3	N-Nitrosodi-n-butylamine	U	917	ug/kg	275	917
94-59-7	Safrole	U	917	ug/kg	275	917
95-94-3	1,2,4,5-Tetrachlorobenzene	U	917	ug/kg	275	917
120-58-1	Isosafrole	U	917	ug/kg	275	917
130-15-4	1,4-Naphthoquinone	U	917	ug/kg	275	917
608-93-5	Pentachlorobenzene	U	917	ug/kg	275	917
134-32-7	1-Naphthylamine	U	917	ug/kg	275	917
91-59-8	2-Naphthylamine	U	917	ug/kg	275	917
99-55-8	5-Nitro-o-toluidine	U	917	ug/kg	275	917
62-44-2	Phenacetin	U	917	ug/kg	275	917
99-35-4	1,3,5-Trinitrobenzene	U	917	ug/kg	275	917
2303-16-4	Diallate	U	917	ug/kg	275	917
92-67-1	4-Aminobiphenyl	U	917	ug/kg	275	917
82-68-8	Pentachloronitrobenzene	U	917	ug/kg	275	917
23950-58-5	Pronamide	U	917	ug/kg	275	917
56-57-5	4-Nitroquinoline-1-oxide	U	917	ug/kg	275	917
91-80-5	Methapyrilene	U	917	ug/kg	275	917
465-73-6	Isodrin	U	917	ug/kg	183	917
140-57-8	Aramite	U	917	ug/kg	275	917
143-50-0	Kepone	U	917	ug/kg	275	917
60-11-7	p-(Dimethylamino)azobenzene	U	917	ug/kg	275	917
510-15-6	Chlorobenzilate	U	917	ug/kg	275	917
119-93-7	3,3'-Dimethylbenzidine	U	917	ug/kg	275	917
53-96-3	2-Acetylaminofluorene	U	917	ug/kg	275	917

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:05	Matrix:	MISC SOLID
Lab Sample ID:	660771015	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 21:22	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.91 g	Final Volume:	1 mL
Data File:	S040224\1D0232.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	917	ug/kg	275	917
57-97-6	7,12-Dimethylbenz(a)anthracene	U	917	ug/kg	275	917
56-49-5	3-Methylcholanthrene	U	917	ug/kg	275	917
126-68-1	Triethylphosphorothioate	U	917	ug/kg	275	917
297-97-2	Thionazin	U	917	ug/kg	275	917
126-73-8	Tributylphosphate	U	917	ug/kg	275	917
3689-24-5	Sulfotepp	U	917	ug/kg	275	917
298-02-2	Phorate	U	917	ug/kg	275	917
60-51-5	Dimethoate	U	917	ug/kg	275	917
298-04-4	Disulfoton	U	917	ug/kg	275	917
298-00-0	Methyl parathion	U	917	ug/kg	275	917
56-38-2	Parathion	U	917	ug/kg	275	917
52-85-7	Famphur	U	917	ug/kg	275	917
106-50-3	p-Phenylenediamine	U	45800	ug/kg	9170	45800
70-30-4	Hexachlorophene	U	45800	ug/kg	10600	45800
120-82-1	1,2,4-Trichlorobenzene	U	917	ug/kg	275	917

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771016	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 21:44	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.2 g	Final Volume:	1 mL
Data File:	S040224\1D0233.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	980	ug/kg	294	980
110-86-1	Pyridine	U	980	ug/kg	294	980
62-53-3	Aniline	U	980	ug/kg	294	980
108-95-2	Phenol	U	980	ug/kg	294	980
111-44-4	bis(2-Chloroethyl) ether	U	980	ug/kg	294	980
95-57-8	2-Chlorophenol	U	980	ug/kg	294	980
541-73-1	1,3-Dichlorobenzene	U	980	ug/kg	294	980
106-46-7	1,4-Dichlorobenzene	U	980	ug/kg	294	980
95-50-1	1,2-Dichlorobenzene	U	980	ug/kg	294	980
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	980	ug/kg	294	980
100-51-6	Benzyl alcohol	U	980	ug/kg	294	980
95-48-7	o-Cresol	U	980	ug/kg	294	980
65794-96-9	m,p-Cresols	U	980	ug/kg	294	980
621-64-7	N-Nitrosodipropylamine	U	980	ug/kg	294	980
67-72-1	Hexachloroethane	U	980	ug/kg	294	980
98-95-3	Nitrobenzene	U	980	ug/kg	294	980
78-59-1	Isophorone	U	980	ug/kg	294	980
88-75-5	2-Nitrophenol	U	980	ug/kg	294	980
105-67-9	2,4-Dimethylphenol	U	980	ug/kg	294	980
111-91-1	bis(2-Chloroethoxy)methane	U	980	ug/kg	294	980
120-83-2	2,4-Dichlorophenol	U	980	ug/kg	294	980
65-85-0	Benzoic acid	U	1960	ug/kg	490	1960
106-47-8	4-Chloroaniline	U	980	ug/kg	294	980
87-68-3	Hexachlorobutadiene	U	980	ug/kg	294	980
59-50-7	4-Chloro-3-methylphenol	U	980	ug/kg	392	980
91-57-6	2-Methylnaphthalene	U	98.0	ug/kg	29.4	98.0
91-20-3	Naphthalene	U	98.0	ug/kg	29.4	98.0
90-12-0	1-Methylnaphthalene	U	98.0	ug/kg	29.4	98.0
77-47-4	Hexachlorocyclopentadiene	U	980	ug/kg	294	980
88-06-2	2,4,6-Trichlorophenol	U	980	ug/kg	294	980
95-95-4	2,4,5-Trichlorophenol	U	980	ug/kg	294	980
91-58-7	2-Chloronaphthalene	U	98.0	ug/kg	29.4	98.0
88-74-4	o-Nitroaniline	U	980	ug/kg	324	980
99-09-2	m-Nitroaniline	U	980	ug/kg	294	980
131-11-3	Dimethylphthalate	U	98.0	ug/kg	29.4	98.0
99-65-0	m-Dinitrobenzene	U	980	ug/kg	294	980
606-20-2	2,6-Dinitrotoluene	U	980	ug/kg	294	980
121-14-2	2,4-Dinitrotoluene	U	980	ug/kg	294	980

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771016	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 21:44	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.2 g	Final Volume:	1 mL
Data File:	S040224s1D0233.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	98.0	ug/kg	29.4	98.0
83-32-9	Acenaphthene	U	98.0	ug/kg	29.4	98.0
51-28-5	2,4-Dinitrophenol	U	1960	ug/kg	294	1960
132-64-9	Dibenzofuran	U	980	ug/kg	294	980
58-90-2	2,3,4,6-Tetrachlorophenol	U	980	ug/kg	294	980
84-66-2	Diethylphthalate	U	98.0	ug/kg	29.4	98.0
100-02-7	4-Nitrophenol	U	980	ug/kg	294	980
86-73-7	Fluorene	U	98.0	ug/kg	29.4	98.0
7005-72-3	4-Chlorophenylphenylether	U	980	ug/kg	294	980
100-01-6	p-Nitroaniline	U	980	ug/kg	294	980
534-52-1	2-Methyl-4,6-dinitrophenol	U	980	ug/kg	294	980
122-39-4	Diphenylamine	U	980	ug/kg	294	980
122-66-7	1,2-Diphenylhydrazine	U	980	ug/kg	294	980
101-55-3	4-Bromophenylphenylether	U	980	ug/kg	294	980
118-74-1	Hexachlorobenzene	U	980	ug/kg	294	980
87-86-5	Pentachlorophenol	U	980	ug/kg	294	980
88-85-7	Dinoseb	U	980	ug/kg	294	980
85-01-8	Phenanthrene	U	98.0	ug/kg	29.4	98.0
120-12-7	Anthracene	U	98.0	ug/kg	29.4	98.0
86-74-8	Carbazole	U	98.0	ug/kg	29.4	98.0
84-74-2	Di-n-butylphthalate	U	98.0	ug/kg	29.4	98.0
206-44-0	Fluoranthene	U	98.0	ug/kg	29.4	98.0
129-00-0	Pyrene	U	98.0	ug/kg	29.4	98.0
85-68-7	Butylbenzylphthalate	U	98.0	ug/kg	29.4	98.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	98.0	ug/kg	29.4	98.0
56-55-3	Benzo(a)anthracene	U	98.0	ug/kg	29.4	98.0
218-01-9	Chrysene	U	98.0	ug/kg	29.4	98.0
72-43-5	Methoxychlor	U	980	ug/kg	294	980
117-84-0	Di-n-octylphthalate	U	98.0	ug/kg	29.4	98.0
205-99-2	Benzo(b)fluoranthene	U	98.0	ug/kg	29.4	98.0
207-08-9	Benzo(k)fluoranthene	U	98.0	ug/kg	29.4	98.0
50-32-8	Benzo(a)pyrene	U	98.0	ug/kg	29.4	98.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	98.0	ug/kg	29.4	98.0
53-70-3	Dibenzo(a,h)anthracene	U	98.0	ug/kg	29.4	98.0
191-24-2	Benzo(ghi)perylene	U	98.0	ug/kg	29.4	98.0
123-91-1	1,4-Dioxane	U	980	ug/kg	294	980
80-62-6	Methyl methacrylate	U	980	ug/kg	294	980
97-63-2	Ethyl methacrylate	U	980	ug/kg	294	980

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771016	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 21:44	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.2 g	Final Volume:	1 mL
Data File:	S040224\1D0233.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	980	ug/kg	294	980
10595-95-6	N-Nitrosomethylethylamine	U	980	ug/kg	294	980
66-27-3	Methyl methanesulfonate	U	980	ug/kg	294	980
55-18-5	N-Nitrosodiethylamine	U	980	ug/kg	294	980
62-50-0	Ethyl Methanesulfonate	U	980	ug/kg	294	980
76-01-7	Pentachloroethane	U	980	ug/kg	294	980
930-55-2	N-Nitrosopyrrolidine	U	980	ug/kg	294	980
98-86-2	Acetophenone	U	980	ug/kg	294	980
59-89-2	N-Nitrosomorpholine	U	980	ug/kg	294	980
95-53-4	o-Toluidine	U	980	ug/kg	294	980
100-75-4	N-Nitrosopiperidine	U	980	ug/kg	294	980
122-09-8	a,a-Dimethylphenethylamine	U	980	ug/kg	343	980
87-65-0	2,6-Dichlorophenol	U	980	ug/kg	294	980
1888-71-7	Hexachloropropene	U	980	ug/kg	294	980
924-16-3	N-Nitrosodi-n-butylamine	U	980	ug/kg	294	980
94-59-7	Safrole	U	980	ug/kg	294	980
95-94-3	1,2,4,5-Tetrachlorobenzene	U	980	ug/kg	294	980
120-58-1	Isosafrole	U	980	ug/kg	294	980
130-15-4	1,4-Naphthoquinone	U	980	ug/kg	294	980
608-93-5	Pentachlorobenzene	U	980	ug/kg	294	980
134-32-7	1-Naphthylamine	U	980	ug/kg	294	980
91-59-8	2-Naphthylamine	U	980	ug/kg	294	980
99-55-8	5-Nitro-o-toluidine	U	980	ug/kg	294	980
62-44-2	Phenacetin	U	980	ug/kg	294	980
99-35-4	1,3,5-Trinitrobenzene	U	980	ug/kg	294	980
2303-16-4	Diallate	U	980	ug/kg	294	980
92-67-1	4-Aminobiphenyl	U	980	ug/kg	294	980
82-68-8	Pentachloronitrobenzene	U	980	ug/kg	294	980
23950-58-5	Pronamide	U	980	ug/kg	294	980
56-57-5	4-Nitroquinoline-1-oxide	U	980	ug/kg	294	980
91-80-5	Methapyrilene	U	980	ug/kg	294	980
465-73-6	Isodrin	U	980	ug/kg	196	980
140-57-8	Aramite	U	980	ug/kg	294	980
143-50-0	Kepone	U	980	ug/kg	294	980
60-11-7	p-(Dimethylamino)azobenzene	U	980	ug/kg	294	980
510-15-6	Chlorobenzilate	U	980	ug/kg	294	980
119-93-7	3,3'-Dimethylbenzidine	U	980	ug/kg	294	980
53-96-3	2-Acetylaminofluorene	U	980	ug/kg	294	980

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771016

Client ID: 12042.B3.Top Back.EPA

Batch ID: 2589785

Run Date: 04/02/2024 21:44

Prep Date: 04/02/2024 07:52

Data File: S040224\1D0233.D

Date Collected: 03/29/2024 07:15

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.2 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	980	ug/kg	294	980
57-97-6	7,12-Dimethylbenz(a)anthracene	U	980	ug/kg	294	980
56-49-5	3-Methylcholanthrene	U	980	ug/kg	294	980
126-68-1	Triethylphosphorothioate	U	980	ug/kg	294	980
297-97-2	Thionazin	U	980	ug/kg	294	980
126-73-8	Tributylphosphate	U	980	ug/kg	294	980
3689-24-5	Sulfotepp	U	980	ug/kg	294	980
298-02-2	Phorate	U	980	ug/kg	294	980
60-51-5	Dimethoate	U	980	ug/kg	294	980
298-04-4	Disulfoton	U	980	ug/kg	294	980
298-00-0	Methyl parathion	U	980	ug/kg	294	980
56-38-2	Parathion	U	980	ug/kg	294	980
52-85-7	Famphur	U	980	ug/kg	294	980
106-50-3	p-Phenylenediamine	U	49000	ug/kg	9800	49000
70-30-4	Hexachlorophene	U	49000	ug/kg	11400	49000
120-82-1	1,2,4-Trichlorobenzene	U	980	ug/kg	294	980

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:25	Matrix:	MISC SOLID
Lab Sample ID:	660771017	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/03/2024 16:18	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.59 g	Final Volume:	1 mL
Data File:	S040324\1D0306.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	944	ug/kg	283	944
110-86-1	Pyridine	U	944	ug/kg	283	944
62-53-3	Aniline	U	944	ug/kg	283	944
108-95-2	Phenol	U	944	ug/kg	283	944
111-44-4	bis(2-Chloroethyl) ether	U	944	ug/kg	283	944
95-57-8	2-Chlorophenol	U	944	ug/kg	283	944
541-73-1	1,3-Dichlorobenzene	U	944	ug/kg	283	944
106-46-7	1,4-Dichlorobenzene	U	944	ug/kg	283	944
95-50-1	1,2-Dichlorobenzene	U	944	ug/kg	283	944
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	944	ug/kg	283	944
100-51-6	Benzyl alcohol	U	944	ug/kg	283	944
95-48-7	o-Cresol	U	944	ug/kg	283	944
65794-96-9	m,p-Cresols	U	944	ug/kg	283	944
621-64-7	N-Nitrosodipropylamine	U	944	ug/kg	283	944
67-72-1	Hexachloroethane	U	944	ug/kg	283	944
98-95-3	Nitrobenzene	U	944	ug/kg	283	944
78-59-1	Isophorone	U	944	ug/kg	283	944
88-75-5	2-Nitrophenol	U	944	ug/kg	283	944
105-67-9	2,4-Dimethylphenol	U	944	ug/kg	283	944
111-91-1	bis(2-Chloroethoxy)methane	U	944	ug/kg	283	944
120-83-2	2,4-Dichlorophenol	U	944	ug/kg	283	944
65-85-0	Benzoic acid	J	786	ug/kg	472	1890
106-47-8	4-Chloroaniline	U	944	ug/kg	283	944
87-68-3	Hexachlorobutadiene	U	944	ug/kg	283	944
59-50-7	4-Chloro-3-methylphenol	U	944	ug/kg	378	944
91-57-6	2-Methylnaphthalene	U	94.4	ug/kg	28.3	94.4
91-20-3	Naphthalene	U	94.4	ug/kg	28.3	94.4
90-12-0	1-Methylnaphthalene	U	94.4	ug/kg	28.3	94.4
77-47-4	Hexachlorocyclopentadiene	U	944	ug/kg	283	944
88-06-2	2,4,6-Trichlorophenol	U	944	ug/kg	283	944
95-95-4	2,4,5-Trichlorophenol	U	944	ug/kg	283	944
91-58-7	2-Chloronaphthalene	U	94.4	ug/kg	28.3	94.4
88-74-4	o-Nitroaniline	U	944	ug/kg	312	944
99-09-2	m-Nitroaniline	U	944	ug/kg	283	944
131-11-3	Dimethylphthalate	U	94.4	ug/kg	28.3	94.4
99-65-0	m-Dinitrobenzene	U	944	ug/kg	283	944
606-20-2	2,6-Dinitrotoluene	U	944	ug/kg	283	944
121-14-2	2,4-Dinitrotoluene	U	944	ug/kg	283	944

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:25	Matrix:	MISC SOLID
Lab Sample ID:	660771017	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/03/2024 16:18	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.59 g	Final Volume:	1 mL
Data File:	S040324s1D0306.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	94.4	ug/kg	28.3	94.4
83-32-9	Acenaphthene	U	94.4	ug/kg	28.3	94.4
51-28-5	2,4-Dinitrophenol	U	1890	ug/kg	283	1890
132-64-9	Dibenzofuran	U	944	ug/kg	283	944
58-90-2	2,3,4,6-Tetrachlorophenol	U	944	ug/kg	283	944
84-66-2	Diethylphthalate	U	94.4	ug/kg	28.3	94.4
100-02-7	4-Nitrophenol	U	944	ug/kg	283	944
86-73-7	Fluorene	U	94.4	ug/kg	28.3	94.4
7005-72-3	4-Chlorophenylphenylether	U	944	ug/kg	283	944
100-01-6	p-Nitroaniline	U	944	ug/kg	283	944
534-52-1	2-Methyl-4,6-dinitrophenol	U	944	ug/kg	283	944
122-39-4	Diphenylamine	U	944	ug/kg	283	944
122-66-7	1,2-Diphenylhydrazine	U	944	ug/kg	283	944
101-55-3	4-Bromophenylphenylether	U	944	ug/kg	283	944
118-74-1	Hexachlorobenzene	U	944	ug/kg	283	944
87-86-5	Pentachlorophenol	U	944	ug/kg	283	944
88-85-7	Dinoseb	U	944	ug/kg	283	944
85-01-8	Phenanthrene	U	94.4	ug/kg	28.3	94.4
120-12-7	Anthracene	U	94.4	ug/kg	28.3	94.4
86-74-8	Carbazole	U	94.4	ug/kg	28.3	94.4
84-74-2	Di-n-butylphthalate	U	94.4	ug/kg	28.3	94.4
206-44-0	Fluoranthene	U	94.4	ug/kg	28.3	94.4
129-00-0	Pyrene	U	94.4	ug/kg	28.3	94.4
85-68-7	Butylbenzylphthalate	U	94.4	ug/kg	28.3	94.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	94.4	ug/kg	28.3	94.4
56-55-3	Benzo(a)anthracene	U	94.4	ug/kg	28.3	94.4
218-01-9	Chrysene	U	94.4	ug/kg	28.3	94.4
72-43-5	Methoxychlor	U	944	ug/kg	283	944
117-84-0	Di-n-octylphthalate	U	94.4	ug/kg	28.3	94.4
205-99-2	Benzo(b)fluoranthene	U	94.4	ug/kg	28.3	94.4
207-08-9	Benzo(k)fluoranthene	U	94.4	ug/kg	28.3	94.4
50-32-8	Benzo(a)pyrene	U	94.4	ug/kg	28.3	94.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	94.4	ug/kg	28.3	94.4
53-70-3	Dibenzo(a,h)anthracene	U	94.4	ug/kg	28.3	94.4
191-24-2	Benzo(ghi)perylene	U	94.4	ug/kg	28.3	94.4
123-91-1	1,4-Dioxane	U	944	ug/kg	283	944
80-62-6	Methyl methacrylate	U	944	ug/kg	283	944
97-63-2	Ethyl methacrylate	U	944	ug/kg	283	944

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:25	Matrix:	MISC SOLID
Lab Sample ID:	660771017	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/03/2024 16:18	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.59 g	Final Volume:	1 mL
Data File:	S040324s1D0306.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	944	ug/kg	283	944
10595-95-6	N-Nitrosomethylethylamine	U	944	ug/kg	283	944
66-27-3	Methyl methanesulfonate	U	944	ug/kg	283	944
55-18-5	N-Nitrosodiethylamine	U	944	ug/kg	283	944
62-50-0	Ethyl Methanesulfonate	U	944	ug/kg	283	944
76-01-7	Pentachloroethane	U	944	ug/kg	283	944
930-55-2	N-Nitrosopyrrolidine	U	944	ug/kg	283	944
98-86-2	Acetophenone	U	944	ug/kg	283	944
59-89-2	N-Nitrosomorpholine	U	944	ug/kg	283	944
95-53-4	o-Toluidine	U	944	ug/kg	283	944
100-75-4	N-Nitrosopiperidine	U	944	ug/kg	283	944
122-09-8	a,a-Dimethylphenethylamine	U	944	ug/kg	331	944
87-65-0	2,6-Dichlorophenol	U	944	ug/kg	283	944
1888-71-7	Hexachloropropene	U	944	ug/kg	283	944
924-16-3	N-Nitrosodi-n-butylamine	U	944	ug/kg	283	944
94-59-7	Safrole	U	944	ug/kg	283	944
95-94-3	1,2,4,5-Tetrachlorobenzene	U	944	ug/kg	283	944
120-58-1	Isosafrole	U	944	ug/kg	283	944
130-15-4	1,4-Naphthoquinone	U	944	ug/kg	283	944
608-93-5	Pentachlorobenzene	U	944	ug/kg	283	944
134-32-7	1-Naphthylamine	U	944	ug/kg	283	944
91-59-8	2-Naphthylamine	U	944	ug/kg	283	944
99-55-8	5-Nitro-o-toluidine	U	944	ug/kg	283	944
62-44-2	Phenacetin	U	944	ug/kg	283	944
99-35-4	1,3,5-Trinitrobenzene	U	944	ug/kg	283	944
2303-16-4	Diallate	U	944	ug/kg	283	944
92-67-1	4-Aminobiphenyl	U	944	ug/kg	283	944
82-68-8	Pentachloronitrobenzene	U	944	ug/kg	283	944
23950-58-5	Pronamide	U	944	ug/kg	283	944
56-57-5	4-Nitroquinoline-1-oxide	U	944	ug/kg	283	944
91-80-5	Methapyrilene	U	944	ug/kg	283	944
465-73-6	Isodrin	U	944	ug/kg	189	944
140-57-8	Aramite	U	944	ug/kg	283	944
143-50-0	Kepone	U	944	ug/kg	283	944
60-11-7	p-(Dimethylamino)azobenzene	U	944	ug/kg	283	944
510-15-6	Chlorobenzilate	U	944	ug/kg	283	944
119-93-7	3,3'-Dimethylbenzidine	U	944	ug/kg	283	944
53-96-3	2-Acetylaminofluorene	U	944	ug/kg	283	944

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771017

Client ID: 12042.B3.Middle Back.EPA

Batch ID: 2589785

Run Date: 04/03/2024 16:18

Prep Date: 04/02/2024 07:52

Data File: S040324\1D0306.D

Date Collected: 03/29/2024 07:25

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.59 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	944	ug/kg	283	944
57-97-6	7,12-Dimethylbenz(a)anthracene	U	944	ug/kg	283	944
56-49-5	3-Methylcholanthrene	U	944	ug/kg	283	944
126-68-1	Triethylphosphorothioate	U	944	ug/kg	283	944
297-97-2	Thionazin	U	944	ug/kg	283	944
126-73-8	Tributylphosphate	U	944	ug/kg	283	944
3689-24-5	Sulfotepp	U	944	ug/kg	283	944
298-02-2	Phorate	U	944	ug/kg	283	944
60-51-5	Dimethoate	U	944	ug/kg	283	944
298-04-4	Disulfoton	U	944	ug/kg	283	944
298-00-0	Methyl parathion	U	944	ug/kg	283	944
56-38-2	Parathion	U	944	ug/kg	283	944
52-85-7	Famphur	U	944	ug/kg	283	944
106-50-3	p-Phenylenediamine	U	47200	ug/kg	9440	47200
70-30-4	Hexachlorophene	U	47200	ug/kg	11000	47200
120-82-1	1,2,4-Trichlorobenzene	U	944	ug/kg	283	944

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:35	Matrix:	MISC SOLID
Lab Sample ID:	660771018	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/03/2024 16:41	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.55 g	Final Volume:	1 mL
Data File:	S040324\1D0307.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	948	ug/kg	284	948
110-86-1	Pyridine	U	948	ug/kg	284	948
62-53-3	Aniline	U	948	ug/kg	284	948
108-95-2	Phenol	U	948	ug/kg	284	948
111-44-4	bis(2-Chloroethyl) ether	U	948	ug/kg	284	948
95-57-8	2-Chlorophenol	U	948	ug/kg	284	948
541-73-1	1,3-Dichlorobenzene	U	948	ug/kg	284	948
106-46-7	1,4-Dichlorobenzene	U	948	ug/kg	284	948
95-50-1	1,2-Dichlorobenzene	U	948	ug/kg	284	948
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	948	ug/kg	284	948
100-51-6	Benzyl alcohol	U	948	ug/kg	284	948
95-48-7	o-Cresol	U	948	ug/kg	284	948
65794-96-9	m,p-Cresols	U	948	ug/kg	284	948
621-64-7	N-Nitrosodipropylamine	U	948	ug/kg	284	948
67-72-1	Hexachloroethane	U	948	ug/kg	284	948
98-95-3	Nitrobenzene	U	948	ug/kg	284	948
78-59-1	Isophorone	U	948	ug/kg	284	948
88-75-5	2-Nitrophenol	U	948	ug/kg	284	948
105-67-9	2,4-Dimethylphenol	U	948	ug/kg	284	948
111-91-1	bis(2-Chloroethoxy)methane	U	948	ug/kg	284	948
120-83-2	2,4-Dichlorophenol	U	948	ug/kg	284	948
65-85-0	Benzoic acid	J	768	ug/kg	474	1900
106-47-8	4-Chloroaniline	U	948	ug/kg	284	948
87-68-3	Hexachlorobutadiene	U	948	ug/kg	284	948
59-50-7	4-Chloro-3-methylphenol	U	948	ug/kg	379	948
91-57-6	2-Methylnaphthalene	U	94.8	ug/kg	28.4	94.8
91-20-3	Naphthalene	U	94.8	ug/kg	28.4	94.8
90-12-0	1-Methylnaphthalene	U	94.8	ug/kg	28.4	94.8
77-47-4	Hexachlorocyclopentadiene	U	948	ug/kg	284	948
88-06-2	2,4,6-Trichlorophenol	U	948	ug/kg	284	948
95-95-4	2,4,5-Trichlorophenol	U	948	ug/kg	284	948
91-58-7	2-Chloronaphthalene	U	94.8	ug/kg	28.4	94.8
88-74-4	o-Nitroaniline	U	948	ug/kg	313	948
99-09-2	m-Nitroaniline	U	948	ug/kg	284	948
131-11-3	Dimethylphthalate	U	94.8	ug/kg	28.4	94.8
99-65-0	m-Dinitrobenzene	U	948	ug/kg	284	948
606-20-2	2,6-Dinitrotoluene	U	948	ug/kg	284	948
121-14-2	2,4-Dinitrotoluene	U	948	ug/kg	284	948

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:35	Matrix:	MISC SOLID
Lab Sample ID:	660771018	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/03/2024 16:41	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.55 g	Final Volume:	1 mL
Data File:	S040324s1D0307.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	94.8	ug/kg	28.4	94.8
83-32-9	Acenaphthene	U	94.8	ug/kg	28.4	94.8
51-28-5	2,4-Dinitrophenol	U	1900	ug/kg	284	1900
132-64-9	Dibenzofuran	U	948	ug/kg	284	948
58-90-2	2,3,4,6-Tetrachlorophenol	U	948	ug/kg	284	948
84-66-2	Diethylphthalate	U	94.8	ug/kg	28.4	94.8
100-02-7	4-Nitrophenol	U	948	ug/kg	284	948
86-73-7	Fluorene	U	94.8	ug/kg	28.4	94.8
7005-72-3	4-Chlorophenylphenylether	U	948	ug/kg	284	948
100-01-6	p-Nitroaniline	U	948	ug/kg	284	948
534-52-1	2-Methyl-4,6-dinitrophenol	U	948	ug/kg	284	948
122-39-4	Diphenylamine	U	948	ug/kg	284	948
122-66-7	1,2-Diphenylhydrazine	U	948	ug/kg	284	948
101-55-3	4-Bromophenylphenylether	U	948	ug/kg	284	948
118-74-1	Hexachlorobenzene	U	948	ug/kg	284	948
87-86-5	Pentachlorophenol	U	948	ug/kg	284	948
88-85-7	Dinoseb	U	948	ug/kg	284	948
85-01-8	Phenanthrene	U	94.8	ug/kg	28.4	94.8
120-12-7	Anthracene	U	94.8	ug/kg	28.4	94.8
86-74-8	Carbazole	U	94.8	ug/kg	28.4	94.8
84-74-2	Di-n-butylphthalate	U	94.8	ug/kg	28.4	94.8
206-44-0	Fluoranthene	U	94.8	ug/kg	28.4	94.8
129-00-0	Pyrene	U	94.8	ug/kg	28.4	94.8
85-68-7	Butylbenzylphthalate	U	94.8	ug/kg	28.4	94.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	94.8	ug/kg	28.4	94.8
56-55-3	Benzo(a)anthracene	U	94.8	ug/kg	28.4	94.8
218-01-9	Chrysene	U	94.8	ug/kg	28.4	94.8
72-43-5	Methoxychlor	U	948	ug/kg	284	948
117-84-0	Di-n-octylphthalate	U	94.8	ug/kg	28.4	94.8
205-99-2	Benzo(b)fluoranthene	U	94.8	ug/kg	28.4	94.8
207-08-9	Benzo(k)fluoranthene	U	94.8	ug/kg	28.4	94.8
50-32-8	Benzo(a)pyrene	U	94.8	ug/kg	28.4	94.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	94.8	ug/kg	28.4	94.8
53-70-3	Dibenzo(a,h)anthracene	U	94.8	ug/kg	28.4	94.8
191-24-2	Benzo(ghi)perylene	U	94.8	ug/kg	28.4	94.8
123-91-1	1,4-Dioxane	U	948	ug/kg	284	948
80-62-6	Methyl methacrylate	U	948	ug/kg	284	948
97-63-2	Ethyl methacrylate	U	948	ug/kg	284	948

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:35	Matrix:	MISC SOLID
Lab Sample ID:	660771018	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/03/2024 16:41	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.55 g	Final Volume:	1 mL
Data File:	S040324s1D0307.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	948	ug/kg	284	948
10595-95-6	N-Nitrosomethylethylamine	U	948	ug/kg	284	948
66-27-3	Methyl methanesulfonate	U	948	ug/kg	284	948
55-18-5	N-Nitrosodiethylamine	U	948	ug/kg	284	948
62-50-0	Ethyl Methanesulfonate	U	948	ug/kg	284	948
76-01-7	Pentachloroethane	U	948	ug/kg	284	948
930-55-2	N-Nitrosopyrrolidine	U	948	ug/kg	284	948
98-86-2	Acetophenone	U	948	ug/kg	284	948
59-89-2	N-Nitrosomorpholine	U	948	ug/kg	284	948
95-53-4	o-Toluidine	U	948	ug/kg	284	948
100-75-4	N-Nitrosopiperidine	U	948	ug/kg	284	948
122-09-8	a,a-Dimethylphenethylamine	U	948	ug/kg	332	948
87-65-0	2,6-Dichlorophenol	U	948	ug/kg	284	948
1888-71-7	Hexachloropropene	U	948	ug/kg	284	948
924-16-3	N-Nitrosodi-n-butylamine	U	948	ug/kg	284	948
94-59-7	Safrole	U	948	ug/kg	284	948
95-94-3	1,2,4,5-Tetrachlorobenzene	U	948	ug/kg	284	948
120-58-1	Isosafrole	U	948	ug/kg	284	948
130-15-4	1,4-Naphthoquinone	U	948	ug/kg	284	948
608-93-5	Pentachlorobenzene	U	948	ug/kg	284	948
134-32-7	1-Naphthylamine	U	948	ug/kg	284	948
91-59-8	2-Naphthylamine	U	948	ug/kg	284	948
99-55-8	5-Nitro-o-toluidine	U	948	ug/kg	284	948
62-44-2	Phenacetin	U	948	ug/kg	284	948
99-35-4	1,3,5-Trinitrobenzene	U	948	ug/kg	284	948
2303-16-4	Diallate	U	948	ug/kg	284	948
92-67-1	4-Aminobiphenyl	U	948	ug/kg	284	948
82-68-8	Pentachloronitrobenzene	U	948	ug/kg	284	948
23950-58-5	Pronamide	U	948	ug/kg	284	948
56-57-5	4-Nitroquinoline-1-oxide	U	948	ug/kg	284	948
91-80-5	Methapyrilene	U	948	ug/kg	284	948
465-73-6	Isodrin	U	948	ug/kg	190	948
140-57-8	Aramite	U	948	ug/kg	284	948
143-50-0	Kepone	U	948	ug/kg	284	948
60-11-7	p-(Dimethylamino)azobenzene	U	948	ug/kg	284	948
510-15-6	Chlorobenzilate	U	948	ug/kg	284	948
119-93-7	3,3'-Dimethylbenzidine	U	948	ug/kg	284	948
53-96-3	2-Acetylaminofluorene	U	948	ug/kg	284	948

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771018

Client ID: 12042.B3.Bottom Back.EPA

Batch ID: 2589785

Run Date: 04/03/2024 16:41

Prep Date: 04/02/2024 07:52

Data File: S040324\1D0307.D

Date Collected: 03/29/2024 07:35

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.55 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	948	ug/kg	284	948
57-97-6	7,12-Dimethylbenz(a)anthracene	U	948	ug/kg	284	948
56-49-5	3-Methylcholanthrene	U	948	ug/kg	284	948
126-68-1	Triethylphosphorothioate	U	948	ug/kg	284	948
297-97-2	Thionazin	U	948	ug/kg	284	948
126-73-8	Tributylphosphate	U	948	ug/kg	284	948
3689-24-5	Sulfotepp	U	948	ug/kg	284	948
298-02-2	Phorate	U	948	ug/kg	284	948
60-51-5	Dimethoate	U	948	ug/kg	284	948
298-04-4	Disulfoton	U	948	ug/kg	284	948
298-00-0	Methyl parathion	U	948	ug/kg	284	948
56-38-2	Parathion	U	948	ug/kg	284	948
52-85-7	Famphur	U	948	ug/kg	284	948
106-50-3	p-Phenylenediamine	U	47400	ug/kg	9480	47400
70-30-4	Hexachlorophene	U	47400	ug/kg	11000	47400
120-82-1	1,2,4-Trichlorobenzene	U	948	ug/kg	284	948

Quality Control Summary

Semi-Volatile
Surrogate Recovery Report

Page 1 of 1

SDG Number: 660771

Matrix Type: SOLID

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1205690502	MB for batch 2589781	61	65	69	67	69	76
1205690503	LCS for batch 2589781	57	61	61	59	59	67
1205690504	Y403780-01MS	36	41	38	39	47	52
1205690505	Y403780-01MSD	42	46	41	42	53	57
660771001	12045.B1.Top Front.EPA	57	61	65	62	63	70
660771002	12045.B1.Middle Front.EPA	64	67	70	68	70	75
660771003	12045.B1.Bottom Front.EPA	66	70	75	72	72	79
660771004	12044.B1.Top Back.EPA	66	71	79	73	77	79
660771005	12044.B1.Middle Back.EPA	66	72	82	75	77	83
660771006	12044.B1.Bottom Back.EPA	60	64	69	67	65	75
660771007	12038.B2.Top Front.EPA	61	65	66	66	66	73
660771008	12038.B2.Middle Front.EPA	54	56	64	62	59	70
660771009	12038.B2.Bottom Front.EPA	65	70	74	69	66	75
660771010	12043.B2.Top Back.EPA	59	63	67	67	66	73
660771011	12043.B2.Middle Back.EPA	62	66	69	70	77	75
660771012	12043.B2.Bottom Back.EPA	67	71	73	72	73	77
660771013	12041.B3.Top Front.EPA	67	72	75	71	66	76
660771014	12041.B3.Middle Front.EPA	70	76	79	74	77	85
660771015	12041.B3.Bottom Front.EPA	72	78	82	79	79	86
660771016	12042.B3.Top Back.EPA	70	76	79	76	77	85
660771017	12042.B3.Middle Back.EPA	65	69	77	75	75	80
660771018	12042.B3.Bottom Back.EPA	66	69	76	75	76	82

Surrogate**Acceptance Limits**

2FP	= 2-Fluorophenol	(23%-108%)
PHL	= Phenol-d5	(24%-117%)
NBZ	= Nitrobenzene-d5	(23%-109%)
FBP	= 2-Fluorobiphenyl	(22%-120%)
TBP	= 2,4,6-Tribromophenol	(20%-130%)
TPH	= p-Terphenyl-d14	(22%-130%)

* Recovery outside Acceptance Limits

Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660771

Client ID: LCS for batch 2589781

Lab Sample ID: 1205690503

Instrument: MSD1.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample

Matrix: SOIL

Analysis Date: 04/02/2024 14:16

Prep Batch ID:2589781

Batch ID: 2589785

Dilution: 1

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS N-Methyl-N-nitrosomethylamine	1640	0.0	1040	63	39-100
110-86-1	LCS Pyridine	1640	0.0	845	51	32-69
62-53-3	LCS Aniline	1640	0.0	941	57	35-91
108-95-2	LCS Phenol	1640	0.0	1180	72	47-108
111-44-4	LCS bis(2-Chloroethyl) ether	1640	0.0	1120	68	45-99
95-57-8	LCS 2-Chlorophenol	1640	0.0	1120	68	52-106
541-73-1	LCS 1,3-Dichlorobenzene	1640	0.0	988	60	44-91
106-46-7	LCS 1,4-Dichlorobenzene	1640	0.0	997	61	42-96
95-50-1	LCS 1,2-Dichlorobenzene	1640	0.0	1000	61	44-96
108-60-1	LCS bis(2-Chloro-1-methylethyl)ether	1640	0.0	1060	65	35-110
100-51-6	LCS Benzyl alcohol	1640	0.0	1150	70	42-116
95-48-7	LCS o-Cresol	1640	0.0	1120	68	50-109
65794-96-9	LCS m,p-Cresols	1640	0.0	1130	69	48-115
621-64-7	LCS N-Nitrosodipropylamine	1640	0.0	1100	67	43-109
67-72-1	LCS Hexachloroethane	1640	0.0	1010	61	42-94
98-95-3	LCS Nitrobenzene	1640	0.0	1140	70	48-102
78-59-1	LCS Isophorone	1640	0.0	1100	67	48-104
88-75-5	LCS 2-Nitrophenol	1640	0.0	1230	75	50-109
105-67-9	LCS 2,4-Dimethylphenol	1640	0.0	731	44	44-97
111-91-1	LCS bis(2-Chloroethoxy)methane	1640	0.0	1190	72	49-101
120-83-2	LCS 2,4-Dichlorophenol	1640	0.0	1170	71	55-115
65-85-0	LCS Benzoic acid	3290	0.0	1050	32	20-108

Quality Control Summary
Spike Recovery Report

SDG Number: 660771

Client ID: LCS for batch 2589781

Lab Sample ID: 1205690503

Instrument: MSD1.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample

Matrix: SOIL

Analysis Date: 04/02/2024 14:16

Dilution: 1

Prep Batch ID:2589781

Batch ID: 2589785

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
106-47-8	LCS 4-Chloroaniline	1640	0.0	988	60	36-85
87-68-3	LCS Hexachlorobutadiene	1640	0.0	1080	66	46-108
59-50-7	LCS 4-Chloro-3-methylphenol	1640	0.0	1250	76	56-118
91-57-6	LCS 2-Methylnaphthalene	1640	0.0	1070	65	49-99
91-20-3	LCS Naphthalene	1640	0.0	1120	68	49-98
90-12-0	LCS 1-Methylnaphthalene	1640	0.0	1100	67	51-104
77-47-4	LCS Hexachlorocyclopentadiene	1640	0.0	615	37	26-82
88-06-2	LCS 2,4,6-Trichlorophenol	1640	0.0	1180	72	54-123
95-95-4	LCS 2,4,5-Trichlorophenol	1640	0.0	1280	78	55-123
91-58-7	LCS 2-Chloronaphthalene	1640	0.0	1080	66	48-105
88-74-4	LCS o-Nitroaniline	1640	0.0	1280	78	47-122
99-09-2	LCS m-Nitroaniline	1640	0.0	1090	66	39-111
131-11-3	LCS Dimethylphthalate	1640	0.0	1280	78	56-116
606-20-2	LCS 2,6-Dinitrotoluene	1640	0.0	1320	80	54-117
121-14-2	LCS 2,4-Dinitrotoluene	1640	0.0	1330	81	52-123
208-96-8	LCS Acenaphthylene	1640	0.0	1100	67	50-102
83-32-9	LCS Acenaphthene	1640	0.0	1140	69	50-103
51-28-5	LCS 2,4-Dinitrophenol	1640	0.0	864	53	22-89
132-64-9	LCS Dibenzofuran	1640	0.0	1170	71	55-112
58-90-2	LCS 2,3,4,6-Tetrachlorophenol	1640	0.0	1190	73	49-125
84-66-2	LCS Diethylphthalate	1640	0.0	1240	75	56-120
100-02-7	LCS 4-Nitrophenol	1640	0.0	1330	81	37-134

Quality Control Summary
Spike Recovery Report

SDG Number: 660771

Client ID: LCS for batch 2589781

Lab Sample ID: 1205690503

Instrument: MSD1.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample

Matrix: SOIL

Analysis Date: 04/02/2024 14:16

Dilution: 1

Prep Batch ID:2589781

Batch ID: 2589785

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS Fluorene	1640	0.0	1170	71	52-113
7005-72-3	LCS 4-Chlorophenylphenylether	1640	0.0	1260	76	52-119
100-01-6	LCS p-Nitroaniline	1640	0.0	1340	82	35-146
534-52-1	LCS 2-Methyl-4,6-dinitrophenol	1640	0.0	1050	64	21-106
122-39-4	LCS Diphenylamine	1640	0.0	1210	74	52-112
122-66-7	LCS 1,2-Diphenylhydrazine	1640	0.0	1190	72	49-113
101-55-3	LCS 4-Bromophenylphenylether	1640	0.0	1200	73	53-113
118-74-1	LCS Hexachlorobenzene	1640	0.0	1180	72	55-112
87-86-5	LCS Pentachlorophenol	1640	0.0	1130	69	31-114
85-01-8	LCS Phenanthrene	1640	0.0	1210	74	56-109
120-12-7	LCS Anthracene	1640	0.0	1180	71	54-106
86-74-8	LCS Carbazole	1640	0.0	1110	68	50-122
84-74-2	LCS Di-n-butylphthalate	1640	0.0	1240	75	54-122
206-44-0	LCS Fluoranthene	1640	0.0	1190	72	52-121
129-00-0	LCS Pyrene	1640	0.0	1230	75	42-117
85-68-7	LCS Butylbenzylphthalate	1640	0.0	1350	82	49-124
117-81-7	LCS bis(2-Ethylhexyl)phthalate	1640	0.0	1330	81	44-126
56-55-3	LCS Benzo(a)anthracene	1640	0.0	1240	75	55-114
218-01-9	LCS Chrysene	1640	0.0	1250	76	57-113
117-84-0	LCS Di-n-octylphthalate	1640	0.0	1270	77	46-134
205-99-2	LCS Benzo(b)fluoranthene	1640	0.0	1340	81	53-114
207-08-9	LCS Benzo(k)fluoranthene	1640	0.0	1260	76	53-121

Quality Control Summary
Spike Recovery Report

SDG Number: 660771

Client ID: LCS for batch 2589781

Lab Sample ID: 1205690503

Instrument: MSD1.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample

Matrix: SOIL

Analysis Date: 04/02/2024 14:16

Dilution: 1

Prep Batch ID:2589781

Batch ID: 2589785

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
50-32-8	LCS Benzo(a)pyrene	1640	0.0	1220	74	50-113
193-39-5	LCS Indeno(1,2,3-cd)pyrene	1640	0.0	1190	72	47-133
53-70-3	LCS Dibenzo(a,h)anthracene	1640	0.0	1180	72	45-133
191-24-2	LCS Benzo(ghi)perylene	1640	0.0	1260	77	42-125
123-91-1	LCS 1,4-Dioxane	1640	0.0	621	38	34-58
930-55-2	LCS N-Nitrosopyrrolidine	1640	0.0	1090	66	57-125
98-86-2	LCS Acetophenone	1640	0.0	1090	66	49-104
87-65-0	LCS 2,6-Dichlorophenol	1640	0.0	1190	73	52-123
95-94-3	LCS 1,2,4,5-Tetrachlorobenzene	1640	0.0	1110	68	47-109
91-94-1	LCS 3,3'-Dichlorobenzidine	1640	0.0	1040	63	35-112
126-73-8	LCS Tributylphosphate	1640	0.0	1300	79	56-136
120-82-1	LCS 1,2,4-Trichlorobenzene	1640	0.0	1080	65	46-102

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660771

Client ID: Y403780-01MS

Lab Sample ID: 1205690504

Instrument: MSD1.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike

Matrix: SOIL

%Moisture: 14.5

Analysis Date: 04/02/2024 15:01

Prep Batch ID:2589781

Batch ID: 2589785

Dilution: 1

CAS No.		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
65-85-0	MS	Benzoic acid	3880	331	J	1640	34	13-125
62-75-9	MS	N-Methyl-N-nitrosomethylamine	1940	0.000	U	748	39	12-100
110-86-1	MS	Pyridine	1940	0.000	U	669	34	17-69
62-53-3	MS	Aniline	1940	0.000	U	682	35	20-85
108-95-2	MS	Phenol	1940	0.000	U	907	47	17-116
111-44-4	MS	bis(2-Chloroethyl) ether	1940	0.000	U	793	41	15-109
95-57-8	MS	2-Chlorophenol	1940	0.000	U	837	43	16-112
541-73-1	MS	1,3-Dichlorobenzene	1940	0.000	U	658	34	14-98
106-46-7	MS	1,4-Dichlorobenzene	1940	0.000	U	650	33	14-100
95-50-1	MS	1,2-Dichlorobenzene	1940	0.000	U	698	36	18-104
108-60-1	MS	bis(2-Chloro-1-methylethyl)ether	1940	0.000	U	793	41	10-110
100-51-6	MS	Benzyl alcohol	1940	0.000	U	889	46	18-119
95-48-7	MS	o-Cresol	1940	0.000	U	901	46	16-120
65794-96-9	MS	m,p-Cresols	1940	0.000	U	900	46	20-119
621-64-7	MS	N-Nitrosodipropylamine	1940	0.000	U	823	42	15-118
67-72-1	MS	Hexachloroethane	1940	0.000	U	607	31	13-98
98-95-3	MS	Nitrobenzene	1940	0.000	U	856	44	17-109
78-59-1	MS	Isophorone	1940	0.000	U	872	45	16-113
88-75-5	MS	2-Nitrophenol	1940	0.000	U	1010	52	16-114
105-67-9	MS	2,4-Dimethylphenol	1940	0.000	U	622	32	17-103
111-91-1	MS	bis(2-Chloroethoxy)methane	1940	0.000	U	861	44	20-110
120-83-2	MS	2,4-Dichlorophenol	1940	0.000	U	938	48	19-124

Quality Control Summary
Spike Recovery Report

SDG Number: 660771

Client ID: Y403780-01MS

Lab Sample ID: 1205690504

Instrument: MSD1.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike

Matrix: SOIL

%Moisture: 14.5

Analysis Date: 04/02/2024 15:01

Prep Batch ID:2589781

Batch ID: 2589785

Dilution: 1

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
106-47-8	MS 4-Chloroaniline	1940	0.000 U	827	43	18-88
87-68-3	MS Hexachlorobutadiene	1940	0.000 U	740	38	16-113
59-50-7	MS 4-Chloro-3-methylphenol	1940	0.000 U	1020	53	23-126
91-57-6	MS 2-Methylnaphthalene	1940	0.000 U	855	44	15-112
91-20-3	MS Naphthalene	1940	0.000 U	843	43	14-112
90-12-0	MS 1-Methylnaphthalene	1940	0.000 U	918	47	15-118
77-47-4	MS Hexachlorocyclopentadiene	1940	0.000 U	367	19	10-78
88-06-2	MS 2,4,6-Trichlorophenol	1940	0.000 U	960	49	21-132
95-95-4	MS 2,4,5-Trichlorophenol	1940	0.000 U	1090	56	23-127
91-58-7	MS 2-Chloronaphthalene	1940	0.000 U	918	47	14-118
88-74-4	MS o-Nitroaniline	1940	0.000 U	1070	55	21-125
99-09-2	MS m-Nitroaniline	1940	0.000 U	963	50	10-108
131-11-3	MS Dimethylphthalate	1940	0.000 U	1080	56	28-124
606-20-2	MS 2,6-Dinitrotoluene	1940	0.000 U	1070	55	23-124
121-14-2	MS 2,4-Dinitrotoluene	1940	0.000 U	1150	59	24-125
208-96-8	MS Acenaphthylene	1940	0.000 U	910	47	16-116
83-32-9	MS Acenaphthene	1940	0.000 U	943	49	16-115
51-28-5	MS 2,4-Dinitrophenol	1940	0.000 U	1250	65	19-117
132-64-9	MS Dibenzofuran	1940	0.000 U	1020	53	21-121
58-90-2	MS 2,3,4,6-Tetrachlorophenol	1940	0.000 U	1040	54	21-129
84-66-2	MS Diethylphthalate	1940	0.000 U	1070	55	26-125
100-02-7	MS 4-Nitrophenol	1940	0.000 U	1160	60	12-137

Quality Control Summary
Spike Recovery Report

SDG Number: 660771

Client ID: Y403780-01MS

Lab Sample ID: 1205690504

Instrument: MSD1.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike

Matrix: SOIL

%Moisture: 14.5

Analysis Date: 04/02/2024 15:01

Prep Batch ID:2589781

Batch ID: 2589785

Dilution: 1

CAS No.		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1940	0.000 U	994	51	16-123
7005-72-3	MS	4-Chlorophenylphenylether	1940	0.000 U	1050	54	21-126
100-01-6	MS	p-Nitroaniline	1940	0.000 U	1130	58	9-138
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1940	0.000 U	1180	61	10-120
122-39-4	MS	Diphenylamine	1940	0.000 U	1050	54	20-116
122-66-7	MS	1,2-Diphenylhydrazine	1940	0.000 U	1060	55	17-119
101-55-3	MS	4-Bromophenylphenylether	1940	0.000 U	1010	52	20-122
118-74-1	MS	Hexachlorobenzene	1940	0.000 U	1130	58	23-128
87-86-5	MS	Pentachlorophenol	1940	0.000 U	1150	59	11-126
85-01-8	MS	Phenanthrene	1940	0.000 U	1110	57	19-121
120-12-7	MS	Anthracene	1940	0.000 U	1050	54	19-116
86-74-8	MS	Carbazole	1940	0.000 U	1030	53	17-128
84-74-2	MS	Di-n-butylphthalate	1940	0.000 U	1140	59	24-125
206-44-0	MS	Fluoranthene	1940	0.000 U	1100	57	21-126
129-00-0	MS	Pyrene	1940	0.000 U	1120	58	19-127
85-68-7	MS	Butylbenzylphthalate	1940	0.000 U	1210	62	19-133
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1940	0.000 U	1190	61	17-133
56-55-3	MS	Benzo(a)anthracene	1940	0.000 U	1110	57	21-121
218-01-9	MS	Chrysene	1940	0.000 U	1140	59	22-124
117-84-0	MS	Di-n-octylphthalate	1940	0.000 U	1150	59	24-135
205-99-2	MS	Benzo(b)fluoranthene	1940	0.000 U	1130	58	20-126
207-08-9	MS	Benzo(k)fluoranthene	1940	0.000 U	1110	57	20-133

Quality Control Summary
Spike Recovery Report

SDG Number: 660771

Client ID: Y403780-01MS

Lab Sample ID: 1205690504

Instrument: MSD1.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike

Matrix: SOIL

%Moisture: 14.5

Analysis Date: 04/02/2024 15:01

Prep Batch ID:2589781

Batch ID: 2589785

Dilution: 1

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
50-32-8	MS Benzo(a)pyrene	1940	0.000 U	1030	53	20-120
193-39-5	MS Indeno(1,2,3-cd)pyrene	1940	0.000 U	1000	51	14-125
53-70-3	MS Dibenzo(a,h)anthracene	1940	0.000 U	1020	53	15-122
191-24-2	MS Benzo(ghi)perylene	1940	0.000 U	1080	56	13-120
123-91-1	MS 1,4-Dioxane	1940	0.000 U	401	21	15-57
930-55-2	MS N-Nitrosopyrrolidine	1940	0.000 U	816	42	17-133
98-86-2	MS Acetophenone	1940	0.000 U	854	44	20-117
87-65-0	MS 2,6-Dichlorophenol	1940	0.000 U	877	45	19-129
95-94-3	MS 1,2,4,5-Tetrachlorobenzene	1940	0.000 U	924	48	21-114
91-94-1	MS 3,3'-Dichlorobenzidine	1940	0.000 U	918	47	8-108
126-73-8	MS Tributylphosphate	1940	0.000 U	1120	58	20-143
120-82-1	MS 1,2,4-Trichlorobenzene	1940	0.000 U	770	40	17-108

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660771

Client ID: Y403780-01MSD

Lab Sample ID: 1205690505

Instrument: MSD1.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate

Matrix: SOIL

%Moisture: 14.5

Analysis Date: 04/02/2024 15:23

Prep Batch ID:2589781

Batch ID: 2589785

Dilution: 1

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
65-85-0	MSD Benzoic acid	3840	331 J	1240	24	13-125	28	0-30
62-75-9	MSD N-Methyl-N-nitrosomethylamine	1920	0.000 U	893	47	12-100	18	0-30
110-86-1	MSD Pyridine	1920	0.000 U	735	38	17-69	9	0-30
62-53-3	MSD Aniline	1920	0.000 U	810	42	20-85	17	0-30
108-95-2	MSD Phenol	1920	0.000 U	1070	56	17-116	16	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1920	0.000 U	921	48	15-109	15	0-30
95-57-8	MSD 2-Chlorophenol	1920	0.000 U	1010	53	16-112	19	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1920	0.000 U	769	40	14-98	15	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1920	0.000 U	734	38	14-100	12	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1920	0.000 U	770	40	18-104	10	0-30
108-60-1	MSD bis(2-Chloro-1-methylethyl)ether	1920	0.000 U	857	45	10-110	8	0-30
100-51-6	MSD Benzyl alcohol	1920	0.000 U	1030	54	18-119	15	0-30
95-48-7	MSD o-Cresol	1920	0.000 U	1020	53	16-120	13	0-30
65794-96-9	MSD m,p-Cresols	1920	0.000 U	1040	54	20-119	14	0-30
621-64-7	MSD N-Nitrosodipropylamine	1920	0.000 U	972	51	15-118	17	0-30
67-72-1	MSD Hexachloroethane	1920	0.000 U	701	37	13-98	14	0-30
98-95-3	MSD Nitrobenzene	1920	0.000 U	980	51	17-109	13	0-30
78-59-1	MSD Isophorone	1920	0.000 U	1000	52	16-113	14	0-30
88-75-5	MSD 2-Nitrophenol	1920	0.000 U	1090	57	16-114	8	0-30
105-67-9	MSD 2,4-Dimethylphenol	1920	0.000 U	684	36	17-103	10	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1920	0.000 U	1040	54	20-110	18	0-30
120-83-2	MSD 2,4-Dichlorophenol	1920	0.000 U	1090	57	19-124	15	0-30

Quality Control Summary
Spike Recovery Report

SDG Number: 660771

Client ID: Y403780-01MSD

Lab Sample ID: 1205690505

Instrument: MSD1.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate

Matrix: SOIL

%Moisture: 14.5

Analysis Date: 04/02/2024 15:23

Prep Batch ID:2589781

Batch ID: 2589785

Dilution: 1

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	Acceptance RPD %	Acceptance Limits
106-47-8	MSD 4-Chloroaniline	1920	0.000 U	974	51	18-88	16	0-30
87-68-3	MSD Hexachlorobutadiene	1920	0.000 U	806	42	16-113	9	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1920	0.000 U	1240	65	23-126	19	0-30
91-57-6	MSD 2-Methylnaphthalene	1920	0.000 U	936	49	15-112	9	0-30
91-20-3	MSD Naphthalene	1920	0.000 U	932	49	14-112	10	0-30
90-12-0	MSD 1-Methylnaphthalene	1920	0.000 U	1030	53	15-118	11	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1920	0.000 U	407	21	10-78	10	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1920	0.000 U	1230	64	21-132	24	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1920	0.000 U	1320	69	23-127	19	0-30
91-58-7	MSD 2-Chloronaphthalene	1920	0.000 U	1000	52	14-118	9	0-30
88-74-4	MSD o-Nitroaniline	1920	0.000 U	1300	68	21-125	19	0-30
99-09-2	MSD m-Nitroaniline	1920	0.000 U	1250	65	10-108	26	0-30
131-11-3	MSD Dimethylphthalate	1920	0.000 U	1260	66	28-124	15	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1920	0.000 U	1230	64	23-124	14	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1920	0.000 U	1410	74	24-125	20	0-30
208-96-8	MSD Acenaphthylene	1920	0.000 U	1050	55	16-116	14	0-30
83-32-9	MSD Acenaphthene	1920	0.000 U	1090	57	16-115	15	0-30
51-28-5	MSD 2,4-Dinitrophenol	1920	0.000 U	1070	56	19-117	16	0-30
132-64-9	MSD Dibenzofuran	1920	0.000 U	1180	61	21-121	14	0-30
58-90-2	MSD 2,3,4,6-Tetrachlorophenol	1920	0.000 U	1190	62	21-129	13	0-30
84-66-2	MSD Diethylphthalate	1920	0.000 U	1280	66	26-125	17	0-30
100-02-7	MSD 4-Nitrophenol	1920	0.000 U	1380	72	12-137	17	0-30

Quality Control Summary
Spike Recovery Report

SDG Number: 660771

Client ID: Y403780-01MSD

Lab Sample ID: 1205690505

Instrument: MSD1.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate

Matrix: SOIL

%Moisture: 14.5

Analysis Date: 04/02/2024 15:23

Dilution: 1

Prep Batch ID:2589781

Batch ID: 2589785

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD Fluorene	1920	0.000 U	1170	61	16-123	16	0-30
7005-72-3	MSD 4-Chlorophenylphenylether	1920	0.000 U	1270	66	21-126	19	0-30
100-01-6	MSD p-Nitroaniline	1920	0.000 U	1280	67	9-138	12	0-30
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	1920	0.000 U	1260	66	10-120	6	0-30
122-39-4	MSD Diphenylamine	1920	0.000 U	1240	64	20-116	16	0-30
122-66-7	MSD 1,2-Diphenylhydrazine	1920	0.000 U	1210	63	17-119	13	0-30
101-55-3	MSD 4-Bromophenylphenylether	1920	0.000 U	1200	62	20-122	17	0-30
118-74-1	MSD Hexachlorobenzene	1920	0.000 U	1200	63	23-128	7	0-30
87-86-5	MSD Pentachlorophenol	1920	0.000 U	1250	65	11-126	8	0-30
85-01-8	MSD Phenanthrene	1920	0.000 U	1270	66	19-121	14	0-30
120-12-7	MSD Anthracene	1920	0.000 U	1250	65	19-116	18	0-30
86-74-8	MSD Carbazole	1920	0.000 U	1210	63	17-128	16	0-30
84-74-2	MSD Di-n-butylphthalate	1920	0.000 U	1310	68	24-125	14	0-30
206-44-0	MSD Fluoranthene	1920	0.000 U	1260	66	21-126	14	0-30
129-00-0	MSD Pyrene	1920	0.000 U	1320	69	19-127	16	0-30
85-68-7	MSD Butylbenzylphthalate	1920	0.000 U	1360	71	19-133	12	0-30
117-81-7	MSD bis(2-Ethylhexyl)phthalate	1920	0.000 U	1330	69	17-133	11	0-30
56-55-3	MSD Benzo(a)anthracene	1920	0.000 U	1270	66	21-121	14	0-30
218-01-9	MSD Chrysene	1920	0.000 U	1320	69	22-124	15	0-30
117-84-0	MSD Di-n-octylphthalate	1920	0.000 U	1300	68	24-135	13	0-30
205-99-2	MSD Benzo(b)fluoranthene	1920	0.000 U	1310	68	20-126	15	0-30
207-08-9	MSD Benzo(k)fluoranthene	1920	0.000 U	1210	63	20-133	9	0-30

Quality Control Summary
Spike Recovery Report

SDG Number: 660771

Client ID: Y403780-01MSD

Lab Sample ID: 1205690505

Instrument: MSD1.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate

Matrix: SOIL

%Moisture: 14.5

Analysis Date: 04/02/2024 15:23

Prep Batch ID:2589781

Batch ID: 2589785

Dilution: 1

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
50-32-8	MSD Benzo(a)pyrene	1920	0.000 U	1220	64	20-120	17	0-30
193-39-5	MSD Indeno(1,2,3-cd)pyrene	1920	0.000 U	1190	62	14-125	18	0-30
53-70-3	MSD Dibenzo(a,h)anthracene	1920	0.000 U	1180	62	15-122	15	0-30
191-24-2	MSD Benzo(ghi)perylene	1920	0.000 U	1250	65	13-120	14	0-30
123-91-1	MSD 1,4-Dioxane	1920	0.000 U	462	24	15-57	14	0-30
930-55-2	MSD N-Nitrosopyrrolidine	1920	0.000 U	945	49	17-133	15	0-30
98-86-2	MSD Acetophenone	1920	0.000 U	984	51	20-117	14	0-30
87-65-0	MSD 2,6-Dichlorophenol	1920	0.000 U	1020	53	19-129	15	0-30
95-94-3	MSD 1,2,4,5-Tetrachlorobenzene	1920	0.000 U	1040	54	21-114	12	0-30
91-94-1	MSD 3,3'-Dichlorobenzidine	1920	0.000 U	1150	60	8-108	22	0-30
126-73-8	MSD Tributylphosphate	1920	0.000 U	1330	69	20-143	17	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1920	0.000 U	881	46	17-108	13	0-30

Method Blank Summary

SDG Number: 660771

Client ID: MB for batch 2589781

Lab Sample ID: 1205690502

Column: Description: DB-5ms

Client: PERM001

Instrument ID: MSD1.I

Prep Date: 04/02/2024 07:52

Matrix: SOIL

Data File: S040224\s1D0212.D

Analyzed: 04/02/24 13:53

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 2589781	1205690503	S040224\s1D0213.D	04/02/24	1416
02 Y403780-01MS	1205690504	S040224\s1D0215.D	04/02/24	1501
03 Y403780-01MSD	1205690505	S040224\s1D0216.D	04/02/24	1523
04 12045.B1.Top Front.EPA	660771001	S040224\s1D0218.D	04/02/24	1608
05 12045.B1.Middle Front.EPA	660771002	S040224\s1D0219.D	04/02/24	1630
06 12045.B1.Bottom Front.EPA	660771003	S040224\s1D0220.D	04/02/24	1652
07 12044.B1.Top Back.EPA	660771004	S040224\s1D0221.D	04/02/24	1715
08 12044.B1.Middle Back.EPA	660771005	S040224\s1D0222.D	04/02/24	1737
09 12044.B1.Bottom Back.EPA	660771006	S040224\s1D0223.D	04/02/24	1800
10 12038.B2.Top Front.EPA	660771007	S040224\s1D0224.D	04/02/24	1822
11 12038.B2.Middle Front.EPA	660771008	S040224\s1D0225.D	04/02/24	1845
12 12038.B2.Bottom Front.EPA	660771009	S040224\s1D0226.D	04/02/24	1907
13 12043.B2.Top Back.EPA	660771010	S040224\s1D0227.D	04/02/24	1930
14 12043.B2.Middle Back.EPA	660771011	S040224\s1D0228.D	04/02/24	1952
15 12043.B2.Bottom Back.EPA	660771012	S040224\s1D0229.D	04/02/24	2015
16 12041.B3.Top Front.EPA	660771013	S040224\s1D0230.D	04/02/24	2037
17 12041.B3.Middle Front.EPA	660771014	S040224\s1D0231.D	04/02/24	2059
18 12041.B3.Bottom Front.EPA	660771015	S040224\s1D0232.D	04/02/24	2122
19 12042.B3.Top Back.EPA	660771016	S040224\s1D0233.D	04/02/24	2144
20 12042.B3.Middle Back.EPA	660771017	S040324\s1D0306.D	04/03/24	1618
21 12042.B3.Bottom Back.EPA	660771018	S040324\s1D0307.D	04/03/24	1641

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 660771

Instrument ID: MSD1.I

Injection Date/Time: 25-MAR-24 11:05

Column Description: Description: DB-5ms

Lab File ID S032524ical\s1C2501.D

m/e	Ion Abundance Criteria	% Relative Abundance
68	Less than 2% of mass 69	1.6
69	Present	42.1
70	Less than 2% of mass 69	0
197	Less than 2% of mass 198	1
198	Base Peak or Present	100
199	5 - 9% of mass 198	5.6
365	Greater than 1% of Base Peak	3.1
441	Less than 150% of mass 443	83.8
442	Base Peak or Present	98.6
443	15 - 24% of mass 442	18.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	WBN240312-01.1	S032524ical\s1C2502.D	25-MAR-24 11:23
ICALMIX[A]	WBN240312-02.1	S032524ical\s1C2503.D	25-MAR-24 11:48
ICALMIX[A]	WBN240312-03.1	S032524ical\s1C2504.D	25-MAR-24 12:13
ICALMIX[A]	WBN240312-04.1	S032524ical\s1C2505.D	25-MAR-24 12:38
ICALMIX[A]	WBN240312-05	S032524ical\s1C2506.D	25-MAR-24 13:04
ICALMIX[A]	WBN240312-06	S032524ical\s1C2507.D	25-MAR-24 13:29
ICALMIX[A]	WBN240312-07	S032524ical\s1C2508.D	25-MAR-24 13:54
ICALMIX[A]	WBN240312-08	S032524ical\s1C2509.D	25-MAR-24 14:19
ICVMIX[A]01	WBN240312-43	S032524ical\s1C2510.D	25-MAR-24 14:44
ICALMIX[B,J]	WBN240201-51.1	S032524ical\s1C2511.D	25-MAR-24 15:10
ICALMIX[B,J]	WBN240201-52	S032524ical\s1C2512.D	25-MAR-24 15:32
ICALMIX[B,J]	WBN240201-53	S032524ical\s1C2513.D	25-MAR-24 15:54
ICALMIX[B,J]	WBN240201-54.1	S032524ical\s1C2514.D	25-MAR-24 16:17
ICALMIX[B,J]	WBN240201-55	S032524ical\s1C2515.D	25-MAR-24 16:39
ICALMIX[B,J]	WBN240201-56	S032524ical\s1C2516.D	25-MAR-24 17:02
ICALMIX[B,J]	WBN240201-57	S032524ical\s1C2517.D	25-MAR-24 17:24
ICALMIX[B,J]	WBN240201-58	S032524ical\s1C2518.D	25-MAR-24 17:47
ICALMIX[B,J]	WBN240201-59	S032524ical\s1C2519.D	25-MAR-24 18:09

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 660771

Instrument ID: MSD1.I

Injection Date/Time: 25-MAR-24 11:05

Column Description: Description: DB-5ms

Lab File ID S032524ical\s1C2501.D

m/e	Ion Abundance Criteria	% Relative Abundance
68	Less than 2% of mass 69	1.6
69	Present	42.1
70	Less than 2% of mass 69	0
197	Less than 2% of mass 198	1
198	Base Peak or Present	100
199	5 - 9% of mass 198	5.6
365	Greater than 1% of Base Peak	3.1
441	Less than 150% of mass 443	83.8
442	Base Peak or Present	98.6
443	15 - 24% of mass 442	18.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICVMIX[B,J]02	WBN240221-20	S032524ical\s1C2520.D	25-MAR-24 18:32
ICALMIX[D]	WBN240227-27.1	S032524ical\s1C2521.D	25-MAR-24 18:54
ICALMIX[D]	WBN240227-26	S032524ical\s1C2522.D	25-MAR-24 19:14
ICALMIX[D]	WBN240227-25.1	S032524ical\s1C2523.D	25-MAR-24 19:34
ICALMIX[D]	WBN240227-24	S032524ical\s1C2524.D	25-MAR-24 19:54
ICALMIX[D]	WBN240227-23	S032524ical\s1C2525.D	25-MAR-24 20:14
ICALMIX[D]	WBN240227-22	S032524ical\s1C2526.D	25-MAR-24 20:34
ICALMIX[D]	WBN240227-21	S032524ical\s1C2527.D	25-MAR-24 20:53
ICVMIX[D]03	WBN240228-26	S032524ical\s1C2528.D	25-MAR-24 21:13

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 660771

Instrument ID: MSD1.I

Injection Date/Time: 25-MAR-24 21:33

Column Description: Description: DB-5ms

Lab File ID S032524ical\s1C2529.D

m/e	Ion Abundance Criteria	% Relative Abundance
68	Less than 2% of mass 69	1.9
69	Present	50
70	Less than 2% of mass 69	0.7
197	Less than 2% of mass 198	1.2
198	Base Peak or Present	100
199	5 - 9% of mass 198	6.7
365	Greater than 1% of Base Peak	2.7
441	Less than 150% of mass 443	72.7
442	Base Peak or Present	90.6
443	15 - 24% of mass 442	20.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[E]	WBN240313-31.1	S032524ical\s1C2530.D	25-MAR-24 21:50
ICALMIX[E]	WBN240313-32	S032524ical\s1C2531.D	25-MAR-24 22:09
ICALMIX[E]	WBN240313-33	S032524ical\s1C2532.D	25-MAR-24 22:29
ICALMIX[E]	WBN240313-34	S032524ical\s1C2533.D	25-MAR-24 22:49
ICALMIX[E]	WBN240313-35	S032524ical\s1C2534.D	25-MAR-24 23:09
ICALMIX[E]	WBN240313-37	S032524ical\s1C2535.D	25-MAR-24 23:28
ICVMIX[E]04	WBN240228-38	S032524ical\s1C2536.D	25-MAR-24 23:48
CCVMIX[A]01	WBN240304-04.24	S040224\s1D0202.D	02-APR-24 10:10
CCVMIX[B,J]02	WBN240201-54.10	S040224\s1D0203.D	02-APR-24 10:35
CCVMIX[D]03	WBN240227-25.6	S040224\s1D0204.D	02-APR-24 10:58
CCVMIX[E]04	WBN240212-33.4	S040224\s1D0205.D	02-APR-24 11:18
BLK01	1205690502	S040224\s1D0212.D	02-APR-24 13:53
BLK01LCS	1205690503	S040224\s1D0213.D	02-APR-24 14:16
Y403780-01MS	1205690504	S040224\s1D0215.D	02-APR-24 15:01
Y403780-01MSD	1205690505	S040224\s1D0216.D	02-APR-24 15:23
12045.B1.Top Front.EPA	660771001	S040224\s1D0218.D	02-APR-24 16:08
12045.B1.Middle Front.EPA	660771002	S040224\s1D0219.D	02-APR-24 16:30
12045.B1.Bottom Front.EPA	660771003	S040224\s1D0220.D	02-APR-24 16:52

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 660771

Instrument ID: MSD1.I

Injection Date/Time: 25-MAR-24 21:33

Column Description: Description: DB-5ms

Lab File ID S032524ical\s1C2529.D

m/e	Ion Abundance Criteria	% Relative Abundance
68	Less than 2% of mass 69	1.9
69	Present	50
70	Less than 2% of mass 69	0.7
197	Less than 2% of mass 198	1.2
198	Base Peak or Present	100
199	5 - 9% of mass 198	6.7
365	Greater than 1% of Base Peak	2.7
441	Less than 150% of mass 443	72.7
442	Base Peak or Present	90.6
443	15 - 24% of mass 442	20.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
12044.B1.Top Back.EPA	660771004	S040224\s1D0221.D	02-APR-24 17:15
12044.B1.Middle Back.EPA	660771005	S040224\s1D0222.D	02-APR-24 17:37
12044.B1.Bottom Back.EPA	660771006	S040224\s1D0223.D	02-APR-24 18:00
12038.B2.Top Front.EPA	660771007	S040224\s1D0224.D	02-APR-24 18:22
12038.B2.Middle Front.EPA	660771008	S040224\s1D0225.D	02-APR-24 18:45
12038.B2.Bottom Front.EPA	660771009	S040224\s1D0226.D	02-APR-24 19:07
12043.B2.Top Back.EPA	660771010	S040224\s1D0227.D	02-APR-24 19:30
12043.B2.Middle Back.EPA	660771011	S040224\s1D0228.D	02-APR-24 19:52
12043.B2.Bottom Back.EPA	660771012	S040224\s1D0229.D	02-APR-24 20:15
12041.B3.Top Front.EPA	660771013	S040224\s1D0230.D	02-APR-24 20:37
12041.B3.Middle Front.EPA	660771014	S040224\s1D0231.D	02-APR-24 20:59
12041.B3.Bottom Front.EPA	660771015	S040224\s1D0232.D	02-APR-24 21:22
12042.B3.Top Back.EPA	660771016	S040224\s1D0233.D	02-APR-24 21:44
CCVMIX[A]05	WBN240304-04.24	S040324\s1D0302.D	03-APR-24 14:50
CCVMIX[B,J]06	WBN240201-54.10	S040324\s1D0303.D	03-APR-24 15:16
CCVMIX[D]07	WBN240227-25.6	S040324\s1D0304.D	03-APR-24 15:38
CCVMIX[E]08	WBN240212-33.4	S040324\s1D0305.D	03-APR-24 15:58
12042.B3.Middle Back.EPA	660771017	S040324\s1D0306.D	03-APR-24 16:18

Instrument Performance Check
DFTPP

Lab Name GEL Laboratories LLC**Client SDG:** 660771**Instrument ID:** MSD1.I**Injection Date/Time:** 25-MAR-24 21:33**Column Description:** Description: DB-5ms**Lab File ID** S032524ical\s1C2529.D

m/e	Ion Abundance Criteria	% Relative Abundance
68	Less than 2% of mass 69	1.9
69	Present	50
70	Less than 2% of mass 69	0.7
197	Less than 2% of mass 198	1.2
198	Base Peak or Present	100
199	5 - 9% of mass 198	6.7
365	Greater than 1% of Base Peak	2.7
441	Less than 150% of mass 443	72.7
442	Base Peak or Present	90.6
443	15 - 24% of mass 442	20.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
12042.B3.Bottom Back.EPA	660771018	S040324\s1D0307.D	03-APR-24 16:41

Internal Standard

Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 660771

Instrument: MSD1.I

STD Analysis Time: 02-APR-24 10:10

GC Column: Description: DB-5ms

Data File: S040224[s1D0202.D

	1,4-Dichlorobenzene-d4		Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10		Chrysene-d12		Perylene-d12	
	Area	# RT #	Area	# RT #	Area	# RT #	Area	# RT #	Area	# RT #	Area	# RT #
12 Hour STD Upper Limit Lower Limit	135917	4.31	514095	5.71	281978	7.44	570855	8.74	588545	11.25	641208	13.62
	271834	4.81	1028190	6.21	563956	7.94	1141710	9.24	1177090	11.75	1282416	14.12
	67959	3.81	257048	5.21	140989	6.94	285428	8.24	294273	10.75	320604	13.12
Sample ID												
BLK01	109839	4.3	399479	5.71	216186	7.44	443715	8.74	465964	11.2	471693	13.6
BLK01LCS	122984	4.3	457798	5.71	251490	7.44	515981	8.74	516673	11.3	543011	13.6
Y403780-01MS	121140	4.3	454083	5.71	249555	7.44	494500	8.74	509496	11.3	535747	13.6
Y403780-01MSD	115138	4.3	429926	5.71	232121	7.44	473443	8.74	492313	11.3	550168	13.6
I2045.B1.Top Front.EPA	126786	4.3	463681	5.71	258890	7.44	520070	8.74	536776	11.2	559413	13.6
I2045.B1.Middle Front.EPA	126771	4.3	477666	5.71	265617	7.44	526635	8.74	551506	11.2	389616	13.6
I2045.B1.Bottom Front.EPA	124389	4.3	450805	5.71	255438	7.44	516493	8.74	544327	11.2	514321	13.6
I2044.B1.Top Back.EPA	129926	4.3	469447	5.71	259334	7.44	522590	8.74	550975	11.2	510398	13.6
I2044.B1.Middle Back.EPA	127749	4.3	448863	5.71	250871	7.44	505862	8.74	525607	11.2	504241	13.6
I2044.B1.Bottom Back.EPA	124396	4.3	441202	5.71	249721	7.44	487045	8.74	510226	11.2	524429	13.6
I2038.B2.Top Front.EPA	120402	4.3	452795	5.71	247909	7.44	505292	8.74	539441	11.2	550969	13.6
I2038.B2.Middle Front.EPA	127102	4.3	438844	5.71	239011	7.44	486358	8.74	520178	11.2	378870	13.6
I2038.B2.Bottom Front.EPA	127059	4.3	470710	5.71	260849	7.44	552635	8.74	587465	11.2	419111	13.6
I2043.B2.Top Back.EPA	120216	4.3	434049	5.71	235744	7.44	487389	8.74	497741	11.2	510457	13.6
I2043.B2.Middle Back.EPA	127168	4.3	467017	5.71	251555	7.44	519874	8.74	550912	11.2	553445	13.6
I2043.B2.Bottom Back.EPA	116648	4.3	443294	5.71	237883	7.44	486175	8.74	522669	11.2	521731	13.6
I2041.B3.Top Front.EPA	119057	4.3	457338	5.71	251918	7.44	511166	8.74	550112	11.2	556472	13.6
I2041.B3.Middle Front.EPA	120876	4.3	458851	5.71	259283	7.44	529809	8.74	583511	11.2	522205	13.6
I2041.B3.Bottom Front.EPA	108146	4.3	406558	5.71	221407	7.44	451404	8.74	479326	11.2	453424	13.6
I2042.B3.Top Back.EPA	107681	4.3	407335	5.71	226525	7.44	455898	8.74	492613	11.2	484595	13.6

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard

Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument:MSD1.I

GC Column:Description: DB-5ms

Client SDG:660771

STD Analysis Time:03-APR-24 14:50

Data File:S040324\1D0302.D

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	123865		4.3	435111		5.71	228542		7.43	466677		8.74	480231		11.23	547219		13.59
Upper Limit	247730		4.8	870222		6.21	457084		7.93	933354		9.24	960462		11.73	1094438		14.09
Lower Limit	61933		3.8	217556		5.21	114271		6.93	233339		8.24	240116		10.73	273610		13.09
Sample ID																		
12042.B3.Middle Back.EPA	139817		4.3	502983		5.7	270951		7.43	546383		8.73	602298		11.2	550238		13.6
12042.B3.Bottom Back.EPA	129186		4.29	462205		5.7	255384		7.43	506756		8.73	548889		11.2	499084		13.6

Area Upper Limit = +100% of internal standard area

Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT

RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk

* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:30	Matrix:	MISC SOLID
Lab Sample ID:	660771001	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 16:08	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.85 g	Final Volume:	1 mL
Data File:	S040224\1D0218.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	922	ug/kg	276	922
110-86-1	Pyridine	U	922	ug/kg	276	922
62-53-3	Aniline	U	922	ug/kg	276	922
108-95-2	Phenol	U	922	ug/kg	276	922
111-44-4	bis(2-Chloroethyl) ether	U	922	ug/kg	276	922
95-57-8	2-Chlorophenol	U	922	ug/kg	276	922
541-73-1	1,3-Dichlorobenzene	U	922	ug/kg	276	922
106-46-7	1,4-Dichlorobenzene	U	922	ug/kg	276	922
95-50-1	1,2-Dichlorobenzene	U	922	ug/kg	276	922
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	922	ug/kg	276	922
100-51-6	Benzyl alcohol	U	922	ug/kg	276	922
95-48-7	o-Cresol	U	922	ug/kg	276	922
65794-96-9	m,p-Cresols	U	922	ug/kg	276	922
621-64-7	N-Nitrosodipropylamine	U	922	ug/kg	276	922
67-72-1	Hexachloroethane	U	922	ug/kg	276	922
98-95-3	Nitrobenzene	U	922	ug/kg	276	922
78-59-1	Isophorone	U	922	ug/kg	276	922
88-75-5	2-Nitrophenol	U	922	ug/kg	276	922
105-67-9	2,4-Dimethylphenol	U	922	ug/kg	276	922
111-91-1	bis(2-Chloroethoxy)methane	U	922	ug/kg	276	922
120-83-2	2,4-Dichlorophenol	U	922	ug/kg	276	922
65-85-0	Benzoic acid	U	1840	ug/kg	461	1840
106-47-8	4-Chloroaniline	U	922	ug/kg	276	922
87-68-3	Hexachlorobutadiene	U	922	ug/kg	276	922
59-50-7	4-Chloro-3-methylphenol	U	922	ug/kg	369	922
91-57-6	2-Methylnaphthalene	U	92.2	ug/kg	27.6	92.2
91-20-3	Naphthalene	U	92.2	ug/kg	27.6	92.2
90-12-0	1-Methylnaphthalene	U	92.2	ug/kg	27.6	92.2
77-47-4	Hexachlorocyclopentadiene	U	922	ug/kg	276	922
88-06-2	2,4,6-Trichlorophenol	U	922	ug/kg	276	922
95-95-4	2,4,5-Trichlorophenol	U	922	ug/kg	276	922
91-58-7	2-Chloronaphthalene	U	92.2	ug/kg	27.6	92.2
88-74-4	o-Nitroaniline	U	922	ug/kg	304	922
99-09-2	m-Nitroaniline	U	922	ug/kg	276	922
131-11-3	Dimethylphthalate	U	92.2	ug/kg	27.6	92.2
99-65-0	m-Dinitrobenzene	U	922	ug/kg	276	922
606-20-2	2,6-Dinitrotoluene	U	922	ug/kg	276	922
121-14-2	2,4-Dinitrotoluene	U	922	ug/kg	276	922

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:30	Matrix:	MISC SOLID
Lab Sample ID:	660771001	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 16:08	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.85 g	Final Volume:	1 mL
Data File:	S040224\1D0218.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	92.2	ug/kg	27.6	92.2
83-32-9	Acenaphthene	U	92.2	ug/kg	27.6	92.2
51-28-5	2,4-Dinitrophenol	U	1840	ug/kg	276	1840
132-64-9	Dibenzofuran	U	922	ug/kg	276	922
58-90-2	2,3,4,6-Tetrachlorophenol	U	922	ug/kg	276	922
84-66-2	Diethylphthalate	U	92.2	ug/kg	27.6	92.2
100-02-7	4-Nitrophenol	U	922	ug/kg	276	922
86-73-7	Fluorene	U	92.2	ug/kg	27.6	92.2
7005-72-3	4-Chlorophenylphenylether	U	922	ug/kg	276	922
100-01-6	p-Nitroaniline	U	922	ug/kg	276	922
534-52-1	2-Methyl-4,6-dinitrophenol	U	922	ug/kg	276	922
122-39-4	Diphenylamine	U	922	ug/kg	276	922
122-66-7	1,2-Diphenylhydrazine	U	922	ug/kg	276	922
101-55-3	4-Bromophenylphenylether	U	922	ug/kg	276	922
118-74-1	Hexachlorobenzene	U	922	ug/kg	276	922
87-86-5	Pentachlorophenol	U	922	ug/kg	276	922
88-85-7	Dinoseb	U	922	ug/kg	276	922
85-01-8	Phenanthrene	U	92.2	ug/kg	27.6	92.2
120-12-7	Anthracene	U	92.2	ug/kg	27.6	92.2
86-74-8	Carbazole	U	92.2	ug/kg	27.6	92.2
84-74-2	Di-n-butylphthalate	U	92.2	ug/kg	27.6	92.2
206-44-0	Fluoranthene	U	92.2	ug/kg	27.6	92.2
129-00-0	Pyrene	U	92.2	ug/kg	27.6	92.2
85-68-7	Butylbenzylphthalate	U	92.2	ug/kg	27.6	92.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	92.2	ug/kg	27.6	92.2
56-55-3	Benzo(a)anthracene	U	92.2	ug/kg	27.6	92.2
218-01-9	Chrysene	U	92.2	ug/kg	27.6	92.2
72-43-5	Methoxychlor	U	922	ug/kg	276	922
117-84-0	Di-n-octylphthalate	U	92.2	ug/kg	27.6	92.2
205-99-2	Benzo(b)fluoranthene	U	92.2	ug/kg	27.6	92.2
207-08-9	Benzo(k)fluoranthene	U	92.2	ug/kg	27.6	92.2
50-32-8	Benzo(a)pyrene	U	92.2	ug/kg	27.6	92.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	92.2	ug/kg	27.6	92.2
53-70-3	Dibenzo(a,h)anthracene	U	92.2	ug/kg	27.6	92.2
191-24-2	Benzo(ghi)perylene	U	92.2	ug/kg	27.6	92.2
123-91-1	1,4-Dioxane	U	922	ug/kg	276	922
80-62-6	Methyl methacrylate	U	922	ug/kg	276	922
97-63-2	Ethyl methacrylate	U	922	ug/kg	276	922

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:30	Matrix:	MISC SOLID
Lab Sample ID:	660771001	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 16:08	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.85 g	Final Volume:	1 mL
Data File:	S040224\1D0218.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	922	ug/kg	276	922
10595-95-6	N-Nitrosomethylethylamine	U	922	ug/kg	276	922
66-27-3	Methyl methanesulfonate	U	922	ug/kg	276	922
55-18-5	N-Nitrosodiethylamine	U	922	ug/kg	276	922
62-50-0	Ethyl Methanesulfonate	U	922	ug/kg	276	922
76-01-7	Pentachloroethane	U	922	ug/kg	276	922
930-55-2	N-Nitrosopyrrolidine	U	922	ug/kg	276	922
98-86-2	Acetophenone	U	922	ug/kg	276	922
59-89-2	N-Nitrosomorpholine	U	922	ug/kg	276	922
95-53-4	o-Toluidine	U	922	ug/kg	276	922
100-75-4	N-Nitrosopiperidine	U	922	ug/kg	276	922
122-09-8	a,a-Dimethylphenethylamine	U	922	ug/kg	323	922
87-65-0	2,6-Dichlorophenol	U	922	ug/kg	276	922
1888-71-7	Hexachloropropene	U	922	ug/kg	276	922
924-16-3	N-Nitrosodi-n-butylamine	U	922	ug/kg	276	922
94-59-7	Safrole	U	922	ug/kg	276	922
95-94-3	1,2,4,5-Tetrachlorobenzene	U	922	ug/kg	276	922
120-58-1	Isosafrole	U	922	ug/kg	276	922
130-15-4	1,4-Naphthoquinone	U	922	ug/kg	276	922
608-93-5	Pentachlorobenzene	U	922	ug/kg	276	922
134-32-7	1-Naphthylamine	U	922	ug/kg	276	922
91-59-8	2-Naphthylamine	U	922	ug/kg	276	922
99-55-8	5-Nitro-o-toluidine	U	922	ug/kg	276	922
62-44-2	Phenacetin	U	922	ug/kg	276	922
99-35-4	1,3,5-Trinitrobenzene	U	922	ug/kg	276	922
2303-16-4	Diallate	U	922	ug/kg	276	922
92-67-1	4-Aminobiphenyl	U	922	ug/kg	276	922
82-68-8	Pentachloronitrobenzene	U	922	ug/kg	276	922
23950-58-5	Pronamide	U	922	ug/kg	276	922
56-57-5	4-Nitroquinoline-1-oxide	U	922	ug/kg	276	922
91-80-5	Methapyrilene	U	922	ug/kg	276	922
465-73-6	Isodrin	U	922	ug/kg	184	922
140-57-8	Aramite	U	922	ug/kg	276	922
143-50-0	Kepone	U	922	ug/kg	276	922
60-11-7	p-(Dimethylamino)azobenzene	U	922	ug/kg	276	922
510-15-6	Chlorobenzilate	U	922	ug/kg	276	922
119-93-7	3,3'-Dimethylbenzidine	U	922	ug/kg	276	922
53-96-3	2-Acetylaminofluorene	U	922	ug/kg	276	922

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771001

Client ID: 12045.B1.Top Front.EPA

Batch ID: 2589785

Run Date: 04/02/2024 16:08

Prep Date: 04/02/2024 07:52

Data File: S040224\s1D0218.D

Date Collected: 03/27/2024 08:30

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.85 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	922	ug/kg	276	922
57-97-6	7,12-Dimethylbenz(a)anthracene	U	922	ug/kg	276	922
56-49-5	3-Methylcholanthrene	U	922	ug/kg	276	922
126-68-1	Triethylphosphorothioate	U	922	ug/kg	276	922
297-97-2	Thionazin	U	922	ug/kg	276	922
126-73-8	Tributylphosphate	U	922	ug/kg	276	922
3689-24-5	Sulfotepp	U	922	ug/kg	276	922
298-02-2	Phorate	U	922	ug/kg	276	922
60-51-5	Dimethoate	U	922	ug/kg	276	922
298-04-4	Disulfoton	U	922	ug/kg	276	922
298-00-0	Methyl parathion	U	922	ug/kg	276	922
56-38-2	Parathion	U	922	ug/kg	276	922
52-85-7	Famphur	U	922	ug/kg	276	922
106-50-3	p-Phenylenediamine	U	46100	ug/kg	9220	46100
70-30-4	Hexachlorophene	U	46100	ug/kg	10700	46100
120-82-1	1,2,4-Trichlorobenzene	U	922	ug/kg	276	922

LL
04/03/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0218.D
Acq On : 02 Apr 2024 16:08
Operator : LL2
InstName : MSD1
Sample : |660771001|2589785|1|SVM|1|PERM|||
Misc : |MSD827E4_S|MISC SOLID|12045.B1.Top Front.EPA|mix[a,b,j,d,e]||
ALS Vial : 15 Sample Multiplier: 1

RB
04/04/2024

Quant Time: Apr 03 08:00:28 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	126786	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	463681	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	258890	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.742	8.741	1.000	520070	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.239	11.245	1.000	536776	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.609	13.625	1.000	559413	40.00	ng/uL	-0.02
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	126786	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	470424	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	258890	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.742	8.741	1.000	520070	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.239	11.245	1.000	536776	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.609	13.625	1.000	559413	40.00	ng/uL	-0.02
152) J Naphthalene-d8	136	5.714	5.714	1.000	470424	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.742	8.741	1.000	520070	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.239	11.245	1.000	536776	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	470424	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	258890	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.742	8.741	1.000	520070	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.239	11.245	1.000	536776	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	470424	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.609	13.625	1.000	559413	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.992	2.986	0.695	246542	57.27	ng/uL	0.00
8) Phenol-d5	99	3.869	3.874	0.899	346054	61.39	ng/uL	0.00
23) Nitrobenzene-d5	82	4.912	4.917	0.860	165977	32.33	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.800	6.805	0.914	300057	30.90	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.137	8.137	1.094	95652	62.89	ng/uL	0.00
79) p-Terphenyl-d14	244	10.079	10.084	1.153	446030	35.08	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	57%
8) Phenol-d5	100.000	15 - 85	61%
23) Nitrobenzene-d5	50.000	39 - 112	65%
44) 2-Fluorobiphenyl	50.000	39 - 112	62%
63) 2,4,6-Tribromophenol	100.000	37 - 132	63%
79) p-Terphenyl-d14	50.000	24 - 129	70%

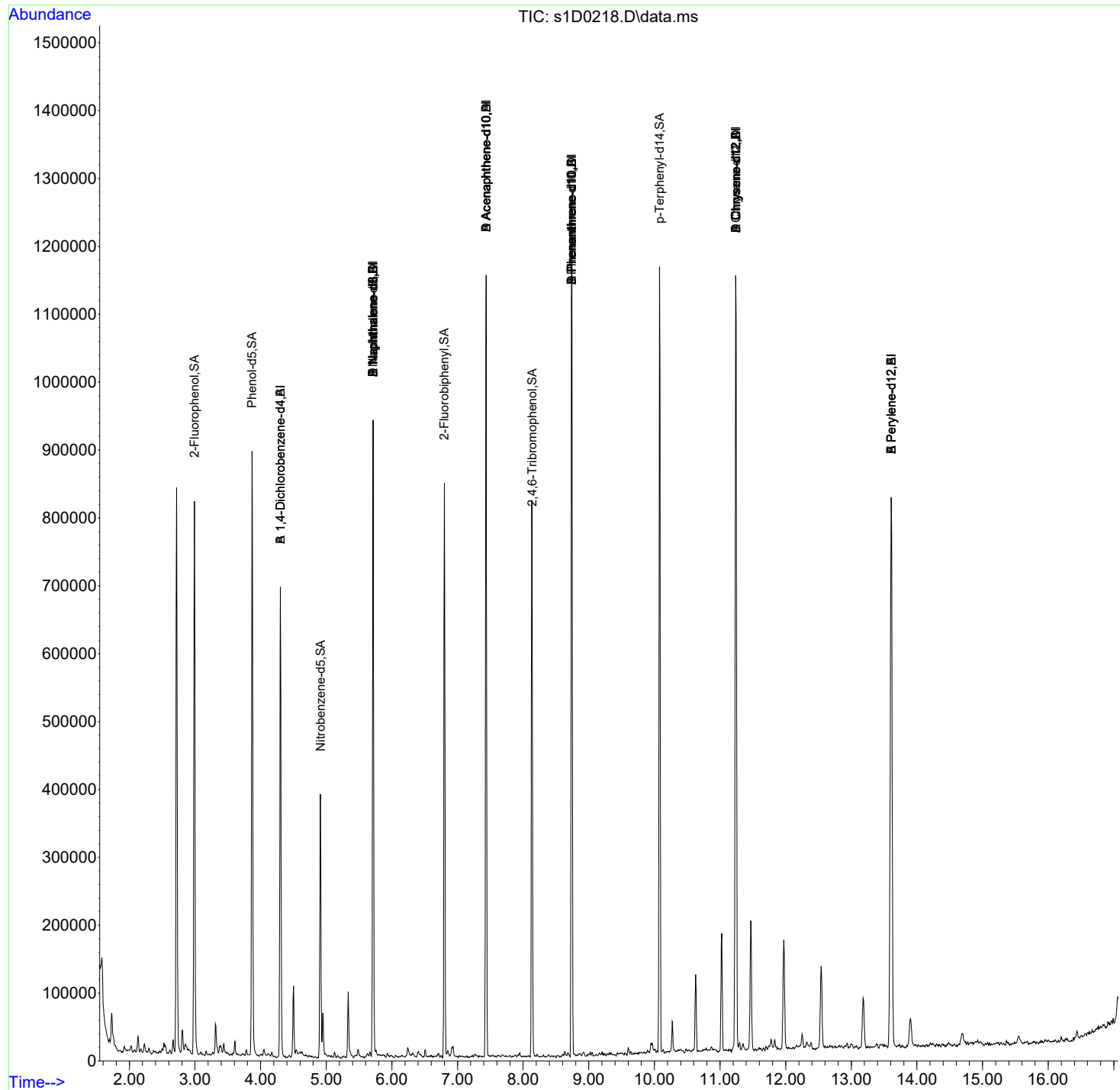
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
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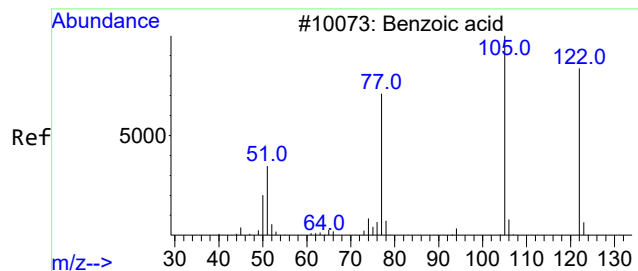
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

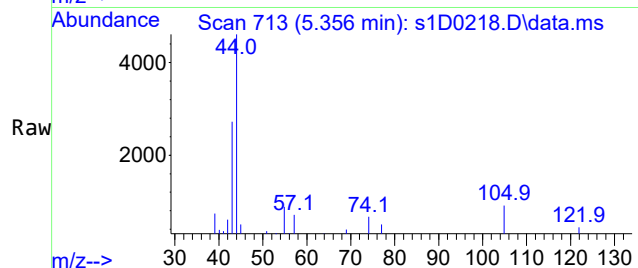
Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0218.D
Acq On : 02 Apr 2024 16:08
Operator : LL2
InstName : MSD1
Sample : |660771001|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12045.B1.Top Front.EPA|mix[a,b,j,d,e]|
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 03 08:00:28 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
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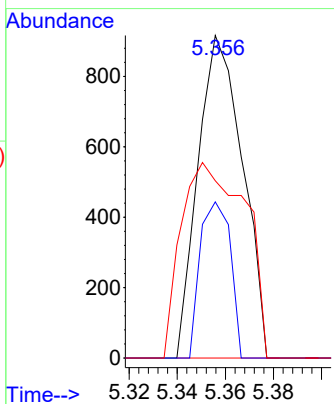
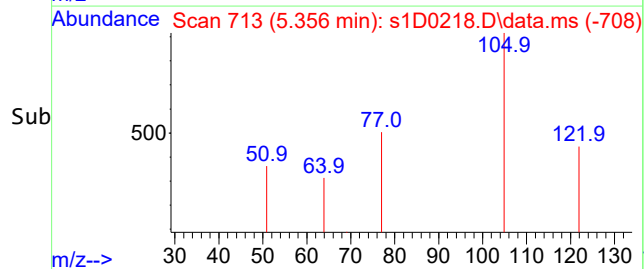




#30 BEFORE analyst DELETION
 Benzoic acid
 Concen: 8.15 ng/uL
 RT: 5.356 min Scan# 713
 Delta R.T. -0.054 min
 Lab File: s1D0218.D
 Acq: 02 Apr 2024 16:08



Tgt Ion:105	Resp:	1178
Ion Ratio	Lower	Upper
105	100	
122	0.0	36.8
		96.8#
77	0.0	51.7
		111.7#



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:40	Matrix:	MISC SOLID
Lab Sample ID:	660771002	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 16:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.35 g	Final Volume:	1 mL
Data File:	S040224\1D0219.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	966	ug/kg	290	966
110-86-1	Pyridine	U	966	ug/kg	290	966
62-53-3	Aniline	U	966	ug/kg	290	966
108-95-2	Phenol	U	966	ug/kg	290	966
111-44-4	bis(2-Chloroethyl) ether	U	966	ug/kg	290	966
95-57-8	2-Chlorophenol	U	966	ug/kg	290	966
541-73-1	1,3-Dichlorobenzene	U	966	ug/kg	290	966
106-46-7	1,4-Dichlorobenzene	U	966	ug/kg	290	966
95-50-1	1,2-Dichlorobenzene	U	966	ug/kg	290	966
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	966	ug/kg	290	966
100-51-6	Benzyl alcohol	U	966	ug/kg	290	966
95-48-7	o-Cresol	U	966	ug/kg	290	966
65794-96-9	m,p-Cresols	U	966	ug/kg	290	966
621-64-7	N-Nitrosodipropylamine	U	966	ug/kg	290	966
67-72-1	Hexachloroethane	U	966	ug/kg	290	966
98-95-3	Nitrobenzene	U	966	ug/kg	290	966
78-59-1	Isophorone	U	966	ug/kg	290	966
88-75-5	2-Nitrophenol	U	966	ug/kg	290	966
105-67-9	2,4-Dimethylphenol	U	966	ug/kg	290	966
111-91-1	bis(2-Chloroethoxy)methane	U	966	ug/kg	290	966
120-83-2	2,4-Dichlorophenol	U	966	ug/kg	290	966
65-85-0	Benzoic acid	J	790	ug/kg	483	1930
106-47-8	4-Chloroaniline	U	966	ug/kg	290	966
87-68-3	Hexachlorobutadiene	U	966	ug/kg	290	966
59-50-7	4-Chloro-3-methylphenol	U	966	ug/kg	386	966
91-57-6	2-Methylnaphthalene	U	96.6	ug/kg	29.0	96.6
91-20-3	Naphthalene	U	96.6	ug/kg	29.0	96.6
90-12-0	1-Methylnaphthalene	U	96.6	ug/kg	29.0	96.6
77-47-4	Hexachlorocyclopentadiene	U	966	ug/kg	290	966
88-06-2	2,4,6-Trichlorophenol	U	966	ug/kg	290	966
95-95-4	2,4,5-Trichlorophenol	U	966	ug/kg	290	966
91-58-7	2-Chloronaphthalene	U	96.6	ug/kg	29.0	96.6
88-74-4	o-Nitroaniline	U	966	ug/kg	319	966
99-09-2	m-Nitroaniline	U	966	ug/kg	290	966
131-11-3	Dimethylphthalate	U	96.6	ug/kg	29.0	96.6
99-65-0	m-Dinitrobenzene	U	966	ug/kg	290	966
606-20-2	2,6-Dinitrotoluene	U	966	ug/kg	290	966
121-14-2	2,4-Dinitrotoluene	U	966	ug/kg	290	966

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:40	Matrix:	MISC SOLID
Lab Sample ID:	660771002	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 16:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.35 g	Final Volume:	1 mL
Data File:	S040224\1D0219.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	96.6	ug/kg	29.0	96.6
83-32-9	Acenaphthene	U	96.6	ug/kg	29.0	96.6
51-28-5	2,4-Dinitrophenol	U	1930	ug/kg	290	1930
132-64-9	Dibenzofuran	U	966	ug/kg	290	966
58-90-2	2,3,4,6-Tetrachlorophenol	U	966	ug/kg	290	966
84-66-2	Diethylphthalate	U	96.6	ug/kg	29.0	96.6
100-02-7	4-Nitrophenol	U	966	ug/kg	290	966
86-73-7	Fluorene	U	96.6	ug/kg	29.0	96.6
7005-72-3	4-Chlorophenylphenylether	U	966	ug/kg	290	966
100-01-6	p-Nitroaniline	U	966	ug/kg	290	966
534-52-1	2-Methyl-4,6-dinitrophenol	U	966	ug/kg	290	966
122-39-4	Diphenylamine	U	966	ug/kg	290	966
122-66-7	1,2-Diphenylhydrazine	U	966	ug/kg	290	966
101-55-3	4-Bromophenylphenylether	U	966	ug/kg	290	966
118-74-1	Hexachlorobenzene	U	966	ug/kg	290	966
87-86-5	Pentachlorophenol	U	966	ug/kg	290	966
88-85-7	Dinoseb	U	966	ug/kg	290	966
85-01-8	Phenanthrene	U	96.6	ug/kg	29.0	96.6
120-12-7	Anthracene	U	96.6	ug/kg	29.0	96.6
86-74-8	Carbazole	U	96.6	ug/kg	29.0	96.6
84-74-2	Di-n-butylphthalate	U	96.6	ug/kg	29.0	96.6
206-44-0	Fluoranthene	U	96.6	ug/kg	29.0	96.6
129-00-0	Pyrene	U	96.6	ug/kg	29.0	96.6
85-68-7	Butylbenzylphthalate	U	96.6	ug/kg	29.0	96.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	96.6	ug/kg	29.0	96.6
56-55-3	Benzo(a)anthracene	U	96.6	ug/kg	29.0	96.6
218-01-9	Chrysene	U	96.6	ug/kg	29.0	96.6
72-43-5	Methoxychlor	U	966	ug/kg	290	966
117-84-0	Di-n-octylphthalate	U	96.6	ug/kg	29.0	96.6
205-99-2	Benzo(b)fluoranthene	U	96.6	ug/kg	29.0	96.6
207-08-9	Benzo(k)fluoranthene	U	96.6	ug/kg	29.0	96.6
50-32-8	Benzo(a)pyrene	U	96.6	ug/kg	29.0	96.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	96.6	ug/kg	29.0	96.6
53-70-3	Dibenzo(a,h)anthracene	U	96.6	ug/kg	29.0	96.6
191-24-2	Benzo(ghi)perylene	U	96.6	ug/kg	29.0	96.6
123-91-1	1,4-Dioxane	U	966	ug/kg	290	966
80-62-6	Methyl methacrylate	U	966	ug/kg	290	966
97-63-2	Ethyl methacrylate	U	966	ug/kg	290	966

Semi-Volatile
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Lab Sample ID:	660771002	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 16:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.35 g	Final Volume:	1 mL
Data File:	S040224\1D0219.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	966	ug/kg	290	966
10595-95-6	N-Nitrosomethylethylamine	U	966	ug/kg	290	966
66-27-3	Methyl methanesulfonate	U	966	ug/kg	290	966
55-18-5	N-Nitrosodiethylamine	U	966	ug/kg	290	966
62-50-0	Ethyl Methanesulfonate	U	966	ug/kg	290	966
76-01-7	Pentachloroethane	U	966	ug/kg	290	966
930-55-2	N-Nitrosopyrrolidine	U	966	ug/kg	290	966
98-86-2	Acetophenone	U	966	ug/kg	290	966
59-89-2	N-Nitrosomorpholine	U	966	ug/kg	290	966
95-53-4	o-Toluidine	U	966	ug/kg	290	966
100-75-4	N-Nitrosopiperidine	U	966	ug/kg	290	966
122-09-8	a,a-Dimethylphenethylamine	U	966	ug/kg	338	966
87-65-0	2,6-Dichlorophenol	U	966	ug/kg	290	966
1888-71-7	Hexachloropropene	U	966	ug/kg	290	966
924-16-3	N-Nitrosodi-n-butylamine	U	966	ug/kg	290	966
94-59-7	Safrole	U	966	ug/kg	290	966
95-94-3	1,2,4,5-Tetrachlorobenzene	U	966	ug/kg	290	966
120-58-1	Isosafrole	U	966	ug/kg	290	966
130-15-4	1,4-Naphthoquinone	U	966	ug/kg	290	966
608-93-5	Pentachlorobenzene	U	966	ug/kg	290	966
134-32-7	1-Naphthylamine	U	966	ug/kg	290	966
91-59-8	2-Naphthylamine	U	966	ug/kg	290	966
99-55-8	5-Nitro-o-toluidine	U	966	ug/kg	290	966
62-44-2	Phenacetin	U	966	ug/kg	290	966
99-35-4	1,3,5-Trinitrobenzene	U	966	ug/kg	290	966
2303-16-4	Diallate	U	966	ug/kg	290	966
92-67-1	4-Aminobiphenyl	U	966	ug/kg	290	966
82-68-8	Pentachloronitrobenzene	U	966	ug/kg	290	966
23950-58-5	Pronamide	U	966	ug/kg	290	966
56-57-5	4-Nitroquinoline-1-oxide	U	966	ug/kg	290	966
91-80-5	Methapyrilene	U	966	ug/kg	290	966
465-73-6	Isodrin	U	966	ug/kg	193	966
140-57-8	Aramite	U	966	ug/kg	290	966
143-50-0	Kepone	U	966	ug/kg	290	966
60-11-7	p-(Dimethylamino)azobenzene	U	966	ug/kg	290	966
510-15-6	Chlorobenzilate	U	966	ug/kg	290	966
119-93-7	3,3'-Dimethylbenzidine	U	966	ug/kg	290	966
53-96-3	2-Acetylaminofluorene	U	966	ug/kg	290	966

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Lab Sample ID:	660771002	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 16:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.35 g	Final Volume:	1 mL
Data File:	S040224\s1D0219.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	966	ug/kg	290	966
57-97-6	7,12-Dimethylbenz(a)anthracene	U	966	ug/kg	290	966
56-49-5	3-Methylcholanthrene	U	966	ug/kg	290	966
126-68-1	Triethylphosphorothioate	U	966	ug/kg	290	966
297-97-2	Thionazin	U	966	ug/kg	290	966
126-73-8	Tributylphosphate	U	966	ug/kg	290	966
3689-24-5	Sulfotepp	U	966	ug/kg	290	966
298-02-2	Phorate	U	966	ug/kg	290	966
60-51-5	Dimethoate	U	966	ug/kg	290	966
298-04-4	Disulfoton	U	966	ug/kg	290	966
298-00-0	Methyl parathion	U	966	ug/kg	290	966
56-38-2	Parathion	U	966	ug/kg	290	966
52-85-7	Famphur	U	966	ug/kg	290	966
106-50-3	p-Phenylenediamine	U	48300	ug/kg	9660	48300
70-30-4	Hexachlorophene	U	48300	ug/kg	11200	48300
120-82-1	1,2,4-Trichlorobenzene	U	966	ug/kg	290	966

LL
04/03/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0219.D
Acq On : 02 Apr 2024 16:30
Operator : LL2
InstName : MSD1
Sample : |660771002|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12045.B1.Middle Front.EPA|mix[a,b,j,d,e]|
ALS Vial : 16 Sample Multiplier: 1

RAB
04/04/2024

Quant Time: Apr 03 08:01:53 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	126771	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	477666	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	265617	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.741	8.741	1.000	526635	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.239	11.245	1.000	551506	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.609	13.625	1.000	389616	40.00	ng/uL	-0.02
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	126771	40.00	ng/uL	0.00
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130) B Phenanthrene-d10	188	8.741	8.741	1.000	526635	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.239	11.245	1.000	551506	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.609	13.625	1.000	389616	40.00	ng/uL	-0.02
152) J Naphthalene-d8	136	5.714	5.714	1.000	481772	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.741	8.741	1.000	526635	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.239	11.245	1.000	551506	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	481772	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	265617	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.741	8.741	1.000	526635	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.239	11.245	1.000	551506	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	481772	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.609	13.625	1.000	389616	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.992	2.986	0.695	274738	63.83	ng/uL	0.00
8) Phenol-d5	99	3.869	3.874	0.899	376255	66.75	ng/uL	0.00
23) Nitrobenzene-d5	82	4.912	4.917	0.860	185487	35.07	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.800	6.805	0.914	340774	34.21	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.137	8.137	1.094	108534	69.55	ng/uL	0.00
79) p-Terphenyl-d14	244	10.079	10.084	1.153	485338	37.69	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	64%
8) Phenol-d5	100.000	15 - 85	67%
23) Nitrobenzene-d5	50.000	39 - 112	70%
44) 2-Fluorobiphenyl	50.000	39 - 112	68%
63) 2,4,6-Tribromophenol	100.000	37 - 132	70%
79) p-Terphenyl-d14	50.000	24 - 129	75%

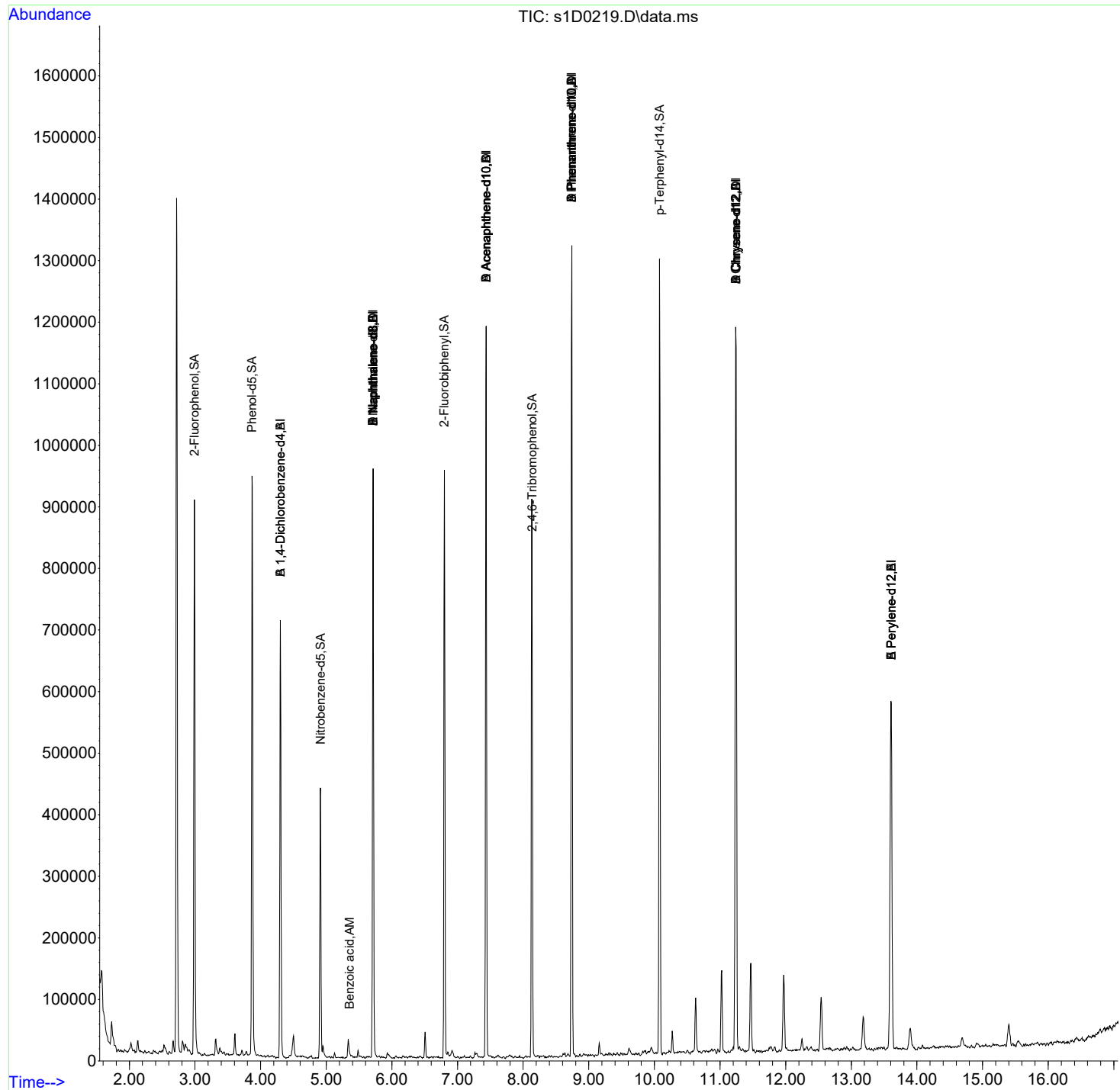
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
30) Benzoic acid	105	5.356	5.409	0.937	1314m	8.18	ng/uL	

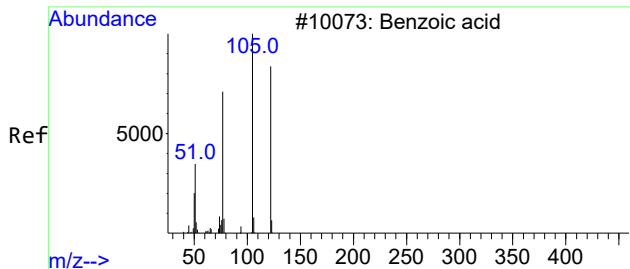
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0219.D
Acq On : 02 Apr 2024 16:30
Operator : LL2
InstName : MSD1
Sample : |660771002|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12045.B1.Middle Front.EPA|mix[a,b,j,d,e]|
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 03 08:01:53 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE





#30 BEFORE analyst integration

Benzoic acid

Concen: 8.29 ng/uL

RT: 5.356 min Scan# 713

Delta R.T. -0.054 min

Lab File: s1D0219.D

Acq: 02 Apr 2024 16:30

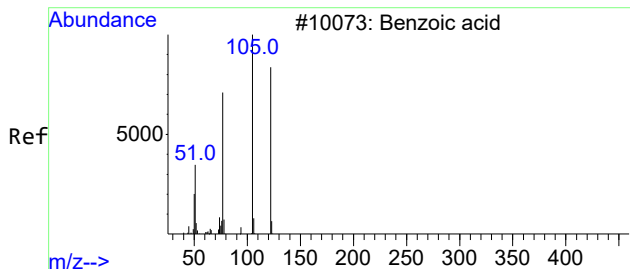
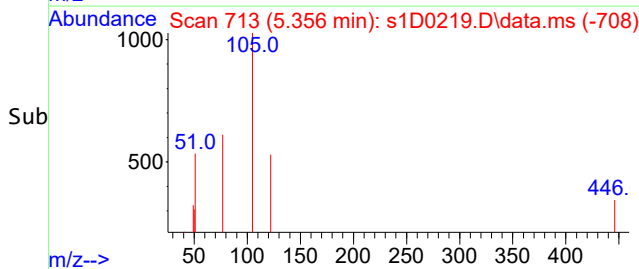
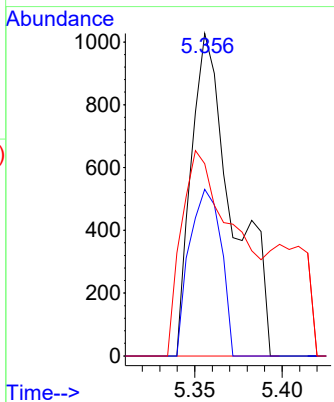
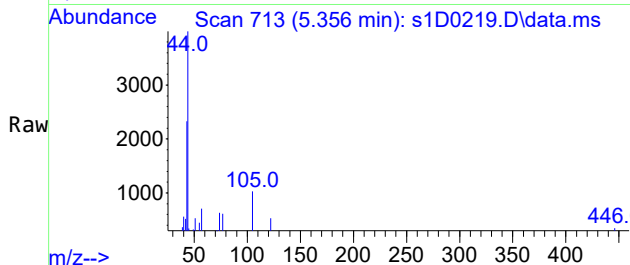
Tgt Ion:105 Resp: 1697

Ion Ratio Lower Upper

105 100

122 39.4 36.8 96.8

77 0.0 51.7 111.7#



#30 AFTER analyst integration

Benzoic acid

Concen: 8.18 ng/uL MANUALLY INTEGRATED

RT: 5.356 min Scan# 713

Delta R.T. -0.054 min

Lab File: s1D0219.D

Acq: 02 Apr 2024 16:30

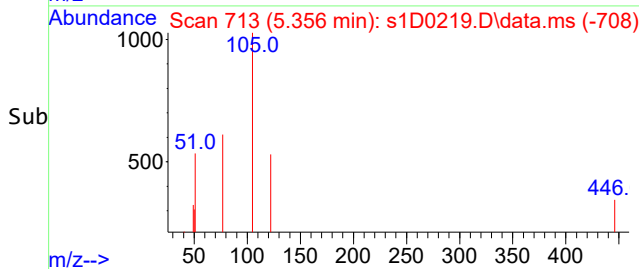
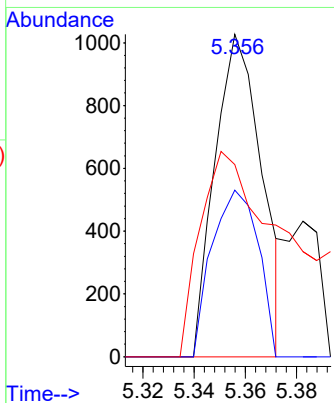
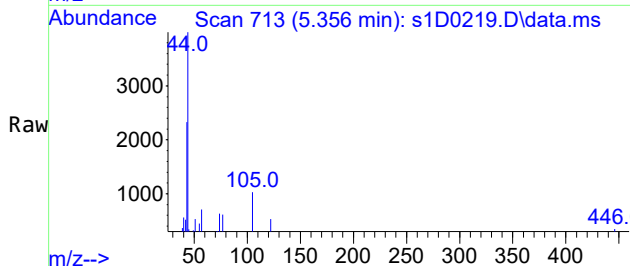
Tgt Ion:105 Resp: 1314

Ion Ratio Lower Upper

105 100

122 50.8 36.8 96.8

77 93.3 51.7 111.7



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:50	Matrix:	MISC SOLID
Lab Sample ID:	660771003	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 16:52	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.09 g	Final Volume:	1 mL
Data File:	S040224\1D0220.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	991	ug/kg	297	991
110-86-1	Pyridine	U	991	ug/kg	297	991
62-53-3	Aniline	U	991	ug/kg	297	991
108-95-2	Phenol	U	991	ug/kg	297	991
111-44-4	bis(2-Chloroethyl) ether	U	991	ug/kg	297	991
95-57-8	2-Chlorophenol	U	991	ug/kg	297	991
541-73-1	1,3-Dichlorobenzene	U	991	ug/kg	297	991
106-46-7	1,4-Dichlorobenzene	U	991	ug/kg	297	991
95-50-1	1,2-Dichlorobenzene	U	991	ug/kg	297	991
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	991	ug/kg	297	991
100-51-6	Benzyl alcohol	U	991	ug/kg	297	991
95-48-7	o-Cresol	U	991	ug/kg	297	991
65794-96-9	m,p-Cresols	U	991	ug/kg	297	991
621-64-7	N-Nitrosodipropylamine	U	991	ug/kg	297	991
67-72-1	Hexachloroethane	U	991	ug/kg	297	991
98-95-3	Nitrobenzene	U	991	ug/kg	297	991
78-59-1	Isophorone	U	991	ug/kg	297	991
88-75-5	2-Nitrophenol	U	991	ug/kg	297	991
105-67-9	2,4-Dimethylphenol	U	991	ug/kg	297	991
111-91-1	bis(2-Chloroethoxy)methane	U	991	ug/kg	297	991
120-83-2	2,4-Dichlorophenol	U	991	ug/kg	297	991
65-85-0	Benzoic acid	J	867	ug/kg	496	1980
106-47-8	4-Chloroaniline	U	991	ug/kg	297	991
87-68-3	Hexachlorobutadiene	U	991	ug/kg	297	991
59-50-7	4-Chloro-3-methylphenol	U	991	ug/kg	396	991
91-57-6	2-Methylnaphthalene	U	99.1	ug/kg	29.7	99.1
91-20-3	Naphthalene	U	99.1	ug/kg	29.7	99.1
90-12-0	1-Methylnaphthalene	U	99.1	ug/kg	29.7	99.1
77-47-4	Hexachlorocyclopentadiene	U	991	ug/kg	297	991
88-06-2	2,4,6-Trichlorophenol	U	991	ug/kg	297	991
95-95-4	2,4,5-Trichlorophenol	U	991	ug/kg	297	991
91-58-7	2-Chloronaphthalene	U	99.1	ug/kg	29.7	99.1
88-74-4	o-Nitroaniline	U	991	ug/kg	327	991
99-09-2	m-Nitroaniline	U	991	ug/kg	297	991
131-11-3	Dimethylphthalate	U	99.1	ug/kg	29.7	99.1
99-65-0	m-Dinitrobenzene	U	991	ug/kg	297	991
606-20-2	2,6-Dinitrotoluene	U	991	ug/kg	297	991
121-14-2	2,4-Dinitrotoluene	U	991	ug/kg	297	991

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:50	Matrix:	MISC SOLID
Lab Sample ID:	660771003	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 16:52	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.09 g	Final Volume:	1 mL
Data File:	S040224\1D0220.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	99.1	ug/kg	29.7	99.1
83-32-9	Acenaphthene	U	99.1	ug/kg	29.7	99.1
51-28-5	2,4-Dinitrophenol	U	1980	ug/kg	297	1980
132-64-9	Dibenzofuran	U	991	ug/kg	297	991
58-90-2	2,3,4,6-Tetrachlorophenol	U	991	ug/kg	297	991
84-66-2	Diethylphthalate	U	99.1	ug/kg	29.7	99.1
100-02-7	4-Nitrophenol	U	991	ug/kg	297	991
86-73-7	Fluorene	U	99.1	ug/kg	29.7	99.1
7005-72-3	4-Chlorophenylphenylether	U	991	ug/kg	297	991
100-01-6	p-Nitroaniline	U	991	ug/kg	297	991
534-52-1	2-Methyl-4,6-dinitrophenol	U	991	ug/kg	297	991
122-39-4	Diphenylamine	U	991	ug/kg	297	991
122-66-7	1,2-Diphenylhydrazine	U	991	ug/kg	297	991
101-55-3	4-Bromophenylphenylether	U	991	ug/kg	297	991
118-74-1	Hexachlorobenzene	U	991	ug/kg	297	991
87-86-5	Pentachlorophenol	U	991	ug/kg	297	991
88-85-7	Dinoseb	U	991	ug/kg	297	991
85-01-8	Phenanthrene	U	99.1	ug/kg	29.7	99.1
120-12-7	Anthracene	U	99.1	ug/kg	29.7	99.1
86-74-8	Carbazole	U	99.1	ug/kg	29.7	99.1
84-74-2	Di-n-butylphthalate	U	99.1	ug/kg	29.7	99.1
206-44-0	Fluoranthene	U	99.1	ug/kg	29.7	99.1
129-00-0	Pyrene	U	99.1	ug/kg	29.7	99.1
85-68-7	Butylbenzylphthalate	U	99.1	ug/kg	29.7	99.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	99.1	ug/kg	29.7	99.1
56-55-3	Benzo(a)anthracene	U	99.1	ug/kg	29.7	99.1
218-01-9	Chrysene	U	99.1	ug/kg	29.7	99.1
72-43-5	Methoxychlor	U	991	ug/kg	297	991
117-84-0	Di-n-octylphthalate	U	99.1	ug/kg	29.7	99.1
205-99-2	Benzo(b)fluoranthene	U	99.1	ug/kg	29.7	99.1
207-08-9	Benzo(k)fluoranthene	U	99.1	ug/kg	29.7	99.1
50-32-8	Benzo(a)pyrene	U	99.1	ug/kg	29.7	99.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	99.1	ug/kg	29.7	99.1
53-70-3	Dibenzo(a,h)anthracene	U	99.1	ug/kg	29.7	99.1
191-24-2	Benzo(ghi)perylene	U	99.1	ug/kg	29.7	99.1
123-91-1	1,4-Dioxane	U	991	ug/kg	297	991
80-62-6	Methyl methacrylate	U	991	ug/kg	297	991
97-63-2	Ethyl methacrylate	U	991	ug/kg	297	991

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 08:50	Matrix:	MISC SOLID
Lab Sample ID:	660771003	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12045.B1.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 16:52	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.09 g	Final Volume:	1 mL
Data File:	S040224\1D0220.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	991	ug/kg	297	991
10595-95-6	N-Nitrosomethylethylamine	U	991	ug/kg	297	991
66-27-3	Methyl methanesulfonate	U	991	ug/kg	297	991
55-18-5	N-Nitrosodiethylamine	U	991	ug/kg	297	991
62-50-0	Ethyl Methanesulfonate	U	991	ug/kg	297	991
76-01-7	Pentachloroethane	U	991	ug/kg	297	991
930-55-2	N-Nitrosopyrrolidine	U	991	ug/kg	297	991
98-86-2	Acetophenone	U	991	ug/kg	297	991
59-89-2	N-Nitrosomorpholine	U	991	ug/kg	297	991
95-53-4	o-Toluidine	U	991	ug/kg	297	991
100-75-4	N-Nitrosopiperidine	U	991	ug/kg	297	991
122-09-8	a,a-Dimethylphenethylamine	U	991	ug/kg	347	991
87-65-0	2,6-Dichlorophenol	U	991	ug/kg	297	991
1888-71-7	Hexachloropropene	U	991	ug/kg	297	991
924-16-3	N-Nitrosodi-n-butylamine	U	991	ug/kg	297	991
94-59-7	Safrole	U	991	ug/kg	297	991
95-94-3	1,2,4,5-Tetrachlorobenzene	U	991	ug/kg	297	991
120-58-1	Isosafrole	U	991	ug/kg	297	991
130-15-4	1,4-Naphthoquinone	U	991	ug/kg	297	991
608-93-5	Pentachlorobenzene	U	991	ug/kg	297	991
134-32-7	1-Naphthylamine	U	991	ug/kg	297	991
91-59-8	2-Naphthylamine	U	991	ug/kg	297	991
99-55-8	5-Nitro-o-toluidine	U	991	ug/kg	297	991
62-44-2	Phenacetin	U	991	ug/kg	297	991
99-35-4	1,3,5-Trinitrobenzene	U	991	ug/kg	297	991
2303-16-4	Diallate	U	991	ug/kg	297	991
92-67-1	4-Aminobiphenyl	U	991	ug/kg	297	991
82-68-8	Pentachloronitrobenzene	U	991	ug/kg	297	991
23950-58-5	Pronamide	U	991	ug/kg	297	991
56-57-5	4-Nitroquinoline-1-oxide	U	991	ug/kg	297	991
91-80-5	Methapyrilene	U	991	ug/kg	297	991
465-73-6	Isodrin	U	991	ug/kg	198	991
140-57-8	Aramite	U	991	ug/kg	297	991
143-50-0	Kepone	U	991	ug/kg	297	991
60-11-7	p-(Dimethylamino)azobenzene	U	991	ug/kg	297	991
510-15-6	Chlorobenzilate	U	991	ug/kg	297	991
119-93-7	3,3'-Dimethylbenzidine	U	991	ug/kg	297	991
53-96-3	2-Acetylaminofluorene	U	991	ug/kg	297	991

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771003

Client ID: 12045.B1.Bottom Front.EPA

Batch ID: 2589785

Run Date: 04/02/2024 16:52

Prep Date: 04/02/2024 07:52

Data File: S040224\1D0220.D

Date Collected: 03/27/2024 08:50

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.09 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	991	ug/kg	297	991
57-97-6	7,12-Dimethylbenz(a)anthracene	U	991	ug/kg	297	991
56-49-5	3-Methylcholanthrene	U	991	ug/kg	297	991
126-68-1	Triethylphosphorothioate	U	991	ug/kg	297	991
297-97-2	Thionazin	U	991	ug/kg	297	991
126-73-8	Tributylphosphate	U	991	ug/kg	297	991
3689-24-5	Sulfotepp	U	991	ug/kg	297	991
298-02-2	Phorate	U	991	ug/kg	297	991
60-51-5	Dimethoate	U	991	ug/kg	297	991
298-04-4	Disulfoton	U	991	ug/kg	297	991
298-00-0	Methyl parathion	U	991	ug/kg	297	991
56-38-2	Parathion	U	991	ug/kg	297	991
52-85-7	Famphur	U	991	ug/kg	297	991
106-50-3	p-Phenylenediamine	U	49600	ug/kg	9910	49600
70-30-4	Hexachlorophene	U	49600	ug/kg	11500	49600
120-82-1	1,2,4-Trichlorobenzene	U	991	ug/kg	297	991

LL
04/03/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0220.D
Acq On : 02 Apr 2024 16:52
Operator : LL2
InstName : MSD1
Sample : |660771003|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12045.B1.Bottom Front.EPA|mix[a,b,j,d,e]|
ALS Vial : 17 Sample Multiplier: 1

RB
04/04/2024

Quant Time: Apr 03 08:02:26 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	124389	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	450805	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	255438	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.741	8.741	1.000	516493	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.239	11.245	1.000	544327	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.609	13.625	1.000	514321	40.00	ng/uL	-0.02
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	124389	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	457137	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	255438	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.741	8.741	1.000	516493	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.239	11.245	1.000	544327	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.609	13.625	1.000	514321	40.00	ng/uL	-0.02
152) J Naphthalene-d8	136	5.714	5.714	1.000	457137	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.741	8.741	1.000	516493	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.239	11.245	1.000	544327	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	457137	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	255438	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.741	8.741	1.000	516493	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.239	11.245	1.000	544327	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	457137	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.609	13.625	1.000	514321	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.992	2.986	0.695	279182	66.10	ng/uL	0.00
8) Phenol-d5	99	3.869	3.874	0.899	385806	69.76	ng/uL	0.00
23) Nitrobenzene-d5	82	4.912	4.917	0.860	186266	37.32	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.800	6.805	0.914	343451	35.85	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.137	8.137	1.094	108521	72.32	ng/uL	0.00
79) p-Terphenyl-d14	244	10.079	10.084	1.153	495632	39.25	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	66%
8) Phenol-d5	100.000	15 - 85	70%
23) Nitrobenzene-d5	50.000	39 - 112	75%
44) 2-Fluorobiphenyl	50.000	39 - 112	72%
63) 2,4,6-Tribromophenol	100.000	37 - 132	72%
79) p-Terphenyl-d14	50.000	24 - 129	79%

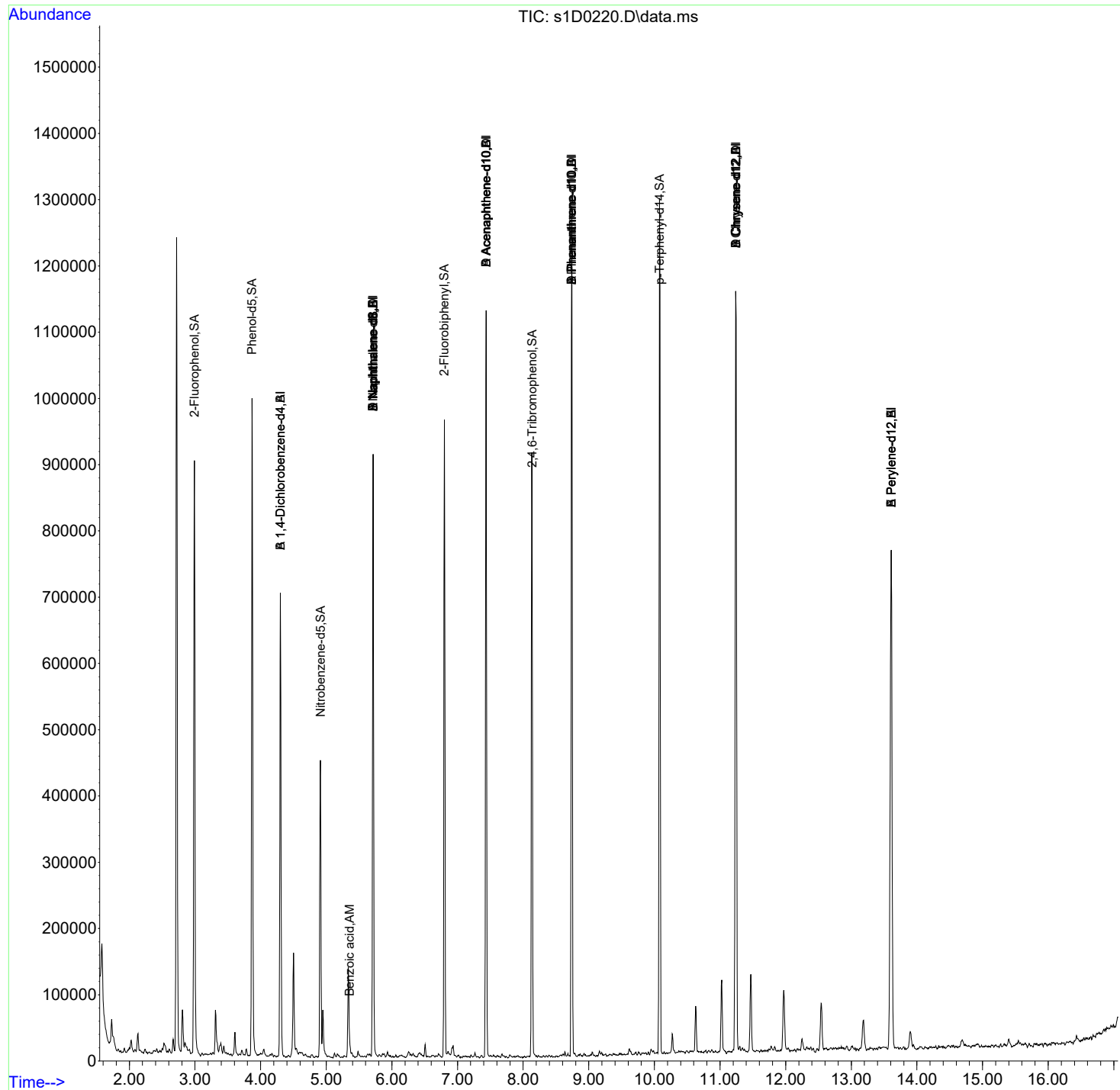
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
30) Benzoic acid	105	5.356	5.409	0.937	3150	8.75	ng/uL	95

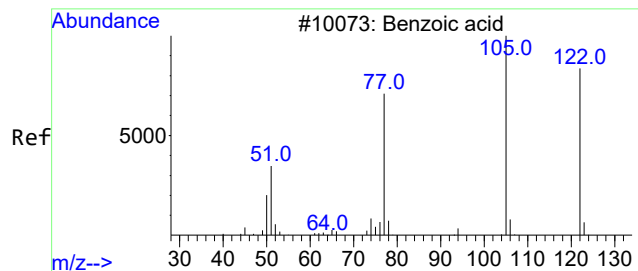
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

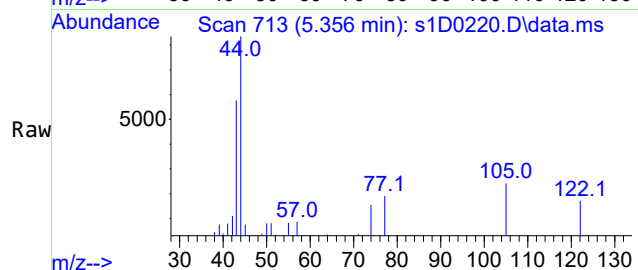
Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0220.D
Acq On : 02 Apr 2024 16:52
Operator : LL2
InstName : MSD1
Sample : |660771003|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12045.B1.Bottom Front.EPA|mix[a,b,j,d,e]|
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 03 08:02:26 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

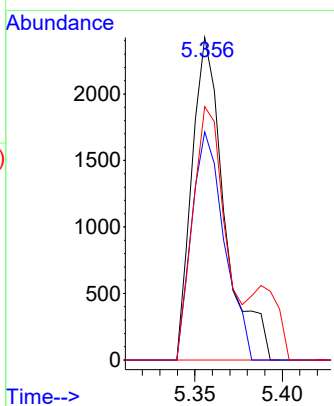
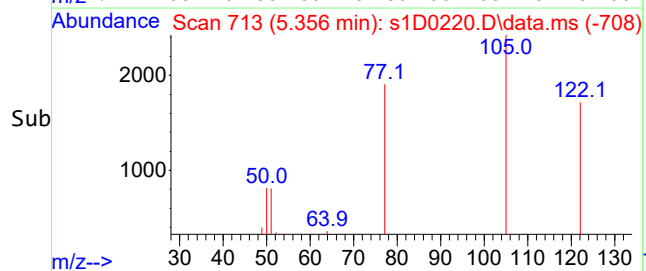




#30
Benzoic acid
Concen: 8.75 ng/uL
RT: 5.356 min Scan# 713
Delta R.T. -0.054 min
Lab File: s1D0220.D
Acq: 02 Apr 2024 16:52



Tgt Ion	Ratio	Lower	Upper
105	100		
122	70.7	36.8	96.8
77	77.4	51.7	111.7



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660771004	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 17:15	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.88 g	Final Volume:	1 mL
Data File:	S040224\1D0221.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	919	ug/kg	276	919
110-86-1	Pyridine	U	919	ug/kg	276	919
62-53-3	Aniline	U	919	ug/kg	276	919
108-95-2	Phenol	U	919	ug/kg	276	919
111-44-4	bis(2-Chloroethyl) ether	U	919	ug/kg	276	919
95-57-8	2-Chlorophenol	U	919	ug/kg	276	919
541-73-1	1,3-Dichlorobenzene	U	919	ug/kg	276	919
106-46-7	1,4-Dichlorobenzene	U	919	ug/kg	276	919
95-50-1	1,2-Dichlorobenzene	J	416	ug/kg	276	919
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	919	ug/kg	276	919
100-51-6	Benzyl alcohol	U	919	ug/kg	276	919
95-48-7	o-Cresol	U	919	ug/kg	276	919
65794-96-9	m,p-Cresols	U	919	ug/kg	276	919
621-64-7	N-Nitrosodipropylamine	U	919	ug/kg	276	919
67-72-1	Hexachloroethane	U	919	ug/kg	276	919
98-95-3	Nitrobenzene	U	919	ug/kg	276	919
78-59-1	Isophorone	U	919	ug/kg	276	919
88-75-5	2-Nitrophenol	U	919	ug/kg	276	919
105-67-9	2,4-Dimethylphenol	U	919	ug/kg	276	919
111-91-1	bis(2-Chloroethoxy)methane	U	919	ug/kg	276	919
120-83-2	2,4-Dichlorophenol	U	919	ug/kg	276	919
65-85-0	Benzoic acid	U	1840	ug/kg	460	1840
106-47-8	4-Chloroaniline	U	919	ug/kg	276	919
87-68-3	Hexachlorobutadiene	U	919	ug/kg	276	919
59-50-7	4-Chloro-3-methylphenol	U	919	ug/kg	368	919
91-57-6	2-Methylnaphthalene	U	91.9	ug/kg	27.6	91.9
91-20-3	Naphthalene	J	35.8	ug/kg	27.6	91.9
90-12-0	1-Methylnaphthalene	U	91.9	ug/kg	27.6	91.9
77-47-4	Hexachlorocyclopentadiene	U	919	ug/kg	276	919
88-06-2	2,4,6-Trichlorophenol	U	919	ug/kg	276	919
95-95-4	2,4,5-Trichlorophenol	U	919	ug/kg	276	919
91-58-7	2-Chloronaphthalene	U	91.9	ug/kg	27.6	91.9
88-74-4	o-Nitroaniline	U	919	ug/kg	303	919
99-09-2	m-Nitroaniline	U	919	ug/kg	276	919
131-11-3	Dimethylphthalate	U	91.9	ug/kg	27.6	91.9
99-65-0	m-Dinitrobenzene	U	919	ug/kg	276	919
606-20-2	2,6-Dinitrotoluene	U	919	ug/kg	276	919
121-14-2	2,4-Dinitrotoluene	U	919	ug/kg	276	919

Semi-Volatile

Certificate of Analysis

Sample Summary

SDG Number: 660771

Lab Sample ID: 660771004

Client ID: 12044.B1.Top Back.EPA

Batch ID: 2589785

Run Date: 04/02/2024 17:15

Prep Date: 04/02/2024 07:52

Data File: S040224s1D0221.D

Date Collected: 03/27/2024 09:00

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.88 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	91.9	ug/kg	27.6	91.9
83-32-9	Acenaphthene	U	91.9	ug/kg	27.6	91.9
51-28-5	2,4-Dinitrophenol	U	1840	ug/kg	276	1840
132-64-9	Dibenzofuran	U	919	ug/kg	276	919
58-90-2	2,3,4,6-Tetrachlorophenol	U	919	ug/kg	276	919
84-66-2	Diethylphthalate	U	91.9	ug/kg	27.6	91.9
100-02-7	4-Nitrophenol	U	919	ug/kg	276	919
86-73-7	Fluorene	U	91.9	ug/kg	27.6	91.9
7005-72-3	4-Chlorophenylphenylether	U	919	ug/kg	276	919
100-01-6	p-Nitroaniline	U	919	ug/kg	276	919
534-52-1	2-Methyl-4,6-dinitrophenol	U	919	ug/kg	276	919
122-39-4	Diphenylamine	U	919	ug/kg	276	919
122-66-7	1,2-Diphenylhydrazine	U	919	ug/kg	276	919
101-55-3	4-Bromophenylphenylether	U	919	ug/kg	276	919
118-74-1	Hexachlorobenzene	U	919	ug/kg	276	919
87-86-5	Pentachlorophenol	U	919	ug/kg	276	919
88-85-7	Dinoseb	U	919	ug/kg	276	919
85-01-8	Phenanthrene	U	91.9	ug/kg	27.6	91.9
120-12-7	Anthracene	U	91.9	ug/kg	27.6	91.9
86-74-8	Carbazole	U	91.9	ug/kg	27.6	91.9
84-74-2	Di-n-butylphthalate	U	91.9	ug/kg	27.6	91.9
206-44-0	Fluoranthene	U	91.9	ug/kg	27.6	91.9
129-00-0	Pyrene	U	91.9	ug/kg	27.6	91.9
85-68-7	Butylbenzylphthalate	U	91.9	ug/kg	27.6	91.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	91.9	ug/kg	27.6	91.9
56-55-3	Benzo(a)anthracene	U	91.9	ug/kg	27.6	91.9
218-01-9	Chrysene	U	91.9	ug/kg	27.6	91.9
72-43-5	Methoxychlor	U	919	ug/kg	276	919
117-84-0	Di-n-octylphthalate	U	91.9	ug/kg	27.6	91.9
205-99-2	Benzo(b)fluoranthene	U	91.9	ug/kg	27.6	91.9
207-08-9	Benzo(k)fluoranthene	U	91.9	ug/kg	27.6	91.9
50-32-8	Benzo(a)pyrene	U	91.9	ug/kg	27.6	91.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	91.9	ug/kg	27.6	91.9
53-70-3	Dibenzo(a,h)anthracene	U	91.9	ug/kg	27.6	91.9
191-24-2	Benzo(ghi)perylene	U	91.9	ug/kg	27.6	91.9
123-91-1	1,4-Dioxane	U	919	ug/kg	276	919
80-62-6	Methyl methacrylate	U	919	ug/kg	276	919
97-63-2	Ethyl methacrylate	U	919	ug/kg	276	919

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660771004	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 17:15	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.88 g	Final Volume:	1 mL
Data File:	S040224\1D0221.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	919	ug/kg	276	919
10595-95-6	N-Nitrosomethylethylamine	U	919	ug/kg	276	919
66-27-3	Methyl methanesulfonate	U	919	ug/kg	276	919
55-18-5	N-Nitrosodiethylamine	U	919	ug/kg	276	919
62-50-0	Ethyl Methanesulfonate	U	919	ug/kg	276	919
76-01-7	Pentachloroethane	U	919	ug/kg	276	919
930-55-2	N-Nitrosopyrrolidine	U	919	ug/kg	276	919
98-86-2	Acetophenone	U	919	ug/kg	276	919
59-89-2	N-Nitrosomorpholine	U	919	ug/kg	276	919
95-53-4	o-Toluidine	U	919	ug/kg	276	919
100-75-4	N-Nitrosopiperidine	U	919	ug/kg	276	919
122-09-8	a,a-Dimethylphenethylamine	U	919	ug/kg	322	919
87-65-0	2,6-Dichlorophenol	U	919	ug/kg	276	919
1888-71-7	Hexachloropropene	U	919	ug/kg	276	919
924-16-3	N-Nitrosodi-n-butylamine	U	919	ug/kg	276	919
94-59-7	Safrole	U	919	ug/kg	276	919
95-94-3	1,2,4,5-Tetrachlorobenzene	U	919	ug/kg	276	919
120-58-1	Isosafrole	U	919	ug/kg	276	919
130-15-4	1,4-Naphthoquinone	U	919	ug/kg	276	919
608-93-5	Pentachlorobenzene	U	919	ug/kg	276	919
134-32-7	1-Naphthylamine	U	919	ug/kg	276	919
91-59-8	2-Naphthylamine	U	919	ug/kg	276	919
99-55-8	5-Nitro-o-toluidine	U	919	ug/kg	276	919
62-44-2	Phenacetin	U	919	ug/kg	276	919
99-35-4	1,3,5-Trinitrobenzene	U	919	ug/kg	276	919
2303-16-4	Diallate	U	919	ug/kg	276	919
92-67-1	4-Aminobiphenyl	U	919	ug/kg	276	919
82-68-8	Pentachloronitrobenzene	U	919	ug/kg	276	919
23950-58-5	Pronamide	U	919	ug/kg	276	919
56-57-5	4-Nitroquinoline-1-oxide	U	919	ug/kg	276	919
91-80-5	Methapyrilene	U	919	ug/kg	276	919
465-73-6	Isodrin	U	919	ug/kg	184	919
140-57-8	Aramite	U	919	ug/kg	276	919
143-50-0	Kepone	U	919	ug/kg	276	919
60-11-7	p-(Dimethylamino)azobenzene	U	919	ug/kg	276	919
510-15-6	Chlorobenzilate	U	919	ug/kg	276	919
119-93-7	3,3'-Dimethylbenzidine	U	919	ug/kg	276	919
53-96-3	2-Acetylaminofluorene	U	919	ug/kg	276	919

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660771004	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 17:15	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.88 g	Final Volume:	1 mL
Data File:	S040224\s1D0221.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	919	ug/kg	276	919
57-97-6	7,12-Dimethylbenz(a)anthracene	U	919	ug/kg	276	919
56-49-5	3-Methylcholanthrene	U	919	ug/kg	276	919
126-68-1	Triethylphosphorothioate	U	919	ug/kg	276	919
297-97-2	Thionazin	U	919	ug/kg	276	919
126-73-8	Tributylphosphate	U	919	ug/kg	276	919
3689-24-5	Sulfotepp	U	919	ug/kg	276	919
298-02-2	Phorate	U	919	ug/kg	276	919
60-51-5	Dimethoate	U	919	ug/kg	276	919
298-04-4	Disulfoton	U	919	ug/kg	276	919
298-00-0	Methyl parathion	U	919	ug/kg	276	919
56-38-2	Parathion	U	919	ug/kg	276	919
52-85-7	Famphur	U	919	ug/kg	276	919
106-50-3	p-Phenylenediamine	U	46000	ug/kg	9190	46000
70-30-4	Hexachlorophene	U	46000	ug/kg	10700	46000
120-82-1	1,2,4-Trichlorobenzene	U	919	ug/kg	276	919

LL
04/03/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0221.D
Acq On : 02 Apr 2024 17:15
Operator : LL2
InstName : MSD1
Sample : |660771004|2589785|1|SVM|1|PERM|||
Misc : |MSD827E4_S|MISC SOLID|12044.B1.Top Back.EPA|mix[a,b,j,d,e]||
ALS Vial : 18 Sample Multiplier: 1

RB
04/04/2024

Quant Time: Apr 03 08:03:13 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	129926	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	469447	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	259334	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.742	8.741	1.000	522590	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.239	11.245	1.000	550975	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.609	13.625	1.000	510398	40.00	ng/uL	-0.02
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	129926	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	473979	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	259334	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.742	8.741	1.000	522590	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.239	11.245	1.000	550975	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.609	13.625	1.000	510398	40.00	ng/uL	-0.02
152) J Naphthalene-d8	136	5.714	5.714	1.000	473979	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.742	8.741	1.000	522590	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.239	11.245	1.000	550975	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	473979	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	259334	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.742	8.741	1.000	522590	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.239	11.245	1.000	550975	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	473979	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.609	13.625	1.000	510398	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.992	2.986	0.695	289272	65.57	ng/uL	0.00
8) Phenol-d5	99	3.869	3.874	0.899	410942	71.14	ng/uL	0.00
23) Nitrobenzene-d5	82	4.912	4.917	0.860	204554	39.35	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.800	6.805	0.914	357298	36.73	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.137	8.137	1.094	117894	77.38	ng/uL	0.00
79) p-Terphenyl-d14	244	10.079	10.084	1.153	506732	39.66	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	66%
8) Phenol-d5	100.000	15 - 85	71%
23) Nitrobenzene-d5	50.000	39 - 112	79%
44) 2-Fluorobiphenyl	50.000	39 - 112	73%
63) 2,4,6-Tribromophenol	100.000	37 - 132	77%
79) p-Terphenyl-d14	50.000	24 - 129	79%

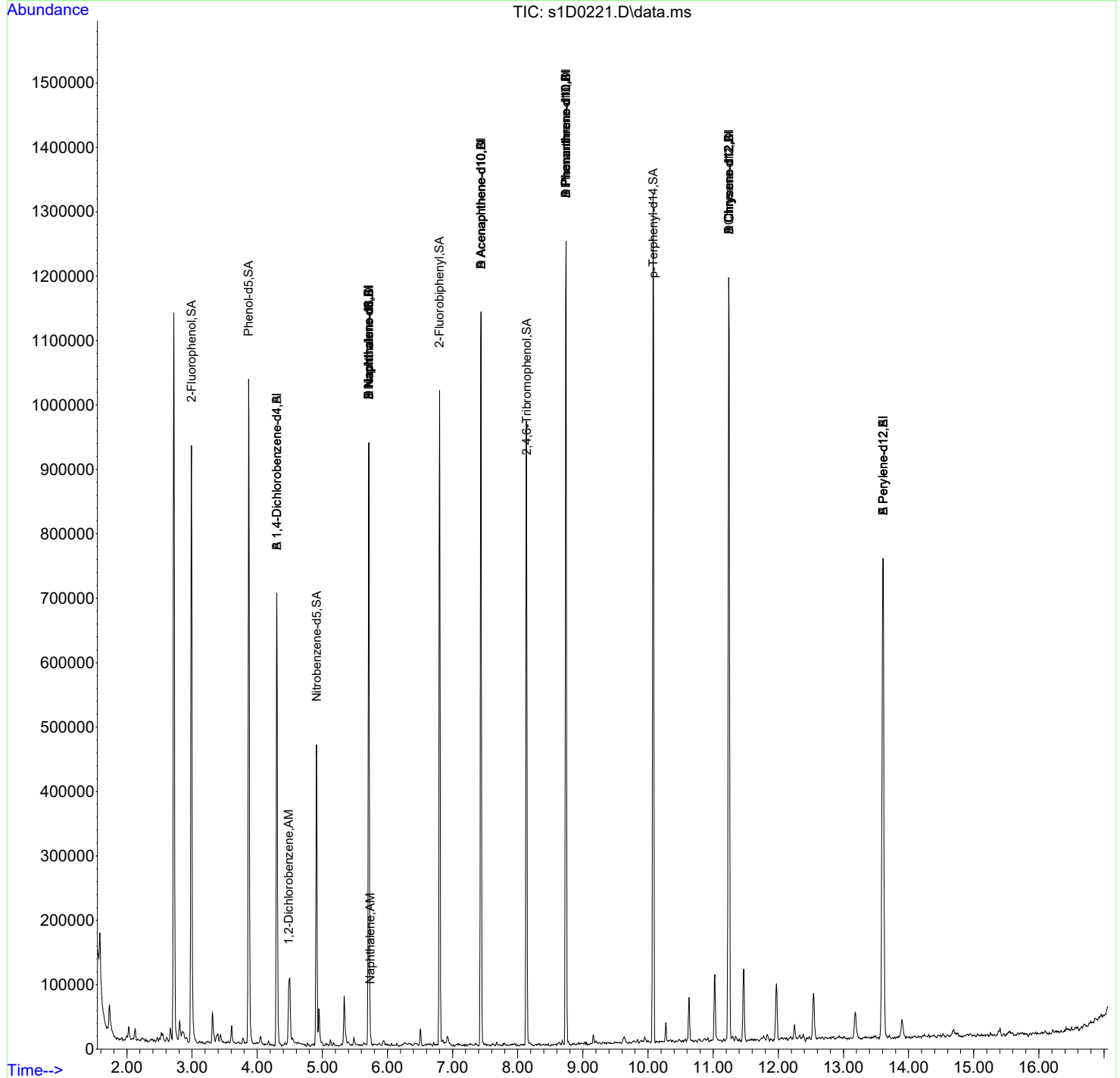
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
15) 1,2-Dichlorobenzene	146	4.484	4.489	1.042	22097	4.53	ng/uL	94
33) Naphthalene	128	5.736	5.741	1.004	4524	0.39	ng/uL	85

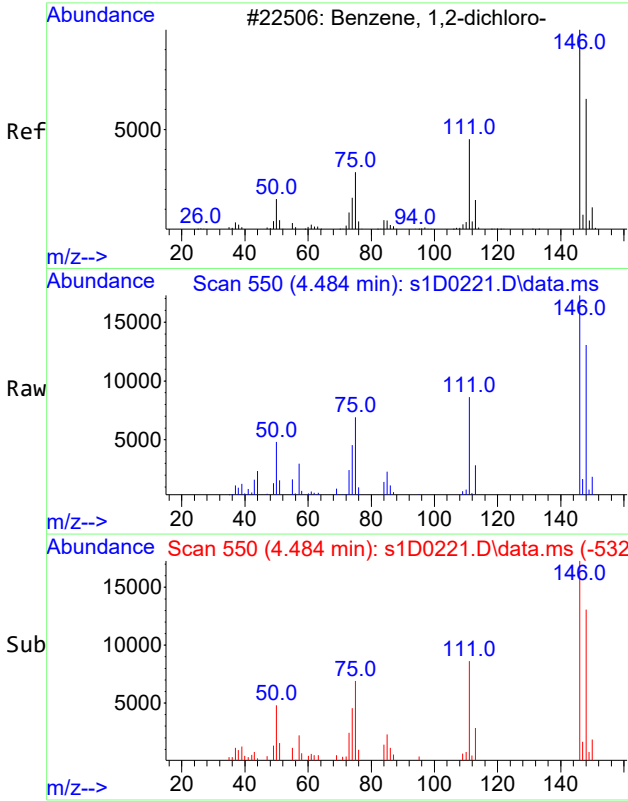
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0221.D
Acq On : 02 Apr 2024 17:15
Operator : LL2
InstName : MSD1
Sample : |660771004|2589785|1|SVM|1|PERM|||
Misc : |MSD827E4_S|MISC SOLID|12044.B1.Top Back.EPA|mix[a,b,j,d,e]||
ALS Vial : 18 Sample Multiplier: 1

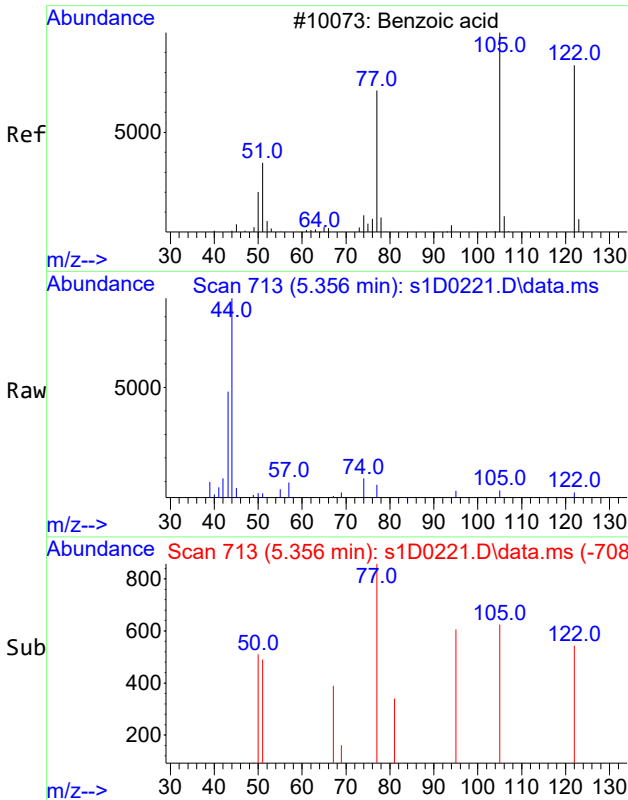
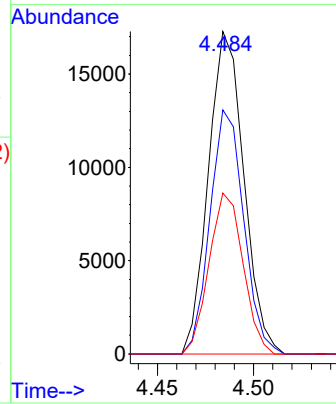
Quant Time: Apr 03 08:03:13 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE





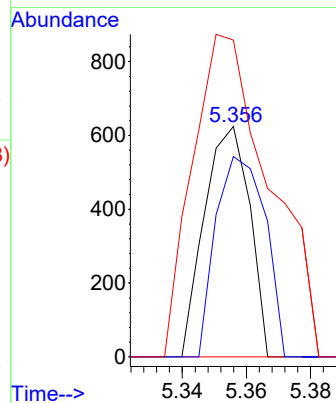
#15
1,2-Dichlorobenzene
Concen: 4.53 ng/uL
RT: 4.484 min Scan# 550
Delta R.T. -0.005 min
Lab File: s1D0221.D
Acq: 02 Apr 2024 17:15

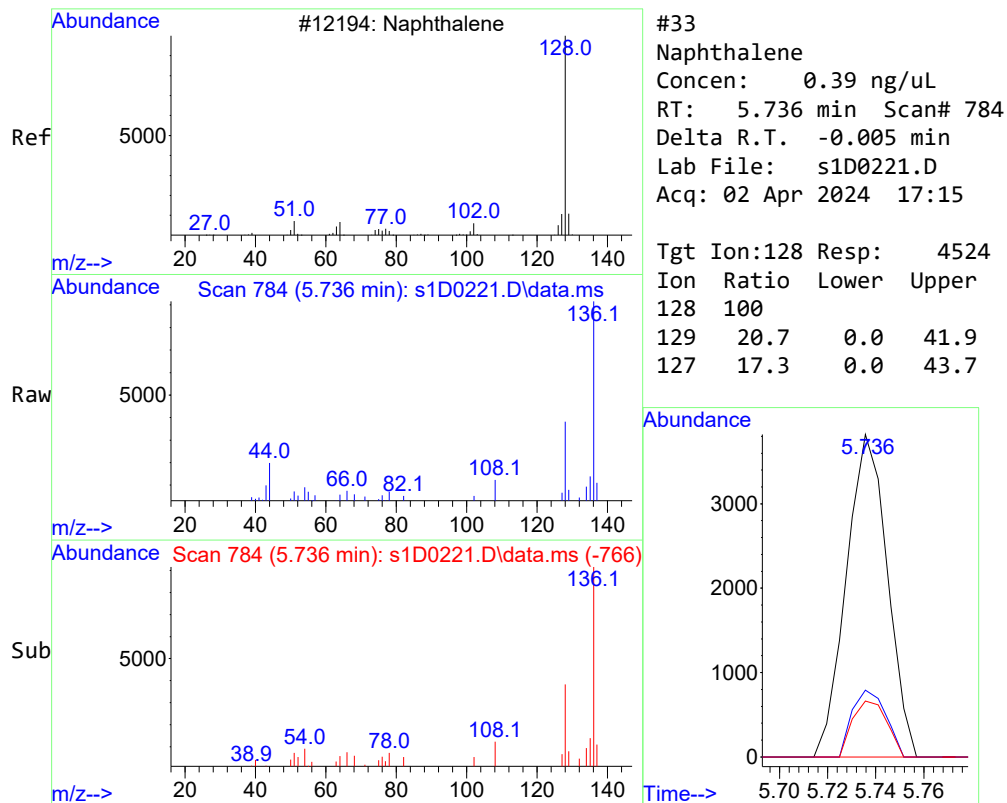
Tgt Ion:146 Resp: 22097
Ion Ratio Lower Upper
146 100
148 72.1 35.4 95.4
111 47.8 15.6 75.6



#30 BEFORE analyst DELETION
Benzoic acid
Concen: 7.99 ng/uL
RT: 5.356 min Scan# 713
Delta R.T. -0.054 min
Lab File: s1D0221.D
Acq: 02 Apr 2024 17:15

Tgt Ion:105 Resp: 611
Ion Ratio Lower Upper
105 100
122 94.9 36.8 96.8
77 219.3 51.7 111.7#





Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660771005	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 17:37	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.24 g	Final Volume:	1 mL
Data File:	S040224\1D0222.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	977	ug/kg	293	977
110-86-1	Pyridine	U	977	ug/kg	293	977
62-53-3	Aniline	U	977	ug/kg	293	977
108-95-2	Phenol	U	977	ug/kg	293	977
111-44-4	bis(2-Chloroethyl) ether	U	977	ug/kg	293	977
95-57-8	2-Chlorophenol	U	977	ug/kg	293	977
541-73-1	1,3-Dichlorobenzene	U	977	ug/kg	293	977
106-46-7	1,4-Dichlorobenzene	U	977	ug/kg	293	977
95-50-1	1,2-Dichlorobenzene	U	977	ug/kg	293	977
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	977	ug/kg	293	977
100-51-6	Benzyl alcohol	U	977	ug/kg	293	977
95-48-7	o-Cresol	U	977	ug/kg	293	977
65794-96-9	m,p-Cresols	U	977	ug/kg	293	977
621-64-7	N-Nitrosodipropylamine	U	977	ug/kg	293	977
67-72-1	Hexachloroethane	U	977	ug/kg	293	977
98-95-3	Nitrobenzene	U	977	ug/kg	293	977
78-59-1	Isophorone	U	977	ug/kg	293	977
88-75-5	2-Nitrophenol	U	977	ug/kg	293	977
105-67-9	2,4-Dimethylphenol	U	977	ug/kg	293	977
111-91-1	bis(2-Chloroethoxy)methane	U	977	ug/kg	293	977
120-83-2	2,4-Dichlorophenol	U	977	ug/kg	293	977
65-85-0	Benzoic acid	J	902	ug/kg	488	1950
106-47-8	4-Chloroaniline	U	977	ug/kg	293	977
87-68-3	Hexachlorobutadiene	U	977	ug/kg	293	977
59-50-7	4-Chloro-3-methylphenol	U	977	ug/kg	391	977
91-57-6	2-Methylnaphthalene	U	97.7	ug/kg	29.3	97.7
91-20-3	Naphthalene	U	97.7	ug/kg	29.3	97.7
90-12-0	1-Methylnaphthalene	U	97.7	ug/kg	29.3	97.7
77-47-4	Hexachlorocyclopentadiene	U	977	ug/kg	293	977
88-06-2	2,4,6-Trichlorophenol	U	977	ug/kg	293	977
95-95-4	2,4,5-Trichlorophenol	U	977	ug/kg	293	977
91-58-7	2-Chloronaphthalene	U	97.7	ug/kg	29.3	97.7
88-74-4	o-Nitroaniline	U	977	ug/kg	322	977
99-09-2	m-Nitroaniline	U	977	ug/kg	293	977
131-11-3	Dimethylphthalate	U	97.7	ug/kg	29.3	97.7
99-65-0	m-Dinitrobenzene	U	977	ug/kg	293	977
606-20-2	2,6-Dinitrotoluene	U	977	ug/kg	293	977
121-14-2	2,4-Dinitrotoluene	U	977	ug/kg	293	977

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660771005	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 17:37	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.24 g	Final Volume:	1 mL
Data File:	S040224s1D0222.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	97.7	ug/kg	29.3	97.7
83-32-9	Acenaphthene	U	97.7	ug/kg	29.3	97.7
51-28-5	2,4-Dinitrophenol	U	1950	ug/kg	293	1950
132-64-9	Dibenzofuran	U	977	ug/kg	293	977
58-90-2	2,3,4,6-Tetrachlorophenol	U	977	ug/kg	293	977
84-66-2	Diethylphthalate	U	97.7	ug/kg	29.3	97.7
100-02-7	4-Nitrophenol	U	977	ug/kg	293	977
86-73-7	Fluorene	U	97.7	ug/kg	29.3	97.7
7005-72-3	4-Chlorophenylphenylether	U	977	ug/kg	293	977
100-01-6	p-Nitroaniline	U	977	ug/kg	293	977
534-52-1	2-Methyl-4,6-dinitrophenol	U	977	ug/kg	293	977
122-39-4	Diphenylamine	U	977	ug/kg	293	977
122-66-7	1,2-Diphenylhydrazine	U	977	ug/kg	293	977
101-55-3	4-Bromophenylphenylether	U	977	ug/kg	293	977
118-74-1	Hexachlorobenzene	U	977	ug/kg	293	977
87-86-5	Pentachlorophenol	U	977	ug/kg	293	977
88-85-7	Dinoseb	U	977	ug/kg	293	977
85-01-8	Phenanthrene	U	97.7	ug/kg	29.3	97.7
120-12-7	Anthracene	U	97.7	ug/kg	29.3	97.7
86-74-8	Carbazole	U	97.7	ug/kg	29.3	97.7
84-74-2	Di-n-butylphthalate	U	97.7	ug/kg	29.3	97.7
206-44-0	Fluoranthene	U	97.7	ug/kg	29.3	97.7
129-00-0	Pyrene	U	97.7	ug/kg	29.3	97.7
85-68-7	Butylbenzylphthalate	U	97.7	ug/kg	29.3	97.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	97.7	ug/kg	29.3	97.7
56-55-3	Benzo(a)anthracene	U	97.7	ug/kg	29.3	97.7
218-01-9	Chrysene	U	97.7	ug/kg	29.3	97.7
72-43-5	Methoxychlor	U	977	ug/kg	293	977
117-84-0	Di-n-octylphthalate	U	97.7	ug/kg	29.3	97.7
205-99-2	Benzo(b)fluoranthene	U	97.7	ug/kg	29.3	97.7
207-08-9	Benzo(k)fluoranthene	U	97.7	ug/kg	29.3	97.7
50-32-8	Benzo(a)pyrene	U	97.7	ug/kg	29.3	97.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	97.7	ug/kg	29.3	97.7
53-70-3	Dibenzo(a,h)anthracene	U	97.7	ug/kg	29.3	97.7
191-24-2	Benzo(ghi)perylene	U	97.7	ug/kg	29.3	97.7
123-91-1	1,4-Dioxane	U	977	ug/kg	293	977
80-62-6	Methyl methacrylate	U	977	ug/kg	293	977
97-63-2	Ethyl methacrylate	U	977	ug/kg	293	977

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660771005	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 17:37	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.24 g	Final Volume:	1 mL
Data File:	S040224\1D0222.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	977	ug/kg	293	977
10595-95-6	N-Nitrosomethylethylamine	U	977	ug/kg	293	977
66-27-3	Methyl methanesulfonate	U	977	ug/kg	293	977
55-18-5	N-Nitrosodiethylamine	U	977	ug/kg	293	977
62-50-0	Ethyl Methanesulfonate	U	977	ug/kg	293	977
76-01-7	Pentachloroethane	U	977	ug/kg	293	977
930-55-2	N-Nitrosopyrrolidine	U	977	ug/kg	293	977
98-86-2	Acetophenone	U	977	ug/kg	293	977
59-89-2	N-Nitrosomorpholine	U	977	ug/kg	293	977
95-53-4	o-Toluidine	U	977	ug/kg	293	977
100-75-4	N-Nitrosopiperidine	U	977	ug/kg	293	977
122-09-8	a,a-Dimethylphenethylamine	U	977	ug/kg	342	977
87-65-0	2,6-Dichlorophenol	U	977	ug/kg	293	977
1888-71-7	Hexachloropropene	U	977	ug/kg	293	977
924-16-3	N-Nitrosodi-n-butylamine	U	977	ug/kg	293	977
94-59-7	Safrole	U	977	ug/kg	293	977
95-94-3	1,2,4,5-Tetrachlorobenzene	U	977	ug/kg	293	977
120-58-1	Isosafrole	U	977	ug/kg	293	977
130-15-4	1,4-Naphthoquinone	U	977	ug/kg	293	977
608-93-5	Pentachlorobenzene	U	977	ug/kg	293	977
134-32-7	1-Naphthylamine	U	977	ug/kg	293	977
91-59-8	2-Naphthylamine	U	977	ug/kg	293	977
99-55-8	5-Nitro-o-toluidine	U	977	ug/kg	293	977
62-44-2	Phenacetin	U	977	ug/kg	293	977
99-35-4	1,3,5-Trinitrobenzene	U	977	ug/kg	293	977
2303-16-4	Diallate	U	977	ug/kg	293	977
92-67-1	4-Aminobiphenyl	U	977	ug/kg	293	977
82-68-8	Pentachloronitrobenzene	U	977	ug/kg	293	977
23950-58-5	Pronamide	U	977	ug/kg	293	977
56-57-5	4-Nitroquinoline-1-oxide	U	977	ug/kg	293	977
91-80-5	Methapyrilene	U	977	ug/kg	293	977
465-73-6	Isodrin	U	977	ug/kg	195	977
140-57-8	Aramite	U	977	ug/kg	293	977
143-50-0	Kepone	U	977	ug/kg	293	977
60-11-7	p-(Dimethylamino)azobenzene	U	977	ug/kg	293	977
510-15-6	Chlorobenzilate	U	977	ug/kg	293	977
119-93-7	3,3'-Dimethylbenzidine	U	977	ug/kg	293	977
53-96-3	2-Acetylaminofluorene	U	977	ug/kg	293	977

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660771005	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 17:37	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.24 g	Final Volume:	1 mL
Data File:	S040224\s1D0222.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	977	ug/kg	293	977
57-97-6	7,12-Dimethylbenz(a)anthracene	U	977	ug/kg	293	977
56-49-5	3-Methylcholanthrene	U	977	ug/kg	293	977
126-68-1	Triethylphosphorothioate	U	977	ug/kg	293	977
297-97-2	Thionazin	U	977	ug/kg	293	977
126-73-8	Tributylphosphate	U	977	ug/kg	293	977
3689-24-5	Sulfotepp	U	977	ug/kg	293	977
298-02-2	Phorate	U	977	ug/kg	293	977
60-51-5	Dimethoate	U	977	ug/kg	293	977
298-04-4	Disulfoton	U	977	ug/kg	293	977
298-00-0	Methyl parathion	U	977	ug/kg	293	977
56-38-2	Parathion	U	977	ug/kg	293	977
52-85-7	Famphur	U	977	ug/kg	293	977
106-50-3	p-Phenylenediamine	U	48800	ug/kg	9770	48800
70-30-4	Hexachlorophene	U	48800	ug/kg	11300	48800
120-82-1	1,2,4-Trichlorobenzene	U	977	ug/kg	293	977

LL
04/03/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0222.D
Acq On : 02 Apr 2024 17:37
Operator : LL2
InstName : MSD1
Sample : |660771005|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12044.B1.Middle Back.EPA|mixture[a,b,j,d,e]|
ALS Vial : 19 Sample Multiplier: 1

RB
04/04/2024

Quant Time: Apr 03 08:03:44 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	127749	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	448863	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	250871	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.742	8.741	1.000	505862	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.239	11.245	1.000	525607	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.609	13.625	1.000	504241	40.00	ng/uL	-0.02
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	127749	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	453518	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	250871	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.742	8.741	1.000	505862	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.239	11.245	1.000	525607	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.609	13.625	1.000	504241	40.00	ng/uL	-0.02
152) J Naphthalene-d8	136	5.714	5.714	1.000	453518	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.742	8.741	1.000	505862	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.239	11.245	1.000	525607	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	453518	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	250871	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.742	8.741	1.000	505862	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.239	11.245	1.000	525607	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	453518	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.609	13.625	1.000	504241	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.992	2.986	0.695	284358	65.56	ng/uL	0.00
8) Phenol-d5	99	3.869	3.874	0.899	411426	72.44	ng/uL	0.00
23) Nitrobenzene-d5	82	4.912	4.917	0.860	203108	40.87	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.800	6.805	0.914	353820	37.60	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.137	8.137	1.094	113475	76.99	ng/uL	0.00
79) p-Terphenyl-d14	244	10.079	10.084	1.153	510494	41.27	ng/uL	0.00

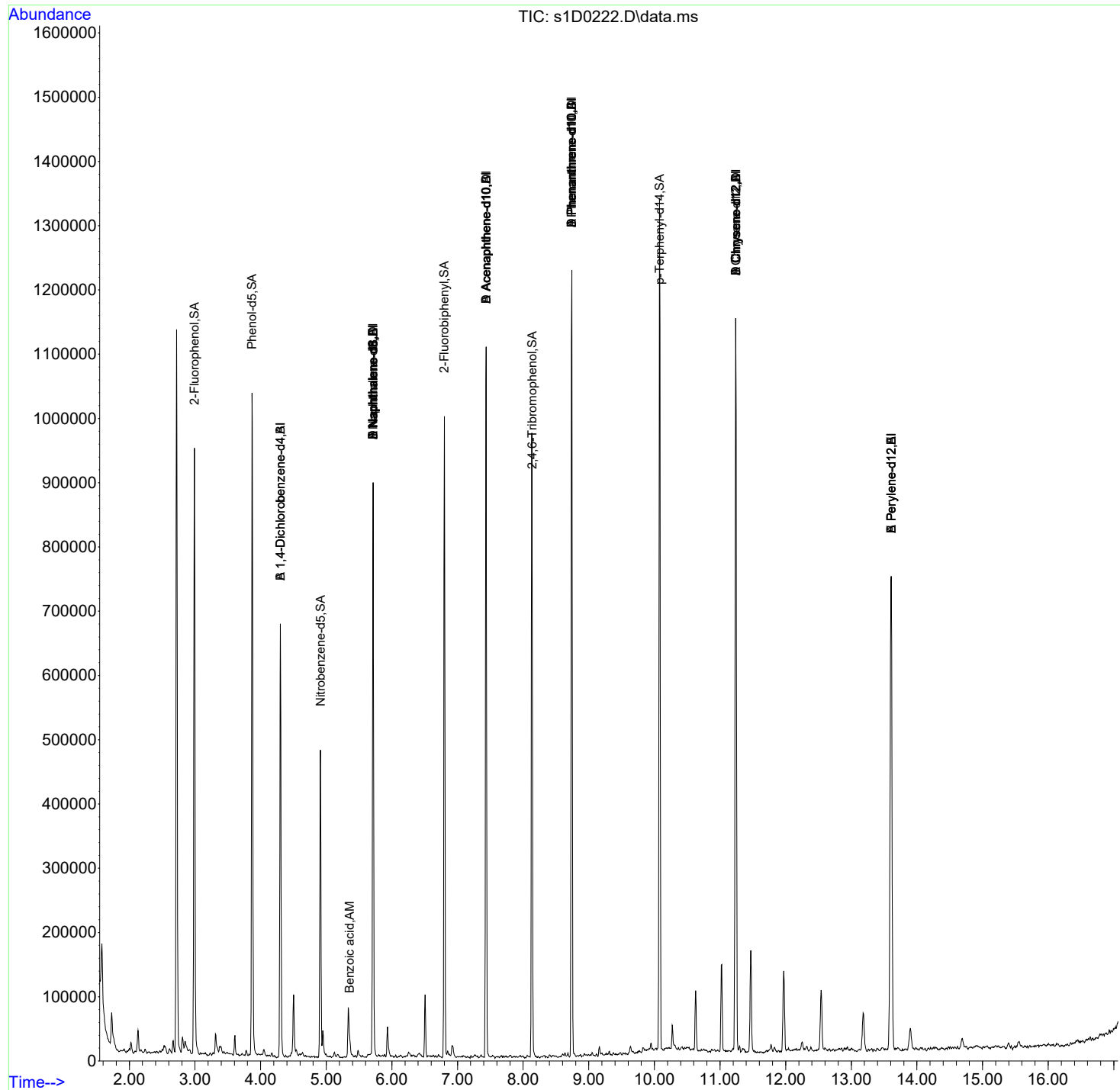
Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	66%
8) Phenol-d5	100.000	15 - 85	72%
23) Nitrobenzene-d5	50.000	39 - 112	82%
44) 2-Fluorobiphenyl	50.000	39 - 112	75%
63) 2,4,6-Tribromophenol	100.000	37 - 132	77%
79) p-Terphenyl-d14	50.000	24 - 129	83%

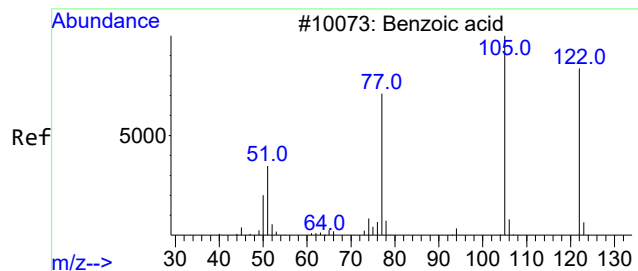
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
30) Benzoic acid	105	5.356	5.409	0.937	4761	9.24	ng/uL	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

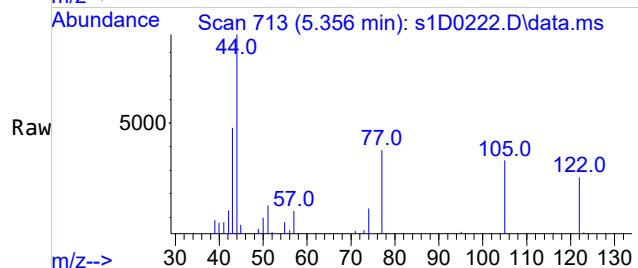
Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0222.D
Acq On : 02 Apr 2024 17:37
Operator : LL2
InstName : MSD1
Sample : |660771005|2589785|1|SVM|1|PERM|||
Misc : |MSD827E4_S|MISC SOLID|12044.B1.Middle Back.EPA|mix[a,b,j,d,e]||
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 03 08:03:44 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

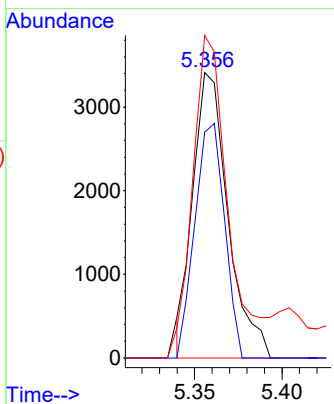
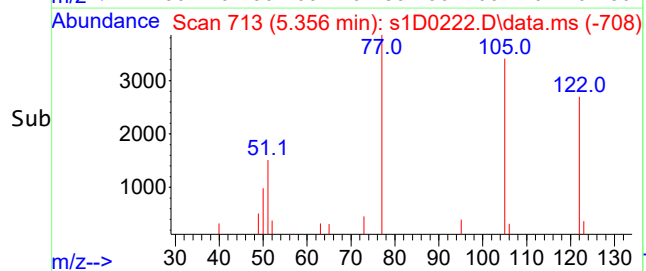




#30
Benzoic acid
Concen: 9.24 ng/uL
RT: 5.356 min Scan# 713
Delta R.T. -0.054 min
Lab File: s1D0222.D
Acq: 02 Apr 2024 17:37



Tgt Ion:105 Resp: 4761
Ion Ratio Lower Upper
105 100
122 69.5 36.8 96.8
77 88.2 51.7 111.7



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660771006	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 18:00	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.74 g	Final Volume:	1 mL
Data File:	S040224\1D0223.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	931	ug/kg	279	931
110-86-1	Pyridine	U	931	ug/kg	279	931
62-53-3	Aniline	U	931	ug/kg	279	931
108-95-2	Phenol	U	931	ug/kg	279	931
111-44-4	bis(2-Chloroethyl) ether	U	931	ug/kg	279	931
95-57-8	2-Chlorophenol	U	931	ug/kg	279	931
541-73-1	1,3-Dichlorobenzene	U	931	ug/kg	279	931
106-46-7	1,4-Dichlorobenzene	U	931	ug/kg	279	931
95-50-1	1,2-Dichlorobenzene	U	931	ug/kg	279	931
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	931	ug/kg	279	931
100-51-6	Benzyl alcohol	U	931	ug/kg	279	931
95-48-7	o-Cresol	U	931	ug/kg	279	931
65794-96-9	m,p-Cresols	U	931	ug/kg	279	931
621-64-7	N-Nitrosodipropylamine	U	931	ug/kg	279	931
67-72-1	Hexachloroethane	U	931	ug/kg	279	931
98-95-3	Nitrobenzene	U	931	ug/kg	279	931
78-59-1	Isophorone	U	931	ug/kg	279	931
88-75-5	2-Nitrophenol	U	931	ug/kg	279	931
105-67-9	2,4-Dimethylphenol	U	931	ug/kg	279	931
111-91-1	bis(2-Chloroethoxy)methane	U	931	ug/kg	279	931
120-83-2	2,4-Dichlorophenol	U	931	ug/kg	279	931
65-85-0	Benzoic acid	U	1860	ug/kg	466	1860
106-47-8	4-Chloroaniline	U	931	ug/kg	279	931
87-68-3	Hexachlorobutadiene	U	931	ug/kg	279	931
59-50-7	4-Chloro-3-methylphenol	U	931	ug/kg	372	931
91-57-6	2-Methylnaphthalene	U	93.1	ug/kg	27.9	93.1
91-20-3	Naphthalene	U	93.1	ug/kg	27.9	93.1
90-12-0	1-Methylnaphthalene	U	93.1	ug/kg	27.9	93.1
77-47-4	Hexachlorocyclopentadiene	U	931	ug/kg	279	931
88-06-2	2,4,6-Trichlorophenol	U	931	ug/kg	279	931
95-95-4	2,4,5-Trichlorophenol	U	931	ug/kg	279	931
91-58-7	2-Chloronaphthalene	U	93.1	ug/kg	27.9	93.1
88-74-4	o-Nitroaniline	U	931	ug/kg	307	931
99-09-2	m-Nitroaniline	U	931	ug/kg	279	931
131-11-3	Dimethylphthalate	U	93.1	ug/kg	27.9	93.1
99-65-0	m-Dinitrobenzene	U	931	ug/kg	279	931
606-20-2	2,6-Dinitrotoluene	U	931	ug/kg	279	931
121-14-2	2,4-Dinitrotoluene	U	931	ug/kg	279	931

Semi-Volatile

Certificate of Analysis

Sample Summary

SDG Number: 660771

Lab Sample ID: 660771006

Client ID: 12044.B1.Bottom Back.EPA

Batch ID: 2589785

Run Date: 04/02/2024 18:00

Prep Date: 04/02/2024 07:52

Data File: S040224s1D0223.D

Date Collected: 03/27/2024 09:15

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.74 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	93.1	ug/kg	27.9	93.1
83-32-9	Acenaphthene	U	93.1	ug/kg	27.9	93.1
51-28-5	2,4-Dinitrophenol	U	1860	ug/kg	279	1860
132-64-9	Dibenzofuran	U	931	ug/kg	279	931
58-90-2	2,3,4,6-Tetrachlorophenol	U	931	ug/kg	279	931
84-66-2	Diethylphthalate	U	93.1	ug/kg	27.9	93.1
100-02-7	4-Nitrophenol	U	931	ug/kg	279	931
86-73-7	Fluorene	U	93.1	ug/kg	27.9	93.1
7005-72-3	4-Chlorophenylphenylether	U	931	ug/kg	279	931
100-01-6	p-Nitroaniline	U	931	ug/kg	279	931
534-52-1	2-Methyl-4,6-dinitrophenol	U	931	ug/kg	279	931
122-39-4	Diphenylamine	U	931	ug/kg	279	931
122-66-7	1,2-Diphenylhydrazine	U	931	ug/kg	279	931
101-55-3	4-Bromophenylphenylether	U	931	ug/kg	279	931
118-74-1	Hexachlorobenzene	U	931	ug/kg	279	931
87-86-5	Pentachlorophenol	U	931	ug/kg	279	931
88-85-7	Dinoseb	U	931	ug/kg	279	931
85-01-8	Phenanthrene	U	93.1	ug/kg	27.9	93.1
120-12-7	Anthracene	U	93.1	ug/kg	27.9	93.1
86-74-8	Carbazole	U	93.1	ug/kg	27.9	93.1
84-74-2	Di-n-butylphthalate	U	93.1	ug/kg	27.9	93.1
206-44-0	Fluoranthene	U	93.1	ug/kg	27.9	93.1
129-00-0	Pyrene	U	93.1	ug/kg	27.9	93.1
85-68-7	Butylbenzylphthalate	U	93.1	ug/kg	27.9	93.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	93.1	ug/kg	27.9	93.1
56-55-3	Benzo(a)anthracene	U	93.1	ug/kg	27.9	93.1
218-01-9	Chrysene	U	93.1	ug/kg	27.9	93.1
72-43-5	Methoxychlor	U	931	ug/kg	279	931
117-84-0	Di-n-octylphthalate	U	93.1	ug/kg	27.9	93.1
205-99-2	Benzo(b)fluoranthene	U	93.1	ug/kg	27.9	93.1
207-08-9	Benzo(k)fluoranthene	U	93.1	ug/kg	27.9	93.1
50-32-8	Benzo(a)pyrene	U	93.1	ug/kg	27.9	93.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	93.1	ug/kg	27.9	93.1
53-70-3	Dibenzo(a,h)anthracene	U	93.1	ug/kg	27.9	93.1
191-24-2	Benzo(ghi)perylene	U	93.1	ug/kg	27.9	93.1
123-91-1	1,4-Dioxane	U	931	ug/kg	279	931
80-62-6	Methyl methacrylate	U	931	ug/kg	279	931
97-63-2	Ethyl methacrylate	U	931	ug/kg	279	931

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660771006	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 18:00	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.74 g	Final Volume:	1 mL
Data File:	S040224\1D0223.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	931	ug/kg	279	931
10595-95-6	N-Nitrosomethylethylamine	U	931	ug/kg	279	931
66-27-3	Methyl methanesulfonate	U	931	ug/kg	279	931
55-18-5	N-Nitrosodiethylamine	U	931	ug/kg	279	931
62-50-0	Ethyl Methanesulfonate	U	931	ug/kg	279	931
76-01-7	Pentachloroethane	U	931	ug/kg	279	931
930-55-2	N-Nitrosopyrrolidine	U	931	ug/kg	279	931
98-86-2	Acetophenone	U	931	ug/kg	279	931
59-89-2	N-Nitrosomorpholine	U	931	ug/kg	279	931
95-53-4	o-Toluidine	U	931	ug/kg	279	931
100-75-4	N-Nitrosopiperidine	U	931	ug/kg	279	931
122-09-8	a,a-Dimethylphenethylamine	U	931	ug/kg	326	931
87-65-0	2,6-Dichlorophenol	U	931	ug/kg	279	931
1888-71-7	Hexachloropropene	U	931	ug/kg	279	931
924-16-3	N-Nitrosodi-n-butylamine	U	931	ug/kg	279	931
94-59-7	Safrole	U	931	ug/kg	279	931
95-94-3	1,2,4,5-Tetrachlorobenzene	U	931	ug/kg	279	931
120-58-1	Isosafrole	U	931	ug/kg	279	931
130-15-4	1,4-Naphthoquinone	U	931	ug/kg	279	931
608-93-5	Pentachlorobenzene	U	931	ug/kg	279	931
134-32-7	1-Naphthylamine	U	931	ug/kg	279	931
91-59-8	2-Naphthylamine	U	931	ug/kg	279	931
99-55-8	5-Nitro-o-toluidine	U	931	ug/kg	279	931
62-44-2	Phenacetin	U	931	ug/kg	279	931
99-35-4	1,3,5-Trinitrobenzene	U	931	ug/kg	279	931
2303-16-4	Diallate	U	931	ug/kg	279	931
92-67-1	4-Aminobiphenyl	U	931	ug/kg	279	931
82-68-8	Pentachloronitrobenzene	U	931	ug/kg	279	931
23950-58-5	Pronamide	U	931	ug/kg	279	931
56-57-5	4-Nitroquinoline-1-oxide	U	931	ug/kg	279	931
91-80-5	Methapyrilene	U	931	ug/kg	279	931
465-73-6	Isodrin	U	931	ug/kg	186	931
140-57-8	Aramite	U	931	ug/kg	279	931
143-50-0	Kepone	U	931	ug/kg	279	931
60-11-7	p-(Dimethylamino)azobenzene	U	931	ug/kg	279	931
510-15-6	Chlorobenzilate	U	931	ug/kg	279	931
119-93-7	3,3'-Dimethylbenzidine	U	931	ug/kg	279	931
53-96-3	2-Acetylaminofluorene	U	931	ug/kg	279	931

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/27/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660771006	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12044.B1.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 18:00	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.74 g	Final Volume:	1 mL
Data File:	S040224\s1D0223.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	931	ug/kg	279	931
57-97-6	7,12-Dimethylbenz(a)anthracene	U	931	ug/kg	279	931
56-49-5	3-Methylcholanthrene	U	931	ug/kg	279	931
126-68-1	Triethylphosphorothioate	U	931	ug/kg	279	931
297-97-2	Thionazin	U	931	ug/kg	279	931
126-73-8	Tributylphosphate	U	931	ug/kg	279	931
3689-24-5	Sulfotepp	U	931	ug/kg	279	931
298-02-2	Phorate	U	931	ug/kg	279	931
60-51-5	Dimethoate	U	931	ug/kg	279	931
298-04-4	Disulfoton	U	931	ug/kg	279	931
298-00-0	Methyl parathion	U	931	ug/kg	279	931
56-38-2	Parathion	U	931	ug/kg	279	931
52-85-7	Famphur	U	931	ug/kg	279	931
106-50-3	p-Phenylenediamine	U	46600	ug/kg	9310	46600
70-30-4	Hexachlorophene	U	46600	ug/kg	10800	46600
120-82-1	1,2,4-Trichlorobenzene	U	931	ug/kg	279	931

LL
04/03/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0223.D
Acq On : 02 Apr 2024 18:00
Operator : LL2
InstName : MSD1
Sample : |660771006|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12044.B1.Bottom Back.EPA|mix[a,b,j,d,e]|
ALS Vial : 20 Sample Multiplier: 1

RB
04/04/2024

Quant Time: Apr 03 08:04:02 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	124396	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	441202	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	249721	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.741	8.741	1.000	487045	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.239	11.245	1.000	510226	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.609	13.625	1.000	524429	40.00	ng/uL	-0.02
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	124396	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	447047	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	249721	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.741	8.741	1.000	487045	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.239	11.245	1.000	510226	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.609	13.625	1.000	524429	40.00	ng/uL	-0.02
152) J Naphthalene-d8	136	5.714	5.714	1.000	447047	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.741	8.741	1.000	487045	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.239	11.245	1.000	510226	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	447047	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	249721	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.741	8.741	1.000	487045	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.239	11.245	1.000	510226	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	447047	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.609	13.625	1.000	524429	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.992	2.986	0.695	251967	59.66	ng/uL	0.00
8) Phenol-d5	99	3.869	3.874	0.899	355710	64.31	ng/uL	0.00
23) Nitrobenzene-d5	82	4.912	4.917	0.860	168789	34.55	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.800	6.805	0.914	313040	33.42	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.132	8.137	1.094	94966	64.73	ng/uL	0.00
79) p-Terphenyl-d14	244	10.079	10.084	1.153	447789	37.60	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	60%
8) Phenol-d5	100.000	15 - 85	64%
23) Nitrobenzene-d5	50.000	39 - 112	69%
44) 2-Fluorobiphenyl	50.000	39 - 112	67%
63) 2,4,6-Tribromophenol	100.000	37 - 132	65%
79) p-Terphenyl-d14	50.000	24 - 129	75%

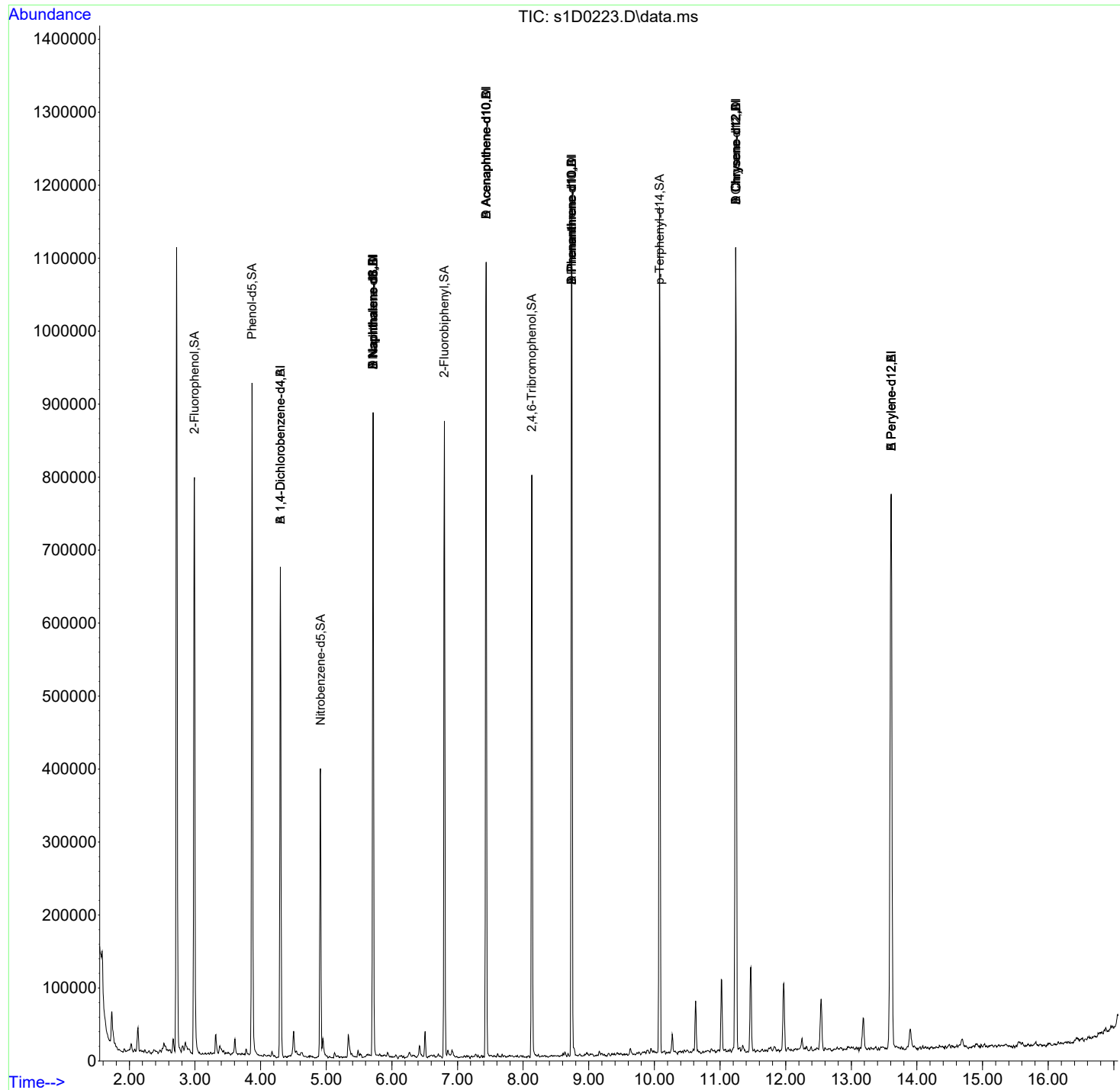
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
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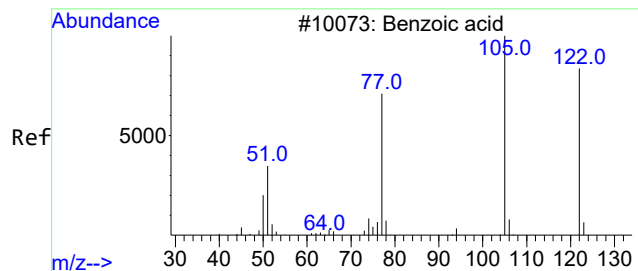
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

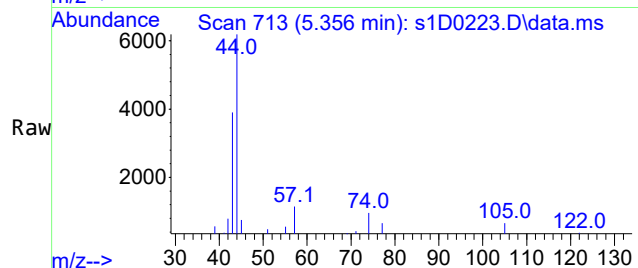
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Data File : s1D0223.D
Acq On : 02 Apr 2024 18:00
Operator : LL2
InstName : MSD1
Sample : |660771006|2589785|1|SVM|1|PERM|||
Misc : |MSD827E4_S|MISC SOLID|12044.B1.Bottom Back.EPA|mix[a,b,j,d,e]||
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 03 08:04:02 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

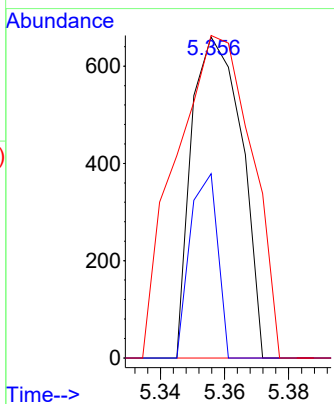
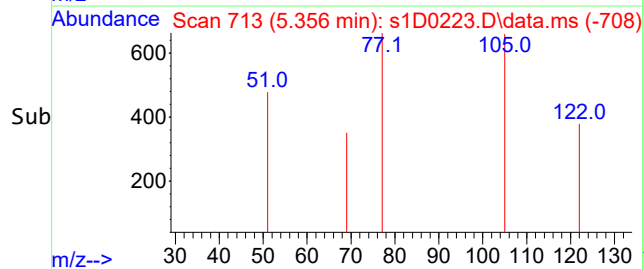




#30 BEFORE analyst DELETION
 Benzoic acid
 Concen: 8.03 ng/uL
 RT: 5.356 min Scan# 713
 Delta R.T. -0.054 min
 Lab File: s1D0223.D
 Acq: 02 Apr 2024 18:00



Tgt Ion	Ratio	Lower	Upper
105	100		
122	0.0	36.8	96.8#
77	138.4	51.7	111.7#



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:05	Matrix:	MISC SOLID
Lab Sample ID:	660771007	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 18:22	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.52 g	Final Volume:	1 mL
Data File:	S040224\1D0224.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	951	ug/kg	285	951
110-86-1	Pyridine	U	951	ug/kg	285	951
62-53-3	Aniline	U	951	ug/kg	285	951
108-95-2	Phenol	U	951	ug/kg	285	951
111-44-4	bis(2-Chloroethyl) ether	U	951	ug/kg	285	951
95-57-8	2-Chlorophenol	U	951	ug/kg	285	951
541-73-1	1,3-Dichlorobenzene	U	951	ug/kg	285	951
106-46-7	1,4-Dichlorobenzene	U	951	ug/kg	285	951
95-50-1	1,2-Dichlorobenzene	U	951	ug/kg	285	951
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	951	ug/kg	285	951
100-51-6	Benzyl alcohol	U	951	ug/kg	285	951
95-48-7	o-Cresol	U	951	ug/kg	285	951
65794-96-9	m,p-Cresols	U	951	ug/kg	285	951
621-64-7	N-Nitrosodipropylamine	U	951	ug/kg	285	951
67-72-1	Hexachloroethane	U	951	ug/kg	285	951
98-95-3	Nitrobenzene	U	951	ug/kg	285	951
78-59-1	Isophorone	U	951	ug/kg	285	951
88-75-5	2-Nitrophenol	U	951	ug/kg	285	951
105-67-9	2,4-Dimethylphenol	U	951	ug/kg	285	951
111-91-1	bis(2-Chloroethoxy)methane	U	951	ug/kg	285	951
120-83-2	2,4-Dichlorophenol	U	951	ug/kg	285	951
65-85-0	Benzoic acid	U	1900	ug/kg	475	1900
106-47-8	4-Chloroaniline	U	951	ug/kg	285	951
87-68-3	Hexachlorobutadiene	U	951	ug/kg	285	951
59-50-7	4-Chloro-3-methylphenol	U	951	ug/kg	380	951
91-57-6	2-Methylnaphthalene	U	95.1	ug/kg	28.5	95.1
91-20-3	Naphthalene	U	95.1	ug/kg	28.5	95.1
90-12-0	1-Methylnaphthalene	U	95.1	ug/kg	28.5	95.1
77-47-4	Hexachlorocyclopentadiene	U	951	ug/kg	285	951
88-06-2	2,4,6-Trichlorophenol	U	951	ug/kg	285	951
95-95-4	2,4,5-Trichlorophenol	U	951	ug/kg	285	951
91-58-7	2-Chloronaphthalene	U	95.1	ug/kg	28.5	95.1
88-74-4	o-Nitroaniline	U	951	ug/kg	314	951
99-09-2	m-Nitroaniline	U	951	ug/kg	285	951
131-11-3	Dimethylphthalate	U	95.1	ug/kg	28.5	95.1
99-65-0	m-Dinitrobenzene	U	951	ug/kg	285	951
606-20-2	2,6-Dinitrotoluene	U	951	ug/kg	285	951
121-14-2	2,4-Dinitrotoluene	U	951	ug/kg	285	951

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:05	Matrix:	MISC SOLID
Lab Sample ID:	660771007	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 18:22	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.52 g	Final Volume:	1 mL
Data File:	S040224\1D0224.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	95.1	ug/kg	28.5	95.1
83-32-9	Acenaphthene	U	95.1	ug/kg	28.5	95.1
51-28-5	2,4-Dinitrophenol	U	1900	ug/kg	285	1900
132-64-9	Dibenzofuran	U	951	ug/kg	285	951
58-90-2	2,3,4,6-Tetrachlorophenol	U	951	ug/kg	285	951
84-66-2	Diethylphthalate	U	95.1	ug/kg	28.5	95.1
100-02-7	4-Nitrophenol	U	951	ug/kg	285	951
86-73-7	Fluorene	U	95.1	ug/kg	28.5	95.1
7005-72-3	4-Chlorophenylphenylether	U	951	ug/kg	285	951
100-01-6	p-Nitroaniline	U	951	ug/kg	285	951
534-52-1	2-Methyl-4,6-dinitrophenol	U	951	ug/kg	285	951
122-39-4	Diphenylamine	U	951	ug/kg	285	951
122-66-7	1,2-Diphenylhydrazine	U	951	ug/kg	285	951
101-55-3	4-Bromophenylphenylether	U	951	ug/kg	285	951
118-74-1	Hexachlorobenzene	U	951	ug/kg	285	951
87-86-5	Pentachlorophenol	U	951	ug/kg	285	951
88-85-7	Dinoseb	U	951	ug/kg	285	951
85-01-8	Phenanthrene	U	95.1	ug/kg	28.5	95.1
120-12-7	Anthracene	U	95.1	ug/kg	28.5	95.1
86-74-8	Carbazole	U	95.1	ug/kg	28.5	95.1
84-74-2	Di-n-butylphthalate	U	95.1	ug/kg	28.5	95.1
206-44-0	Fluoranthene	U	95.1	ug/kg	28.5	95.1
129-00-0	Pyrene	U	95.1	ug/kg	28.5	95.1
85-68-7	Butylbenzylphthalate	U	95.1	ug/kg	28.5	95.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	95.1	ug/kg	28.5	95.1
56-55-3	Benzo(a)anthracene	U	95.1	ug/kg	28.5	95.1
218-01-9	Chrysene	U	95.1	ug/kg	28.5	95.1
72-43-5	Methoxychlor	U	951	ug/kg	285	951
117-84-0	Di-n-octylphthalate	U	95.1	ug/kg	28.5	95.1
205-99-2	Benzo(b)fluoranthene	U	95.1	ug/kg	28.5	95.1
207-08-9	Benzo(k)fluoranthene	U	95.1	ug/kg	28.5	95.1
50-32-8	Benzo(a)pyrene	U	95.1	ug/kg	28.5	95.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	95.1	ug/kg	28.5	95.1
53-70-3	Dibenzo(a,h)anthracene	U	95.1	ug/kg	28.5	95.1
191-24-2	Benzo(ghi)perylene	U	95.1	ug/kg	28.5	95.1
123-91-1	1,4-Dioxane	U	951	ug/kg	285	951
80-62-6	Methyl methacrylate	U	951	ug/kg	285	951
97-63-2	Ethyl methacrylate	U	951	ug/kg	285	951

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:05	Matrix:	MISC SOLID
Lab Sample ID:	660771007	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 18:22	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.52 g	Final Volume:	1 mL
Data File:	S040224\1D0224.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	951	ug/kg	285	951
10595-95-6	N-Nitrosomethylethylamine	U	951	ug/kg	285	951
66-27-3	Methyl methanesulfonate	U	951	ug/kg	285	951
55-18-5	N-Nitrosodiethylamine	U	951	ug/kg	285	951
62-50-0	Ethyl Methanesulfonate	U	951	ug/kg	285	951
76-01-7	Pentachloroethane	U	951	ug/kg	285	951
930-55-2	N-Nitrosopyrrolidine	U	951	ug/kg	285	951
98-86-2	Acetophenone	U	951	ug/kg	285	951
59-89-2	N-Nitrosomorpholine	U	951	ug/kg	285	951
95-53-4	o-Toluidine	U	951	ug/kg	285	951
100-75-4	N-Nitrosopiperidine	U	951	ug/kg	285	951
122-09-8	a,a-Dimethylphenethylamine	U	951	ug/kg	333	951
87-65-0	2,6-Dichlorophenol	U	951	ug/kg	285	951
1888-71-7	Hexachloropropene	U	951	ug/kg	285	951
924-16-3	N-Nitrosodi-n-butylamine	U	951	ug/kg	285	951
94-59-7	Safrole	U	951	ug/kg	285	951
95-94-3	1,2,4,5-Tetrachlorobenzene	U	951	ug/kg	285	951
120-58-1	Isosafrole	U	951	ug/kg	285	951
130-15-4	1,4-Naphthoquinone	U	951	ug/kg	285	951
608-93-5	Pentachlorobenzene	U	951	ug/kg	285	951
134-32-7	1-Naphthylamine	U	951	ug/kg	285	951
91-59-8	2-Naphthylamine	U	951	ug/kg	285	951
99-55-8	5-Nitro-o-toluidine	U	951	ug/kg	285	951
62-44-2	Phenacetin	U	951	ug/kg	285	951
99-35-4	1,3,5-Trinitrobenzene	U	951	ug/kg	285	951
2303-16-4	Diallate	U	951	ug/kg	285	951
92-67-1	4-Aminobiphenyl	U	951	ug/kg	285	951
82-68-8	Pentachloronitrobenzene	U	951	ug/kg	285	951
23950-58-5	Pronamide	U	951	ug/kg	285	951
56-57-5	4-Nitroquinoline-1-oxide	U	951	ug/kg	285	951
91-80-5	Methapyrilene	U	951	ug/kg	285	951
465-73-6	Isodrin	U	951	ug/kg	190	951
140-57-8	Aramite	U	951	ug/kg	285	951
143-50-0	Kepone	U	951	ug/kg	285	951
60-11-7	p-(Dimethylamino)azobenzene	U	951	ug/kg	285	951
510-15-6	Chlorobenzilate	U	951	ug/kg	285	951
119-93-7	3,3'-Dimethylbenzidine	U	951	ug/kg	285	951
53-96-3	2-Acetylaminofluorene	U	951	ug/kg	285	951

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771007

Client ID: 12038.B2.Top Front.EPA

Batch ID: 2589785

Run Date: 04/02/2024 18:22

Prep Date: 04/02/2024 07:52

Data File: S040224\1D0224.D

Date Collected: 03/28/2024 07:05

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.52 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	951	ug/kg	285	951
57-97-6	7,12-Dimethylbenz(a)anthracene	U	951	ug/kg	285	951
56-49-5	3-Methylcholanthrene	U	951	ug/kg	285	951
126-68-1	Triethylphosphorothioate	U	951	ug/kg	285	951
297-97-2	Thionazin	U	951	ug/kg	285	951
126-73-8	Tributylphosphate	U	951	ug/kg	285	951
3689-24-5	Sulfotepp	U	951	ug/kg	285	951
298-02-2	Phorate	U	951	ug/kg	285	951
60-51-5	Dimethoate	U	951	ug/kg	285	951
298-04-4	Disulfoton	U	951	ug/kg	285	951
298-00-0	Methyl parathion	U	951	ug/kg	285	951
56-38-2	Parathion	U	951	ug/kg	285	951
52-85-7	Famphur	U	951	ug/kg	285	951
106-50-3	p-Phenylenediamine	U	47500	ug/kg	9510	47500
70-30-4	Hexachlorophene	U	47500	ug/kg	11000	47500
120-82-1	1,2,4-Trichlorobenzene	U	951	ug/kg	285	951

LL
04/03/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0224.D
Acq On : 02 Apr 2024 18:22
Operator : LL2
InstName : MSD1
Sample : |660771007|2589785|1|SVM|1|PERM|||
Misc : |MSD827E4_S|MISC SOLID|12038.B2.Top Front.EPA|mix[a,b,j,d,e]||
ALS Vial : 21 Sample Multiplier: 1

RB
04/04/2024

Quant Time: Apr 03 08:04:22 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	120402	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	452795	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	247909	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.741	8.741	1.000	505292	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.239	11.245	1.000	539441	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.609	13.625	1.000	550969	40.00	ng/uL	-0.02
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	120402	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	459442	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	247909	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.741	8.741	1.000	505292	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.239	11.245	1.000	539441	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.609	13.625	1.000	550969	40.00	ng/uL	-0.02
152) J Naphthalene-d8	136	5.714	5.714	1.000	459442	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.741	8.741	1.000	505292	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.239	11.245	1.000	539441	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	459442	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	247909	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.741	8.741	1.000	505292	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.239	11.245	1.000	539441	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	459442	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.609	13.625	1.000	550969	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.992	2.986	0.695	248843	60.87	ng/uL	0.00
8) Phenol-d5	99	3.869	3.874	0.899	347110	64.84	ng/uL	0.00
23) Nitrobenzene-d5	82	4.912	4.917	0.860	165647	33.04	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.800	6.805	0.914	307911	33.11	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.137	8.137	1.094	96358	66.16	ng/uL	0.00
79) p-Terphenyl-d14	244	10.079	10.084	1.153	453737	36.73	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	61%
8) Phenol-d5	100.000	15 - 85	65%
23) Nitrobenzene-d5	50.000	39 - 112	66%
44) 2-Fluorobiphenyl	50.000	39 - 112	66%
63) 2,4,6-Tribromophenol	100.000	37 - 132	66%
79) p-Terphenyl-d14	50.000	24 - 129	73%

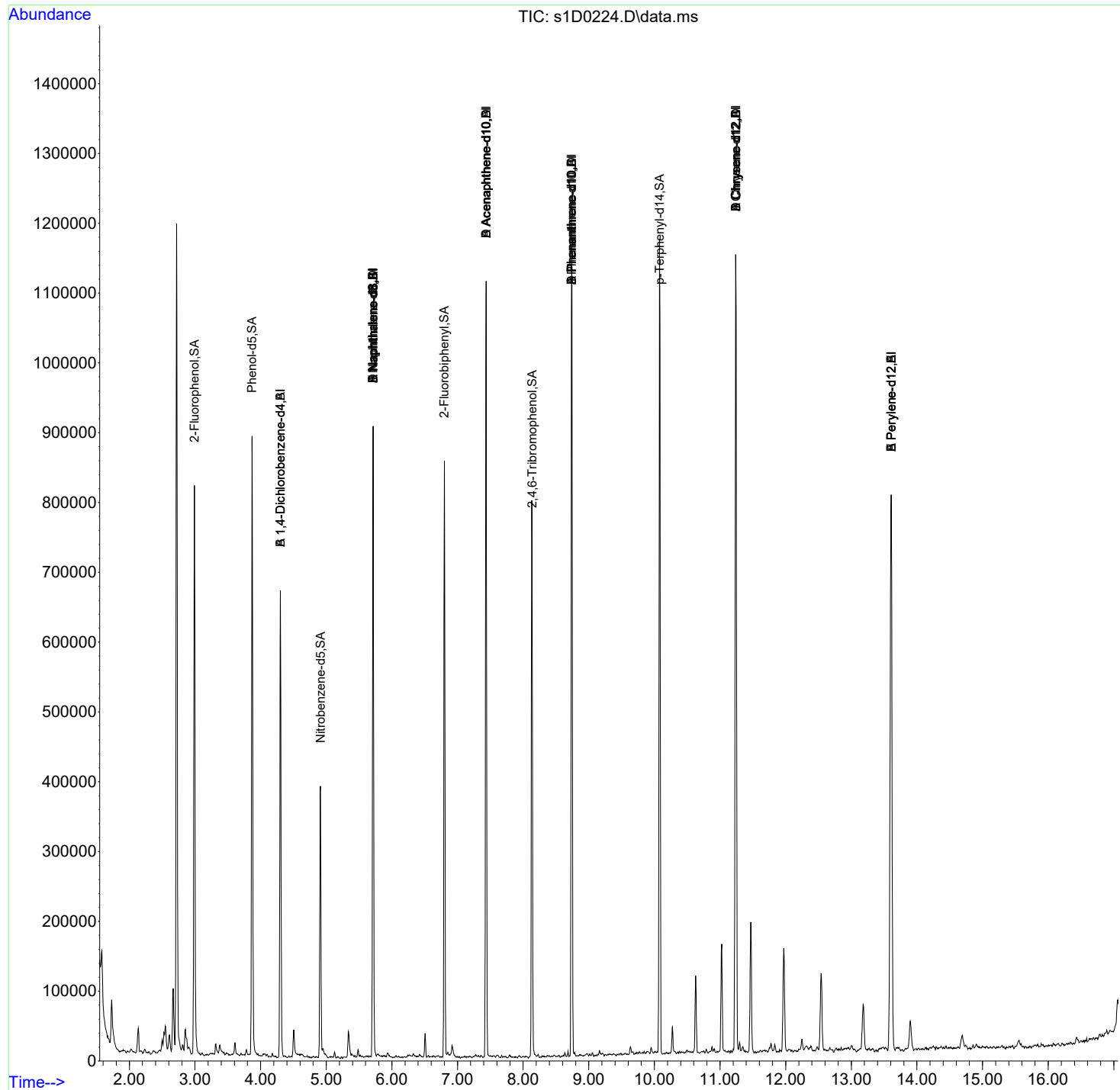
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
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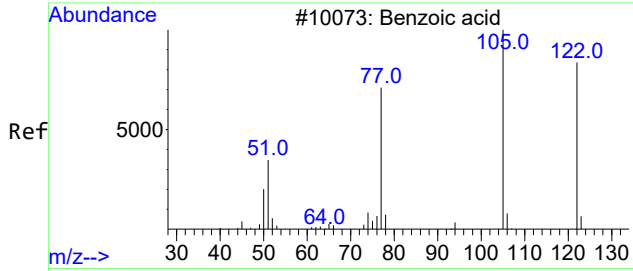
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0224.D
Acq On : 02 Apr 2024 18:22
Operator : LL2
InstName : MSD1
Sample : |660771007|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12038.B2.Top Front.EPA|mix[a,b,j,d,e]|
ALS Vial : 21 Sample Multiplier: 1

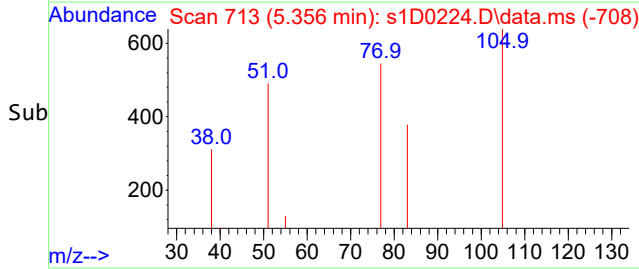
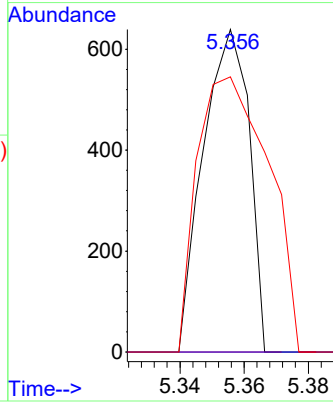
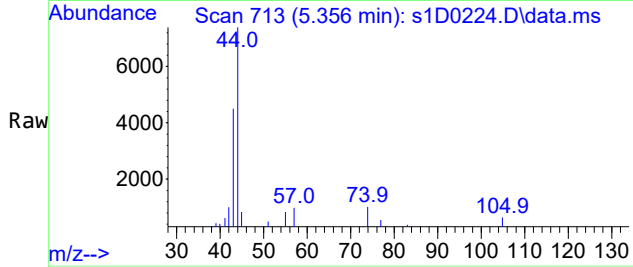
Quant Time: Apr 03 08:04:22 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE





#30 BEFORE analyst DELETION
 Benzoic acid
 Concen: 8.00 ng/uL
 RT: 5.356 min Scan# 713
 Delta R.T. -0.054 min
 Lab File: s1D0224.D
 Acq: 02 Apr 2024 18:22

Tgt Ion:105 Resp: 636
 Ion Ratio Lower Upper
 105 100
 122 0.0 36.8 96.8#
 77 132.7 51.7 111.7#



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:10	Matrix:	MISC SOLID
Lab Sample ID:	660771008	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 18:45	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.35 g	Final Volume:	1 mL
Data File:	S040224\1D0225.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	966	ug/kg	290	966
110-86-1	Pyridine	U	966	ug/kg	290	966
62-53-3	Aniline	U	966	ug/kg	290	966
108-95-2	Phenol	U	966	ug/kg	290	966
111-44-4	bis(2-Chloroethyl) ether	U	966	ug/kg	290	966
95-57-8	2-Chlorophenol	U	966	ug/kg	290	966
541-73-1	1,3-Dichlorobenzene	U	966	ug/kg	290	966
106-46-7	1,4-Dichlorobenzene	U	966	ug/kg	290	966
95-50-1	1,2-Dichlorobenzene	U	966	ug/kg	290	966
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	966	ug/kg	290	966
100-51-6	Benzyl alcohol	U	966	ug/kg	290	966
95-48-7	o-Cresol	U	966	ug/kg	290	966
65794-96-9	m,p-Cresols	U	966	ug/kg	290	966
621-64-7	N-Nitrosodipropylamine	U	966	ug/kg	290	966
67-72-1	Hexachloroethane	U	966	ug/kg	290	966
98-95-3	Nitrobenzene	U	966	ug/kg	290	966
78-59-1	Isophorone	U	966	ug/kg	290	966
88-75-5	2-Nitrophenol	U	966	ug/kg	290	966
105-67-9	2,4-Dimethylphenol	U	966	ug/kg	290	966
111-91-1	bis(2-Chloroethoxy)methane	U	966	ug/kg	290	966
120-83-2	2,4-Dichlorophenol	U	966	ug/kg	290	966
65-85-0	Benzoic acid	U	1930	ug/kg	483	1930
106-47-8	4-Chloroaniline	U	966	ug/kg	290	966
87-68-3	Hexachlorobutadiene	U	966	ug/kg	290	966
59-50-7	4-Chloro-3-methylphenol	U	966	ug/kg	386	966
91-57-6	2-Methylnaphthalene	U	96.6	ug/kg	29.0	96.6
91-20-3	Naphthalene	U	96.6	ug/kg	29.0	96.6
90-12-0	1-Methylnaphthalene	U	96.6	ug/kg	29.0	96.6
77-47-4	Hexachlorocyclopentadiene	U	966	ug/kg	290	966
88-06-2	2,4,6-Trichlorophenol	U	966	ug/kg	290	966
95-95-4	2,4,5-Trichlorophenol	U	966	ug/kg	290	966
91-58-7	2-Chloronaphthalene	U	96.6	ug/kg	29.0	96.6
88-74-4	o-Nitroaniline	U	966	ug/kg	319	966
99-09-2	m-Nitroaniline	U	966	ug/kg	290	966
131-11-3	Dimethylphthalate	U	96.6	ug/kg	29.0	96.6
99-65-0	m-Dinitrobenzene	U	966	ug/kg	290	966
606-20-2	2,6-Dinitrotoluene	U	966	ug/kg	290	966
121-14-2	2,4-Dinitrotoluene	U	966	ug/kg	290	966

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:10	Matrix:	MISC SOLID
Lab Sample ID:	660771008	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 18:45	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.35 g	Final Volume:	1 mL
Data File:	S040224\1D0225.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	96.6	ug/kg	29.0	96.6
83-32-9	Acenaphthene	U	96.6	ug/kg	29.0	96.6
51-28-5	2,4-Dinitrophenol	U	1930	ug/kg	290	1930
132-64-9	Dibenzofuran	U	966	ug/kg	290	966
58-90-2	2,3,4,6-Tetrachlorophenol	U	966	ug/kg	290	966
84-66-2	Diethylphthalate	U	96.6	ug/kg	29.0	96.6
100-02-7	4-Nitrophenol	U	966	ug/kg	290	966
86-73-7	Fluorene	U	96.6	ug/kg	29.0	96.6
7005-72-3	4-Chlorophenylphenylether	U	966	ug/kg	290	966
100-01-6	p-Nitroaniline	U	966	ug/kg	290	966
534-52-1	2-Methyl-4,6-dinitrophenol	U	966	ug/kg	290	966
122-39-4	Diphenylamine	U	966	ug/kg	290	966
122-66-7	1,2-Diphenylhydrazine	U	966	ug/kg	290	966
101-55-3	4-Bromophenylphenylether	U	966	ug/kg	290	966
118-74-1	Hexachlorobenzene	U	966	ug/kg	290	966
87-86-5	Pentachlorophenol	U	966	ug/kg	290	966
88-85-7	Dinoseb	U	966	ug/kg	290	966
85-01-8	Phenanthrene	U	96.6	ug/kg	29.0	96.6
120-12-7	Anthracene	U	96.6	ug/kg	29.0	96.6
86-74-8	Carbazole	U	96.6	ug/kg	29.0	96.6
84-74-2	Di-n-butylphthalate	U	96.6	ug/kg	29.0	96.6
206-44-0	Fluoranthene	U	96.6	ug/kg	29.0	96.6
129-00-0	Pyrene	U	96.6	ug/kg	29.0	96.6
85-68-7	Butylbenzylphthalate	U	96.6	ug/kg	29.0	96.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	96.6	ug/kg	29.0	96.6
56-55-3	Benzo(a)anthracene	U	96.6	ug/kg	29.0	96.6
218-01-9	Chrysene	U	96.6	ug/kg	29.0	96.6
72-43-5	Methoxychlor	U	966	ug/kg	290	966
117-84-0	Di-n-octylphthalate	U	96.6	ug/kg	29.0	96.6
205-99-2	Benzo(b)fluoranthene	U	96.6	ug/kg	29.0	96.6
207-08-9	Benzo(k)fluoranthene	U	96.6	ug/kg	29.0	96.6
50-32-8	Benzo(a)pyrene	U	96.6	ug/kg	29.0	96.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	96.6	ug/kg	29.0	96.6
53-70-3	Dibenzo(a,h)anthracene	U	96.6	ug/kg	29.0	96.6
191-24-2	Benzo(ghi)perylene	U	96.6	ug/kg	29.0	96.6
123-91-1	1,4-Dioxane	U	966	ug/kg	290	966
80-62-6	Methyl methacrylate	U	966	ug/kg	290	966
97-63-2	Ethyl methacrylate	U	966	ug/kg	290	966

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:10	Matrix:	MISC SOLID
Lab Sample ID:	660771008	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 18:45	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.35 g	Final Volume:	1 mL
Data File:	S040224\1D0225.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	966	ug/kg	290	966
10595-95-6	N-Nitrosomethylethylamine	U	966	ug/kg	290	966
66-27-3	Methyl methanesulfonate	U	966	ug/kg	290	966
55-18-5	N-Nitrosodiethylamine	U	966	ug/kg	290	966
62-50-0	Ethyl Methanesulfonate	U	966	ug/kg	290	966
76-01-7	Pentachloroethane	U	966	ug/kg	290	966
930-55-2	N-Nitrosopyrrolidine	U	966	ug/kg	290	966
98-86-2	Acetophenone	U	966	ug/kg	290	966
59-89-2	N-Nitrosomorpholine	U	966	ug/kg	290	966
95-53-4	o-Toluidine	U	966	ug/kg	290	966
100-75-4	N-Nitrosopiperidine	U	966	ug/kg	290	966
122-09-8	a,a-Dimethylphenethylamine	U	966	ug/kg	338	966
87-65-0	2,6-Dichlorophenol	U	966	ug/kg	290	966
1888-71-7	Hexachloropropene	U	966	ug/kg	290	966
924-16-3	N-Nitrosodi-n-butylamine	U	966	ug/kg	290	966
94-59-7	Safrole	U	966	ug/kg	290	966
95-94-3	1,2,4,5-Tetrachlorobenzene	U	966	ug/kg	290	966
120-58-1	Isosafrole	U	966	ug/kg	290	966
130-15-4	1,4-Naphthoquinone	U	966	ug/kg	290	966
608-93-5	Pentachlorobenzene	U	966	ug/kg	290	966
134-32-7	1-Naphthylamine	U	966	ug/kg	290	966
91-59-8	2-Naphthylamine	U	966	ug/kg	290	966
99-55-8	5-Nitro-o-toluidine	U	966	ug/kg	290	966
62-44-2	Phenacetin	U	966	ug/kg	290	966
99-35-4	1,3,5-Trinitrobenzene	U	966	ug/kg	290	966
2303-16-4	Diallate	U	966	ug/kg	290	966
92-67-1	4-Aminobiphenyl	U	966	ug/kg	290	966
82-68-8	Pentachloronitrobenzene	U	966	ug/kg	290	966
23950-58-5	Pronamide	U	966	ug/kg	290	966
56-57-5	4-Nitroquinoline-1-oxide	U	966	ug/kg	290	966
91-80-5	Methapyrilene	U	966	ug/kg	290	966
465-73-6	Isodrin	U	966	ug/kg	193	966
140-57-8	Aramite	U	966	ug/kg	290	966
143-50-0	Kepone	U	966	ug/kg	290	966
60-11-7	p-(Dimethylamino)azobenzene	U	966	ug/kg	290	966
510-15-6	Chlorobenzilate	U	966	ug/kg	290	966
119-93-7	3,3'-Dimethylbenzidine	U	966	ug/kg	290	966
53-96-3	2-Acetylaminofluorene	U	966	ug/kg	290	966

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:10	Matrix:	MISC SOLID
Lab Sample ID:	660771008	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 18:45	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.35 g	Final Volume:	1 mL
Data File:	S040224\s1D0225.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	966	ug/kg	290	966
57-97-6	7,12-Dimethylbenz(a)anthracene	U	966	ug/kg	290	966
56-49-5	3-Methylcholanthrene	U	966	ug/kg	290	966
126-68-1	Triethylphosphorothioate	U	966	ug/kg	290	966
297-97-2	Thionazin	U	966	ug/kg	290	966
126-73-8	Tributylphosphate	U	966	ug/kg	290	966
3689-24-5	Sulfotepp	U	966	ug/kg	290	966
298-02-2	Phorate	U	966	ug/kg	290	966
60-51-5	Dimethoate	U	966	ug/kg	290	966
298-04-4	Disulfoton	U	966	ug/kg	290	966
298-00-0	Methyl parathion	U	966	ug/kg	290	966
56-38-2	Parathion	U	966	ug/kg	290	966
52-85-7	Famphur	U	966	ug/kg	290	966
106-50-3	p-Phenylenediamine	U	48300	ug/kg	9660	48300
70-30-4	Hexachlorophene	U	48300	ug/kg	11200	48300
120-82-1	1,2,4-Trichlorobenzene	U	966	ug/kg	290	966

LL
04/03/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0225.D
Acq On : 02 Apr 2024 18:45
Operator : LL2
InstName : MSD1
Sample : |660771008|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12038.B2.Middle Front.EPA|mix[a,b,j,d,e]|
ALS Vial : 22 Sample Multiplier: 1

RAB
04/04/2024

Quant Time: Apr 03 08:04:43 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	127102	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	438844	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	239011	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.742	8.741	1.000	486358	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.239	11.245	1.000	520178	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.603	13.625	1.000	378870	40.00	ng/uL	-0.02
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	127102	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	444580	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	239011	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.742	8.741	1.000	486358	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.239	11.245	1.000	520178	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.603	13.625	1.000	378870	40.00	ng/uL	-0.02
152) J Naphthalene-d8	136	5.714	5.714	1.000	444580	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.742	8.741	1.000	486358	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.239	11.245	1.000	520178	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	444580	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	239011	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.742	8.741	1.000	486358	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.239	11.245	1.000	520178	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	444580	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.603	13.625	1.000	378870	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.992	2.986	0.695	231030	53.53	ng/uL	0.00
8) Phenol-d5	99	3.869	3.874	0.899	315583	55.84	ng/uL	0.00
23) Nitrobenzene-d5	82	4.907	4.917	0.859	156096	32.12	ng/uL	-0.01
44) 2-Fluorobiphenyl	172	6.800	6.805	0.914	279097	31.13	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.132	8.137	1.094	82626	58.84	ng/uL	0.00
79) p-Terphenyl-d14	244	10.079	10.084	1.153	417419	35.10	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	54%
8) Phenol-d5	100.000	15 - 85	56%
23) Nitrobenzene-d5	50.000	39 - 112	64%
44) 2-Fluorobiphenyl	50.000	39 - 112	62%
63) 2,4,6-Tribromophenol	100.000	37 - 132	59%
79) p-Terphenyl-d14	50.000	24 - 129	70%

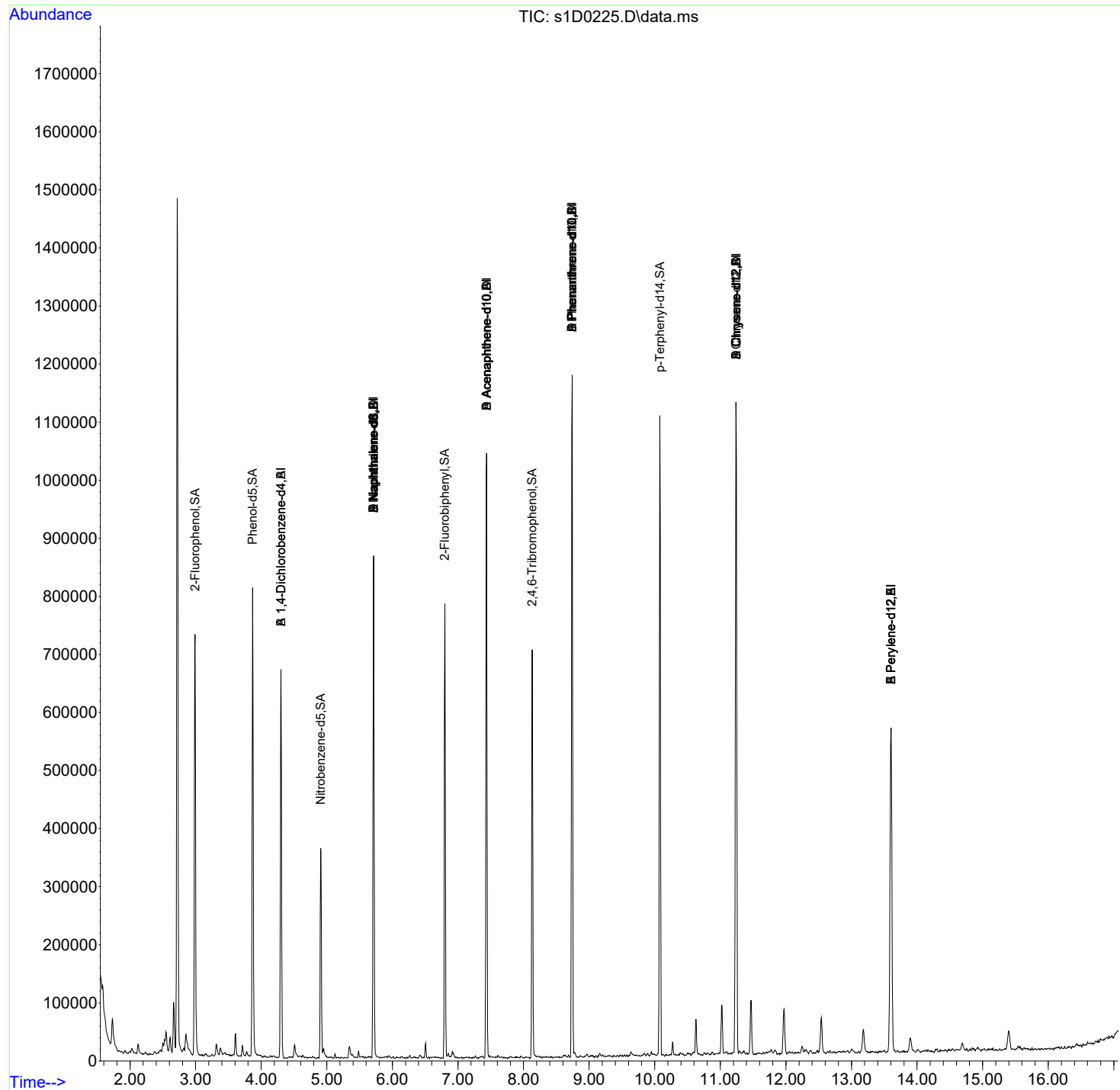
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
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(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0225.D
Acq On : 02 Apr 2024 18:45
Operator : LL2
InstName : MSD1
Sample : |660771008|2589785|1|SVM|1|PERM|||
Misc : |MSD827E4_S|MISC SOLID|12038.B2.Middle Front.EPA|mix[a,b,j,d,e]||
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Apr 03 08:04:43 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771009	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:07	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.79 g	Final Volume:	1 mL
Data File:	S040224\1D0226.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	927	ug/kg	278	927
110-86-1	Pyridine	U	927	ug/kg	278	927
62-53-3	Aniline	U	927	ug/kg	278	927
108-95-2	Phenol	U	927	ug/kg	278	927
111-44-4	bis(2-Chloroethyl) ether	U	927	ug/kg	278	927
95-57-8	2-Chlorophenol	U	927	ug/kg	278	927
541-73-1	1,3-Dichlorobenzene	U	927	ug/kg	278	927
106-46-7	1,4-Dichlorobenzene	U	927	ug/kg	278	927
95-50-1	1,2-Dichlorobenzene	U	927	ug/kg	278	927
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	927	ug/kg	278	927
100-51-6	Benzyl alcohol	U	927	ug/kg	278	927
95-48-7	o-Cresol	U	927	ug/kg	278	927
65794-96-9	m,p-Cresols	U	927	ug/kg	278	927
621-64-7	N-Nitrosodipropylamine	U	927	ug/kg	278	927
67-72-1	Hexachloroethane	U	927	ug/kg	278	927
98-95-3	Nitrobenzene	U	927	ug/kg	278	927
78-59-1	Isophorone	U	927	ug/kg	278	927
88-75-5	2-Nitrophenol	U	927	ug/kg	278	927
105-67-9	2,4-Dimethylphenol	U	927	ug/kg	278	927
111-91-1	bis(2-Chloroethoxy)methane	U	927	ug/kg	278	927
120-83-2	2,4-Dichlorophenol	U	927	ug/kg	278	927
65-85-0	Benzoic acid	J	783	ug/kg	463	1850
106-47-8	4-Chloroaniline	U	927	ug/kg	278	927
87-68-3	Hexachlorobutadiene	U	927	ug/kg	278	927
59-50-7	4-Chloro-3-methylphenol	U	927	ug/kg	371	927
91-57-6	2-Methylnaphthalene	U	92.7	ug/kg	27.8	92.7
91-20-3	Naphthalene	U	92.7	ug/kg	27.8	92.7
90-12-0	1-Methylnaphthalene	U	92.7	ug/kg	27.8	92.7
77-47-4	Hexachlorocyclopentadiene	U	927	ug/kg	278	927
88-06-2	2,4,6-Trichlorophenol	U	927	ug/kg	278	927
95-95-4	2,4,5-Trichlorophenol	U	927	ug/kg	278	927
91-58-7	2-Chloronaphthalene	U	92.7	ug/kg	27.8	92.7
88-74-4	o-Nitroaniline	U	927	ug/kg	306	927
99-09-2	m-Nitroaniline	U	927	ug/kg	278	927
131-11-3	Dimethylphthalate	U	92.7	ug/kg	27.8	92.7
99-65-0	m-Dinitrobenzene	U	927	ug/kg	278	927
606-20-2	2,6-Dinitrotoluene	U	927	ug/kg	278	927
121-14-2	2,4-Dinitrotoluene	U	927	ug/kg	278	927

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771009	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:07	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.79 g	Final Volume:	1 mL
Data File:	S040224\1D0226.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	92.7	ug/kg	27.8	92.7
83-32-9	Acenaphthene	U	92.7	ug/kg	27.8	92.7
51-28-5	2,4-Dinitrophenol	U	1850	ug/kg	278	1850
132-64-9	Dibenzofuran	U	927	ug/kg	278	927
58-90-2	2,3,4,6-Tetrachlorophenol	U	927	ug/kg	278	927
84-66-2	Diethylphthalate	U	92.7	ug/kg	27.8	92.7
100-02-7	4-Nitrophenol	U	927	ug/kg	278	927
86-73-7	Fluorene	U	92.7	ug/kg	27.8	92.7
7005-72-3	4-Chlorophenylphenylether	U	927	ug/kg	278	927
100-01-6	p-Nitroaniline	U	927	ug/kg	278	927
534-52-1	2-Methyl-4,6-dinitrophenol	U	927	ug/kg	278	927
122-39-4	Diphenylamine	U	927	ug/kg	278	927
122-66-7	1,2-Diphenylhydrazine	U	927	ug/kg	278	927
101-55-3	4-Bromophenylphenylether	U	927	ug/kg	278	927
118-74-1	Hexachlorobenzene	U	927	ug/kg	278	927
87-86-5	Pentachlorophenol	U	927	ug/kg	278	927
88-85-7	Dinoseb	U	927	ug/kg	278	927
85-01-8	Phenanthrene	U	92.7	ug/kg	27.8	92.7
120-12-7	Anthracene	U	92.7	ug/kg	27.8	92.7
86-74-8	Carbazole	U	92.7	ug/kg	27.8	92.7
84-74-2	Di-n-butylphthalate	U	92.7	ug/kg	27.8	92.7
206-44-0	Fluoranthene	U	92.7	ug/kg	27.8	92.7
129-00-0	Pyrene	U	92.7	ug/kg	27.8	92.7
85-68-7	Butylbenzylphthalate	U	92.7	ug/kg	27.8	92.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	92.7	ug/kg	27.8	92.7
56-55-3	Benzo(a)anthracene	U	92.7	ug/kg	27.8	92.7
218-01-9	Chrysene	U	92.7	ug/kg	27.8	92.7
72-43-5	Methoxychlor	U	927	ug/kg	278	927
117-84-0	Di-n-octylphthalate	U	92.7	ug/kg	27.8	92.7
205-99-2	Benzo(b)fluoranthene	U	92.7	ug/kg	27.8	92.7
207-08-9	Benzo(k)fluoranthene	U	92.7	ug/kg	27.8	92.7
50-32-8	Benzo(a)pyrene	U	92.7	ug/kg	27.8	92.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	92.7	ug/kg	27.8	92.7
53-70-3	Dibenzo(a,h)anthracene	U	92.7	ug/kg	27.8	92.7
191-24-2	Benzo(ghi)perylene	U	92.7	ug/kg	27.8	92.7
123-91-1	1,4-Dioxane	U	927	ug/kg	278	927
80-62-6	Methyl methacrylate	U	927	ug/kg	278	927
97-63-2	Ethyl methacrylate	U	927	ug/kg	278	927

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771009	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:07	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.79 g	Final Volume:	1 mL
Data File:	S040224\1D0226.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	927	ug/kg	278	927
10595-95-6	N-Nitrosomethylethylamine	U	927	ug/kg	278	927
66-27-3	Methyl methanesulfonate	U	927	ug/kg	278	927
55-18-5	N-Nitrosodiethylamine	U	927	ug/kg	278	927
62-50-0	Ethyl Methanesulfonate	U	927	ug/kg	278	927
76-01-7	Pentachloroethane	U	927	ug/kg	278	927
930-55-2	N-Nitrosopyrrolidine	U	927	ug/kg	278	927
98-86-2	Acetophenone	U	927	ug/kg	278	927
59-89-2	N-Nitrosomorpholine	U	927	ug/kg	278	927
95-53-4	o-Toluidine	U	927	ug/kg	278	927
100-75-4	N-Nitrosopiperidine	U	927	ug/kg	278	927
122-09-8	a,a-Dimethylphenethylamine	U	927	ug/kg	324	927
87-65-0	2,6-Dichlorophenol	U	927	ug/kg	278	927
1888-71-7	Hexachloropropene	U	927	ug/kg	278	927
924-16-3	N-Nitrosodi-n-butylamine	U	927	ug/kg	278	927
94-59-7	Safrole	U	927	ug/kg	278	927
95-94-3	1,2,4,5-Tetrachlorobenzene	U	927	ug/kg	278	927
120-58-1	Isosafrole	U	927	ug/kg	278	927
130-15-4	1,4-Naphthoquinone	U	927	ug/kg	278	927
608-93-5	Pentachlorobenzene	U	927	ug/kg	278	927
134-32-7	1-Naphthylamine	U	927	ug/kg	278	927
91-59-8	2-Naphthylamine	U	927	ug/kg	278	927
99-55-8	5-Nitro-o-toluidine	U	927	ug/kg	278	927
62-44-2	Phenacetin	U	927	ug/kg	278	927
99-35-4	1,3,5-Trinitrobenzene	U	927	ug/kg	278	927
2303-16-4	Diallate	U	927	ug/kg	278	927
92-67-1	4-Aminobiphenyl	U	927	ug/kg	278	927
82-68-8	Pentachloronitrobenzene	U	927	ug/kg	278	927
23950-58-5	Pronamide	U	927	ug/kg	278	927
56-57-5	4-Nitroquinoline-1-oxide	U	927	ug/kg	278	927
91-80-5	Methapyrilene	U	927	ug/kg	278	927
465-73-6	Isodrin	U	927	ug/kg	185	927
140-57-8	Aramite	U	927	ug/kg	278	927
143-50-0	Kepone	U	927	ug/kg	278	927
60-11-7	p-(Dimethylamino)azobenzene	U	927	ug/kg	278	927
510-15-6	Chlorobenzilate	U	927	ug/kg	278	927
119-93-7	3,3'-Dimethylbenzidine	U	927	ug/kg	278	927
53-96-3	2-Acetylaminofluorene	U	927	ug/kg	278	927

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771009	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12038.B2.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:07	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.79 g	Final Volume:	1 mL
Data File:	S040224\s1D0226.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	927	ug/kg	278	927
57-97-6	7,12-Dimethylbenz(a)anthracene	U	927	ug/kg	278	927
56-49-5	3-Methylcholanthrene	U	927	ug/kg	278	927
126-68-1	Triethylphosphorothioate	U	927	ug/kg	278	927
297-97-2	Thionazin	U	927	ug/kg	278	927
126-73-8	Tributylphosphate	U	927	ug/kg	278	927
3689-24-5	Sulfotepp	U	927	ug/kg	278	927
298-02-2	Phorate	U	927	ug/kg	278	927
60-51-5	Dimethoate	U	927	ug/kg	278	927
298-04-4	Disulfoton	U	927	ug/kg	278	927
298-00-0	Methyl parathion	U	927	ug/kg	278	927
56-38-2	Parathion	U	927	ug/kg	278	927
52-85-7	Famphur	U	927	ug/kg	278	927
106-50-3	p-Phenylenediamine	U	46300	ug/kg	9270	46300
70-30-4	Hexachlorophene	U	46300	ug/kg	10800	46300
120-82-1	1,2,4-Trichlorobenzene	U	927	ug/kg	278	927

LL
04/03/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0226.D
Acq On : 02 Apr 2024 19:07
Operator : LL2
InstName : MSD1
Sample : |660771009|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12038.B2.Bottom Front.EPA|mix[a,b,j,d,e]|
ALS Vial : 23 Sample Multiplier: 1

RAB
04/04/2024

Quant Time: Apr 03 08:04:54 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	127059	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	470710	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	260849	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.741	8.741	1.000	552635	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.239	11.245	1.000	587465	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.603	13.625	1.000	419111	40.00	ng/uL	-0.02
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	127059	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	477426	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	260849	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.741	8.741	1.000	552635	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.239	11.245	1.000	587465	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.603	13.625	1.000	419111	40.00	ng/uL	-0.02
152) J Naphthalene-d8	136	5.714	5.714	1.000	477426	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.741	8.741	1.000	552635	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.239	11.245	1.000	587465	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	477426	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	260849	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.741	8.741	1.000	552635	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.239	11.245	1.000	587465	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	477426	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.603	13.625	1.000	419111	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.992	2.986	0.695	280379	64.99	ng/uL	0.00
8) Phenol-d5	99	3.869	3.874	0.899	392808	69.53	ng/uL	0.00
23) Nitrobenzene-d5	82	4.912	4.917	0.860	193027	37.03	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.800	6.805	0.914	336388	34.38	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.137	8.137	1.094	100797	65.77	ng/uL	0.00
79) p-Terphenyl-d14	244	10.079	10.084	1.153	509756	37.73	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	65%
8) Phenol-d5	100.000	15 - 85	70%
23) Nitrobenzene-d5	50.000	39 - 112	74%
44) 2-Fluorobiphenyl	50.000	39 - 112	69%
63) 2,4,6-Tribromophenol	100.000	37 - 132	66%
79) p-Terphenyl-d14	50.000	24 - 129	75%

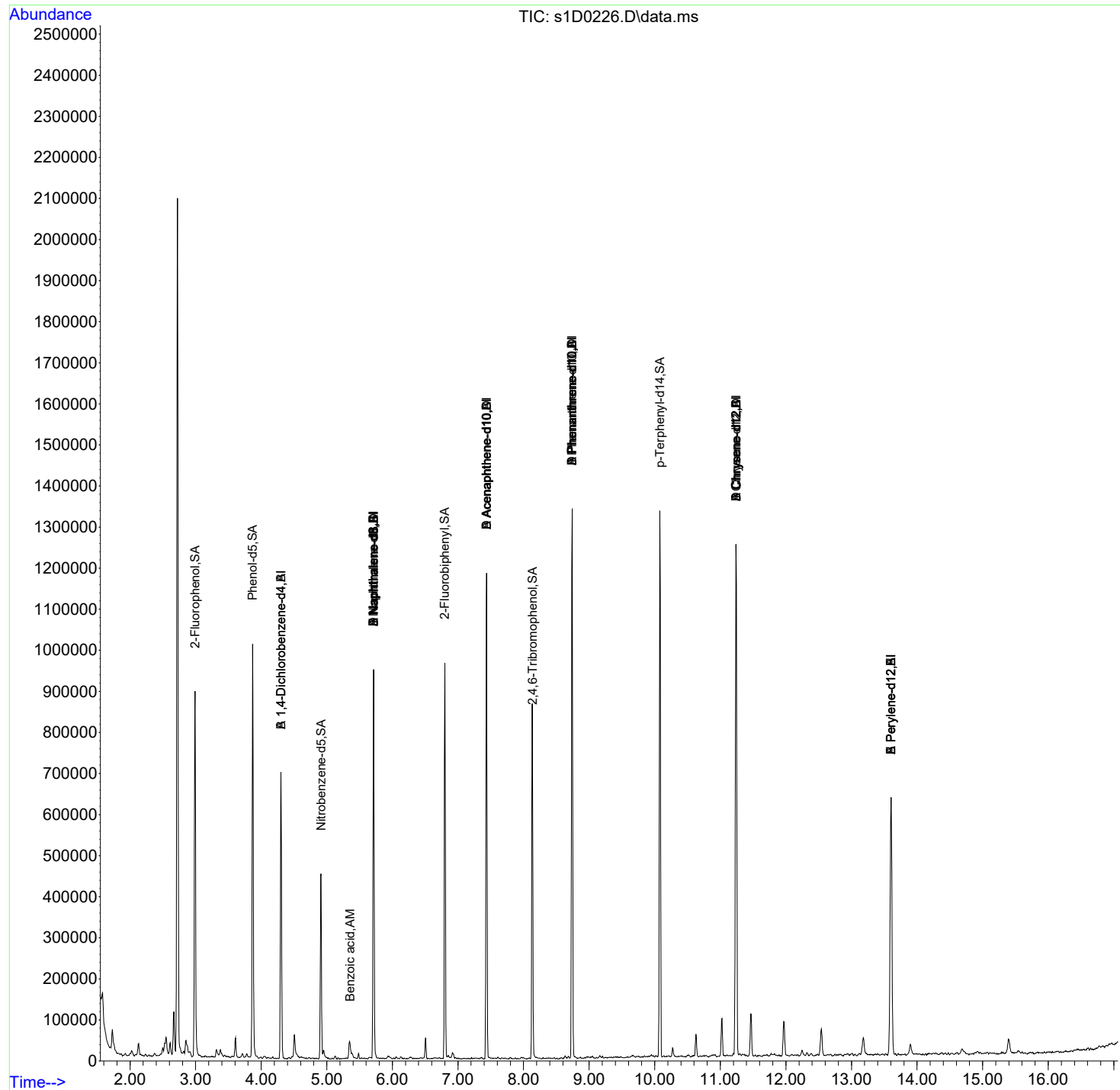
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
30) Benzoic acid	105	5.356	5.409	0.937	2229m	8.45	ng/uL	

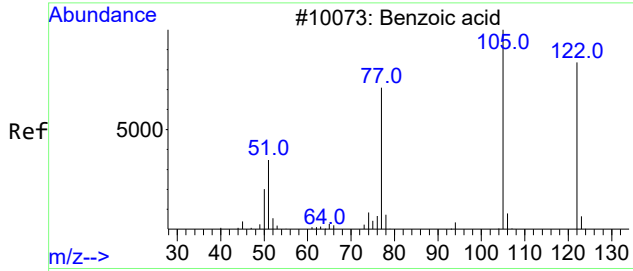
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0226.D
Acq On : 02 Apr 2024 19:07
Operator : LL2
InstName : MSD1
Sample : |660771009|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12038.B2.Bottom Front.EPA|mix[a,b,j,d,e]|
ALS Vial : 23 Sample Multiplier: 1

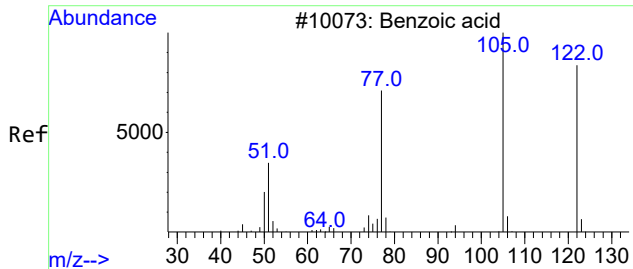
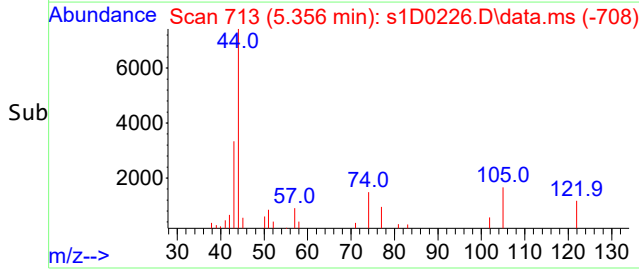
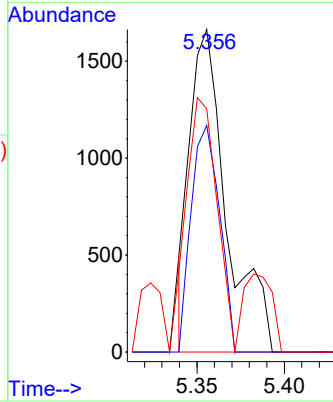
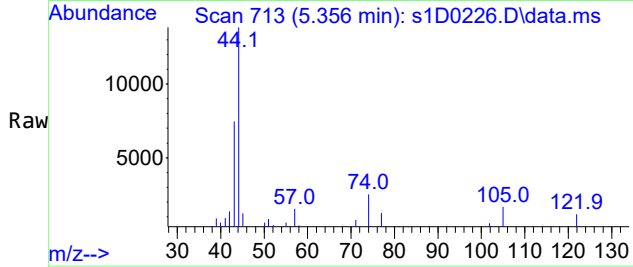
Quant Time: Apr 03 08:04:54 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE





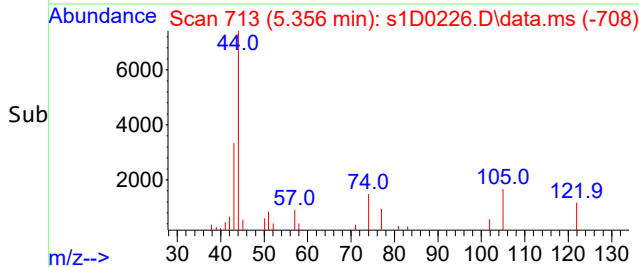
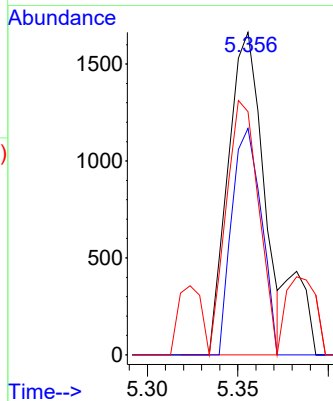
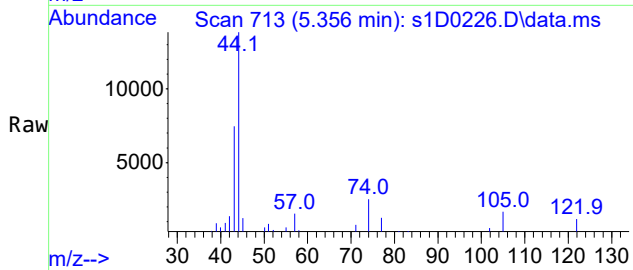
#30 BEFORE analyst integration
Benzoic acid
Concen: 8.51 ng/uL
RT: 5.356 min Scan# 713
Delta R.T. -0.054 min
Lab File: s1D0226.D
Acq: 02 Apr 2024 19:07

Tgt Ion	Ratio	Lower	Upper
105	100		
122	54.4	36.8	96.8
77	61.5	51.7	111.7



#30 AFTER analyst integration
Benzoic acid
Concen: 8.45 ng/uL MANUALLY INTEGRATED
RT: 5.356 min Scan# 713
Delta R.T. -0.054 min
Lab File: s1D0226.D
Acq: 02 Apr 2024 19:07

Tgt Ion	Ratio	Lower	Upper
105	100		
122	59.5	36.8	96.8
77	73.3	51.7	111.7



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:25	Matrix:	MISC SOLID
Lab Sample ID:	660771010	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.88 g	Final Volume:	1 mL
Data File:	S040224\1D0227.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	919	ug/kg	276	919
110-86-1	Pyridine	U	919	ug/kg	276	919
62-53-3	Aniline	U	919	ug/kg	276	919
108-95-2	Phenol	U	919	ug/kg	276	919
111-44-4	bis(2-Chloroethyl) ether	U	919	ug/kg	276	919
95-57-8	2-Chlorophenol	U	919	ug/kg	276	919
541-73-1	1,3-Dichlorobenzene	U	919	ug/kg	276	919
106-46-7	1,4-Dichlorobenzene	U	919	ug/kg	276	919
95-50-1	1,2-Dichlorobenzene	U	919	ug/kg	276	919
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	919	ug/kg	276	919
100-51-6	Benzyl alcohol	U	919	ug/kg	276	919
95-48-7	o-Cresol	U	919	ug/kg	276	919
65794-96-9	m,p-Cresols	U	919	ug/kg	276	919
621-64-7	N-Nitrosodipropylamine	U	919	ug/kg	276	919
67-72-1	Hexachloroethane	U	919	ug/kg	276	919
98-95-3	Nitrobenzene	U	919	ug/kg	276	919
78-59-1	Isophorone	U	919	ug/kg	276	919
88-75-5	2-Nitrophenol	U	919	ug/kg	276	919
105-67-9	2,4-Dimethylphenol	U	919	ug/kg	276	919
111-91-1	bis(2-Chloroethoxy)methane	U	919	ug/kg	276	919
120-83-2	2,4-Dichlorophenol	U	919	ug/kg	276	919
65-85-0	Benzoic acid	U	1840	ug/kg	460	1840
106-47-8	4-Chloroaniline	U	919	ug/kg	276	919
87-68-3	Hexachlorobutadiene	U	919	ug/kg	276	919
59-50-7	4-Chloro-3-methylphenol	U	919	ug/kg	368	919
91-57-6	2-Methylnaphthalene	U	91.9	ug/kg	27.6	91.9
91-20-3	Naphthalene	U	91.9	ug/kg	27.6	91.9
90-12-0	1-Methylnaphthalene	U	91.9	ug/kg	27.6	91.9
77-47-4	Hexachlorocyclopentadiene	U	919	ug/kg	276	919
88-06-2	2,4,6-Trichlorophenol	U	919	ug/kg	276	919
95-95-4	2,4,5-Trichlorophenol	U	919	ug/kg	276	919
91-58-7	2-Chloronaphthalene	U	91.9	ug/kg	27.6	91.9
88-74-4	o-Nitroaniline	U	919	ug/kg	303	919
99-09-2	m-Nitroaniline	U	919	ug/kg	276	919
131-11-3	Dimethylphthalate	U	91.9	ug/kg	27.6	91.9
99-65-0	m-Dinitrobenzene	U	919	ug/kg	276	919
606-20-2	2,6-Dinitrotoluene	U	919	ug/kg	276	919
121-14-2	2,4-Dinitrotoluene	U	919	ug/kg	276	919

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:25	Matrix:	MISC SOLID
Lab Sample ID:	660771010	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.88 g	Final Volume:	1 mL
Data File:	S040224s1D0227.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	91.9	ug/kg	27.6	91.9
83-32-9	Acenaphthene	U	91.9	ug/kg	27.6	91.9
51-28-5	2,4-Dinitrophenol	U	1840	ug/kg	276	1840
132-64-9	Dibenzofuran	U	919	ug/kg	276	919
58-90-2	2,3,4,6-Tetrachlorophenol	U	919	ug/kg	276	919
84-66-2	Diethylphthalate	U	91.9	ug/kg	27.6	91.9
100-02-7	4-Nitrophenol	U	919	ug/kg	276	919
86-73-7	Fluorene	U	91.9	ug/kg	27.6	91.9
7005-72-3	4-Chlorophenylphenylether	U	919	ug/kg	276	919
100-01-6	p-Nitroaniline	U	919	ug/kg	276	919
534-52-1	2-Methyl-4,6-dinitrophenol	U	919	ug/kg	276	919
122-39-4	Diphenylamine	U	919	ug/kg	276	919
122-66-7	1,2-Diphenylhydrazine	U	919	ug/kg	276	919
101-55-3	4-Bromophenylphenylether	U	919	ug/kg	276	919
118-74-1	Hexachlorobenzene	U	919	ug/kg	276	919
87-86-5	Pentachlorophenol	U	919	ug/kg	276	919
88-85-7	Dinoseb	U	919	ug/kg	276	919
85-01-8	Phenanthrene	U	91.9	ug/kg	27.6	91.9
120-12-7	Anthracene	U	91.9	ug/kg	27.6	91.9
86-74-8	Carbazole	U	91.9	ug/kg	27.6	91.9
84-74-2	Di-n-butylphthalate	U	91.9	ug/kg	27.6	91.9
206-44-0	Fluoranthene	U	91.9	ug/kg	27.6	91.9
129-00-0	Pyrene	U	91.9	ug/kg	27.6	91.9
85-68-7	Butylbenzylphthalate	U	91.9	ug/kg	27.6	91.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	91.9	ug/kg	27.6	91.9
56-55-3	Benzo(a)anthracene	U	91.9	ug/kg	27.6	91.9
218-01-9	Chrysene	U	91.9	ug/kg	27.6	91.9
72-43-5	Methoxychlor	U	919	ug/kg	276	919
117-84-0	Di-n-octylphthalate	U	91.9	ug/kg	27.6	91.9
205-99-2	Benzo(b)fluoranthene	U	91.9	ug/kg	27.6	91.9
207-08-9	Benzo(k)fluoranthene	U	91.9	ug/kg	27.6	91.9
50-32-8	Benzo(a)pyrene	U	91.9	ug/kg	27.6	91.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	91.9	ug/kg	27.6	91.9
53-70-3	Dibenzo(a,h)anthracene	U	91.9	ug/kg	27.6	91.9
191-24-2	Benzo(ghi)perylene	U	91.9	ug/kg	27.6	91.9
123-91-1	1,4-Dioxane	U	919	ug/kg	276	919
80-62-6	Methyl methacrylate	U	919	ug/kg	276	919
97-63-2	Ethyl methacrylate	U	919	ug/kg	276	919

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:25	Matrix:	MISC SOLID
Lab Sample ID:	660771010	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.88 g	Final Volume:	1 mL
Data File:	S040224\1D0227.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	919	ug/kg	276	919
10595-95-6	N-Nitrosomethylethylamine	U	919	ug/kg	276	919
66-27-3	Methyl methanesulfonate	U	919	ug/kg	276	919
55-18-5	N-Nitrosodiethylamine	U	919	ug/kg	276	919
62-50-0	Ethyl Methanesulfonate	U	919	ug/kg	276	919
76-01-7	Pentachloroethane	U	919	ug/kg	276	919
930-55-2	N-Nitrosopyrrolidine	U	919	ug/kg	276	919
98-86-2	Acetophenone	U	919	ug/kg	276	919
59-89-2	N-Nitrosomorpholine	U	919	ug/kg	276	919
95-53-4	o-Toluidine	U	919	ug/kg	276	919
100-75-4	N-Nitrosopiperidine	U	919	ug/kg	276	919
122-09-8	a,a-Dimethylphenethylamine	U	919	ug/kg	322	919
87-65-0	2,6-Dichlorophenol	U	919	ug/kg	276	919
1888-71-7	Hexachloropropene	U	919	ug/kg	276	919
924-16-3	N-Nitrosodi-n-butylamine	U	919	ug/kg	276	919
94-59-7	Safrole	U	919	ug/kg	276	919
95-94-3	1,2,4,5-Tetrachlorobenzene	U	919	ug/kg	276	919
120-58-1	Isosafrole	U	919	ug/kg	276	919
130-15-4	1,4-Naphthoquinone	U	919	ug/kg	276	919
608-93-5	Pentachlorobenzene	U	919	ug/kg	276	919
134-32-7	1-Naphthylamine	U	919	ug/kg	276	919
91-59-8	2-Naphthylamine	U	919	ug/kg	276	919
99-55-8	5-Nitro-o-toluidine	U	919	ug/kg	276	919
62-44-2	Phenacetin	U	919	ug/kg	276	919
99-35-4	1,3,5-Trinitrobenzene	U	919	ug/kg	276	919
2303-16-4	Diallate	U	919	ug/kg	276	919
92-67-1	4-Aminobiphenyl	U	919	ug/kg	276	919
82-68-8	Pentachloronitrobenzene	U	919	ug/kg	276	919
23950-58-5	Pronamide	U	919	ug/kg	276	919
56-57-5	4-Nitroquinoline-1-oxide	U	919	ug/kg	276	919
91-80-5	Methapyrilene	U	919	ug/kg	276	919
465-73-6	Isodrin	U	919	ug/kg	184	919
140-57-8	Aramite	U	919	ug/kg	276	919
143-50-0	Kepone	U	919	ug/kg	276	919
60-11-7	p-(Dimethylamino)azobenzene	U	919	ug/kg	276	919
510-15-6	Chlorobenzilate	U	919	ug/kg	276	919
119-93-7	3,3'-Dimethylbenzidine	U	919	ug/kg	276	919
53-96-3	2-Acetylaminofluorene	U	919	ug/kg	276	919

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771010

Client ID: 12043.B2.Top Back.EPA

Batch ID: 2589785

Run Date: 04/02/2024 19:30

Prep Date: 04/02/2024 07:52

Data File: S040224\1D0227.D

Date Collected: 03/28/2024 07:25

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.88 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	919	ug/kg	276	919
57-97-6	7,12-Dimethylbenz(a)anthracene	U	919	ug/kg	276	919
56-49-5	3-Methylcholanthrene	U	919	ug/kg	276	919
126-68-1	Triethylphosphorothioate	U	919	ug/kg	276	919
297-97-2	Thionazin	U	919	ug/kg	276	919
126-73-8	Tributylphosphate	U	919	ug/kg	276	919
3689-24-5	Sulfotepp	U	919	ug/kg	276	919
298-02-2	Phorate	U	919	ug/kg	276	919
60-51-5	Dimethoate	U	919	ug/kg	276	919
298-04-4	Disulfoton	U	919	ug/kg	276	919
298-00-0	Methyl parathion	U	919	ug/kg	276	919
56-38-2	Parathion	U	919	ug/kg	276	919
52-85-7	Famphur	U	919	ug/kg	276	919
106-50-3	p-Phenylenediamine	U	46000	ug/kg	9190	46000
70-30-4	Hexachlorophene	U	46000	ug/kg	10700	46000
120-82-1	1,2,4-Trichlorobenzene	U	919	ug/kg	276	919

LL
04/03/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0227.D
Acq On : 02 Apr 2024 19:30
Operator : LL2
InstName : MSD1
Sample : |660771010|2589785|1|SVM|1|PERM|||
Misc : |MSD827E4_S|MISC SOLID|12043.B2.Top Back.EPA|mix[a,b,j,d,e]||
ALS Vial : 24 Sample Multiplier: 1

RB
04/04/2024

Quant Time: Apr 03 08:06:03 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	120216	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	434049	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	235744	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.742	8.741	1.000	487389	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.239	11.245	1.000	497741	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.603	13.625	1.000	510457	40.00	ng/uL	-0.02
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	120216	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	439270	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	235744	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.742	8.741	1.000	487389	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.239	11.245	1.000	497741	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.603	13.625	1.000	510457	40.00	ng/uL	-0.02
152) J Naphthalene-d8	136	5.714	5.714	1.000	439270	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.742	8.741	1.000	487389	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.239	11.245	1.000	497741	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	439270	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	235744	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.742	8.741	1.000	487389	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.239	11.245	1.000	497741	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	439270	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.603	13.625	1.000	510457	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.992	2.986	0.695	240653	58.96	ng/uL	0.00
8) Phenol-d5	99	3.869	3.874	0.899	339407	63.50	ng/uL	0.00
23) Nitrobenzene-d5	82	4.907	4.917	0.859	160626	33.42	ng/uL	-0.01
44) 2-Fluorobiphenyl	172	6.800	6.805	0.914	295907	33.47	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.132	8.137	1.094	92050	66.46	ng/uL	0.00
79) p-Terphenyl-d14	244	10.079	10.084	1.153	435281	36.53	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	59%
8) Phenol-d5	100.000	15 - 85	64%
23) Nitrobenzene-d5	50.000	39 - 112	67%
44) 2-Fluorobiphenyl	50.000	39 - 112	67%
63) 2,4,6-Tribromophenol	100.000	37 - 132	66%
79) p-Terphenyl-d14	50.000	24 - 129	73%

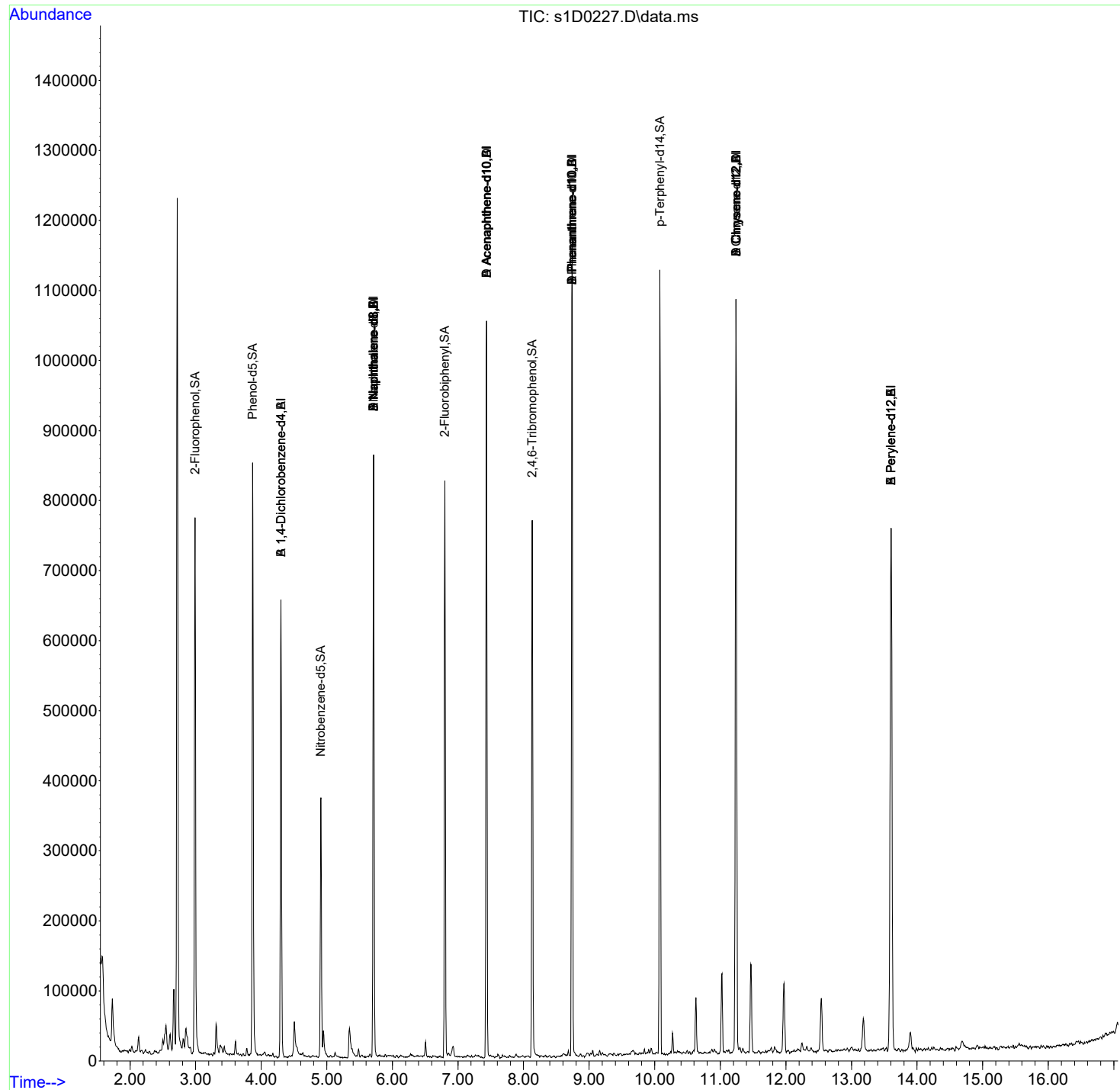
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
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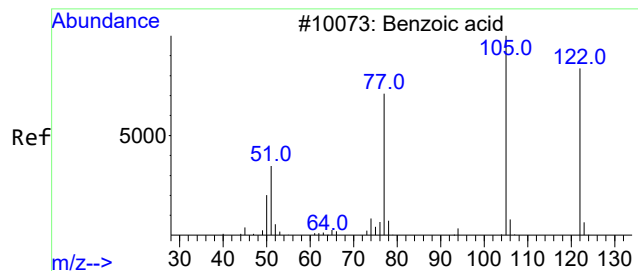
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

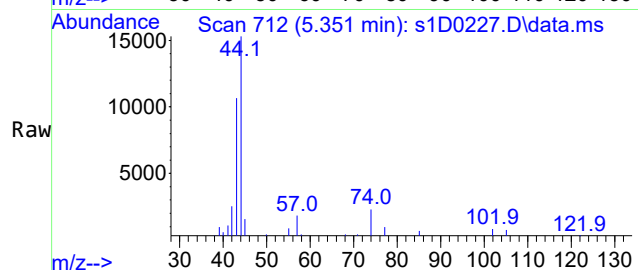
Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0227.D
Acq On : 02 Apr 2024 19:30
Operator : LL2
InstName : MSD1
Sample : |660771010|2589785|1|SVM|1|PERM| ||
Misc : |MSD827E4_S|MISC SOLID|12043.B2.Top Back.EPA|mix[a,b,j,d,e] ||
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Apr 03 08:06:03 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

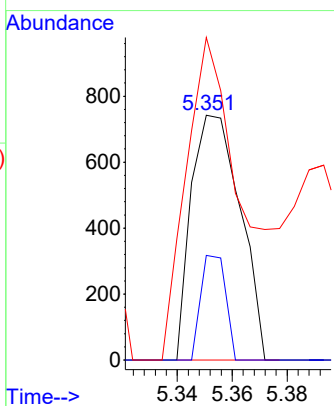
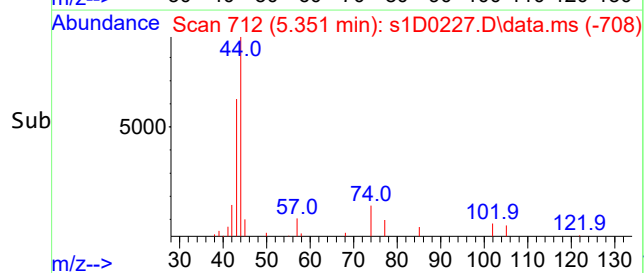




#30 BEFORE analyst DELETION
Benzoic acid
Concen: 8.10 ng/uL
RT: 5.351 min Scan# 712
Delta R.T. -0.059 min
Lab File: s1D0227.D
Acq: 02 Apr 2024 19:30



Tgt Ion:105 Resp: 923
Ion Ratio Lower Upper
105 100
122 0.0 36.8 96.8#
77 74.4 51.7 111.7



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:30	Matrix:	MISC SOLID
Lab Sample ID:	660771011	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:52	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.87 g	Final Volume:	1 mL
Data File:	S040224\1D0228.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	920	ug/kg	276	920
110-86-1	Pyridine	U	920	ug/kg	276	920
62-53-3	Aniline	U	920	ug/kg	276	920
108-95-2	Phenol	U	920	ug/kg	276	920
111-44-4	bis(2-Chloroethyl) ether	U	920	ug/kg	276	920
95-57-8	2-Chlorophenol	U	920	ug/kg	276	920
541-73-1	1,3-Dichlorobenzene	U	920	ug/kg	276	920
106-46-7	1,4-Dichlorobenzene	U	920	ug/kg	276	920
95-50-1	1,2-Dichlorobenzene	U	920	ug/kg	276	920
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	920	ug/kg	276	920
100-51-6	Benzyl alcohol	U	920	ug/kg	276	920
95-48-7	o-Cresol	U	920	ug/kg	276	920
65794-96-9	m,p-Cresols	U	920	ug/kg	276	920
621-64-7	N-Nitrosodipropylamine	U	920	ug/kg	276	920
67-72-1	Hexachloroethane	U	920	ug/kg	276	920
98-95-3	Nitrobenzene	U	920	ug/kg	276	920
78-59-1	Isophorone	U	920	ug/kg	276	920
88-75-5	2-Nitrophenol	U	920	ug/kg	276	920
105-67-9	2,4-Dimethylphenol	U	920	ug/kg	276	920
111-91-1	bis(2-Chloroethoxy)methane	U	920	ug/kg	276	920
120-83-2	2,4-Dichlorophenol	U	920	ug/kg	276	920
65-85-0	Benzoic acid	J	774	ug/kg	460	1840
106-47-8	4-Chloroaniline	U	920	ug/kg	276	920
87-68-3	Hexachlorobutadiene	U	920	ug/kg	276	920
59-50-7	4-Chloro-3-methylphenol	U	920	ug/kg	368	920
91-57-6	2-Methylnaphthalene	U	92.0	ug/kg	27.6	92.0
91-20-3	Naphthalene	U	92.0	ug/kg	27.6	92.0
90-12-0	1-Methylnaphthalene	U	92.0	ug/kg	27.6	92.0
77-47-4	Hexachlorocyclopentadiene	U	920	ug/kg	276	920
88-06-2	2,4,6-Trichlorophenol	U	920	ug/kg	276	920
95-95-4	2,4,5-Trichlorophenol	U	920	ug/kg	276	920
91-58-7	2-Chloronaphthalene	U	92.0	ug/kg	27.6	92.0
88-74-4	o-Nitroaniline	U	920	ug/kg	304	920
99-09-2	m-Nitroaniline	U	920	ug/kg	276	920
131-11-3	Dimethylphthalate	U	92.0	ug/kg	27.6	92.0
99-65-0	m-Dinitrobenzene	U	920	ug/kg	276	920
606-20-2	2,6-Dinitrotoluene	U	920	ug/kg	276	920
121-14-2	2,4-Dinitrotoluene	U	920	ug/kg	276	920

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:30	Matrix:	MISC SOLID
Lab Sample ID:	660771011	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:52	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.87 g	Final Volume:	1 mL
Data File:	S040224\1D0228.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	92.0	ug/kg	27.6	92.0
83-32-9	Acenaphthene	U	92.0	ug/kg	27.6	92.0
51-28-5	2,4-Dinitrophenol	U	1840	ug/kg	276	1840
132-64-9	Dibenzofuran	U	920	ug/kg	276	920
58-90-2	2,3,4,6-Tetrachlorophenol	U	920	ug/kg	276	920
84-66-2	Diethylphthalate	U	92.0	ug/kg	27.6	92.0
100-02-7	4-Nitrophenol	U	920	ug/kg	276	920
86-73-7	Fluorene	U	92.0	ug/kg	27.6	92.0
7005-72-3	4-Chlorophenylphenylether	U	920	ug/kg	276	920
100-01-6	p-Nitroaniline	U	920	ug/kg	276	920
534-52-1	2-Methyl-4,6-dinitrophenol	U	920	ug/kg	276	920
122-39-4	Diphenylamine	U	920	ug/kg	276	920
122-66-7	1,2-Diphenylhydrazine	U	920	ug/kg	276	920
101-55-3	4-Bromophenylphenylether	U	920	ug/kg	276	920
118-74-1	Hexachlorobenzene	U	920	ug/kg	276	920
87-86-5	Pentachlorophenol	U	920	ug/kg	276	920
88-85-7	Dinoseb	U	920	ug/kg	276	920
85-01-8	Phenanthrene	U	92.0	ug/kg	27.6	92.0
120-12-7	Anthracene	U	92.0	ug/kg	27.6	92.0
86-74-8	Carbazole	U	92.0	ug/kg	27.6	92.0
84-74-2	Di-n-butylphthalate	U	92.0	ug/kg	27.6	92.0
206-44-0	Fluoranthene	U	92.0	ug/kg	27.6	92.0
129-00-0	Pyrene	U	92.0	ug/kg	27.6	92.0
85-68-7	Butylbenzylphthalate	U	92.0	ug/kg	27.6	92.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	92.0	ug/kg	27.6	92.0
56-55-3	Benzo(a)anthracene	U	92.0	ug/kg	27.6	92.0
218-01-9	Chrysene	U	92.0	ug/kg	27.6	92.0
72-43-5	Methoxychlor	U	920	ug/kg	276	920
117-84-0	Di-n-octylphthalate	U	92.0	ug/kg	27.6	92.0
205-99-2	Benzo(b)fluoranthene	U	92.0	ug/kg	27.6	92.0
207-08-9	Benzo(k)fluoranthene	U	92.0	ug/kg	27.6	92.0
50-32-8	Benzo(a)pyrene	U	92.0	ug/kg	27.6	92.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	92.0	ug/kg	27.6	92.0
53-70-3	Dibenzo(a,h)anthracene	U	92.0	ug/kg	27.6	92.0
191-24-2	Benzo(ghi)perylene	U	92.0	ug/kg	27.6	92.0
123-91-1	1,4-Dioxane	U	920	ug/kg	276	920
80-62-6	Methyl methacrylate	U	920	ug/kg	276	920
97-63-2	Ethyl methacrylate	U	920	ug/kg	276	920

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:30	Matrix:	MISC SOLID
Lab Sample ID:	660771011	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:52	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.87 g	Final Volume:	1 mL
Data File:	S040224\1D0228.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	920	ug/kg	276	920
10595-95-6	N-Nitrosomethylethylamine	U	920	ug/kg	276	920
66-27-3	Methyl methanesulfonate	U	920	ug/kg	276	920
55-18-5	N-Nitrosodiethylamine	U	920	ug/kg	276	920
62-50-0	Ethyl Methanesulfonate	U	920	ug/kg	276	920
76-01-7	Pentachloroethane	U	920	ug/kg	276	920
930-55-2	N-Nitrosopyrrolidine	U	920	ug/kg	276	920
98-86-2	Acetophenone	U	920	ug/kg	276	920
59-89-2	N-Nitrosomorpholine	U	920	ug/kg	276	920
95-53-4	o-Toluidine	U	920	ug/kg	276	920
100-75-4	N-Nitrosopiperidine	U	920	ug/kg	276	920
122-09-8	a,a-Dimethylphenethylamine	U	920	ug/kg	322	920
87-65-0	2,6-Dichlorophenol	U	920	ug/kg	276	920
1888-71-7	Hexachloropropene	U	920	ug/kg	276	920
924-16-3	N-Nitrosodi-n-butylamine	U	920	ug/kg	276	920
94-59-7	Safrole	U	920	ug/kg	276	920
95-94-3	1,2,4,5-Tetrachlorobenzene	U	920	ug/kg	276	920
120-58-1	Isosafrole	U	920	ug/kg	276	920
130-15-4	1,4-Naphthoquinone	U	920	ug/kg	276	920
608-93-5	Pentachlorobenzene	U	920	ug/kg	276	920
134-32-7	1-Naphthylamine	U	920	ug/kg	276	920
91-59-8	2-Naphthylamine	U	920	ug/kg	276	920
99-55-8	5-Nitro-o-toluidine	U	920	ug/kg	276	920
62-44-2	Phenacetin	U	920	ug/kg	276	920
99-35-4	1,3,5-Trinitrobenzene	U	920	ug/kg	276	920
2303-16-4	Diallate	U	920	ug/kg	276	920
92-67-1	4-Aminobiphenyl	U	920	ug/kg	276	920
82-68-8	Pentachloronitrobenzene	U	920	ug/kg	276	920
23950-58-5	Pronamide	U	920	ug/kg	276	920
56-57-5	4-Nitroquinoline-1-oxide	U	920	ug/kg	276	920
91-80-5	Methapyrilene	U	920	ug/kg	276	920
465-73-6	Isodrin	U	920	ug/kg	184	920
140-57-8	Aramite	U	920	ug/kg	276	920
143-50-0	Kepone	U	920	ug/kg	276	920
60-11-7	p-(Dimethylamino)azobenzene	U	920	ug/kg	276	920
510-15-6	Chlorobenzilate	U	920	ug/kg	276	920
119-93-7	3,3'-Dimethylbenzidine	U	920	ug/kg	276	920
53-96-3	2-Acetylaminofluorene	U	920	ug/kg	276	920

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:30	Matrix:	MISC SOLID
Lab Sample ID:	660771011	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 19:52	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.87 g	Final Volume:	1 mL
Data File:	S040224\s1D0228.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	920	ug/kg	276	920
57-97-6	7,12-Dimethylbenz(a)anthracene	U	920	ug/kg	276	920
56-49-5	3-Methylcholanthrene	U	920	ug/kg	276	920
126-68-1	Triethylphosphorothioate	U	920	ug/kg	276	920
297-97-2	Thionazin	U	920	ug/kg	276	920
126-73-8	Tributylphosphate	U	920	ug/kg	276	920
3689-24-5	Sulfotepp	U	920	ug/kg	276	920
298-02-2	Phorate	U	920	ug/kg	276	920
60-51-5	Dimethoate	U	920	ug/kg	276	920
298-04-4	Disulfoton	U	920	ug/kg	276	920
298-00-0	Methyl parathion	U	920	ug/kg	276	920
56-38-2	Parathion	U	920	ug/kg	276	920
52-85-7	Famphur	U	920	ug/kg	276	920
106-50-3	p-Phenylenediamine	U	46000	ug/kg	9200	46000
70-30-4	Hexachlorophene	U	46000	ug/kg	10700	46000
120-82-1	1,2,4-Trichlorobenzene	U	920	ug/kg	276	920

LL
04/03/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0228.D
Acq On : 02 Apr 2024 19:52
Operator : LL2
InstName : MSD1
Sample : |660771011|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12043.B2.Middle Back.EPA|mix[a,b,j,d,e]|
ALS Vial : 25 Sample Multiplier: 1

RB
04/04/2024

Quant Time: Apr 03 08:06:24 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	127168	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	467017	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	251555	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.741	8.741	1.000	519874	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.239	11.245	1.000	550912	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.609	13.625	1.000	553445	40.00	ng/uL	-0.02
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	127168	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	471000	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	251555	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.741	8.741	1.000	519874	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.239	11.245	1.000	550912	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.609	13.625	1.000	553445	40.00	ng/uL	-0.02
152) J Naphthalene-d8	136	5.714	5.714	1.000	471000	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.741	8.741	1.000	519874	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.239	11.245	1.000	550912	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	471000	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	251555	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.741	8.741	1.000	519874	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.239	11.245	1.000	550912	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	471000	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.609	13.625	1.000	553445	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.992	2.986	0.695	268891	62.27	ng/uL	0.00
8) Phenol-d5	99	3.869	3.874	0.899	374085	66.16	ng/uL	0.00
23) Nitrobenzene-d5	82	4.912	4.917	0.860	179675	34.75	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.800	6.805	0.914	329680	34.94	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.137	8.137	1.094	113647	76.90	ng/uL	0.00
79) p-Terphenyl-d14	244	10.079	10.084	1.153	476722	37.51	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	62%
8) Phenol-d5	100.000	15 - 85	66%
23) Nitrobenzene-d5	50.000	39 - 112	70%
44) 2-Fluorobiphenyl	50.000	39 - 112	70%
63) 2,4,6-Tribromophenol	100.000	37 - 132	77%
79) p-Terphenyl-d14	50.000	24 - 129	75%

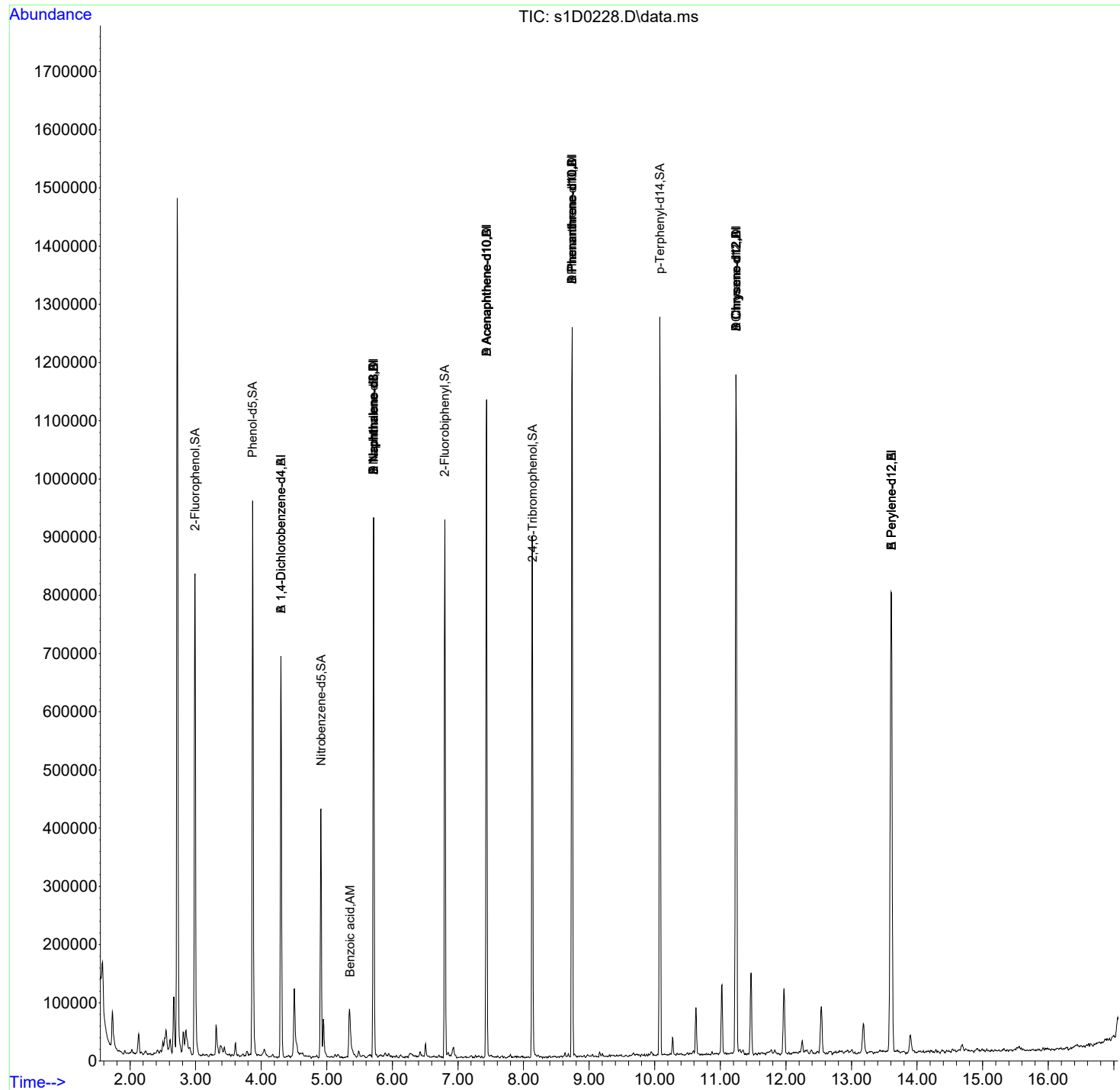
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
30) Benzoic acid	105	5.356	5.409	0.937	2078m	8.41	ng/uL	

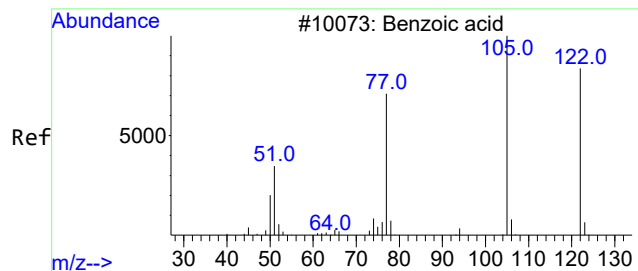
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0228.D
Acq On : 02 Apr 2024 19:52
Operator : LL2
InstName : MSD1
Sample : |660771011|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12043.B2.Middle Back.EPA|mix[a,b,j,d,e]|
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Apr 03 08:06:24 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE





#30 BEFORE analyst integration

Benzoic acid

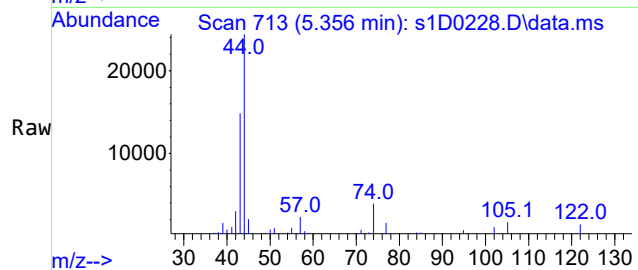
Concen: 8.38 ng/uL

RT: 5.356 min Scan# 713

Delta R.T. -0.054 min

Lab File: s1D0228.D

Acq: 02 Apr 2024 19:52



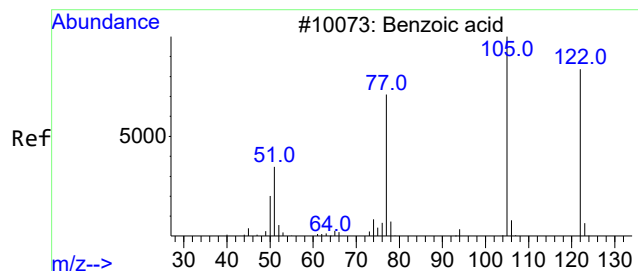
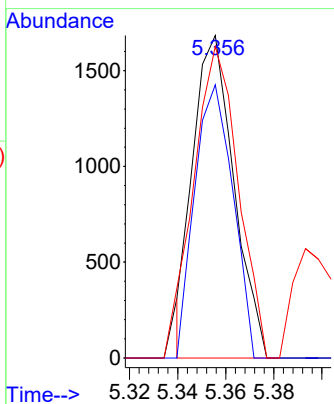
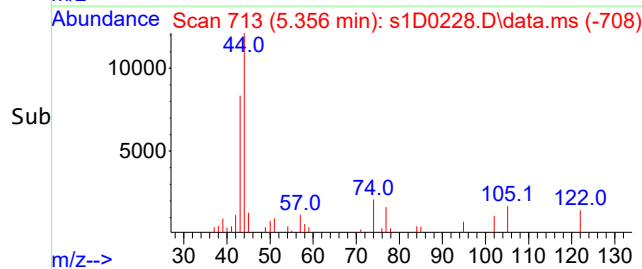
Tgt Ion:105 Resp: 1978

Ion Ratio Lower Upper

105 100

122 79.6 36.8 96.8

77 101.0 51.7 111.7



#30 AFTER analyst integration

Benzoic acid

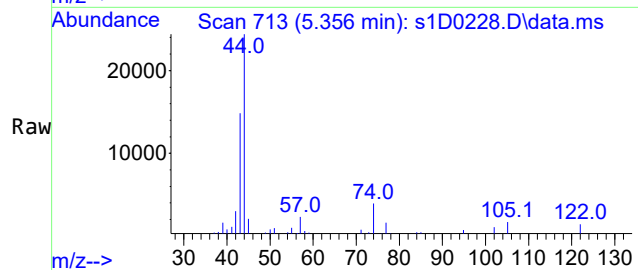
Concen: 8.41 ng/uL MANUALLY INTEGRATED

RT: 5.356 min Scan# 713

Delta R.T. -0.054 min

Lab File: s1D0228.D

Acq: 02 Apr 2024 19:52



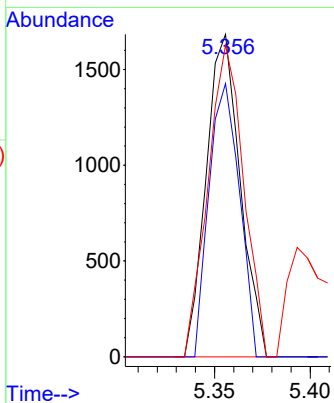
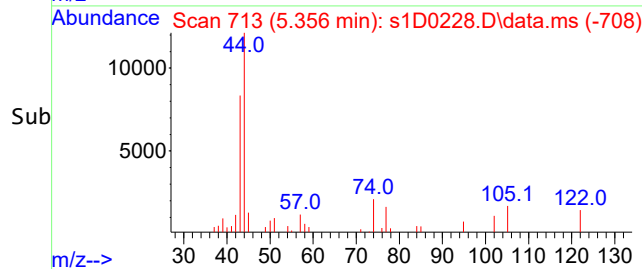
Tgt Ion:105 Resp: 2078

Ion Ratio Lower Upper

105 100

122 75.8 36.8 96.8

77 101.7 51.7 111.7



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:35	Matrix:	MISC SOLID
Lab Sample ID:	660771012	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:15	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.9 g	Final Volume:	1 mL
Data File:	S040224\1D0229.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	917	ug/kg	275	917
110-86-1	Pyridine	U	917	ug/kg	275	917
62-53-3	Aniline	U	917	ug/kg	275	917
108-95-2	Phenol	U	917	ug/kg	275	917
111-44-4	bis(2-Chloroethyl) ether	U	917	ug/kg	275	917
95-57-8	2-Chlorophenol	U	917	ug/kg	275	917
541-73-1	1,3-Dichlorobenzene	U	917	ug/kg	275	917
106-46-7	1,4-Dichlorobenzene	U	917	ug/kg	275	917
95-50-1	1,2-Dichlorobenzene	U	917	ug/kg	275	917
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	917	ug/kg	275	917
100-51-6	Benzyl alcohol	U	917	ug/kg	275	917
95-48-7	o-Cresol	U	917	ug/kg	275	917
65794-96-9	m,p-Cresols	U	917	ug/kg	275	917
621-64-7	N-Nitrosodipropylamine	U	917	ug/kg	275	917
67-72-1	Hexachloroethane	U	917	ug/kg	275	917
98-95-3	Nitrobenzene	U	917	ug/kg	275	917
78-59-1	Isophorone	U	917	ug/kg	275	917
88-75-5	2-Nitrophenol	U	917	ug/kg	275	917
105-67-9	2,4-Dimethylphenol	U	917	ug/kg	275	917
111-91-1	bis(2-Chloroethoxy)methane	U	917	ug/kg	275	917
120-83-2	2,4-Dichlorophenol	U	917	ug/kg	275	917
65-85-0	Benzoic acid	J	796	ug/kg	459	1830
106-47-8	4-Chloroaniline	U	917	ug/kg	275	917
87-68-3	Hexachlorobutadiene	U	917	ug/kg	275	917
59-50-7	4-Chloro-3-methylphenol	U	917	ug/kg	367	917
91-57-6	2-Methylnaphthalene	U	91.7	ug/kg	27.5	91.7
91-20-3	Naphthalene	U	91.7	ug/kg	27.5	91.7
90-12-0	1-Methylnaphthalene	U	91.7	ug/kg	27.5	91.7
77-47-4	Hexachlorocyclopentadiene	U	917	ug/kg	275	917
88-06-2	2,4,6-Trichlorophenol	U	917	ug/kg	275	917
95-95-4	2,4,5-Trichlorophenol	U	917	ug/kg	275	917
91-58-7	2-Chloronaphthalene	U	91.7	ug/kg	27.5	91.7
88-74-4	o-Nitroaniline	U	917	ug/kg	303	917
99-09-2	m-Nitroaniline	U	917	ug/kg	275	917
131-11-3	Dimethylphthalate	U	91.7	ug/kg	27.5	91.7
99-65-0	m-Dinitrobenzene	U	917	ug/kg	275	917
606-20-2	2,6-Dinitrotoluene	U	917	ug/kg	275	917
121-14-2	2,4-Dinitrotoluene	U	917	ug/kg	275	917

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:35	Matrix:	MISC SOLID
Lab Sample ID:	660771012	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:15	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.9 g	Final Volume:	1 mL
Data File:	S040224\1D0229.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	91.7	ug/kg	27.5	91.7
83-32-9	Acenaphthene	U	91.7	ug/kg	27.5	91.7
51-28-5	2,4-Dinitrophenol	U	1830	ug/kg	275	1830
132-64-9	Dibenzofuran	U	917	ug/kg	275	917
58-90-2	2,3,4,6-Tetrachlorophenol	U	917	ug/kg	275	917
84-66-2	Diethylphthalate	U	91.7	ug/kg	27.5	91.7
100-02-7	4-Nitrophenol	U	917	ug/kg	275	917
86-73-7	Fluorene	U	91.7	ug/kg	27.5	91.7
7005-72-3	4-Chlorophenylphenylether	U	917	ug/kg	275	917
100-01-6	p-Nitroaniline	U	917	ug/kg	275	917
534-52-1	2-Methyl-4,6-dinitrophenol	U	917	ug/kg	275	917
122-39-4	Diphenylamine	U	917	ug/kg	275	917
122-66-7	1,2-Diphenylhydrazine	U	917	ug/kg	275	917
101-55-3	4-Bromophenylphenylether	U	917	ug/kg	275	917
118-74-1	Hexachlorobenzene	U	917	ug/kg	275	917
87-86-5	Pentachlorophenol	U	917	ug/kg	275	917
88-85-7	Dinoseb	U	917	ug/kg	275	917
85-01-8	Phenanthrene	U	91.7	ug/kg	27.5	91.7
120-12-7	Anthracene	U	91.7	ug/kg	27.5	91.7
86-74-8	Carbazole	U	91.7	ug/kg	27.5	91.7
84-74-2	Di-n-butylphthalate	U	91.7	ug/kg	27.5	91.7
206-44-0	Fluoranthene	U	91.7	ug/kg	27.5	91.7
129-00-0	Pyrene	U	91.7	ug/kg	27.5	91.7
85-68-7	Butylbenzylphthalate	U	91.7	ug/kg	27.5	91.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	91.7	ug/kg	27.5	91.7
56-55-3	Benzo(a)anthracene	U	91.7	ug/kg	27.5	91.7
218-01-9	Chrysene	U	91.7	ug/kg	27.5	91.7
72-43-5	Methoxychlor	U	917	ug/kg	275	917
117-84-0	Di-n-octylphthalate	U	91.7	ug/kg	27.5	91.7
205-99-2	Benzo(b)fluoranthene	U	91.7	ug/kg	27.5	91.7
207-08-9	Benzo(k)fluoranthene	U	91.7	ug/kg	27.5	91.7
50-32-8	Benzo(a)pyrene	U	91.7	ug/kg	27.5	91.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	91.7	ug/kg	27.5	91.7
53-70-3	Dibenzo(a,h)anthracene	U	91.7	ug/kg	27.5	91.7
191-24-2	Benzo(ghi)perylene	U	91.7	ug/kg	27.5	91.7
123-91-1	1,4-Dioxane	U	917	ug/kg	275	917
80-62-6	Methyl methacrylate	U	917	ug/kg	275	917
97-63-2	Ethyl methacrylate	U	917	ug/kg	275	917

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 07:35	Matrix:	MISC SOLID
Lab Sample ID:	660771012	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12043.B2.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:15	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.9 g	Final Volume:	1 mL
Data File:	S040224\1D0229.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	917	ug/kg	275	917
10595-95-6	N-Nitrosomethylethylamine	U	917	ug/kg	275	917
66-27-3	Methyl methanesulfonate	U	917	ug/kg	275	917
55-18-5	N-Nitrosodiethylamine	U	917	ug/kg	275	917
62-50-0	Ethyl Methanesulfonate	U	917	ug/kg	275	917
76-01-7	Pentachloroethane	U	917	ug/kg	275	917
930-55-2	N-Nitrosopyrrolidine	U	917	ug/kg	275	917
98-86-2	Acetophenone	U	917	ug/kg	275	917
59-89-2	N-Nitrosomorpholine	U	917	ug/kg	275	917
95-53-4	o-Toluidine	U	917	ug/kg	275	917
100-75-4	N-Nitrosopiperidine	U	917	ug/kg	275	917
122-09-8	a,a-Dimethylphenethylamine	U	917	ug/kg	321	917
87-65-0	2,6-Dichlorophenol	U	917	ug/kg	275	917
1888-71-7	Hexachloropropene	U	917	ug/kg	275	917
924-16-3	N-Nitrosodi-n-butylamine	U	917	ug/kg	275	917
94-59-7	Safrole	U	917	ug/kg	275	917
95-94-3	1,2,4,5-Tetrachlorobenzene	U	917	ug/kg	275	917
120-58-1	Isosafrole	U	917	ug/kg	275	917
130-15-4	1,4-Naphthoquinone	U	917	ug/kg	275	917
608-93-5	Pentachlorobenzene	U	917	ug/kg	275	917
134-32-7	1-Naphthylamine	U	917	ug/kg	275	917
91-59-8	2-Naphthylamine	U	917	ug/kg	275	917
99-55-8	5-Nitro-o-toluidine	U	917	ug/kg	275	917
62-44-2	Phenacetin	U	917	ug/kg	275	917
99-35-4	1,3,5-Trinitrobenzene	U	917	ug/kg	275	917
2303-16-4	Diallate	U	917	ug/kg	275	917
92-67-1	4-Aminobiphenyl	U	917	ug/kg	275	917
82-68-8	Pentachloronitrobenzene	U	917	ug/kg	275	917
23950-58-5	Pronamide	U	917	ug/kg	275	917
56-57-5	4-Nitroquinoline-1-oxide	U	917	ug/kg	275	917
91-80-5	Methapyrilene	U	917	ug/kg	275	917
465-73-6	Isodrin	U	917	ug/kg	183	917
140-57-8	Aramite	U	917	ug/kg	275	917
143-50-0	Kepone	U	917	ug/kg	275	917
60-11-7	p-(Dimethylamino)azobenzene	U	917	ug/kg	275	917
510-15-6	Chlorobenzilate	U	917	ug/kg	275	917
119-93-7	3,3'-Dimethylbenzidine	U	917	ug/kg	275	917
53-96-3	2-Acetylaminofluorene	U	917	ug/kg	275	917

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771012

Client ID: 12043.B2.Bottom Back.EPA

Batch ID: 2589785

Run Date: 04/02/2024 20:15

Prep Date: 04/02/2024 07:52

Data File: S040224\s1D0229.D

Date Collected: 03/28/2024 07:35

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.9 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	917	ug/kg	275	917
57-97-6	7,12-Dimethylbenz(a)anthracene	U	917	ug/kg	275	917
56-49-5	3-Methylcholanthrene	U	917	ug/kg	275	917
126-68-1	Triethylphosphorothioate	U	917	ug/kg	275	917
297-97-2	Thionazin	U	917	ug/kg	275	917
126-73-8	Tributylphosphate	U	917	ug/kg	275	917
3689-24-5	Sulfotepp	U	917	ug/kg	275	917
298-02-2	Phorate	U	917	ug/kg	275	917
60-51-5	Dimethoate	U	917	ug/kg	275	917
298-04-4	Disulfoton	U	917	ug/kg	275	917
298-00-0	Methyl parathion	U	917	ug/kg	275	917
56-38-2	Parathion	U	917	ug/kg	275	917
52-85-7	Famphur	U	917	ug/kg	275	917
106-50-3	p-Phenylenediamine	U	45900	ug/kg	9170	45900
70-30-4	Hexachlorophene	U	45900	ug/kg	10600	45900
120-82-1	1,2,4-Trichlorobenzene	U	917	ug/kg	275	917

04/03/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0229.D
Acq On : 02 Apr 2024 20:15
Operator : LL2
InstName : MSD1
Sample : |660771012|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12043.B2.Bottom Back.EPA|mix[a,b,j,d,e]|
ALS Vial : 26 Sample Multiplier: 1

04/04/2024

Quant Time: Apr 03 08:07:36 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	116648	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	443294	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	237883	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.741	8.741	1.000	486175	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.239	11.245	1.000	522669	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.603	13.625	1.000	521731	40.00	ng/uL	-0.02
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	116648	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	449821	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	237883	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.741	8.741	1.000	486175	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.239	11.245	1.000	522669	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.603	13.625	1.000	521731	40.00	ng/uL	-0.02
152) J Naphthalene-d8	136	5.714	5.714	1.000	449821	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.741	8.741	1.000	486175	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.239	11.245	1.000	522669	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	449821	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	237883	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.741	8.741	1.000	486175	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.239	11.245	1.000	522669	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	449821	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.603	13.625	1.000	521731	40.00	ng/uL	-0.02

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.992	2.986	0.695	263478	66.52	ng/uL	0.00
8) Phenol-d5	99	3.869	3.874	0.899	368097	70.97	ng/uL	0.00
23) Nitrobenzene-d5	82	4.912	4.917	0.860	180197	36.71	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.800	6.805	0.914	319549	35.81	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.132	8.137	1.094	101678	72.76	ng/uL	0.00
79) p-Terphenyl-d14	244	10.079	10.084	1.153	455919	38.35	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	67%
8) Phenol-d5	100.000	15 - 85	71%
23) Nitrobenzene-d5	50.000	39 - 112	73%
44) 2-Fluorobiphenyl	50.000	39 - 112	72%
63) 2,4,6-Tribromophenol	100.000	37 - 132	73%
79) p-Terphenyl-d14	50.000	24 - 129	77%

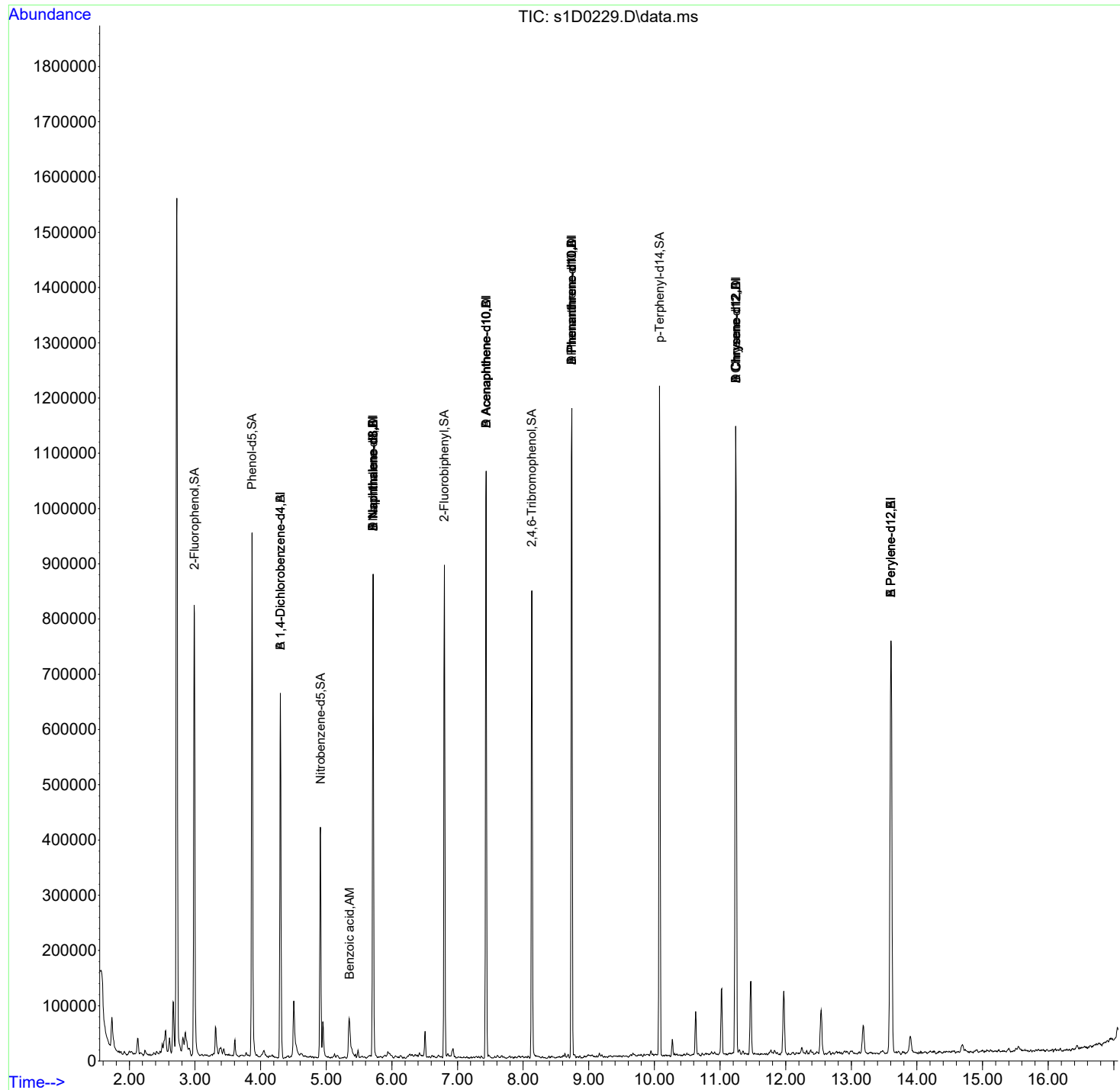
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
30) Benzoic acid	105	5.356	5.409	0.937	2862m	8.68	ng/uL	

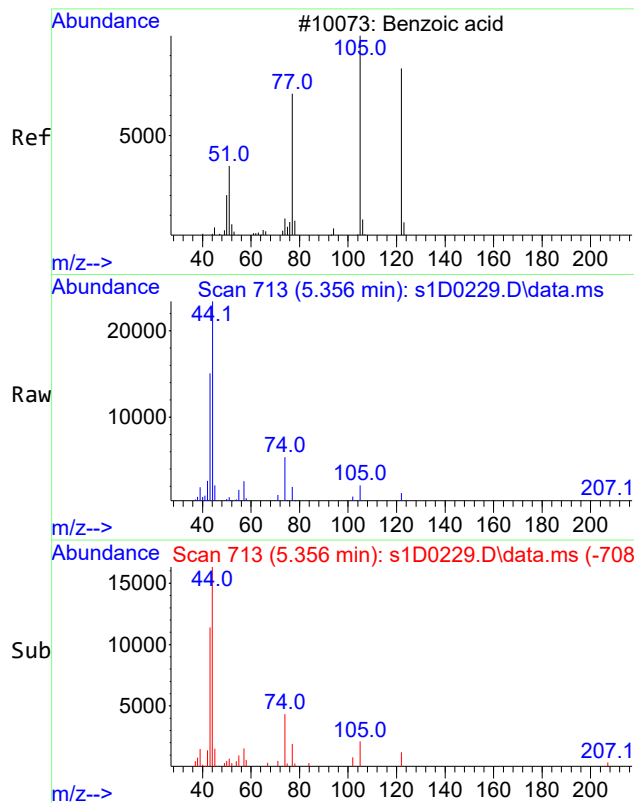
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0229.D
Acq On : 02 Apr 2024 20:15
Operator : LL2
InstName : MSD1
Sample : |660771012|2589785|1|SVM|1|PERM|||
Misc : |MSD827E4_S|MISC SOLID|12043.B2.Bottom Back.EPA|mix[a,b,j,d,e]||
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Apr 03 08:07:36 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE





#30 BEFORE analyst integration

Benzoic acid

Concen: 8.64 ng/uL

RT: 5.356 min Scan# 713

Delta R.T. -0.054 min

Lab File: s1D0229.D

Acq: 02 Apr 2024 20:15

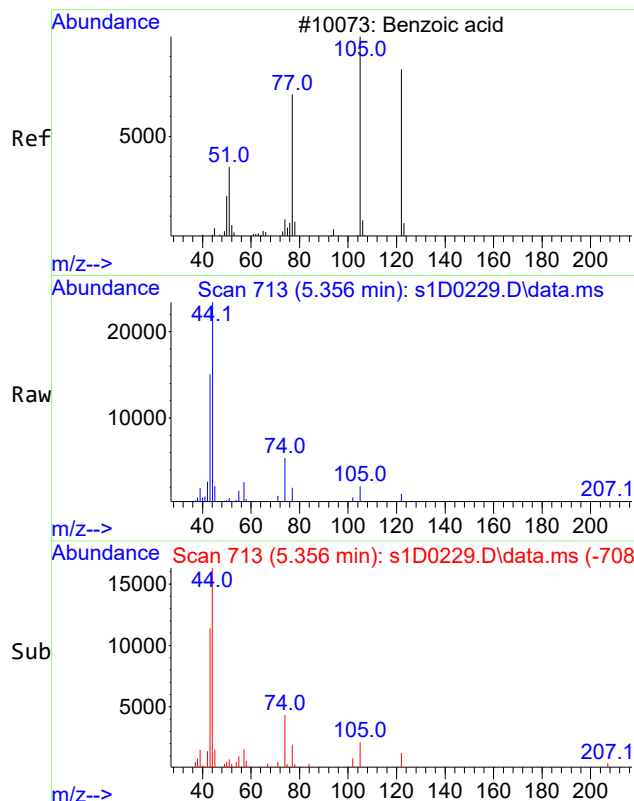
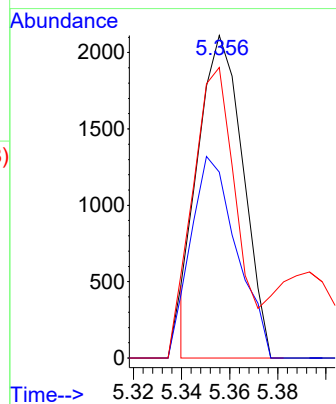
Tgt Ion:105 Resp: 2709

Ion Ratio Lower Upper

105 100

122 60.5 36.8 96.8

77 60.5 51.7 111.7



#30 AFTER analyst integration

Benzoic acid

Concen: 8.68 ng/uL MANUALLY INTEGRATED

RT: 5.356 min Scan# 713

Delta R.T. -0.054 min

Lab File: s1D0229.D

Acq: 02 Apr 2024 20:15

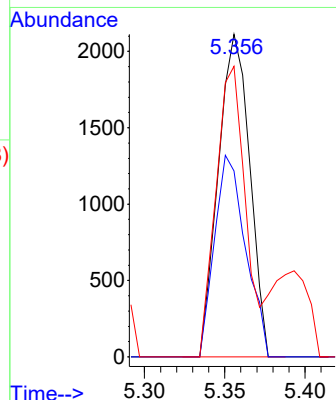
Tgt Ion:105 Resp: 2862

Ion Ratio Lower Upper

105 100

122 61.9 36.8 96.8

77 84.1 51.7 111.7



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:45	Matrix:	MISC SOLID
Lab Sample ID:	660771013	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:37	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.29 g	Final Volume:	1 mL
Data File:	S040224\1D0230.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	972	ug/kg	292	972
110-86-1	Pyridine	U	972	ug/kg	292	972
62-53-3	Aniline	U	972	ug/kg	292	972
108-95-2	Phenol	U	972	ug/kg	292	972
111-44-4	bis(2-Chloroethyl) ether	U	972	ug/kg	292	972
95-57-8	2-Chlorophenol	U	972	ug/kg	292	972
541-73-1	1,3-Dichlorobenzene	U	972	ug/kg	292	972
106-46-7	1,4-Dichlorobenzene	U	972	ug/kg	292	972
95-50-1	1,2-Dichlorobenzene	U	972	ug/kg	292	972
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	972	ug/kg	292	972
100-51-6	Benzyl alcohol	U	972	ug/kg	292	972
95-48-7	o-Cresol	U	972	ug/kg	292	972
65794-96-9	m,p-Cresols	U	972	ug/kg	292	972
621-64-7	N-Nitrosodipropylamine	U	972	ug/kg	292	972
67-72-1	Hexachloroethane	U	972	ug/kg	292	972
98-95-3	Nitrobenzene	U	972	ug/kg	292	972
78-59-1	Isophorone	U	972	ug/kg	292	972
88-75-5	2-Nitrophenol	U	972	ug/kg	292	972
105-67-9	2,4-Dimethylphenol	U	972	ug/kg	292	972
111-91-1	bis(2-Chloroethoxy)methane	U	972	ug/kg	292	972
120-83-2	2,4-Dichlorophenol	U	972	ug/kg	292	972
65-85-0	Benzoic acid	U	1940	ug/kg	486	1940
106-47-8	4-Chloroaniline	U	972	ug/kg	292	972
87-68-3	Hexachlorobutadiene	U	972	ug/kg	292	972
59-50-7	4-Chloro-3-methylphenol	U	972	ug/kg	389	972
91-57-6	2-Methylnaphthalene	U	97.2	ug/kg	29.2	97.2
91-20-3	Naphthalene	U	97.2	ug/kg	29.2	97.2
90-12-0	1-Methylnaphthalene	U	97.2	ug/kg	29.2	97.2
77-47-4	Hexachlorocyclopentadiene	U	972	ug/kg	292	972
88-06-2	2,4,6-Trichlorophenol	U	972	ug/kg	292	972
95-95-4	2,4,5-Trichlorophenol	U	972	ug/kg	292	972
91-58-7	2-Chloronaphthalene	U	97.2	ug/kg	29.2	97.2
88-74-4	o-Nitroaniline	U	972	ug/kg	321	972
99-09-2	m-Nitroaniline	U	972	ug/kg	292	972
131-11-3	Dimethylphthalate	U	97.2	ug/kg	29.2	97.2
99-65-0	m-Dinitrobenzene	U	972	ug/kg	292	972
606-20-2	2,6-Dinitrotoluene	U	972	ug/kg	292	972
121-14-2	2,4-Dinitrotoluene	U	972	ug/kg	292	972

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:45	Matrix:	MISC SOLID
Lab Sample ID:	660771013	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:37	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.29 g	Final Volume:	1 mL
Data File:	S040224\1D0230.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	97.2	ug/kg	29.2	97.2
83-32-9	Acenaphthene	U	97.2	ug/kg	29.2	97.2
51-28-5	2,4-Dinitrophenol	U	1940	ug/kg	292	1940
132-64-9	Dibenzofuran	U	972	ug/kg	292	972
58-90-2	2,3,4,6-Tetrachlorophenol	U	972	ug/kg	292	972
84-66-2	Diethylphthalate	U	97.2	ug/kg	29.2	97.2
100-02-7	4-Nitrophenol	U	972	ug/kg	292	972
86-73-7	Fluorene	U	97.2	ug/kg	29.2	97.2
7005-72-3	4-Chlorophenylphenylether	U	972	ug/kg	292	972
100-01-6	p-Nitroaniline	U	972	ug/kg	292	972
534-52-1	2-Methyl-4,6-dinitrophenol	U	972	ug/kg	292	972
122-39-4	Diphenylamine	U	972	ug/kg	292	972
122-66-7	1,2-Diphenylhydrazine	U	972	ug/kg	292	972
101-55-3	4-Bromophenylphenylether	U	972	ug/kg	292	972
118-74-1	Hexachlorobenzene	U	972	ug/kg	292	972
87-86-5	Pentachlorophenol	U	972	ug/kg	292	972
88-85-7	Dinoseb	U	972	ug/kg	292	972
85-01-8	Phenanthrene	U	97.2	ug/kg	29.2	97.2
120-12-7	Anthracene	U	97.2	ug/kg	29.2	97.2
86-74-8	Carbazole	U	97.2	ug/kg	29.2	97.2
84-74-2	Di-n-butylphthalate	U	97.2	ug/kg	29.2	97.2
206-44-0	Fluoranthene	U	97.2	ug/kg	29.2	97.2
129-00-0	Pyrene	U	97.2	ug/kg	29.2	97.2
85-68-7	Butylbenzylphthalate	U	97.2	ug/kg	29.2	97.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	97.2	ug/kg	29.2	97.2
56-55-3	Benzo(a)anthracene	U	97.2	ug/kg	29.2	97.2
218-01-9	Chrysene	U	97.2	ug/kg	29.2	97.2
72-43-5	Methoxychlor	U	972	ug/kg	292	972
117-84-0	Di-n-octylphthalate	U	97.2	ug/kg	29.2	97.2
205-99-2	Benzo(b)fluoranthene	U	97.2	ug/kg	29.2	97.2
207-08-9	Benzo(k)fluoranthene	U	97.2	ug/kg	29.2	97.2
50-32-8	Benzo(a)pyrene	U	97.2	ug/kg	29.2	97.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	97.2	ug/kg	29.2	97.2
53-70-3	Dibenzo(a,h)anthracene	U	97.2	ug/kg	29.2	97.2
191-24-2	Benzo(ghi)perylene	U	97.2	ug/kg	29.2	97.2
123-91-1	1,4-Dioxane	U	972	ug/kg	292	972
80-62-6	Methyl methacrylate	U	972	ug/kg	292	972
97-63-2	Ethyl methacrylate	U	972	ug/kg	292	972

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:45	Matrix:	MISC SOLID
Lab Sample ID:	660771013	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:37	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.29 g	Final Volume:	1 mL
Data File:	S040224\1D0230.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	972	ug/kg	292	972
10595-95-6	N-Nitrosomethylethylamine	U	972	ug/kg	292	972
66-27-3	Methyl methanesulfonate	U	972	ug/kg	292	972
55-18-5	N-Nitrosodiethylamine	U	972	ug/kg	292	972
62-50-0	Ethyl Methanesulfonate	U	972	ug/kg	292	972
76-01-7	Pentachloroethane	U	972	ug/kg	292	972
930-55-2	N-Nitrosopyrrolidine	U	972	ug/kg	292	972
98-86-2	Acetophenone	U	972	ug/kg	292	972
59-89-2	N-Nitrosomorpholine	U	972	ug/kg	292	972
95-53-4	o-Toluidine	U	972	ug/kg	292	972
100-75-4	N-Nitrosopiperidine	U	972	ug/kg	292	972
122-09-8	a,a-Dimethylphenethylamine	U	972	ug/kg	340	972
87-65-0	2,6-Dichlorophenol	U	972	ug/kg	292	972
1888-71-7	Hexachloropropene	U	972	ug/kg	292	972
924-16-3	N-Nitrosodi-n-butylamine	U	972	ug/kg	292	972
94-59-7	Safrole	U	972	ug/kg	292	972
95-94-3	1,2,4,5-Tetrachlorobenzene	U	972	ug/kg	292	972
120-58-1	Isosafrole	U	972	ug/kg	292	972
130-15-4	1,4-Naphthoquinone	U	972	ug/kg	292	972
608-93-5	Pentachlorobenzene	U	972	ug/kg	292	972
134-32-7	1-Naphthylamine	U	972	ug/kg	292	972
91-59-8	2-Naphthylamine	U	972	ug/kg	292	972
99-55-8	5-Nitro-o-toluidine	U	972	ug/kg	292	972
62-44-2	Phenacetin	U	972	ug/kg	292	972
99-35-4	1,3,5-Trinitrobenzene	U	972	ug/kg	292	972
2303-16-4	Diallate	U	972	ug/kg	292	972
92-67-1	4-Aminobiphenyl	U	972	ug/kg	292	972
82-68-8	Pentachloronitrobenzene	U	972	ug/kg	292	972
23950-58-5	Pronamide	U	972	ug/kg	292	972
56-57-5	4-Nitroquinoline-1-oxide	U	972	ug/kg	292	972
91-80-5	Methapyrilene	U	972	ug/kg	292	972
465-73-6	Isodrin	U	972	ug/kg	194	972
140-57-8	Aramite	U	972	ug/kg	292	972
143-50-0	Kepone	U	972	ug/kg	292	972
60-11-7	p-(Dimethylamino)azobenzene	U	972	ug/kg	292	972
510-15-6	Chlorobenzilate	U	972	ug/kg	292	972
119-93-7	3,3'-Dimethylbenzidine	U	972	ug/kg	292	972
53-96-3	2-Acetylaminofluorene	U	972	ug/kg	292	972

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:45	Matrix:	MISC SOLID
Lab Sample ID:	660771013	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:37	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.29 g	Final Volume:	1 mL
Data File:	S040224\1D0230.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	972	ug/kg	292	972
57-97-6	7,12-Dimethylbenz(a)anthracene	U	972	ug/kg	292	972
56-49-5	3-Methylcholanthrene	U	972	ug/kg	292	972
126-68-1	Triethylphosphorothioate	U	972	ug/kg	292	972
297-97-2	Thionazin	U	972	ug/kg	292	972
126-73-8	Tributylphosphate	U	972	ug/kg	292	972
3689-24-5	Sulfotepp	U	972	ug/kg	292	972
298-02-2	Phorate	U	972	ug/kg	292	972
60-51-5	Dimethoate	U	972	ug/kg	292	972
298-04-4	Disulfoton	U	972	ug/kg	292	972
298-00-0	Methyl parathion	U	972	ug/kg	292	972
56-38-2	Parathion	U	972	ug/kg	292	972
52-85-7	Famphur	U	972	ug/kg	292	972
106-50-3	p-Phenylenediamine	U	48600	ug/kg	9720	48600
70-30-4	Hexachlorophene	U	48600	ug/kg	11300	48600
120-82-1	1,2,4-Trichlorobenzene	U	972	ug/kg	292	972

LL
04/03/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0230.D
Acq On : 02 Apr 2024 20:37
Operator : LL2
InstName : MSD1
Sample : |660771013|2589785|1|SVM|1|PERM|||
Misc : |MSD827E4_S|MISC SOLID|12041.B3.Top Front.EPA|mix[a,b,j,d,e]||
ALS Vial : 27 Sample Multiplier: 1

RB
04/04/2024

Quant Time: Apr 03 08:08:02 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	119057	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	457338	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.437	7.436	1.000	251918	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.742	8.741	1.000	511166	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.239	11.245	1.000	550112	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.609	13.625	1.000	556472	40.00	ng/uL	-0.02
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	119057	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	463070	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.437	7.436	1.000	251918	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.742	8.741	1.000	511166	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.239	11.245	1.000	550112	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.609	13.625	1.000	556472	40.00	ng/uL	-0.02
152) J Naphthalene-d8	136	5.714	5.714	1.000	463070	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.742	8.741	1.000	511166	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.239	11.245	1.000	550112	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	463070	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.437	7.436	1.000	251918	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.742	8.741	1.000	511166	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.239	11.245	1.000	550112	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	463070	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.609	13.625	1.000	556472	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.992	2.986	0.695	272452	67.40	ng/uL	0.00
8) Phenol-d5	99	3.869	3.874	0.899	378566	71.52	ng/uL	0.00
23) Nitrobenzene-d5	82	4.907	4.917	0.859	190872	37.69	ng/uL	-0.01
44) 2-Fluorobiphenyl	172	6.800	6.805	0.914	334244	35.37	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.132	8.137	1.094	98203	66.35	ng/uL	0.00
79) p-Terphenyl-d14	244	10.079	10.084	1.153	471991	37.77	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	67%
8) Phenol-d5	100.000	15 - 85	72%
23) Nitrobenzene-d5	50.000	39 - 112	75%
44) 2-Fluorobiphenyl	50.000	39 - 112	71%
63) 2,4,6-Tribromophenol	100.000	37 - 132	66%
79) p-Terphenyl-d14	50.000	24 - 129	76%

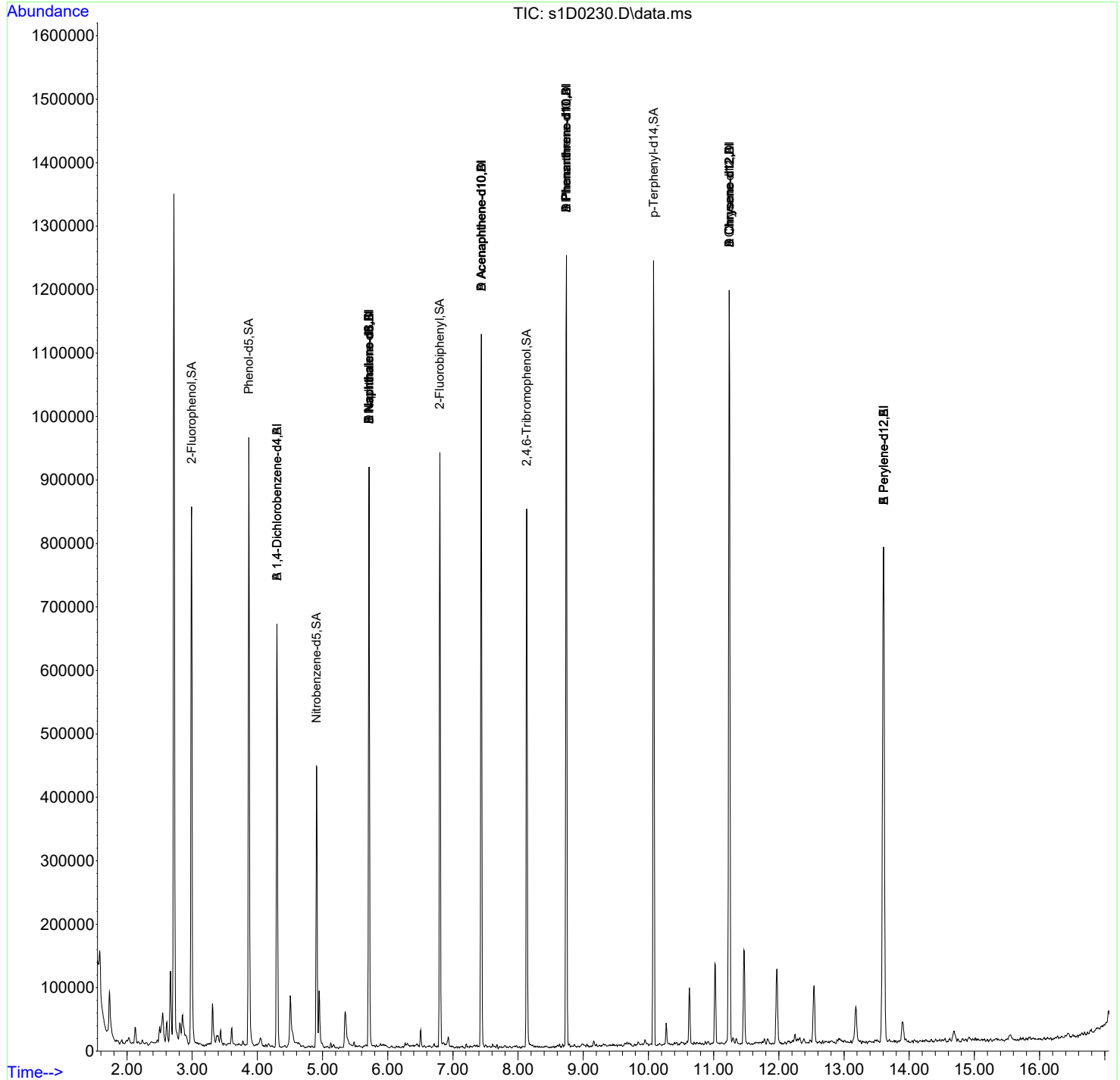
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
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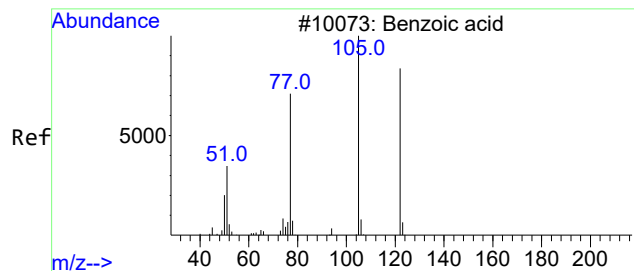
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

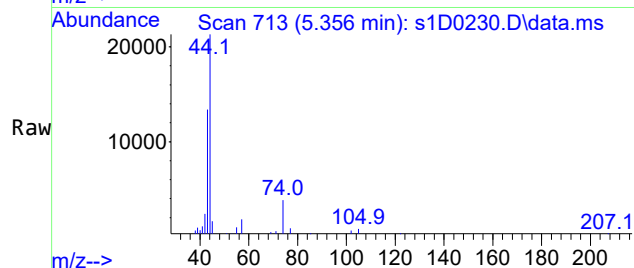
Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0230.D
Acq On : 02 Apr 2024 20:37
Operator : LL2
InstName : MSD1
Sample : |660771013|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12041.B3.Top Front.EPA|mix[a,b,j,d,e]|
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Apr 03 08:08:02 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

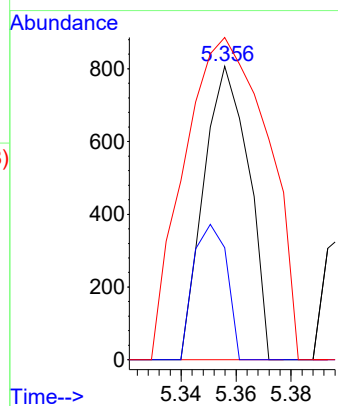
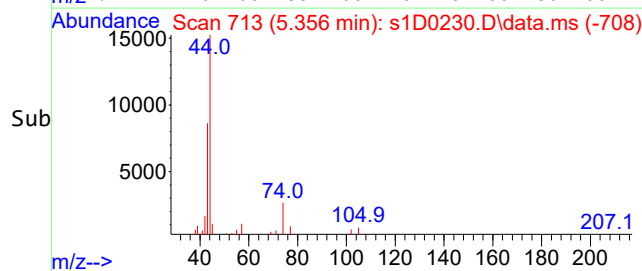




#30 BEFORE analyst DELETION
Benzoic acid
Concen: 8.08 ng/uL
RT: 5.356 min Scan# 713
Delta R.T. -0.054 min
Lab File: s1D0230.D
Acq: 02 Apr 2024 20:37



Tgt Ion:105 Resp: 918
Ion Ratio Lower Upper
105 100
122 0.0 36.8 96.8#
77 176.4 51.7 111.7#



CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	978	ug/kg	294	978
110-86-1	Pyridine	U	978	ug/kg	294	978
62-53-3	Aniline	U	978	ug/kg	294	978
108-95-2	Phenol	U	978	ug/kg	294	978
111-44-4	bis(2-Chloroethyl) ether	U	978	ug/kg	294	978
95-57-8	2-Chlorophenol	U	978	ug/kg	294	978
541-73-1	1,3-Dichlorobenzene	U	978	ug/kg	294	978
106-46-7	1,4-Dichlorobenzene	U	978	ug/kg	294	978
95-50-1	1,2-Dichlorobenzene	U	978	ug/kg	294	978
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	978	ug/kg	294	978
100-51-6	Benzyl alcohol	U	978	ug/kg	294	978
95-48-7	o-Cresol	U	978	ug/kg	294	978
65794-96-9	m,p-Cresols	U	978	ug/kg	294	978
621-64-7	N-Nitrosodipropylamine	U	978	ug/kg	294	978
67-72-1	Hexachloroethane	U	978	ug/kg	294	978
98-95-3	Nitrobenzene	U	978	ug/kg	294	978
78-59-1	Isophorone	U	978	ug/kg	294	978
88-75-5	2-Nitrophenol	U	978	ug/kg	294	978
105-67-9	2,4-Dimethylphenol	U	978	ug/kg	294	978
111-91-1	bis(2-Chloroethoxy)methane	U	978	ug/kg	294	978
120-83-2	2,4-Dichlorophenol	U	978	ug/kg	294	978
65-85-0	Benzoic acid	J	890	ug/kg	489	1960
106-47-8	4-Chloroaniline	U	978	ug/kg	294	978
87-68-3	Hexachlorobutadiene	U	978	ug/kg	294	978
59-50-7	4-Chloro-3-methylphenol	U	978	ug/kg	391	978
91-57-6	2-Methylnaphthalene	U	97.8	ug/kg	29.4	97.8
91-20-3	Naphthalene	U	97.8	ug/kg	29.4	97.8
90-12-0	1-Methylnaphthalene	U	97.8	ug/kg	29.4	97.8
77-47-4	Hexachlorocyclopentadiene	U	978	ug/kg	294	978
88-06-2	2,4,6-Trichlorophenol	U	978	ug/kg	294	978
95-95-4	2,4,5-Trichlorophenol	U	978	ug/kg	294	978
91-58-7	2-Chloronaphthalene	U	97.8	ug/kg	29.4	97.8
88-74-4	o-Nitroaniline	U	978	ug/kg	323	978
99-09-2	m-Nitroaniline	U	978	ug/kg	294	978
131-11-3	Dimethylphthalate	U	97.8	ug/kg	29.4	97.8
99-65-0	m-Dinitrobenzene	U	978	ug/kg	294	978
606-20-2	2,6-Dinitrotoluene	U	978	ug/kg	294	978
121-14-2	2,4-Dinitrotoluene	U	978	ug/kg	294	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:55	Matrix:	MISC SOLID
Lab Sample ID:	660771014	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:59	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.22 g	Final Volume:	1 mL
Data File:	S040224\1D0231.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	97.8	ug/kg	29.4	97.8
83-32-9	Acenaphthene	U	97.8	ug/kg	29.4	97.8
51-28-5	2,4-Dinitrophenol	U	1960	ug/kg	294	1960
132-64-9	Dibenzofuran	U	978	ug/kg	294	978
58-90-2	2,3,4,6-Tetrachlorophenol	U	978	ug/kg	294	978
84-66-2	Diethylphthalate	U	97.8	ug/kg	29.4	97.8
100-02-7	4-Nitrophenol	U	978	ug/kg	294	978
86-73-7	Fluorene	U	97.8	ug/kg	29.4	97.8
7005-72-3	4-Chlorophenylphenylether	U	978	ug/kg	294	978
100-01-6	p-Nitroaniline	U	978	ug/kg	294	978
534-52-1	2-Methyl-4,6-dinitrophenol	U	978	ug/kg	294	978
122-39-4	Diphenylamine	U	978	ug/kg	294	978
122-66-7	1,2-Diphenylhydrazine	U	978	ug/kg	294	978
101-55-3	4-Bromophenylphenylether	U	978	ug/kg	294	978
118-74-1	Hexachlorobenzene	U	978	ug/kg	294	978
87-86-5	Pentachlorophenol	U	978	ug/kg	294	978
88-85-7	Dinoseb	U	978	ug/kg	294	978
85-01-8	Phenanthrene	U	97.8	ug/kg	29.4	97.8
120-12-7	Anthracene	U	97.8	ug/kg	29.4	97.8
86-74-8	Carbazole	U	97.8	ug/kg	29.4	97.8
84-74-2	Di-n-butylphthalate	U	97.8	ug/kg	29.4	97.8
206-44-0	Fluoranthene	U	97.8	ug/kg	29.4	97.8
129-00-0	Pyrene	U	97.8	ug/kg	29.4	97.8
85-68-7	Butylbenzylphthalate	U	97.8	ug/kg	29.4	97.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	97.8	ug/kg	29.4	97.8
56-55-3	Benzo(a)anthracene	U	97.8	ug/kg	29.4	97.8
218-01-9	Chrysene	U	97.8	ug/kg	29.4	97.8
72-43-5	Methoxychlor	U	978	ug/kg	294	978
117-84-0	Di-n-octylphthalate	U	97.8	ug/kg	29.4	97.8
205-99-2	Benzo(b)fluoranthene	U	97.8	ug/kg	29.4	97.8
207-08-9	Benzo(k)fluoranthene	U	97.8	ug/kg	29.4	97.8
50-32-8	Benzo(a)pyrene	U	97.8	ug/kg	29.4	97.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	97.8	ug/kg	29.4	97.8
53-70-3	Dibenzo(a,h)anthracene	U	97.8	ug/kg	29.4	97.8
191-24-2	Benzo(ghi)perylene	U	97.8	ug/kg	29.4	97.8
123-91-1	1,4-Dioxane	U	978	ug/kg	294	978
80-62-6	Methyl methacrylate	U	978	ug/kg	294	978
97-63-2	Ethyl methacrylate	U	978	ug/kg	294	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:55	Matrix:	MISC SOLID
Lab Sample ID:	660771014	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:59	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.22 g	Final Volume:	1 mL
Data File:	S040224\1D0231.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	978	ug/kg	294	978
10595-95-6	N-Nitrosomethylethylamine	U	978	ug/kg	294	978
66-27-3	Methyl methanesulfonate	U	978	ug/kg	294	978
55-18-5	N-Nitrosodiethylamine	U	978	ug/kg	294	978
62-50-0	Ethyl Methanesulfonate	U	978	ug/kg	294	978
76-01-7	Pentachloroethane	U	978	ug/kg	294	978
930-55-2	N-Nitrosopyrrolidine	U	978	ug/kg	294	978
98-86-2	Acetophenone	U	978	ug/kg	294	978
59-89-2	N-Nitrosomorpholine	U	978	ug/kg	294	978
95-53-4	o-Toluidine	U	978	ug/kg	294	978
100-75-4	N-Nitrosopiperidine	U	978	ug/kg	294	978
122-09-8	a,a-Dimethylphenethylamine	U	978	ug/kg	342	978
87-65-0	2,6-Dichlorophenol	U	978	ug/kg	294	978
1888-71-7	Hexachloropropene	U	978	ug/kg	294	978
924-16-3	N-Nitrosodi-n-butylamine	U	978	ug/kg	294	978
94-59-7	Safrole	U	978	ug/kg	294	978
95-94-3	1,2,4,5-Tetrachlorobenzene	U	978	ug/kg	294	978
120-58-1	Isosafrole	U	978	ug/kg	294	978
130-15-4	1,4-Naphthoquinone	U	978	ug/kg	294	978
608-93-5	Pentachlorobenzene	U	978	ug/kg	294	978
134-32-7	1-Naphthylamine	U	978	ug/kg	294	978
91-59-8	2-Naphthylamine	U	978	ug/kg	294	978
99-55-8	5-Nitro-o-toluidine	U	978	ug/kg	294	978
62-44-2	Phenacetin	U	978	ug/kg	294	978
99-35-4	1,3,5-Trinitrobenzene	U	978	ug/kg	294	978
2303-16-4	Diallate	U	978	ug/kg	294	978
92-67-1	4-Aminobiphenyl	U	978	ug/kg	294	978
82-68-8	Pentachloronitrobenzene	U	978	ug/kg	294	978
23950-58-5	Pronamide	U	978	ug/kg	294	978
56-57-5	4-Nitroquinoline-1-oxide	U	978	ug/kg	294	978
91-80-5	Methapyrilene	U	978	ug/kg	294	978
465-73-6	Isodrin	U	978	ug/kg	196	978
140-57-8	Aramite	U	978	ug/kg	294	978
143-50-0	Kepone	U	978	ug/kg	294	978
60-11-7	p-(Dimethylamino)azobenzene	U	978	ug/kg	294	978
510-15-6	Chlorobenzilate	U	978	ug/kg	294	978
119-93-7	3,3'-Dimethylbenzidine	U	978	ug/kg	294	978
53-96-3	2-Acetylaminofluorene	U	978	ug/kg	294	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 06:55	Matrix:	MISC SOLID
Lab Sample ID:	660771014	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 20:59	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.22 g	Final Volume:	1 mL
Data File:	S040224\1D0231.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	978	ug/kg	294	978
57-97-6	7,12-Dimethylbenz(a)anthracene	U	978	ug/kg	294	978
56-49-5	3-Methylcholanthrene	U	978	ug/kg	294	978
126-68-1	Triethylphosphorothioate	U	978	ug/kg	294	978
297-97-2	Thionazin	U	978	ug/kg	294	978
126-73-8	Tributylphosphate	U	978	ug/kg	294	978
3689-24-5	Sulfotepp	U	978	ug/kg	294	978
298-02-2	Phorate	U	978	ug/kg	294	978
60-51-5	Dimethoate	U	978	ug/kg	294	978
298-04-4	Disulfoton	U	978	ug/kg	294	978
298-00-0	Methyl parathion	U	978	ug/kg	294	978
56-38-2	Parathion	U	978	ug/kg	294	978
52-85-7	Famphur	U	978	ug/kg	294	978
106-50-3	p-Phenylenediamine	U	48900	ug/kg	9780	48900
70-30-4	Hexachlorophene	U	48900	ug/kg	11400	48900
120-82-1	1,2,4-Trichlorobenzene	U	978	ug/kg	294	978

LL
04/03/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0231.D
Acq On : 02 Apr 2024 20:59
Operator : LL2
InstName : MSD1
Sample : |660771014|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12041.B3.Middle Front.EPA|mix[a,b,j,d,e]|
ALS Vial : 28 Sample Multiplier: 1

RB
04/04/2024

Quant Time: Apr 03 08:08:21 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	120876	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	458851	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	259283	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.742	8.741	1.000	529809	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.239	11.245	1.000	583511	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.609	13.625	1.000	522205	40.00	ng/uL	-0.02
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	120876	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	463956	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	259283	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.742	8.741	1.000	529809	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.239	11.245	1.000	583511	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.609	13.625	1.000	522205	40.00	ng/uL	-0.02
152) J Naphthalene-d8	136	5.714	5.714	1.000	463956	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.742	8.741	1.000	529809	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.239	11.245	1.000	583511	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	463956	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	259283	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.742	8.741	1.000	529809	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.239	11.245	1.000	583511	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	463956	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.609	13.625	1.000	522205	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.992	2.986	0.695	287640	70.08	ng/uL	0.00
8) Phenol-d5	99	3.869	3.874	0.899	406498	75.64	ng/uL	0.00
23) Nitrobenzene-d5	82	4.912	4.917	0.860	201623	39.68	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.800	6.805	0.914	358791	36.89	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.137	8.137	1.094	116953	76.78	ng/uL	0.00
79) p-Terphenyl-d14	244	10.079	10.084	1.153	548439	42.34	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	70%
8) Phenol-d5	100.000	15 - 85	76%
23) Nitrobenzene-d5	50.000	39 - 112	79%
44) 2-Fluorobiphenyl	50.000	39 - 112	74%
63) 2,4,6-Tribromophenol	100.000	37 - 132	77%
79) p-Terphenyl-d14	50.000	24 - 129	85%

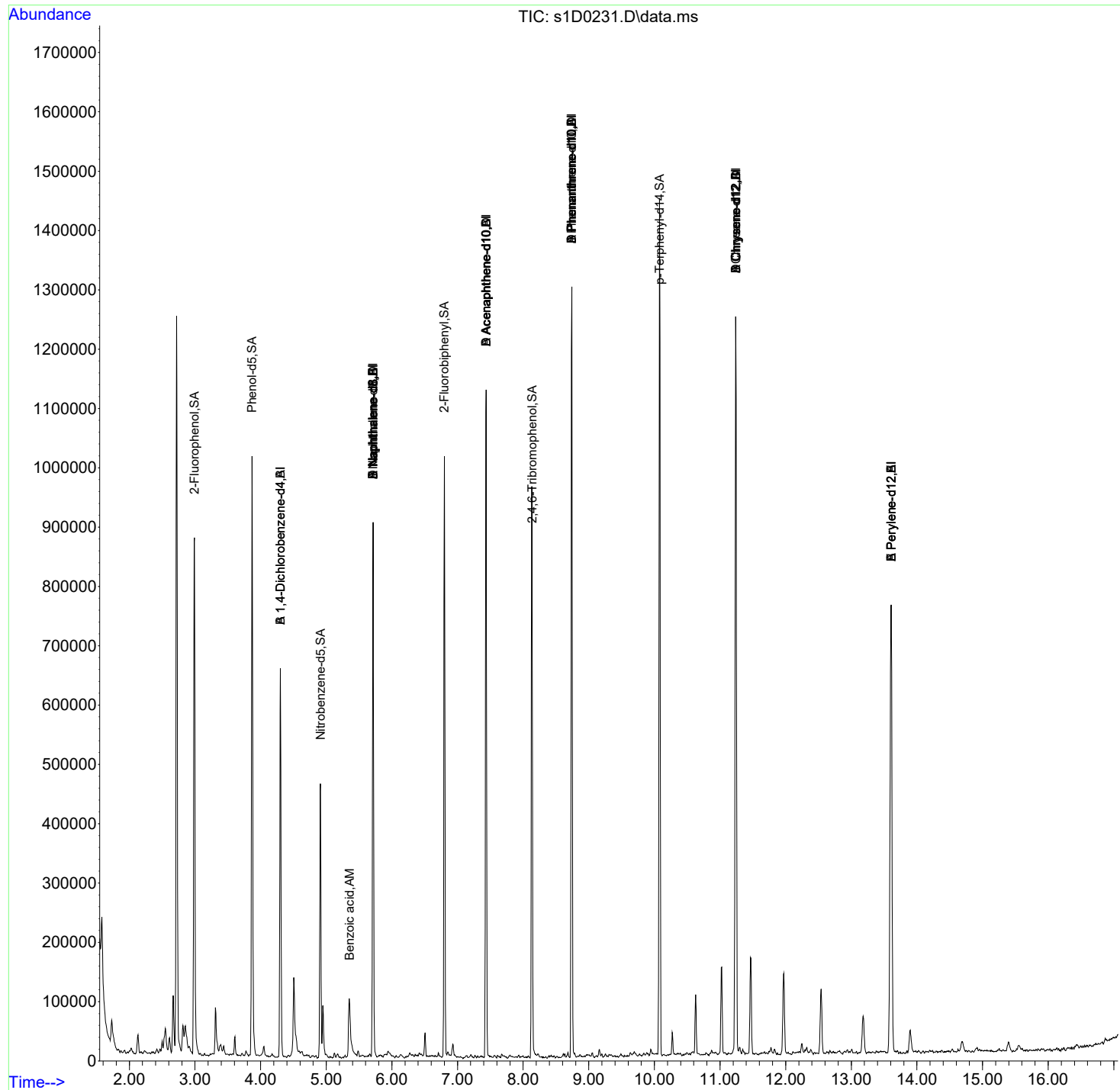
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
30) Benzoic acid	105	5.356	5.409	0.937	4375m	9.10	ng/uL	

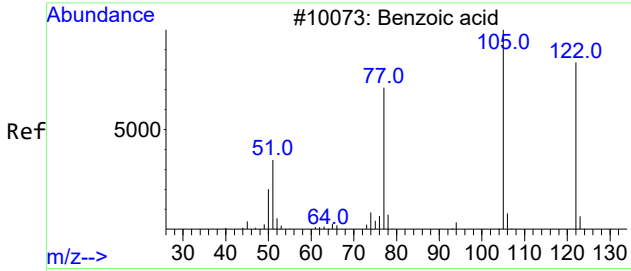
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0231.D
Acq On : 02 Apr 2024 20:59
Operator : LL2
InstName : MSD1
Sample : |660771014|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12041.B3.Middle Front.EPA|mix[a,b,j,d,e]|
ALS Vial : 28 Sample Multiplier: 1

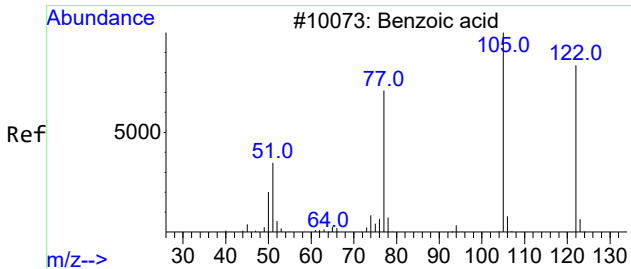
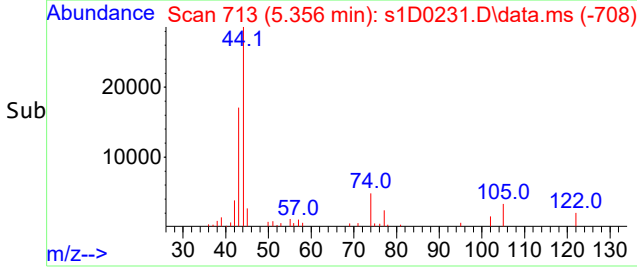
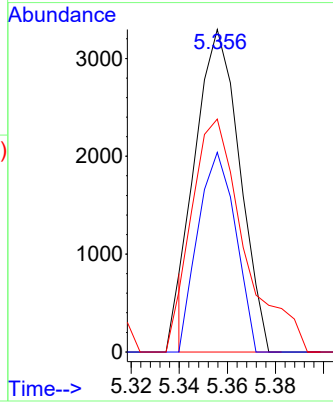
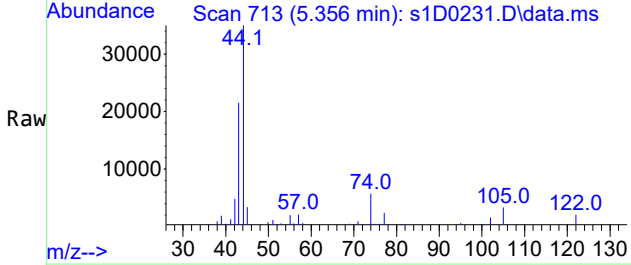
Quant Time: Apr 03 08:08:21 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE





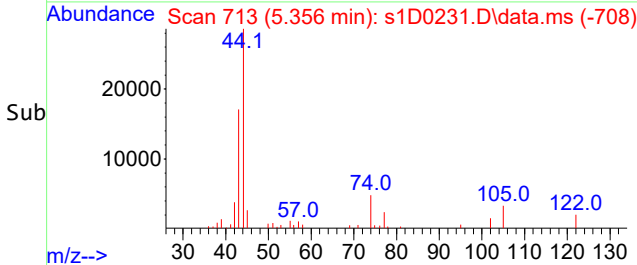
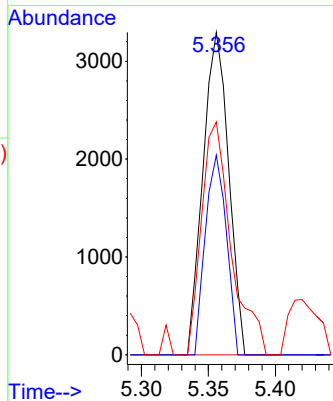
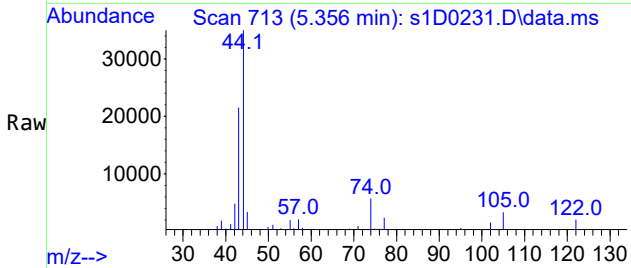
#30 BEFORE analyst integration
Benzoic acid
Concen: 9.02 ng/uL
RT: 5.356 min Scan# 713
Delta R.T. -0.054 min
Lab File: s1D0231.D
Acq: 02 Apr 2024 20:59

Tgt Ion	Ratio	Lower	Upper
105	100		
122	53.9	36.8	96.8
77	84.1	51.7	111.7



#30 AFTER analyst integration
Benzoic acid
Concen: 9.10 ng/uL MANUALLY INTEGRATED
RT: 5.356 min Scan# 713
Delta R.T. -0.054 min
Lab File: s1D0231.D
Acq: 02 Apr 2024 20:59

Tgt Ion	Ratio	Lower	Upper
105	100		
122	50.7	36.8	96.8
77	74.5	51.7	111.7



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:05	Matrix:	MISC SOLID
Lab Sample ID:	660771015	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 21:22	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.91 g	Final Volume:	1 mL
Data File:	S040224\1D0232.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	917	ug/kg	275	917
110-86-1	Pyridine	U	917	ug/kg	275	917
62-53-3	Aniline	U	917	ug/kg	275	917
108-95-2	Phenol	U	917	ug/kg	275	917
111-44-4	bis(2-Chloroethyl) ether	U	917	ug/kg	275	917
95-57-8	2-Chlorophenol	U	917	ug/kg	275	917
541-73-1	1,3-Dichlorobenzene	U	917	ug/kg	275	917
106-46-7	1,4-Dichlorobenzene	U	917	ug/kg	275	917
95-50-1	1,2-Dichlorobenzene	U	917	ug/kg	275	917
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	917	ug/kg	275	917
100-51-6	Benzyl alcohol	U	917	ug/kg	275	917
95-48-7	o-Cresol	U	917	ug/kg	275	917
65794-96-9	m,p-Cresols	U	917	ug/kg	275	917
621-64-7	N-Nitrosodipropylamine	U	917	ug/kg	275	917
67-72-1	Hexachloroethane	U	917	ug/kg	275	917
98-95-3	Nitrobenzene	U	917	ug/kg	275	917
78-59-1	Isophorone	U	917	ug/kg	275	917
88-75-5	2-Nitrophenol	U	917	ug/kg	275	917
105-67-9	2,4-Dimethylphenol	U	917	ug/kg	275	917
111-91-1	bis(2-Chloroethoxy)methane	U	917	ug/kg	275	917
120-83-2	2,4-Dichlorophenol	U	917	ug/kg	275	917
65-85-0	Benzoic acid	U	1830	ug/kg	458	1830
106-47-8	4-Chloroaniline	U	917	ug/kg	275	917
87-68-3	Hexachlorobutadiene	U	917	ug/kg	275	917
59-50-7	4-Chloro-3-methylphenol	U	917	ug/kg	367	917
91-57-6	2-Methylnaphthalene	U	91.7	ug/kg	27.5	91.7
91-20-3	Naphthalene	U	91.7	ug/kg	27.5	91.7
90-12-0	1-Methylnaphthalene	U	91.7	ug/kg	27.5	91.7
77-47-4	Hexachlorocyclopentadiene	U	917	ug/kg	275	917
88-06-2	2,4,6-Trichlorophenol	U	917	ug/kg	275	917
95-95-4	2,4,5-Trichlorophenol	U	917	ug/kg	275	917
91-58-7	2-Chloronaphthalene	U	91.7	ug/kg	27.5	91.7
88-74-4	o-Nitroaniline	U	917	ug/kg	302	917
99-09-2	m-Nitroaniline	U	917	ug/kg	275	917
131-11-3	Dimethylphthalate	U	91.7	ug/kg	27.5	91.7
99-65-0	m-Dinitrobenzene	U	917	ug/kg	275	917
606-20-2	2,6-Dinitrotoluene	U	917	ug/kg	275	917
121-14-2	2,4-Dinitrotoluene	U	917	ug/kg	275	917

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771015

Client ID: 12041.B3.Bottom Front.EPA

Batch ID: 2589785

Run Date: 04/02/2024 21:22

Prep Date: 04/02/2024 07:52

Data File: S040224s1D0232.D

Date Collected: 03/29/2024 07:05

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.91 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	91.7	ug/kg	27.5	91.7
83-32-9	Acenaphthene	U	91.7	ug/kg	27.5	91.7
51-28-5	2,4-Dinitrophenol	U	1830	ug/kg	275	1830
132-64-9	Dibenzofuran	U	917	ug/kg	275	917
58-90-2	2,3,4,6-Tetrachlorophenol	U	917	ug/kg	275	917
84-66-2	Diethylphthalate	U	91.7	ug/kg	27.5	91.7
100-02-7	4-Nitrophenol	U	917	ug/kg	275	917
86-73-7	Fluorene	U	91.7	ug/kg	27.5	91.7
7005-72-3	4-Chlorophenylphenylether	U	917	ug/kg	275	917
100-01-6	p-Nitroaniline	U	917	ug/kg	275	917
534-52-1	2-Methyl-4,6-dinitrophenol	U	917	ug/kg	275	917
122-39-4	Diphenylamine	U	917	ug/kg	275	917
122-66-7	1,2-Diphenylhydrazine	U	917	ug/kg	275	917
101-55-3	4-Bromophenylphenylether	U	917	ug/kg	275	917
118-74-1	Hexachlorobenzene	U	917	ug/kg	275	917
87-86-5	Pentachlorophenol	U	917	ug/kg	275	917
88-85-7	Dinoseb	U	917	ug/kg	275	917
85-01-8	Phenanthrene	U	91.7	ug/kg	27.5	91.7
120-12-7	Anthracene	U	91.7	ug/kg	27.5	91.7
86-74-8	Carbazole	U	91.7	ug/kg	27.5	91.7
84-74-2	Di-n-butylphthalate	U	91.7	ug/kg	27.5	91.7
206-44-0	Fluoranthene	U	91.7	ug/kg	27.5	91.7
129-00-0	Pyrene	U	91.7	ug/kg	27.5	91.7
85-68-7	Butylbenzylphthalate	U	91.7	ug/kg	27.5	91.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	91.7	ug/kg	27.5	91.7
56-55-3	Benzo(a)anthracene	U	91.7	ug/kg	27.5	91.7
218-01-9	Chrysene	U	91.7	ug/kg	27.5	91.7
72-43-5	Methoxychlor	U	917	ug/kg	275	917
117-84-0	Di-n-octylphthalate	U	91.7	ug/kg	27.5	91.7
205-99-2	Benzo(b)fluoranthene	U	91.7	ug/kg	27.5	91.7
207-08-9	Benzo(k)fluoranthene	U	91.7	ug/kg	27.5	91.7
50-32-8	Benzo(a)pyrene	U	91.7	ug/kg	27.5	91.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	91.7	ug/kg	27.5	91.7
53-70-3	Dibenzo(a,h)anthracene	U	91.7	ug/kg	27.5	91.7
191-24-2	Benzo(ghi)perylene	U	91.7	ug/kg	27.5	91.7
123-91-1	1,4-Dioxane	U	917	ug/kg	275	917
80-62-6	Methyl methacrylate	U	917	ug/kg	275	917
97-63-2	Ethyl methacrylate	U	917	ug/kg	275	917

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:05	Matrix:	MISC SOLID
Lab Sample ID:	660771015	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12041.B3.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 21:22	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.91 g	Final Volume:	1 mL
Data File:	S040224\1D0232.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	917	ug/kg	275	917
10595-95-6	N-Nitrosomethylethylamine	U	917	ug/kg	275	917
66-27-3	Methyl methanesulfonate	U	917	ug/kg	275	917
55-18-5	N-Nitrosodiethylamine	U	917	ug/kg	275	917
62-50-0	Ethyl Methanesulfonate	U	917	ug/kg	275	917
76-01-7	Pentachloroethane	U	917	ug/kg	275	917
930-55-2	N-Nitrosopyrrolidine	U	917	ug/kg	275	917
98-86-2	Acetophenone	U	917	ug/kg	275	917
59-89-2	N-Nitrosomorpholine	U	917	ug/kg	275	917
95-53-4	o-Toluidine	U	917	ug/kg	275	917
100-75-4	N-Nitrosopiperidine	U	917	ug/kg	275	917
122-09-8	a,a-Dimethylphenethylamine	U	917	ug/kg	321	917
87-65-0	2,6-Dichlorophenol	U	917	ug/kg	275	917
1888-71-7	Hexachloropropene	U	917	ug/kg	275	917
924-16-3	N-Nitrosodi-n-butylamine	U	917	ug/kg	275	917
94-59-7	Safrole	U	917	ug/kg	275	917
95-94-3	1,2,4,5-Tetrachlorobenzene	U	917	ug/kg	275	917
120-58-1	Isosafrole	U	917	ug/kg	275	917
130-15-4	1,4-Naphthoquinone	U	917	ug/kg	275	917
608-93-5	Pentachlorobenzene	U	917	ug/kg	275	917
134-32-7	1-Naphthylamine	U	917	ug/kg	275	917
91-59-8	2-Naphthylamine	U	917	ug/kg	275	917
99-55-8	5-Nitro-o-toluidine	U	917	ug/kg	275	917
62-44-2	Phenacetin	U	917	ug/kg	275	917
99-35-4	1,3,5-Trinitrobenzene	U	917	ug/kg	275	917
2303-16-4	Diallate	U	917	ug/kg	275	917
92-67-1	4-Aminobiphenyl	U	917	ug/kg	275	917
82-68-8	Pentachloronitrobenzene	U	917	ug/kg	275	917
23950-58-5	Pronamide	U	917	ug/kg	275	917
56-57-5	4-Nitroquinoline-1-oxide	U	917	ug/kg	275	917
91-80-5	Methapyrilene	U	917	ug/kg	275	917
465-73-6	Isodrin	U	917	ug/kg	183	917
140-57-8	Aramite	U	917	ug/kg	275	917
143-50-0	Kepone	U	917	ug/kg	275	917
60-11-7	p-(Dimethylamino)azobenzene	U	917	ug/kg	275	917
510-15-6	Chlorobenzilate	U	917	ug/kg	275	917
119-93-7	3,3'-Dimethylbenzidine	U	917	ug/kg	275	917
53-96-3	2-Acetylaminofluorene	U	917	ug/kg	275	917

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771015

Client ID: 12041.B3.Bottom Front.EPA

Batch ID: 2589785

Run Date: 04/02/2024 21:22

Prep Date: 04/02/2024 07:52

Data File: S040224\1D0232.D

Date Collected: 03/29/2024 07:05

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.91 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	917	ug/kg	275	917
57-97-6	7,12-Dimethylbenz(a)anthracene	U	917	ug/kg	275	917
56-49-5	3-Methylcholanthrene	U	917	ug/kg	275	917
126-68-1	Triethylphosphorothioate	U	917	ug/kg	275	917
297-97-2	Thionazin	U	917	ug/kg	275	917
126-73-8	Tributylphosphate	U	917	ug/kg	275	917
3689-24-5	Sulfotepp	U	917	ug/kg	275	917
298-02-2	Phorate	U	917	ug/kg	275	917
60-51-5	Dimethoate	U	917	ug/kg	275	917
298-04-4	Disulfoton	U	917	ug/kg	275	917
298-00-0	Methyl parathion	U	917	ug/kg	275	917
56-38-2	Parathion	U	917	ug/kg	275	917
52-85-7	Famphur	U	917	ug/kg	275	917
106-50-3	p-Phenylenediamine	U	45800	ug/kg	9170	45800
70-30-4	Hexachlorophene	U	45800	ug/kg	10600	45800
120-82-1	1,2,4-Trichlorobenzene	U	917	ug/kg	275	917

LL
04/03/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0232.D
Acq On : 02 Apr 2024 21:22
Operator : LL2
InstName : MSD1
Sample : |660771015|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12041.B3.Bottom Front.EPA|mix[a,b,j,d,e]|
ALS Vial : 29 Sample Multiplier: 1

RB
04/04/2024

Quant Time: Apr 03 08:09:09 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	108146	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	406558	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	221407	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.742	8.741	1.000	451404	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.239	11.245	1.000	479326	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.603	13.625	1.000	453424	40.00	ng/uL	-0.02
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	108146	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	411747	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	221407	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.742	8.741	1.000	451404	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.239	11.245	1.000	479326	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.603	13.625	1.000	453424	40.00	ng/uL	-0.02
152) J Naphthalene-d8	136	5.714	5.714	1.000	411747	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.742	8.741	1.000	451404	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.239	11.245	1.000	479326	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	411747	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	221407	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.742	8.741	1.000	451404	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.239	11.245	1.000	479326	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	411747	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.603	13.625	1.000	453424	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.986	2.986	0.694	262927	71.60	ng/uL	0.00
8) Phenol-d5	99	3.869	3.874	0.899	372800	77.53	ng/uL	0.00
23) Nitrobenzene-d5	82	4.907	4.917	0.859	183805	40.83	ng/uL	-0.01
44) 2-Fluorobiphenyl	172	6.800	6.805	0.914	329079	39.63	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.132	8.137	1.094	103008	79.19	ng/uL	0.00
79) p-Terphenyl-d14	244	10.079	10.084	1.153	472326	42.80	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	72%
8) Phenol-d5	100.000	15 - 85	78%
23) Nitrobenzene-d5	50.000	39 - 112	82%
44) 2-Fluorobiphenyl	50.000	39 - 112	79%
63) 2,4,6-Tribromophenol	100.000	37 - 132	79%
79) p-Terphenyl-d14	50.000	24 - 129	86%

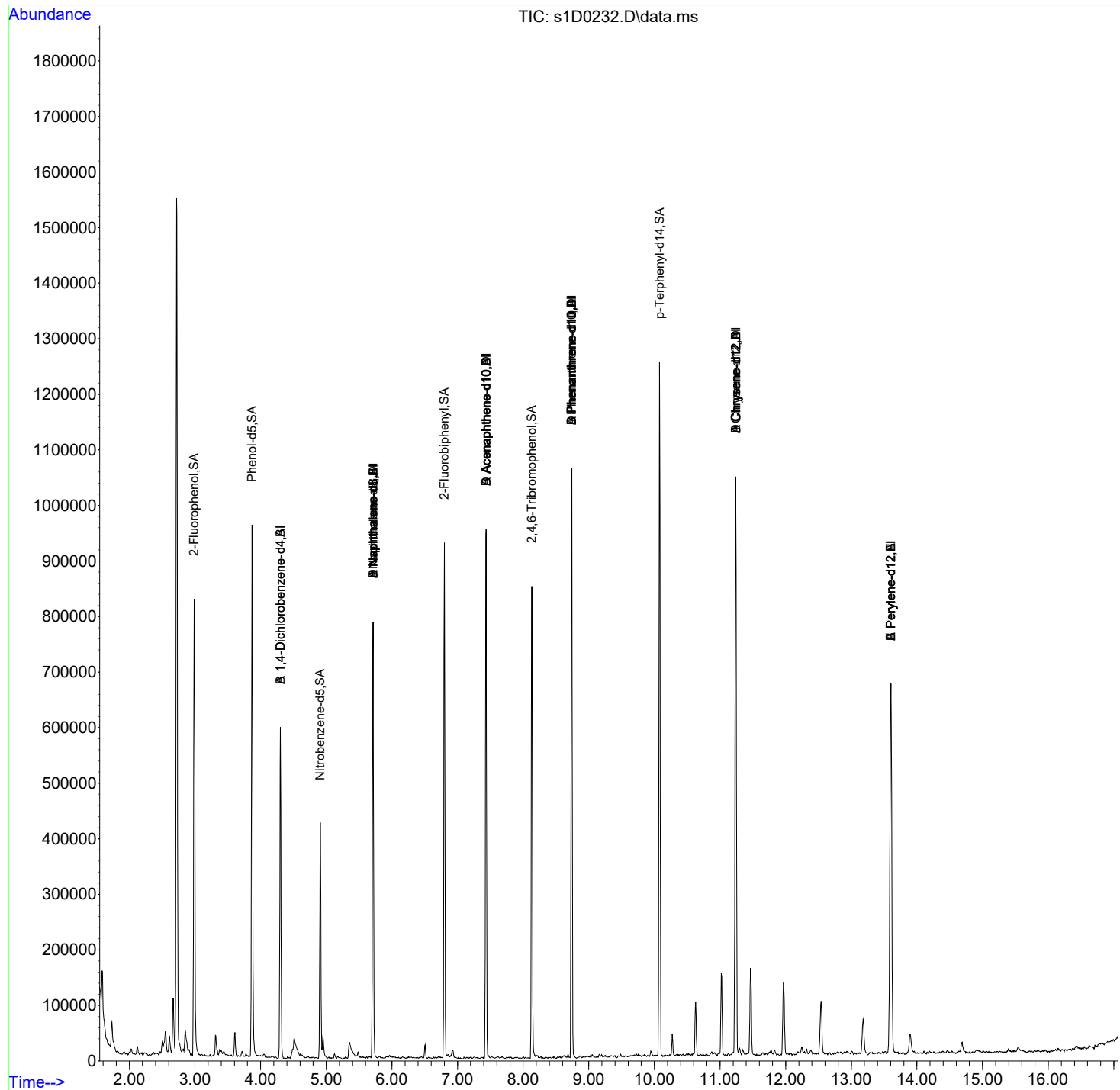
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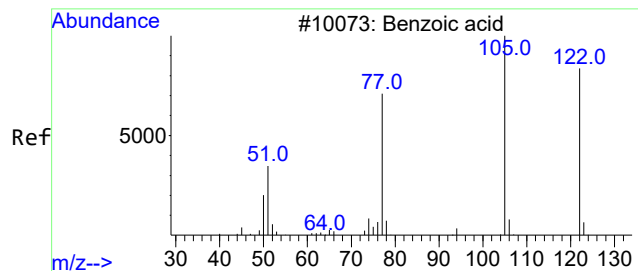
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(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

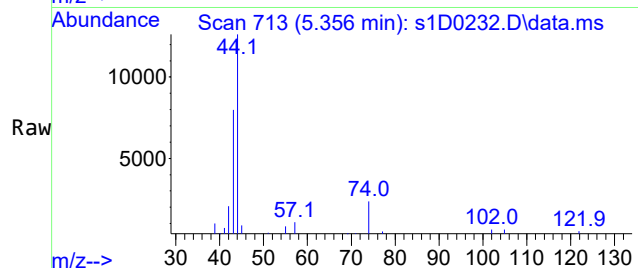
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Data File : s1D0232.D
Acq On : 02 Apr 2024 21:22
Operator : LL2
InstName : MSD1
Sample : |660771015|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12041.B3.Bottom Front.EPA|mix[a,b,j,d,e]|
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Apr 03 08:09:09 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

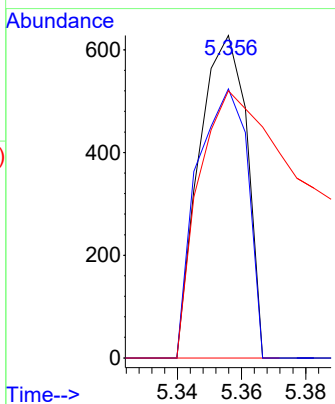
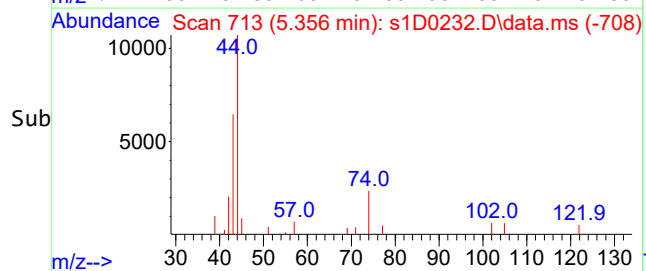




#30 BEFORE analyst DELETION
Benzoic acid
Concen: 8.02 ng/uL
RT: 5.356 min Scan# 713
Delta R.T. -0.054 min
Lab File: s1D0232.D
Acq: 02 Apr 2024 21:22



Tgt Ion:105 Resp: 644
Ion Ratio Lower Upper
105 100
122 88.5 36.8 96.8
77 164.1 51.7 111.7#



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771016	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 21:44	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.2 g	Final Volume:	1 mL
Data File:	S040224\1D0233.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	980	ug/kg	294	980
110-86-1	Pyridine	U	980	ug/kg	294	980
62-53-3	Aniline	U	980	ug/kg	294	980
108-95-2	Phenol	U	980	ug/kg	294	980
111-44-4	bis(2-Chloroethyl) ether	U	980	ug/kg	294	980
95-57-8	2-Chlorophenol	U	980	ug/kg	294	980
541-73-1	1,3-Dichlorobenzene	U	980	ug/kg	294	980
106-46-7	1,4-Dichlorobenzene	U	980	ug/kg	294	980
95-50-1	1,2-Dichlorobenzene	U	980	ug/kg	294	980
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	980	ug/kg	294	980
100-51-6	Benzyl alcohol	U	980	ug/kg	294	980
95-48-7	o-Cresol	U	980	ug/kg	294	980
65794-96-9	m,p-Cresols	U	980	ug/kg	294	980
621-64-7	N-Nitrosodipropylamine	U	980	ug/kg	294	980
67-72-1	Hexachloroethane	U	980	ug/kg	294	980
98-95-3	Nitrobenzene	U	980	ug/kg	294	980
78-59-1	Isophorone	U	980	ug/kg	294	980
88-75-5	2-Nitrophenol	U	980	ug/kg	294	980
105-67-9	2,4-Dimethylphenol	U	980	ug/kg	294	980
111-91-1	bis(2-Chloroethoxy)methane	U	980	ug/kg	294	980
120-83-2	2,4-Dichlorophenol	U	980	ug/kg	294	980
65-85-0	Benzoic acid	U	1960	ug/kg	490	1960
106-47-8	4-Chloroaniline	U	980	ug/kg	294	980
87-68-3	Hexachlorobutadiene	U	980	ug/kg	294	980
59-50-7	4-Chloro-3-methylphenol	U	980	ug/kg	392	980
91-57-6	2-Methylnaphthalene	U	98.0	ug/kg	29.4	98.0
91-20-3	Naphthalene	U	98.0	ug/kg	29.4	98.0
90-12-0	1-Methylnaphthalene	U	98.0	ug/kg	29.4	98.0
77-47-4	Hexachlorocyclopentadiene	U	980	ug/kg	294	980
88-06-2	2,4,6-Trichlorophenol	U	980	ug/kg	294	980
95-95-4	2,4,5-Trichlorophenol	U	980	ug/kg	294	980
91-58-7	2-Chloronaphthalene	U	98.0	ug/kg	29.4	98.0
88-74-4	o-Nitroaniline	U	980	ug/kg	324	980
99-09-2	m-Nitroaniline	U	980	ug/kg	294	980
131-11-3	Dimethylphthalate	U	98.0	ug/kg	29.4	98.0
99-65-0	m-Dinitrobenzene	U	980	ug/kg	294	980
606-20-2	2,6-Dinitrotoluene	U	980	ug/kg	294	980
121-14-2	2,4-Dinitrotoluene	U	980	ug/kg	294	980

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:15	Matrix:	MISC SOLID
Lab Sample ID:	660771016	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 21:44	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.2 g	Final Volume:	1 mL
Data File:	S040224s1D0233.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	98.0	ug/kg	29.4	98.0
83-32-9	Acenaphthene	U	98.0	ug/kg	29.4	98.0
51-28-5	2,4-Dinitrophenol	U	1960	ug/kg	294	1960
132-64-9	Dibenzofuran	U	980	ug/kg	294	980
58-90-2	2,3,4,6-Tetrachlorophenol	U	980	ug/kg	294	980
84-66-2	Diethylphthalate	U	98.0	ug/kg	29.4	98.0
100-02-7	4-Nitrophenol	U	980	ug/kg	294	980
86-73-7	Fluorene	U	98.0	ug/kg	29.4	98.0
7005-72-3	4-Chlorophenylphenylether	U	980	ug/kg	294	980
100-01-6	p-Nitroaniline	U	980	ug/kg	294	980
534-52-1	2-Methyl-4,6-dinitrophenol	U	980	ug/kg	294	980
122-39-4	Diphenylamine	U	980	ug/kg	294	980
122-66-7	1,2-Diphenylhydrazine	U	980	ug/kg	294	980
101-55-3	4-Bromophenylphenylether	U	980	ug/kg	294	980
118-74-1	Hexachlorobenzene	U	980	ug/kg	294	980
87-86-5	Pentachlorophenol	U	980	ug/kg	294	980
88-85-7	Dinoseb	U	980	ug/kg	294	980
85-01-8	Phenanthrene	U	98.0	ug/kg	29.4	98.0
120-12-7	Anthracene	U	98.0	ug/kg	29.4	98.0
86-74-8	Carbazole	U	98.0	ug/kg	29.4	98.0
84-74-2	Di-n-butylphthalate	U	98.0	ug/kg	29.4	98.0
206-44-0	Fluoranthene	U	98.0	ug/kg	29.4	98.0
129-00-0	Pyrene	U	98.0	ug/kg	29.4	98.0
85-68-7	Butylbenzylphthalate	U	98.0	ug/kg	29.4	98.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	98.0	ug/kg	29.4	98.0
56-55-3	Benzo(a)anthracene	U	98.0	ug/kg	29.4	98.0
218-01-9	Chrysene	U	98.0	ug/kg	29.4	98.0
72-43-5	Methoxychlor	U	980	ug/kg	294	980
117-84-0	Di-n-octylphthalate	U	98.0	ug/kg	29.4	98.0
205-99-2	Benzo(b)fluoranthene	U	98.0	ug/kg	29.4	98.0
207-08-9	Benzo(k)fluoranthene	U	98.0	ug/kg	29.4	98.0
50-32-8	Benzo(a)pyrene	U	98.0	ug/kg	29.4	98.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	98.0	ug/kg	29.4	98.0
53-70-3	Dibenzo(a,h)anthracene	U	98.0	ug/kg	29.4	98.0
191-24-2	Benzo(ghi)perylene	U	98.0	ug/kg	29.4	98.0
123-91-1	1,4-Dioxane	U	980	ug/kg	294	980
80-62-6	Methyl methacrylate	U	980	ug/kg	294	980
97-63-2	Ethyl methacrylate	U	980	ug/kg	294	980

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771016

Client ID: 12042.B3.Top Back.EPA

Batch ID: 2589785

Run Date: 04/02/2024 21:44

Prep Date: 04/02/2024 07:52

Data File: S040224s1D0233.D

Date Collected: 03/29/2024 07:15

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.2 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	980	ug/kg	294	980
10595-95-6	N-Nitrosomethylethylamine	U	980	ug/kg	294	980
66-27-3	Methyl methanesulfonate	U	980	ug/kg	294	980
55-18-5	N-Nitrosodiethylamine	U	980	ug/kg	294	980
62-50-0	Ethyl Methanesulfonate	U	980	ug/kg	294	980
76-01-7	Pentachloroethane	U	980	ug/kg	294	980
930-55-2	N-Nitrosopyrrolidine	U	980	ug/kg	294	980
98-86-2	Acetophenone	U	980	ug/kg	294	980
59-89-2	N-Nitrosomorpholine	U	980	ug/kg	294	980
95-53-4	o-Toluidine	U	980	ug/kg	294	980
100-75-4	N-Nitrosopiperidine	U	980	ug/kg	294	980
122-09-8	a,a-Dimethylphenethylamine	U	980	ug/kg	343	980
87-65-0	2,6-Dichlorophenol	U	980	ug/kg	294	980
1888-71-7	Hexachloropropene	U	980	ug/kg	294	980
924-16-3	N-Nitrosodi-n-butylamine	U	980	ug/kg	294	980
94-59-7	Safrole	U	980	ug/kg	294	980
95-94-3	1,2,4,5-Tetrachlorobenzene	U	980	ug/kg	294	980
120-58-1	Isosafrole	U	980	ug/kg	294	980
130-15-4	1,4-Naphthoquinone	U	980	ug/kg	294	980
608-93-5	Pentachlorobenzene	U	980	ug/kg	294	980
134-32-7	1-Naphthylamine	U	980	ug/kg	294	980
91-59-8	2-Naphthylamine	U	980	ug/kg	294	980
99-55-8	5-Nitro-o-toluidine	U	980	ug/kg	294	980
62-44-2	Phenacetin	U	980	ug/kg	294	980
99-35-4	1,3,5-Trinitrobenzene	U	980	ug/kg	294	980
2303-16-4	Diallate	U	980	ug/kg	294	980
92-67-1	4-Aminobiphenyl	U	980	ug/kg	294	980
82-68-8	Pentachloronitrobenzene	U	980	ug/kg	294	980
23950-58-5	Pronamide	U	980	ug/kg	294	980
56-57-5	4-Nitroquinoline-1-oxide	U	980	ug/kg	294	980
91-80-5	Methapyrilene	U	980	ug/kg	294	980
465-73-6	Isodrin	U	980	ug/kg	196	980
140-57-8	Aramite	U	980	ug/kg	294	980
143-50-0	Kepone	U	980	ug/kg	294	980
60-11-7	p-(Dimethylamino)azobenzene	U	980	ug/kg	294	980
510-15-6	Chlorobenzilate	U	980	ug/kg	294	980
119-93-7	3,3'-Dimethylbenzidine	U	980	ug/kg	294	980
53-96-3	2-Acetylaminofluorene	U	980	ug/kg	294	980

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771016

Client ID: 12042.B3.Top Back.EPA

Batch ID: 2589785

Run Date: 04/02/2024 21:44

Prep Date: 04/02/2024 07:52

Data File: S040224\1D0233.D

Date Collected: 03/29/2024 07:15

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.2 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	980	ug/kg	294	980
57-97-6	7,12-Dimethylbenz(a)anthracene	U	980	ug/kg	294	980
56-49-5	3-Methylcholanthrene	U	980	ug/kg	294	980
126-68-1	Triethylphosphorothioate	U	980	ug/kg	294	980
297-97-2	Thionazin	U	980	ug/kg	294	980
126-73-8	Tributylphosphate	U	980	ug/kg	294	980
3689-24-5	Sulfotepp	U	980	ug/kg	294	980
298-02-2	Phorate	U	980	ug/kg	294	980
60-51-5	Dimethoate	U	980	ug/kg	294	980
298-04-4	Disulfoton	U	980	ug/kg	294	980
298-00-0	Methyl parathion	U	980	ug/kg	294	980
56-38-2	Parathion	U	980	ug/kg	294	980
52-85-7	Famphur	U	980	ug/kg	294	980
106-50-3	p-Phenylenediamine	U	49000	ug/kg	9800	49000
70-30-4	Hexachlorophene	U	49000	ug/kg	11400	49000
120-82-1	1,2,4-Trichlorobenzene	U	980	ug/kg	294	980

LL
04/03/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0233.D
Acq On : 02 Apr 2024 21:44
Operator : LL2
InstName : MSD1
Sample : |660771016|2589785|1|SVM|1|PERM|||
Misc : |MSD827E4_S|MISC SOLID|12042.B3.Top Front.EPA|mix[a,b,j,d,e]||
ALS Vial : 30 Sample Multiplier: 1

RB
04/04/2024

Quant Time: Apr 03 08:09:28 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	107681	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	407335	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	226525	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.741	8.741	1.000	455898	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.239	11.245	1.000	492613	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.603	13.625	1.000	484595	40.00	ng/uL	-0.02
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	107681	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	412948	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	226525	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.741	8.741	1.000	455898	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.239	11.245	1.000	492613	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.603	13.625	1.000	484595	40.00	ng/uL	-0.02
152) J Naphthalene-d8	136	5.714	5.714	1.000	412948	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.741	8.741	1.000	455898	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.239	11.245	1.000	492613	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	412948	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	226525	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.741	8.741	1.000	455898	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.239	11.245	1.000	492613	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	412948	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.603	13.625	1.000	484595	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.992	2.986	0.695	254718	69.67	ng/uL	0.00
8) Phenol-d5	99	3.869	3.874	0.899	364233	76.08	ng/uL	0.00
23) Nitrobenzene-d5	82	4.912	4.917	0.860	177237	39.30	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.800	6.805	0.914	321469	37.84	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.132	8.137	1.094	102223	76.81	ng/uL	0.00
79) p-Terphenyl-d14	244	10.079	10.084	1.153	475734	42.68	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	70%
8) Phenol-d5	100.000	15 - 85	76%
23) Nitrobenzene-d5	50.000	39 - 112	79%
44) 2-Fluorobiphenyl	50.000	39 - 112	76%
63) 2,4,6-Tribromophenol	100.000	37 - 132	77%
79) p-Terphenyl-d14	50.000	24 - 129	85%

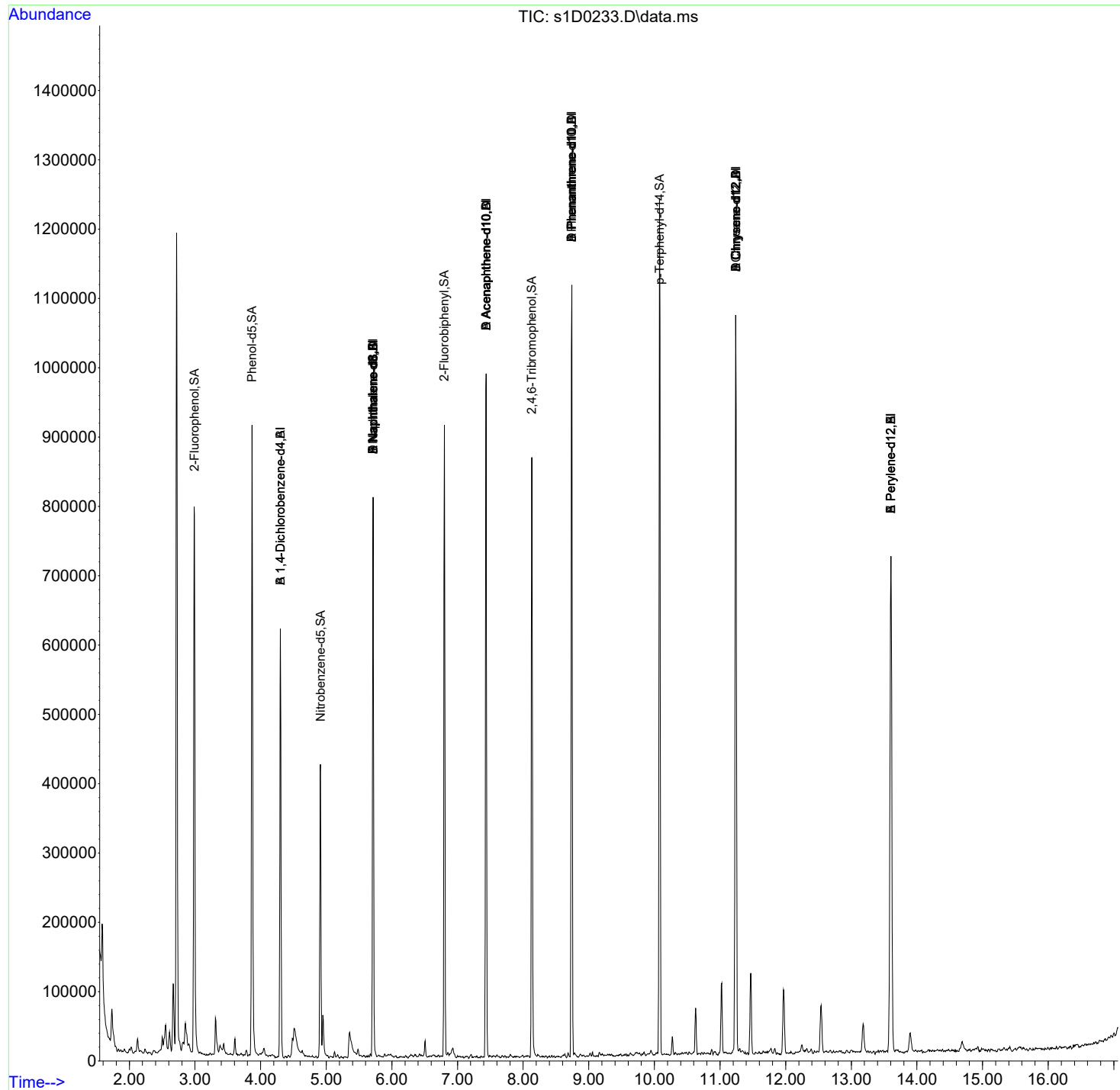
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
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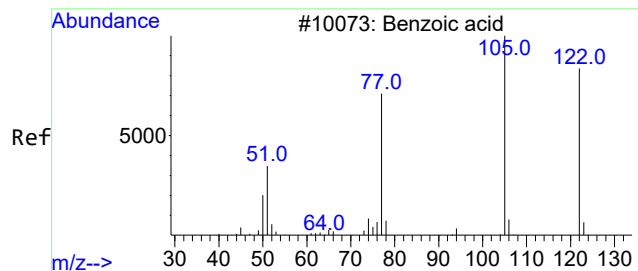
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

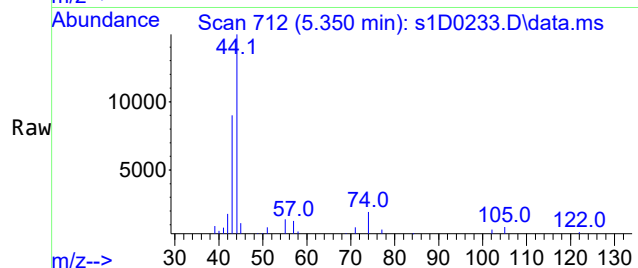
Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0233.D
Acq On : 02 Apr 2024 21:44
Operator : LL2
InstName : MSD1
Sample : |660771016|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12042.B3.Top Front.EPA|mix[a,b,j,d,e]|
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Apr 03 08:09:28 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

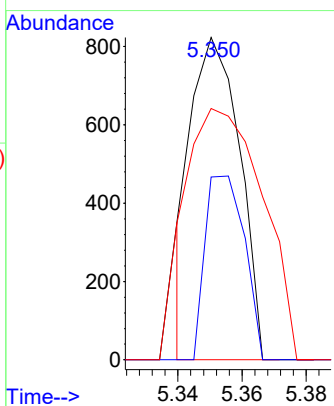
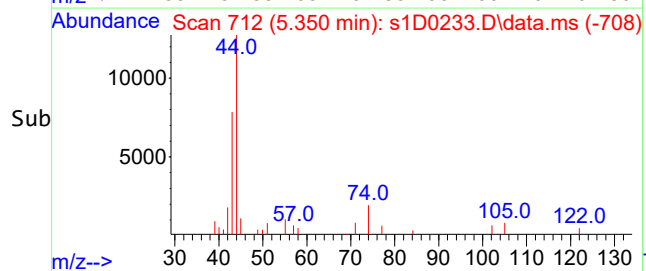




#30 BEFORE analyst DELETION
Benzoic acid
Concen: 8.09 ng/uL
RT: 5.350 min Scan# 712
Delta R.T. -0.059 min
Lab File: s1D0233.D
Acq: 02 Apr 2024 21:44



Tgt Ion	Ratio	Lower	Upper
105	100		
122	0.0	36.8	96.8#
77	115.9	51.7	111.7#



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:25	Matrix:	MISC SOLID
Lab Sample ID:	660771017	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/03/2024 16:18	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.59 g	Final Volume:	1 mL
Data File:	S040324\1D0306.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	944	ug/kg	283	944
110-86-1	Pyridine	U	944	ug/kg	283	944
62-53-3	Aniline	U	944	ug/kg	283	944
108-95-2	Phenol	U	944	ug/kg	283	944
111-44-4	bis(2-Chloroethyl) ether	U	944	ug/kg	283	944
95-57-8	2-Chlorophenol	U	944	ug/kg	283	944
541-73-1	1,3-Dichlorobenzene	U	944	ug/kg	283	944
106-46-7	1,4-Dichlorobenzene	U	944	ug/kg	283	944
95-50-1	1,2-Dichlorobenzene	U	944	ug/kg	283	944
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	944	ug/kg	283	944
100-51-6	Benzyl alcohol	U	944	ug/kg	283	944
95-48-7	o-Cresol	U	944	ug/kg	283	944
65794-96-9	m,p-Cresols	U	944	ug/kg	283	944
621-64-7	N-Nitrosodipropylamine	U	944	ug/kg	283	944
67-72-1	Hexachloroethane	U	944	ug/kg	283	944
98-95-3	Nitrobenzene	U	944	ug/kg	283	944
78-59-1	Isophorone	U	944	ug/kg	283	944
88-75-5	2-Nitrophenol	U	944	ug/kg	283	944
105-67-9	2,4-Dimethylphenol	U	944	ug/kg	283	944
111-91-1	bis(2-Chloroethoxy)methane	U	944	ug/kg	283	944
120-83-2	2,4-Dichlorophenol	U	944	ug/kg	283	944
65-85-0	Benzoic acid	J	786	ug/kg	472	1890
106-47-8	4-Chloroaniline	U	944	ug/kg	283	944
87-68-3	Hexachlorobutadiene	U	944	ug/kg	283	944
59-50-7	4-Chloro-3-methylphenol	U	944	ug/kg	378	944
91-57-6	2-Methylnaphthalene	U	94.4	ug/kg	28.3	94.4
91-20-3	Naphthalene	U	94.4	ug/kg	28.3	94.4
90-12-0	1-Methylnaphthalene	U	94.4	ug/kg	28.3	94.4
77-47-4	Hexachlorocyclopentadiene	U	944	ug/kg	283	944
88-06-2	2,4,6-Trichlorophenol	U	944	ug/kg	283	944
95-95-4	2,4,5-Trichlorophenol	U	944	ug/kg	283	944
91-58-7	2-Chloronaphthalene	U	94.4	ug/kg	28.3	94.4
88-74-4	o-Nitroaniline	U	944	ug/kg	312	944
99-09-2	m-Nitroaniline	U	944	ug/kg	283	944
131-11-3	Dimethylphthalate	U	94.4	ug/kg	28.3	94.4
99-65-0	m-Dinitrobenzene	U	944	ug/kg	283	944
606-20-2	2,6-Dinitrotoluene	U	944	ug/kg	283	944
121-14-2	2,4-Dinitrotoluene	U	944	ug/kg	283	944

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:25	Matrix:	MISC SOLID
Lab Sample ID:	660771017	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/03/2024 16:18	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.59 g	Final Volume:	1 mL
Data File:	S040324s1D0306.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	94.4	ug/kg	28.3	94.4
83-32-9	Acenaphthene	U	94.4	ug/kg	28.3	94.4
51-28-5	2,4-Dinitrophenol	U	1890	ug/kg	283	1890
132-64-9	Dibenzofuran	U	944	ug/kg	283	944
58-90-2	2,3,4,6-Tetrachlorophenol	U	944	ug/kg	283	944
84-66-2	Diethylphthalate	U	94.4	ug/kg	28.3	94.4
100-02-7	4-Nitrophenol	U	944	ug/kg	283	944
86-73-7	Fluorene	U	94.4	ug/kg	28.3	94.4
7005-72-3	4-Chlorophenylphenylether	U	944	ug/kg	283	944
100-01-6	p-Nitroaniline	U	944	ug/kg	283	944
534-52-1	2-Methyl-4,6-dinitrophenol	U	944	ug/kg	283	944
122-39-4	Diphenylamine	U	944	ug/kg	283	944
122-66-7	1,2-Diphenylhydrazine	U	944	ug/kg	283	944
101-55-3	4-Bromophenylphenylether	U	944	ug/kg	283	944
118-74-1	Hexachlorobenzene	U	944	ug/kg	283	944
87-86-5	Pentachlorophenol	U	944	ug/kg	283	944
88-85-7	Dinoseb	U	944	ug/kg	283	944
85-01-8	Phenanthrene	U	94.4	ug/kg	28.3	94.4
120-12-7	Anthracene	U	94.4	ug/kg	28.3	94.4
86-74-8	Carbazole	U	94.4	ug/kg	28.3	94.4
84-74-2	Di-n-butylphthalate	U	94.4	ug/kg	28.3	94.4
206-44-0	Fluoranthene	U	94.4	ug/kg	28.3	94.4
129-00-0	Pyrene	U	94.4	ug/kg	28.3	94.4
85-68-7	Butylbenzylphthalate	U	94.4	ug/kg	28.3	94.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	94.4	ug/kg	28.3	94.4
56-55-3	Benzo(a)anthracene	U	94.4	ug/kg	28.3	94.4
218-01-9	Chrysene	U	94.4	ug/kg	28.3	94.4
72-43-5	Methoxychlor	U	944	ug/kg	283	944
117-84-0	Di-n-octylphthalate	U	94.4	ug/kg	28.3	94.4
205-99-2	Benzo(b)fluoranthene	U	94.4	ug/kg	28.3	94.4
207-08-9	Benzo(k)fluoranthene	U	94.4	ug/kg	28.3	94.4
50-32-8	Benzo(a)pyrene	U	94.4	ug/kg	28.3	94.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	94.4	ug/kg	28.3	94.4
53-70-3	Dibenzo(a,h)anthracene	U	94.4	ug/kg	28.3	94.4
191-24-2	Benzo(ghi)perylene	U	94.4	ug/kg	28.3	94.4
123-91-1	1,4-Dioxane	U	944	ug/kg	283	944
80-62-6	Methyl methacrylate	U	944	ug/kg	283	944
97-63-2	Ethyl methacrylate	U	944	ug/kg	283	944

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771017

Client ID: 12042.B3.Middle Back.EPA

Batch ID: 2589785

Run Date: 04/03/2024 16:18

Prep Date: 04/02/2024 07:52

Data File: S040324s1D0306.D

Date Collected: 03/29/2024 07:25

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.59 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	944	ug/kg	283	944
10595-95-6	N-Nitrosomethylethylamine	U	944	ug/kg	283	944
66-27-3	Methyl methanesulfonate	U	944	ug/kg	283	944
55-18-5	N-Nitrosodiethylamine	U	944	ug/kg	283	944
62-50-0	Ethyl Methanesulfonate	U	944	ug/kg	283	944
76-01-7	Pentachloroethane	U	944	ug/kg	283	944
930-55-2	N-Nitrosopyrrolidine	U	944	ug/kg	283	944
98-86-2	Acetophenone	U	944	ug/kg	283	944
59-89-2	N-Nitrosomorpholine	U	944	ug/kg	283	944
95-53-4	o-Toluidine	U	944	ug/kg	283	944
100-75-4	N-Nitrosopiperidine	U	944	ug/kg	283	944
122-09-8	a,a-Dimethylphenethylamine	U	944	ug/kg	331	944
87-65-0	2,6-Dichlorophenol	U	944	ug/kg	283	944
1888-71-7	Hexachloropropene	U	944	ug/kg	283	944
924-16-3	N-Nitrosodi-n-butylamine	U	944	ug/kg	283	944
94-59-7	Safrole	U	944	ug/kg	283	944
95-94-3	1,2,4,5-Tetrachlorobenzene	U	944	ug/kg	283	944
120-58-1	Isosafrole	U	944	ug/kg	283	944
130-15-4	1,4-Naphthoquinone	U	944	ug/kg	283	944
608-93-5	Pentachlorobenzene	U	944	ug/kg	283	944
134-32-7	1-Naphthylamine	U	944	ug/kg	283	944
91-59-8	2-Naphthylamine	U	944	ug/kg	283	944
99-55-8	5-Nitro-o-toluidine	U	944	ug/kg	283	944
62-44-2	Phenacetin	U	944	ug/kg	283	944
99-35-4	1,3,5-Trinitrobenzene	U	944	ug/kg	283	944
2303-16-4	Diallate	U	944	ug/kg	283	944
92-67-1	4-Aminobiphenyl	U	944	ug/kg	283	944
82-68-8	Pentachloronitrobenzene	U	944	ug/kg	283	944
23950-58-5	Pronamide	U	944	ug/kg	283	944
56-57-5	4-Nitroquinoline-1-oxide	U	944	ug/kg	283	944
91-80-5	Methapyrilene	U	944	ug/kg	283	944
465-73-6	Isodrin	U	944	ug/kg	189	944
140-57-8	Aramite	U	944	ug/kg	283	944
143-50-0	Kepone	U	944	ug/kg	283	944
60-11-7	p-(Dimethylamino)azobenzene	U	944	ug/kg	283	944
510-15-6	Chlorobenzilate	U	944	ug/kg	283	944
119-93-7	3,3'-Dimethylbenzidine	U	944	ug/kg	283	944
53-96-3	2-Acetylaminofluorene	U	944	ug/kg	283	944

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:25	Matrix:	MISC SOLID
Lab Sample ID:	660771017	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/03/2024 16:18	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.59 g	Final Volume:	1 mL
Data File:	S040324\1D0306.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	944	ug/kg	283	944
57-97-6	7,12-Dimethylbenz(a)anthracene	U	944	ug/kg	283	944
56-49-5	3-Methylcholanthrene	U	944	ug/kg	283	944
126-68-1	Triethylphosphorothioate	U	944	ug/kg	283	944
297-97-2	Thionazin	U	944	ug/kg	283	944
126-73-8	Tributylphosphate	U	944	ug/kg	283	944
3689-24-5	Sulfotepp	U	944	ug/kg	283	944
298-02-2	Phorate	U	944	ug/kg	283	944
60-51-5	Dimethoate	U	944	ug/kg	283	944
298-04-4	Disulfoton	U	944	ug/kg	283	944
298-00-0	Methyl parathion	U	944	ug/kg	283	944
56-38-2	Parathion	U	944	ug/kg	283	944
52-85-7	Famphur	U	944	ug/kg	283	944
106-50-3	p-Phenylenediamine	U	47200	ug/kg	9440	47200
70-30-4	Hexachlorophene	U	47200	ug/kg	11000	47200
120-82-1	1,2,4-Trichlorobenzene	U	944	ug/kg	283	944

LL
04/04/2024

Data Path : D:\MSDCHEM\1\Data\S040324\
Data File : s1D0306.D
Acq On : 03 Apr 2024 16:18
Operator : LL2
InstName : MSD1
Sample : |660771017|2589785|1|SVM|1|PERM|||
Misc : |MSD827E4_S|MISC SOLID|12042.B3.Middle Front.EPA|mix[a,b,j,d,e]||
ALS Vial : 6 Sample Multiplier: 1

RAB
04/04/2024

Quant Time: Apr 04 07:47:37 2024
Quant Method : D:\MSDCHEM\1\Data\S040324\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.297	4.297	1.000	139817	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.703	5.704	1.000	502983	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.426	7.426	1.000	270951	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.731	8.731	1.000	546383	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.229	11.229	1.000	602298	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.593	13.598	1.000	550238	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.297	4.297	1.000	139817	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.703	5.704	1.000	511248	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.426	7.426	1.000	270951	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.731	8.731	1.000	546383	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.229	11.229	1.000	602298	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.593	13.598	1.000	550238	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.703	5.704	1.000	511248	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.731	8.731	1.000	546383	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.229	11.229	1.000	602298	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.703	5.704	1.000	511248	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.426	7.426	1.000	270951	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.731	8.731	1.000	546383	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.229	11.229	1.000	602298	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.703	5.704	1.000	511248	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.593	13.598	1.000	550238	40.00	ng/uL	0.00

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.981	2.976	0.694	309546	65.20	ng/uL	0.00
8) Phenol-d5	99	3.864	3.858	0.899	427410	68.75	ng/uL	0.00
23) Nitrobenzene-d5	82	4.901	4.906	0.859	213390	38.31	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.795	6.795	0.915	383171	37.70	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.126	8.126	1.094	119560	75.11	ng/uL	0.00
79) p-Terphenyl-d14	244	10.073	10.073	1.154	532898	39.89	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	65%
8) Phenol-d5	100.000	15 - 85	69%
23) Nitrobenzene-d5	50.000	39 - 112	77%
44) 2-Fluorobiphenyl	50.000	39 - 112	75%
63) 2,4,6-Tribromophenol	100.000	37 - 132	75%
79) p-Terphenyl-d14	50.000	24 - 129	80%

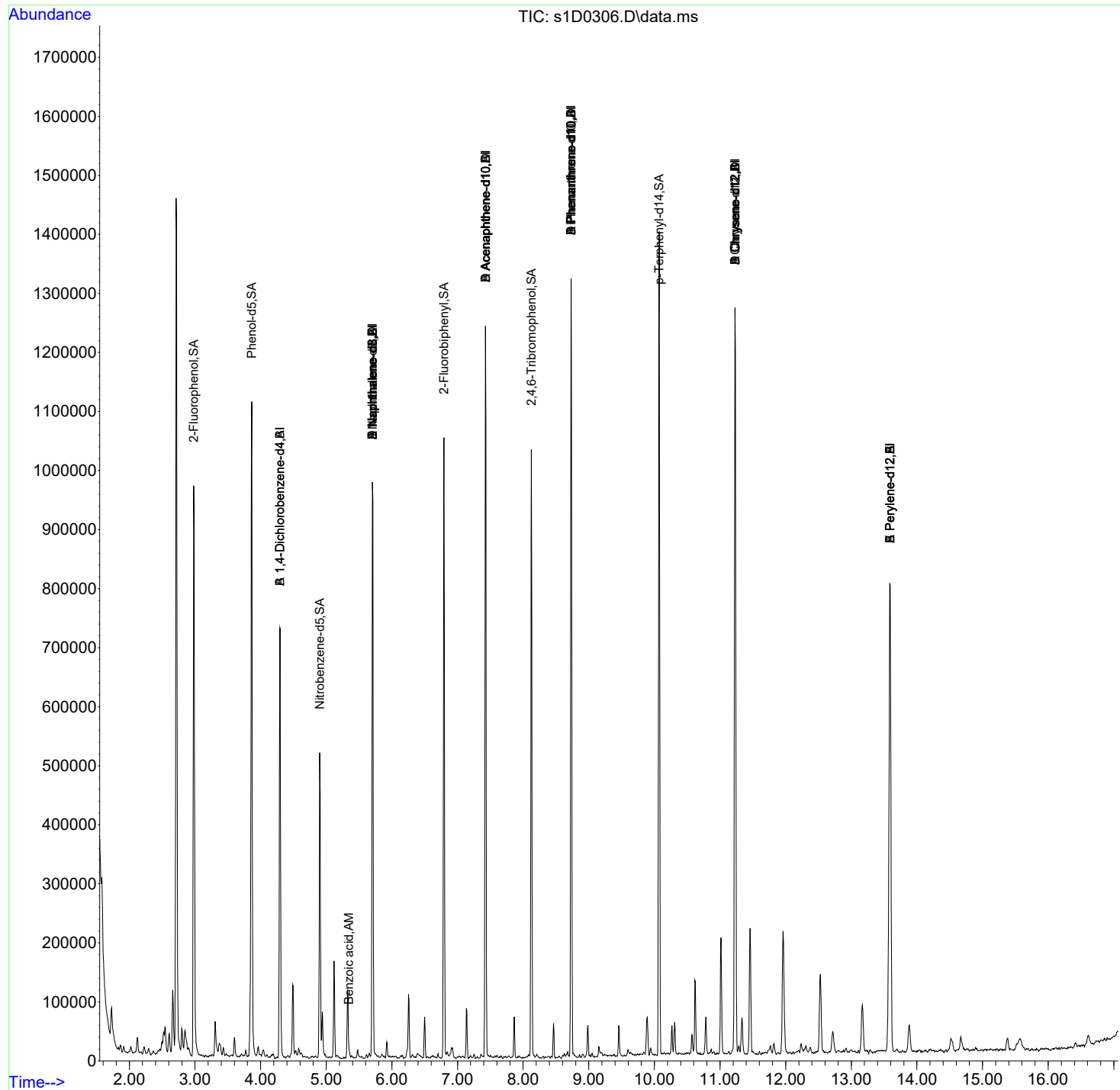
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
30) Benzoic acid	105	5.345	5.393	0.937	1915	8.32	ng/uL	83

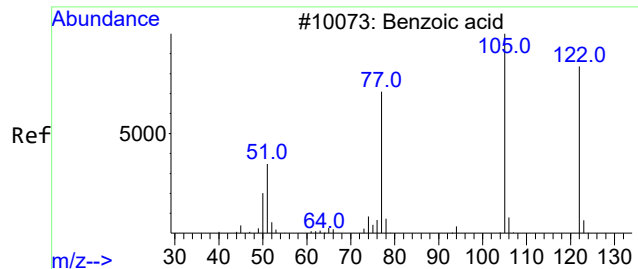
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

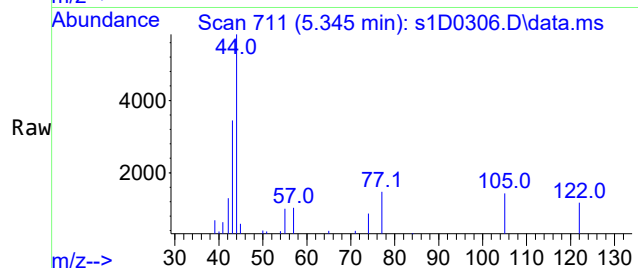
Data Path : D:\MSDCHEM\1\Data\S040324\
Data File : s1D0306.D
Acq On : 03 Apr 2024 16:18
Operator : LL2
InstName : MSD1
Sample : |660771017|2589785|1|SVM|1|PERM|
Misc : |MSD827E4_S|MISC SOLID|12042.B3.Middle Front.EPA|mix[a,b,j,d,e]|
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 07:47:37 2024
Quant Method : D:\MSDCHEM\1\Data\S040324\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

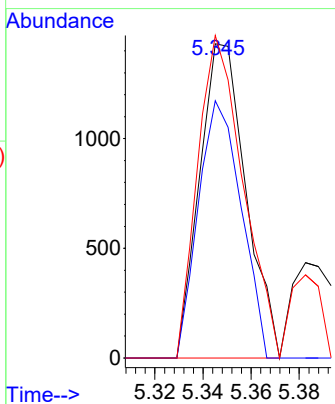
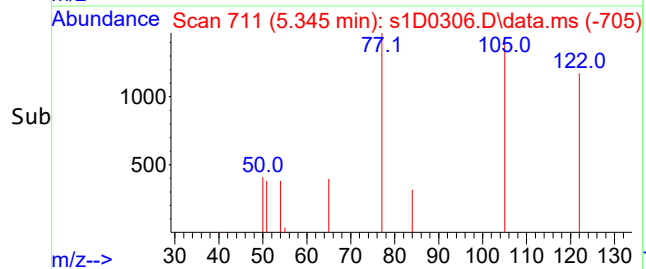




#30
Benzoic acid
Concen: 8.32 ng/uL
RT: 5.345 min Scan# 711
Delta R.T. -0.048 min
Lab File: s1D0306.D
Acq: 03 Apr 2024 16:18



Tgt Ion	Ratio	Lower	Upper
105	100		
122	75.7	36.8	96.8
77	100.8	51.7	111.7



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:35	Matrix:	MISC SOLID
Lab Sample ID:	660771018	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/03/2024 16:41	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.55 g	Final Volume:	1 mL
Data File:	S040324\1D0307.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	948	ug/kg	284	948
110-86-1	Pyridine	U	948	ug/kg	284	948
62-53-3	Aniline	U	948	ug/kg	284	948
108-95-2	Phenol	U	948	ug/kg	284	948
111-44-4	bis(2-Chloroethyl) ether	U	948	ug/kg	284	948
95-57-8	2-Chlorophenol	U	948	ug/kg	284	948
541-73-1	1,3-Dichlorobenzene	U	948	ug/kg	284	948
106-46-7	1,4-Dichlorobenzene	U	948	ug/kg	284	948
95-50-1	1,2-Dichlorobenzene	U	948	ug/kg	284	948
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	948	ug/kg	284	948
100-51-6	Benzyl alcohol	U	948	ug/kg	284	948
95-48-7	o-Cresol	U	948	ug/kg	284	948
65794-96-9	m,p-Cresols	U	948	ug/kg	284	948
621-64-7	N-Nitrosodipropylamine	U	948	ug/kg	284	948
67-72-1	Hexachloroethane	U	948	ug/kg	284	948
98-95-3	Nitrobenzene	U	948	ug/kg	284	948
78-59-1	Isophorone	U	948	ug/kg	284	948
88-75-5	2-Nitrophenol	U	948	ug/kg	284	948
105-67-9	2,4-Dimethylphenol	U	948	ug/kg	284	948
111-91-1	bis(2-Chloroethoxy)methane	U	948	ug/kg	284	948
120-83-2	2,4-Dichlorophenol	U	948	ug/kg	284	948
65-85-0	Benzoic acid	J	768	ug/kg	474	1900
106-47-8	4-Chloroaniline	U	948	ug/kg	284	948
87-68-3	Hexachlorobutadiene	U	948	ug/kg	284	948
59-50-7	4-Chloro-3-methylphenol	U	948	ug/kg	379	948
91-57-6	2-Methylnaphthalene	U	94.8	ug/kg	28.4	94.8
91-20-3	Naphthalene	U	94.8	ug/kg	28.4	94.8
90-12-0	1-Methylnaphthalene	U	94.8	ug/kg	28.4	94.8
77-47-4	Hexachlorocyclopentadiene	U	948	ug/kg	284	948
88-06-2	2,4,6-Trichlorophenol	U	948	ug/kg	284	948
95-95-4	2,4,5-Trichlorophenol	U	948	ug/kg	284	948
91-58-7	2-Chloronaphthalene	U	94.8	ug/kg	28.4	94.8
88-74-4	o-Nitroaniline	U	948	ug/kg	313	948
99-09-2	m-Nitroaniline	U	948	ug/kg	284	948
131-11-3	Dimethylphthalate	U	94.8	ug/kg	28.4	94.8
99-65-0	m-Dinitrobenzene	U	948	ug/kg	284	948
606-20-2	2,6-Dinitrotoluene	U	948	ug/kg	284	948
121-14-2	2,4-Dinitrotoluene	U	948	ug/kg	284	948

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771018

Client ID: 12042.B3.Bottom Back.EPA

Batch ID: 2589785

Run Date: 04/03/2024 16:41

Prep Date: 04/02/2024 07:52

Data File: S040324s1D0307.D

Date Collected: 03/29/2024 07:35

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.55 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	94.8	ug/kg	28.4	94.8
83-32-9	Acenaphthene	U	94.8	ug/kg	28.4	94.8
51-28-5	2,4-Dinitrophenol	U	1900	ug/kg	284	1900
132-64-9	Dibenzofuran	U	948	ug/kg	284	948
58-90-2	2,3,4,6-Tetrachlorophenol	U	948	ug/kg	284	948
84-66-2	Diethylphthalate	U	94.8	ug/kg	28.4	94.8
100-02-7	4-Nitrophenol	U	948	ug/kg	284	948
86-73-7	Fluorene	U	94.8	ug/kg	28.4	94.8
7005-72-3	4-Chlorophenylphenylether	U	948	ug/kg	284	948
100-01-6	p-Nitroaniline	U	948	ug/kg	284	948
534-52-1	2-Methyl-4,6-dinitrophenol	U	948	ug/kg	284	948
122-39-4	Diphenylamine	U	948	ug/kg	284	948
122-66-7	1,2-Diphenylhydrazine	U	948	ug/kg	284	948
101-55-3	4-Bromophenylphenylether	U	948	ug/kg	284	948
118-74-1	Hexachlorobenzene	U	948	ug/kg	284	948
87-86-5	Pentachlorophenol	U	948	ug/kg	284	948
88-85-7	Dinoseb	U	948	ug/kg	284	948
85-01-8	Phenanthrene	U	94.8	ug/kg	28.4	94.8
120-12-7	Anthracene	U	94.8	ug/kg	28.4	94.8
86-74-8	Carbazole	U	94.8	ug/kg	28.4	94.8
84-74-2	Di-n-butylphthalate	U	94.8	ug/kg	28.4	94.8
206-44-0	Fluoranthene	U	94.8	ug/kg	28.4	94.8
129-00-0	Pyrene	U	94.8	ug/kg	28.4	94.8
85-68-7	Butylbenzylphthalate	U	94.8	ug/kg	28.4	94.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	94.8	ug/kg	28.4	94.8
56-55-3	Benzo(a)anthracene	U	94.8	ug/kg	28.4	94.8
218-01-9	Chrysene	U	94.8	ug/kg	28.4	94.8
72-43-5	Methoxychlor	U	948	ug/kg	284	948
117-84-0	Di-n-octylphthalate	U	94.8	ug/kg	28.4	94.8
205-99-2	Benzo(b)fluoranthene	U	94.8	ug/kg	28.4	94.8
207-08-9	Benzo(k)fluoranthene	U	94.8	ug/kg	28.4	94.8
50-32-8	Benzo(a)pyrene	U	94.8	ug/kg	28.4	94.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	94.8	ug/kg	28.4	94.8
53-70-3	Dibenzo(a,h)anthracene	U	94.8	ug/kg	28.4	94.8
191-24-2	Benzo(ghi)perylene	U	94.8	ug/kg	28.4	94.8
123-91-1	1,4-Dioxane	U	948	ug/kg	284	948
80-62-6	Methyl methacrylate	U	948	ug/kg	284	948
97-63-2	Ethyl methacrylate	U	948	ug/kg	284	948

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/29/2024 07:35	Matrix:	MISC SOLID
Lab Sample ID:	660771018	Date Received:	03/30/2024 09:30		
		Client:	PERM001	Project:	PERM00224
Client ID:	12042.B3.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/03/2024 16:41	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	10.55 g	Final Volume:	1 mL
Data File:	S040324s1D0307.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	948	ug/kg	284	948
10595-95-6	N-Nitrosomethylethylamine	U	948	ug/kg	284	948
66-27-3	Methyl methanesulfonate	U	948	ug/kg	284	948
55-18-5	N-Nitrosodiethylamine	U	948	ug/kg	284	948
62-50-0	Ethyl Methanesulfonate	U	948	ug/kg	284	948
76-01-7	Pentachloroethane	U	948	ug/kg	284	948
930-55-2	N-Nitrosopyrrolidine	U	948	ug/kg	284	948
98-86-2	Acetophenone	U	948	ug/kg	284	948
59-89-2	N-Nitrosomorpholine	U	948	ug/kg	284	948
95-53-4	o-Toluidine	U	948	ug/kg	284	948
100-75-4	N-Nitrosopiperidine	U	948	ug/kg	284	948
122-09-8	a,a-Dimethylphenethylamine	U	948	ug/kg	332	948
87-65-0	2,6-Dichlorophenol	U	948	ug/kg	284	948
1888-71-7	Hexachloropropene	U	948	ug/kg	284	948
924-16-3	N-Nitrosodi-n-butylamine	U	948	ug/kg	284	948
94-59-7	Safrole	U	948	ug/kg	284	948
95-94-3	1,2,4,5-Tetrachlorobenzene	U	948	ug/kg	284	948
120-58-1	Isosafrole	U	948	ug/kg	284	948
130-15-4	1,4-Naphthoquinone	U	948	ug/kg	284	948
608-93-5	Pentachlorobenzene	U	948	ug/kg	284	948
134-32-7	1-Naphthylamine	U	948	ug/kg	284	948
91-59-8	2-Naphthylamine	U	948	ug/kg	284	948
99-55-8	5-Nitro-o-toluidine	U	948	ug/kg	284	948
62-44-2	Phenacetin	U	948	ug/kg	284	948
99-35-4	1,3,5-Trinitrobenzene	U	948	ug/kg	284	948
2303-16-4	Diallate	U	948	ug/kg	284	948
92-67-1	4-Aminobiphenyl	U	948	ug/kg	284	948
82-68-8	Pentachloronitrobenzene	U	948	ug/kg	284	948
23950-58-5	Pronamide	U	948	ug/kg	284	948
56-57-5	4-Nitroquinoline-1-oxide	U	948	ug/kg	284	948
91-80-5	Methapyrilene	U	948	ug/kg	284	948
465-73-6	Isodrin	U	948	ug/kg	190	948
140-57-8	Aramite	U	948	ug/kg	284	948
143-50-0	Kepone	U	948	ug/kg	284	948
60-11-7	p-(Dimethylamino)azobenzene	U	948	ug/kg	284	948
510-15-6	Chlorobenzilate	U	948	ug/kg	284	948
119-93-7	3,3'-Dimethylbenzidine	U	948	ug/kg	284	948
53-96-3	2-Acetylaminofluorene	U	948	ug/kg	284	948

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 660771018

Client ID: 12042.B3.Bottom Back.EPA

Batch ID: 2589785

Run Date: 04/03/2024 16:41

Prep Date: 04/02/2024 07:52

Data File: S040324\1D0307.D

Date Collected: 03/29/2024 07:35

Date Received: 03/30/2024 09:30

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 10.55 g

Column: Description: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	948	ug/kg	284	948
57-97-6	7,12-Dimethylbenz(a)anthracene	U	948	ug/kg	284	948
56-49-5	3-Methylcholanthrene	U	948	ug/kg	284	948
126-68-1	Triethylphosphorothioate	U	948	ug/kg	284	948
297-97-2	Thionazin	U	948	ug/kg	284	948
126-73-8	Tributylphosphate	U	948	ug/kg	284	948
3689-24-5	Sulfotepp	U	948	ug/kg	284	948
298-02-2	Phorate	U	948	ug/kg	284	948
60-51-5	Dimethoate	U	948	ug/kg	284	948
298-04-4	Disulfoton	U	948	ug/kg	284	948
298-00-0	Methyl parathion	U	948	ug/kg	284	948
56-38-2	Parathion	U	948	ug/kg	284	948
52-85-7	Famphur	U	948	ug/kg	284	948
106-50-3	p-Phenylenediamine	U	47400	ug/kg	9480	47400
70-30-4	Hexachlorophene	U	47400	ug/kg	11000	47400
120-82-1	1,2,4-Trichlorobenzene	U	948	ug/kg	284	948

LL
04/04/2024

Data Path : D:\MSDCHEM\1\Data\S040324\
Data File : s1D0307.D
Acq On : 03 Apr 2024 16:41
Operator : LL2
InstName : MSD1
Sample : |660771018|2589785|1|SVM|1|PERM|||
Misc : |MSD827E4_S|MISC SOLID|12042.B3.Bottom Front.EPA|mix[a,b,j,d,e]||
ALS Vial : 7 Sample Multiplier: 1

RB
04/04/2024

Quant Time: Apr 04 07:48:23 2024
Quant Method : D:\MSDCHEM\1\Data\S040324\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.291	4.297	1.000	129186	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.703	5.704	1.000	462205	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.426	7.426	1.000	255384	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.731	8.731	1.000	506756	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.229	11.229	1.000	548889	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.587	13.598	1.000	499084	40.00	ng/uL	-0.01
96) B 1,4-Dichlorobenzene-d4	152	4.291	4.297	1.000	129186	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.703	5.704	1.000	475718	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.426	7.426	1.000	255384	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.731	8.731	1.000	506756	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.229	11.229	1.000	548889	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.587	13.598	1.000	499084	40.00	ng/uL	-0.01
152) J Naphthalene-d8	136	5.703	5.704	1.000	475718	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.731	8.731	1.000	506756	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.229	11.229	1.000	548889	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.703	5.704	1.000	475718	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.426	7.426	1.000	255384	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.731	8.731	1.000	506756	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.229	11.229	1.000	548889	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.703	5.704	1.000	475718	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.587	13.598	1.000	499084	40.00	ng/uL	-0.01

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.981	2.976	0.695	288562	65.79	ng/uL	0.00
8) Phenol-d5	99	3.864	3.858	0.900	397095	69.14	ng/uL	0.00
23) Nitrobenzene-d5	82	4.901	4.906	0.859	193703	37.85	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.795	6.795	0.915	359313	37.51	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.126	8.126	1.094	113709	75.79	ng/uL	0.00
79) p-Terphenyl-d14	244	10.073	10.073	1.154	505610	40.81	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	66%
8) Phenol-d5	100.000	15 - 85	69%
23) Nitrobenzene-d5	50.000	39 - 112	76%
44) 2-Fluorobiphenyl	50.000	39 - 112	75%
63) 2,4,6-Tribromophenol	100.000	37 - 132	76%
79) p-Terphenyl-d14	50.000	24 - 129	82%

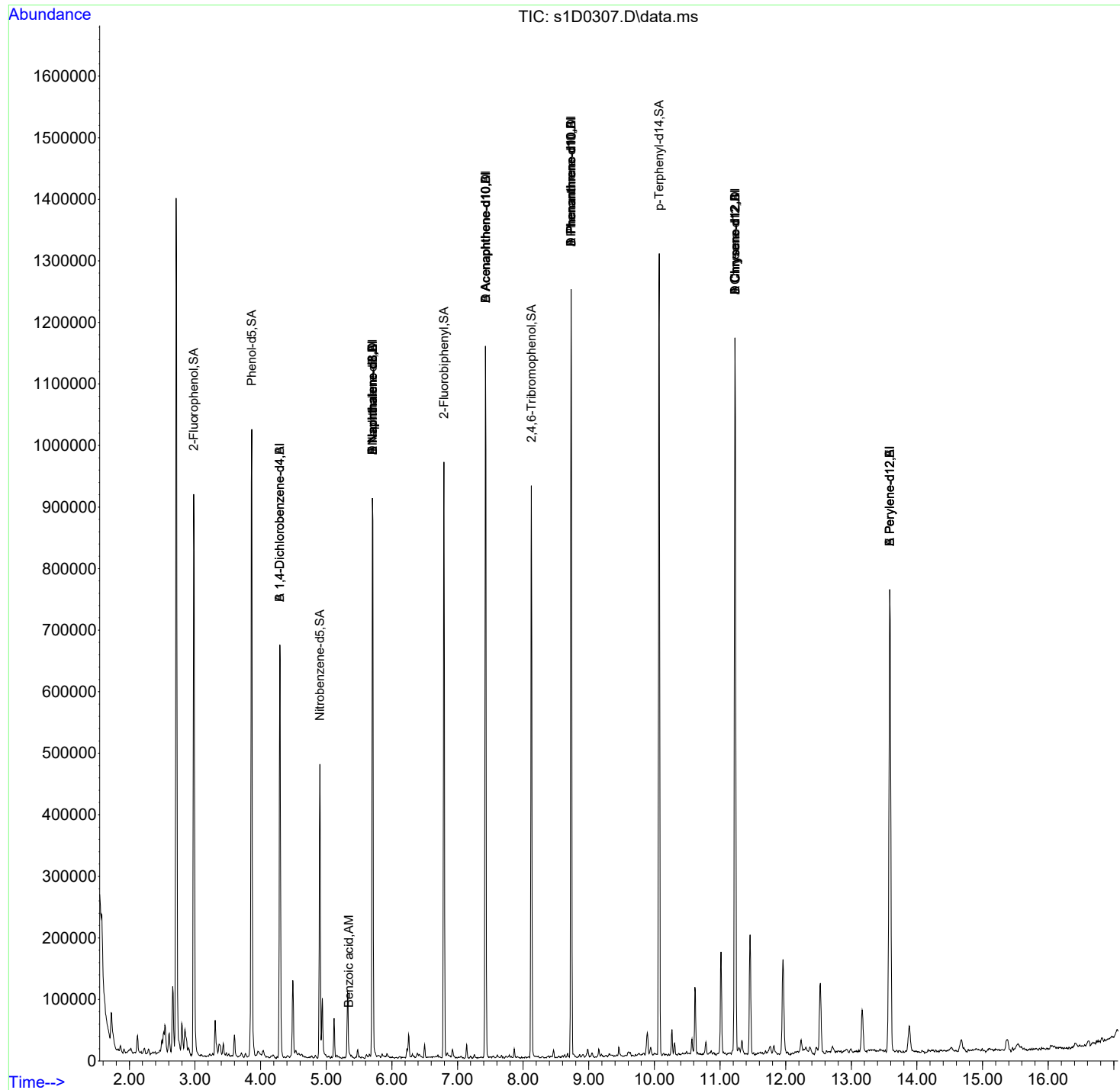
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
30) Benzoic acid	105	5.345	5.393	0.937	1000	8.10	ng/uL#	71

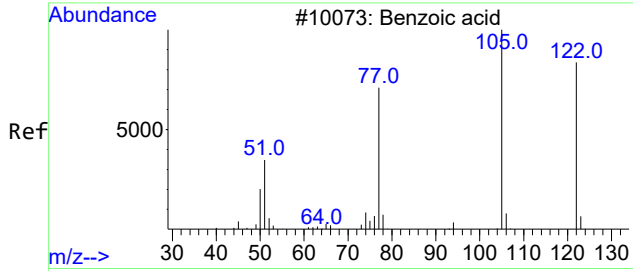
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040324\
Data File : s1D0307.D
Acq On : 03 Apr 2024 16:41
Operator : LL2
InstName : MSD1
Sample : |660771018|2589785|1|SVM|1|PERM| ||
Misc : |MSD827E4_S|MISC SOLID|12042.B3.Bottom Front.EPA|mix[a,b,j,d,e] ||
ALS Vial : 7 Sample Multiplier: 1

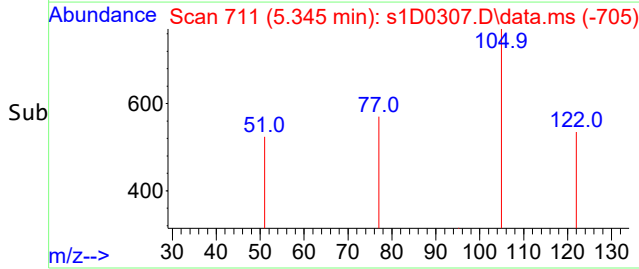
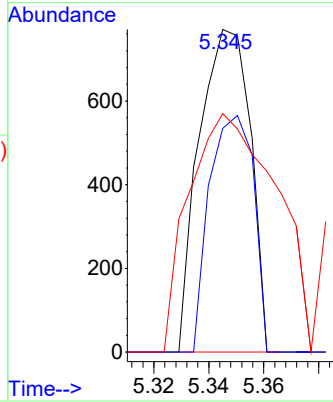
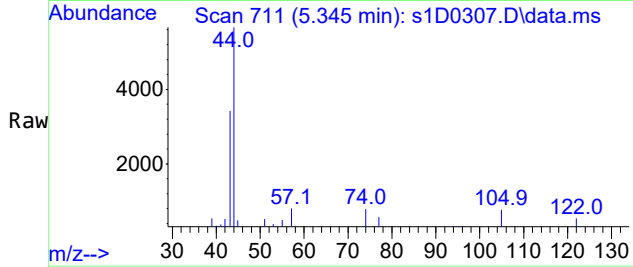
Quant Time: Apr 04 07:48:23 2024
Quant Method : D:\MSDCHEM\1\Data\S040324\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE





#30
Benzoic acid
Concen: 8.10 ng/uL
RT: 5.345 min Scan# 711
Delta R.T. -0.048 min
Lab File: s1D0307.D
Acq: 03 Apr 2024 16:41

Tgt Ion:105 Resp: 1000
Ion Ratio Lower Upper
105 100
122 63.2 36.8 96.8
77 125.9 51.7 111.7#



Standards

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)										
Naphthalene-d8 (INTERNAL STANDARD)										
Acenaphthene-d10 (INTERNAL STANDARD)										
Phenanthrene-d10 (INTERNAL STANDARD)										
Chrysene-d12 (INTERNAL STANDARD)										
Perylene-d12 (INTERNAL STANDARD)										
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120	30	60
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120	30	60
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120	30	60
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120	30	60
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120	30	60
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120	30	60
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120	30	60
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120	30	60
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120	30	60
Pyridine		10	20	40	50	80	100	120	30	60
Aniline		10	20	40	50	80	100	120	30	60
Phenol		10	20	40	50	80	100	120	30	60
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120	30	60
2-Chlorophenol		10	20	40	50	80	100	120	30	60
n-Decane		10	20	40	50	80	100	120	30	60
1,3-Dichlorobenzene		10	20	40	50	80	100	120	30	60
1,4-Dichlorobenzene		10	20	40	50	80	100	120	30	60
Benzyl Alcohol		10	20	40	50	80	100	120	30	60
1,2-Dichlorobenzene		10	20	40	50	80	100	120	30	60
bis(2-Chloro-1-methylethyl)ether		10	20	40	50	80	100	120	30	60
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120	30	60
N-Nitrosodipropylamine		10	20	40	50	80	100	120	30	60
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120	30	60
Hexachloroethane		10	20	40	50	80	100	120	30	60
Nitrobenzene		10	20	40	50	80	100	120	30	60
Isophorone		10	20	40	50	80	100	120	30	60
2-Nitrophenol		10	20	40	50	80	100	120	30	60
2,4-Dimethylphenol		10	20	40	50	80	100	120	30	60
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120	30	60
2,4-Dichlorophenol		10	20	40	50	80	100	120	30	60
Benzoic Acid			20	40	50	80	100	120	30	60
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120	30	60
Naphthalene	1	10	20	40	50	80	100	120	30	60
alpha-Terpineol		10	20	40	50	80	100	120	30	60
4-Chloroaniline		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Hexachlorobutadiene		10	20	40	50	80	100	120	30	60
4-Chloro-3-methylphenol		10	20	40	50	80	100	120	30	60
2-Methylnaphthalene	1	10	20	40	50	80	100	120	30	60
1-Methylnaphthalene	1	10	20	40	50	80	100	120	30	60
Hexachlorocyclopentadiene		10	20	40	50	80	100	120	30	60
2,3-Dichloroaniline		10	20	40	50	80	100	120	30	60
2,4,6-Trichlorophenol		10	20	40	50	80	100	120	30	60
2,4,5-Trichlorophenol		10	20	40	50	80	100	120	30	60
2-Chloronaphthalene	1	10	20	40	50	80	100	120	30	60
o-Nitroaniline		10	20	40	50	80	100	120	30	60
m-Nitroaniline		10	20	40	50	80	100	120	30	60
Dimethylphthalate	1**	10	20	40	50	80	100	120	30	60
2,6-Dinitrotoluene		10	20	40	50	80	100	120	30	60
Acenaphthylene	1	10	20	40	50	80	100	120	30	60
Acenaphthene	1	10	20	40	50	80	100	120	30	60
2,4-Dinitrophenol			20	40	50	80	100	120	30	60
Dibenzofuran		10	20	40	50	80	100	120	30	60
2,4-Dinitrotoluene		10	20	40	50	80	100	120	30	60
Diethylphthalate	1**	10	20	40	50	80	100	120	30	60
4-Nitrophenol		10	20	40	50	80	100	120	30	60
Fluorene	1	10	20	40	50	80	100	120	30	60
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120	30	60
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120	30	60
p-Nitroaniline		10	20	40	50	80	100	120	30	60
Diphenylamine		10	20	40	50	80	100	120	30	60
1,2-Diphenylhydrazine		10	20	40	50	80	100	120	30	60
4-Bromophenyl phenyether		10	20	40	50	80	100	120	30	60
Hexachlorobenzene		10	20	40	50	80	100	120	30	60
Pentachlorophenol		10	20	40	50	80	100	120	30	60
n-Octadecane		10	20	40	50	80	100	120	30	60
Phenanthrene	1	10	20	40	50	80	100	120	30	60
Anthracene	1	10	20	40	50	80	100	120	30	60
Di-n-butylphthalate	1**	10	20	40	50	80	100	120	30	60
Fluoranthene	1	10	20	40	50	80	100	120	30	60
Pyrene	1	10	20	40	50	80	100	120	30	60
Butylbenzylphthalate	1**	10	20	40	50	80	100	120	30	60
Benzo(a)anthracene	1	10	20	40	50	80	100	120	30	60
Chrysene	1	10	20	40	50	80	100	120	30	60
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120	30	60
Di-n-octylphthalate	1**	10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120	30	60
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120	30	60
Benzo(a)pyrene	1	10	20	40	50	80	100	120	30	60
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120	30	60
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120	30	60
Benzo(ghi)perylene	1	10	20	40	50	80	100	120	30	60
m-Dinitrobenzene		10	20	40	50	80	100	120	30	60
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120	30	60
Dinoseb		10	20	40	50	80	100	120	30	60
Carbazole	1	10	20	40	50	80	100	120	30	60
p-Benzoquinone		10	20	40	50	80	100	120	30	60
Methoxychlor		10	20	40	50	80	100	120	30	60
p-Toluidine		10	20	40	50	80	100	120	30	60
m-Toluidine		10	20	40	50	80	10	120	30	60
1,4-Dinitrobenzene		10	20	40	50	80	100	120	30	60
2-Ethoxyethanol		10	20	40	50	80	100	120	30	60
Phthalic anhydride		10	20	40	50	80	100	120	30	60
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120	30	60
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Benzaldehyde		10	20	40	50	80	100	120	30	60
Acetophenone		10	20	40	50	80	100	120	30	60
Caprolactam		10	20	40	50	80	100	120	30	60
1,1'-Biphenyl		10	20	40	50	80	100	120	30	60
Atrazine		10	20	40	50	80	100	120	30	60
Benzidine		10	20	40	50	80	100	120	30	60
3,3'-Dichlorobenzidine		10	20	40	50	80	100	120	30	60
1,4-Dioxane		10	20	40	50	80	100	120	30	60
Methyl methacrylate		10	20	40	50	80	100	120	30	60
Ethyl methacrylate		10	20	40	50	80	100	120	30	60
2-Picoline		10	20	40	50	80	100	120	30	60
N-Nitrosomethylethylamine		10	20	40	50	80	100	120	30	60
2-Butoxyethanol		10	20	40	50	80	100	120	30	60
Methyl methanesulfonate		10	20	40	50	80	100	120	30	60
N-Nitrosodiethylamine		10	20	40	50	80	100	120	30	60
Ethyl methanesulfonate		10	20	40	50	80	100	120	30	60
Pentachloroethane		10	20	40	50	80	100	120	30	60
N-Nitrosopyrrolidine		10	20	40	50	80	100	120	30	60
N-Nitrosomorpholine		10	20	40	50	80	100	120	30	60
o-Toluidine		10	20	40	50	80	100	120	30	60
N-Nitrosopiperidine		10	20	40	50	80	100	120	30	60
a,a-Dimethylphenethylamine		10	20	40	50	80	100	120	30	60
2,6-Dichlorophenol		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Hexachloropropene		10	20	40	50	80	100	120	30	60
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120	30	60
Safrole		10	20	40	50	80	100	120	30	60
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120	30	60
Isosafrole		10	20	40	50	80	100	120	30	60
1,4-Naphthoquinone		10	20	40	50	80	100	120	30	60
Pentachlorobenzene		10	20	40	50	80	100	120	30	60
1-Naphthylamine		10	20	40	50	80	100	120	30	60
2-Naphthylamine		10	20	40	50	80	100	120	30	60
5-Nitro-o-toluidine		10	20	40	50	80	100	120	30	60
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120	30	60
Phenacetin		10	20	40	50	80	100	120	30	60
Diallate		10	20	40	50	80	100	120	30	60
cis-Diallate		1.5	3	6	7.5	12	15	18	4.5	9
trans-Diallate		8.5	17	34	42	68	85	102	25.5	51
4-Aminobiphenyl		10	20	40	50	80	100	120	30	60
Pentachloronitrobenzene		10	20	40	50	80	100	120	30	60
Pronamide		10	20	40	50	80	100	120	30	60
4-Nitroquinoline-1-oxide		10	20	40	50	80	100	120	30	60
Methapyrilene		10	20	40	50	80	100	120	30	60
Isodrin		10	20	40	50	80	100	120	30	60
Aramite		10	20	40	50	80	100	120	30	60
Kepone		10	20	40	50	80	100	120	30	60
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120	30	60
Chlorobenzilate		10	20	40	50	80	100	120	30	60
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120	30	60
2-Acetylaminofluorene		10	20	40	50	80	100	120	30	60
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120	30	60
3-Methylcholanthrene		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Hexachlorophene		500	1000	1250	1500	1750	2000			
p-Phenylenediamine		500	1000	1250	1500	1750	2000			

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
bis(Chloromethyl)ether		10	20	40	50	80	100	120	30	60
Tributylphosphate		10	20	40	50	80	100	120	30	60
Triethylphosphorothioate		10	20	40	50	80	100	120	30	60
Thionazin		10	20	40	50	80	100	120	30	60
Sulfotepp		10	20	40	50	80	100	120	30	60
Phorate		10	20	40	50	80	100	120	30	60
Dimethoate		10	20	40	50	80	100	120	30	60
Disulfoton		10	20	40	50	80	100	120	30	60
Methyl parathion		10	20	40	50	80	100	120	30	60
Famphur		10	20	40	50	80	100	120	30	60
Parathion		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
bis(Chloromethyl)ether		10	20	40	50	80	100	120	30	60
4-Chlorothiophenol		10	20	40	50	80	100	120	30	60
4-Chlorothioanisole		10	20	40	50	80	100	120	30	60
Phthalic acid		10	20	40	50	80	100	120	30	60
Hydroxymethyl phthalimide		10	20	40	50	80	100	120	30	60
Diphenyl sulfide		10	20	40	50	80	100	120	30	60
Diphenyl disulfide		10	20	40	50	80	100	120	30	60
Phenyl sulfone		10	20	40	50	80	100	120	30	60
Octachlorostyrene		10	20	40	50	80	100	120	30	60
Thiophenol		10	20	40	50	80	100	120	30	60
2,2'-Dichlorobenzil		10	20	40	50	80	100	120	30	60
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120	30	60
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120	30	60

All values are mg/L without the prep factor.

Indicates the calibration verification concentration level used

* Usual calibration levels using SCAN methodology

** This analyte included in this level at special client request.

EPA 522								
Calibration Standard Concentration Levels#								
	Level 1	Level 2	Level 3	Level 4	Level 5	ICV	CCV	
Tetrahydrofuran-d8 (INTERNAL STANDARD)								
1,4-Dioxane-d8 (SURROGATE)	50	100	200	400	500	200	See Method	
1,4-Dioxane	50	100	200	400	500	200	See Method	

All values are ug/L without the prep factor.

Usual calibration levels using SIM methodology

SW846 8270SIM										
Calibration Standard Concentration Levels*										
MEGASIM analytes (A)	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6#	Level 7	Level 8	Level 9	Level 10
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)										
Naphthalene-d8 (INTERNAL STANDARD)										
Acenaphthene-d10 (INTERNAL STANDARD)										
Phenanthrene-d10 (INTERNAL STANDARD)										
Chrysene-d12 (INTERNAL STANDARD)										
Perylene-d12 (INTERNAL STANDARD)										
5-alpha-Androstane (SURROGATE)	\$0.1	0.2	0.5	1	2	5	10	20		
\$N-Methyl-N-nitrosomethylamine		0.2	0.5	1	2	5	10	20		
\$bis(2-Chloroethyl)ether	0.1	0.2	0.5	1	2	5	10	20		
\$N-Nitrosodipropylamine	0.1	0.2	0.5	1	2	5	10	20		
Naphthalene	\$0.1	0.2	0.5	1	2	5	10	20		
2-Methylnaphthalene	\$0.1	0.2	0.5	1	2	5	10	20		
1-Methylnaphthalene	\$0.1	0.2	0.5	1	2	5	10	20		
2-Chloronaphthalene	\$0.1	0.2	0.5	1	2	5	10	20		
Acenaphthylene	\$0.1	0.2	0.5	1	2	5	10	20		
Acenaphthene	\$0.1	0.2	0.5	1	2	5	10	20		
Fluorene	\$0.1	0.2	0.5	1	2	5	10	20		
Phenanthrene	\$0.1	0.2	0.5	1	2	5	10	20		
Anthracene	\$0.1	0.2	0.5	1	2	5	10	20		
Fluoranthene	\$0.1	0.2	0.5	1	2	5	10	20		
Pyrene	\$0.1	0.2	0.5	1	2	5	10	20		
Benzo(a)anthracene	\$0.1	0.2	0.5	1	2	5	10	20		
Chrysene	\$0.1	0.2	0.5	1	2	5	10	20		
Benzo(b)fluoranthene	\$0.1	0.2	0.5	1	2	5	10	20		
Benzo(k)fluoranthene	\$0.1	0.2	0.5	1	2	5	10	20		
Benzo(a)pyrene	\$0.1	0.2	0.5	1	2	5	10	20		
Indeno-(1,2,3-cd)pyrene	\$0.1	0.2	0.5	1	2	5	10	20		
Dibenzo(a,h)anthracene	\$0.1	0.2	0.5	1	2	5	10	20		
Benzo(ghi)perylene	\$0.1	0.2	0.5	1	2	5	10	20		

\$ By special request - Not for regulatory purposes

SW846 8270SIM										
Calibration Standard Concentration Levels*										
APSIM analytes (A)	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6#	Level 7	Level 8	Level 9	Level 10
\$N-Nitrosodimethylamine	0.1	0.2	0.5	1	2	5	10	20		
\$N-Nitrosopyrrolidine	0.1	0.2	0.5	1	2	5	10	20		
\$N-Nitrosodi-n-butylamine	0.1	0.2	0.5	1	2	5	10	20		
\$Benzidine			2.5	5	10	25	50	100		
\$3,3'-Dichlorobenzidine	0.1	0.2	0.5	1	2	5	10	20		

\$ By special request - Not for regulatory purposes

All values are mg/L without prep factor.

indicates the calibrator verification concentration level used.

* Usual calibration levels using SIM methodology
(10/16/Full list)

Calibration History Report MSD1

GEL Laboratories, LLC

Method File : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M

Last Update : Tue Mar 26 10:15:58 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

LL

04/02/2024

RB

04/02/2024

Cal Lvl:1 Amt:0.00 Last Updated with: D:\MSDCHEM\1\Data\S032524ical\s1C2502.D

Injection Date	Mix	Calibration File
25 Mar 2024 11:23	A	D:\MSDCHEM\1\Data\S032524ical\s1C2502.D

Cal Lvl:2 Amt:10.00 Last Updated with: D:\MSDCHEM\1\Data\S032524ical\s1C2530.D

Injection Date	Mix	Calibration File
25 Mar 2024 11:48	A	D:\MSDCHEM\1\Data\S032524ical\s1C2503.D
25 Mar 2024 15:10	B	D:\MSDCHEM\1\Data\S032524ical\s1C2511.D
25 Mar 2024 15:10	J	D:\MSDCHEM\1\Data\S032524ical\s1C2511.D
25 Mar 2024 18:54	D	D:\MSDCHEM\1\Data\S032524ical\s1C2521.D
25 Mar 2024 21:50	E	D:\MSDCHEM\1\Data\S032524ical\s1C2530.D

Cal Lvl:3 Amt:20.00 Last Updated with: D:\MSDCHEM\1\Data\S032524ical\s1C2531.D

Injection Date	Mix	Calibration File
25 Mar 2024 12:13	A	D:\MSDCHEM\1\Data\S032524ical\s1C2504.D
25 Mar 2024 15:32	B	D:\MSDCHEM\1\Data\S032524ical\s1C2512.D
25 Mar 2024 15:32	J	D:\MSDCHEM\1\Data\S032524ical\s1C2512.D
25 Mar 2024 19:14	D	D:\MSDCHEM\1\Data\S032524ical\s1C2522.D
25 Mar 2024 22:09	E	D:\MSDCHEM\1\Data\S032524ical\s1C2531.D

Cal Lvl:4 Amt:40.00 Last Updated with: D:\MSDCHEM\1\Data\S032524ical\s1C2532.D

Injection Date	Mix	Calibration File
25 Mar 2024 12:38	A	D:\MSDCHEM\1\Data\S032524ical\s1C2505.D
25 Mar 2024 16:17	B	D:\MSDCHEM\1\Data\S032524ical\s1C2514.D
25 Mar 2024 16:17	J	D:\MSDCHEM\1\Data\S032524ical\s1C2514.D
25 Mar 2024 19:34	D	D:\MSDCHEM\1\Data\S032524ical\s1C2523.D
25 Mar 2024 22:29	E	D:\MSDCHEM\1\Data\S032524ical\s1C2532.D

Cal Lvl:5 Amt:50.00 Last Updated with: D:\MSDCHEM\1\Data\S032524ical\s1C2533.D

Injection Date	Mix	Calibration File
25 Mar 2024 13:04	A	D:\MSDCHEM\1\Data\S032524ical\s1C2506.D
25 Mar 2024 16:39	B	D:\MSDCHEM\1\Data\S032524ical\s1C2515.D
25 Mar 2024 16:39	J	D:\MSDCHEM\1\Data\S032524ical\s1C2515.D
25 Mar 2024 19:54	D	D:\MSDCHEM\1\Data\S032524ical\s1C2524.D
25 Mar 2024 22:49	E	D:\MSDCHEM\1\Data\S032524ical\s1C2533.D

Cal Lvl:6 Amt:80.00 Last Updated with: D:\MSDCHEM\1\Data\S032524ical\s1C2534.D

Injection Date	Mix	Calibration File
25 Mar 2024 13:29	A	D:\MSDCHEM\1\Data\S032524ical\s1C2507.D
25 Mar 2024 17:24	B	D:\MSDCHEM\1\Data\S032524ical\s1C2517.D
25 Mar 2024 17:24	J	D:\MSDCHEM\1\Data\S032524ical\s1C2517.D
25 Mar 2024 20:14	D	D:\MSDCHEM\1\Data\S032524ical\s1C2525.D
25 Mar 2024 23:09	E	D:\MSDCHEM\1\Data\S032524ical\s1C2534.D

Calibration History Report MSD1

GEL Laboratories, LLC

Method File : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M

Last Update : Tue Mar 26 10:15:58 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

Cal Lvl:7 Amt:100.00 Last Updated with: D:\MSDCHEM\1\Data\S032524ical\s1C2535.D

Injection Date	Mix	Calibration File
25 Mar 2024 13:54	A	D:\MSDCHEM\1\Data\S032524ical\s1C2508.D
25 Mar 2024 17:47	B	D:\MSDCHEM\1\Data\S032524ical\s1C2518.D
25 Mar 2024 17:47	J	D:\MSDCHEM\1\Data\S032524ical\s1C2518.D
25 Mar 2024 20:34	D	D:\MSDCHEM\1\Data\S032524ical\s1C2526.D
25 Mar 2024 23:28	E	D:\MSDCHEM\1\Data\S032524ical\s1C2535.D

Cal Lvl:8 Amt:120.00 Last Updated with: D:\MSDCHEM\1\Data\S032524ical\s1C2527.D

Injection Date	Mix	Calibration File
25 Mar 2024 14:19	A	D:\MSDCHEM\1\Data\S032524ical\s1C2509.D
25 Mar 2024 18:09	B	D:\MSDCHEM\1\Data\S032524ical\s1C2519.D
25 Mar 2024 18:09	J	D:\MSDCHEM\1\Data\S032524ical\s1C2519.D
25 Mar 2024 20:53	D	D:\MSDCHEM\1\Data\S032524ical\s1C2527.D

Cal Lvl:9 Amt:30.00 Last Updated with: D:\MSDCHEM\1\Data\S032524ical\s1C2513.D

Injection Date	Mix	Calibration File
25 Mar 2024 15:54	B	D:\MSDCHEM\1\Data\S032524ical\s1C2513.D
25 Mar 2024 15:54	J	D:\MSDCHEM\1\Data\S032524ical\s1C2513.D

Cal Lvl:10 Amt:60.00 Last Updated with: D:\MSDCHEM\1\Data\S032524ical\s1C2516.D

Injection Date	Mix	Calibration File
25 Mar 2024 17:02	B	D:\MSDCHEM\1\Data\S032524ical\s1C2516.D
25 Mar 2024 17:02	J	D:\MSDCHEM\1\Data\S032524ical\s1C2516.D

MSD1_8270C_8270D_032524.M Tue Apr 02 11:37:45 2024

Response Factor Report MSD1

GEL Laboratories, LLC

Method File : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M

Last Update : Tue Mar 26 10:15:58 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

04/02/2024

04/02/2024

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound		1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
	m1	m2	7	8	9	10						
2)A	2-Ethoxyethanol		0.9906974	0.8688168 1.0175785	0.9202708	0.9138375	0.9527180	1.0054828	0.9528	AVRG		5.7547
3)AM	N-Methyl-N-nitrosomethyl		0.9529809	0.9110792 0.9900262	0.8200315	0.8846920	0.9366855	0.9486161	0.9206	AVRG		6.0165
4)AM	Pyridine		1.4937530	1.2381505 1.5566552	1.2759452	1.3186062	1.3869026	1.4706438	1.3915	AVRG		8.6136
5)SA	2-Fluorophenol		1.3536056	1.3982231 1.4134296	1.3270158	1.3249249	1.3125146	1.3773104	1.3581	AVRG		2.8840
6)A	p-Benzoquinone		1.0598730	1.0423380 1.1225583	0.9764731	1.0378791	1.0730668	1.0891384	1.0573	AVRG		4.3447
7)AM	Aniline		2.0031303	2.1988888 2.1255266	2.1230941	2.0956737	2.1317283	2.1405014	2.1169	AVRG		2.7950
8)SA	Phenol-d5		1.7349324	1.7797278 1.8454539	1.8141948	1.7028145	1.7646100	1.8073848	1.7784	AVRG		2.7558
9)AMC	Phenol		1.6470055	1.9083306 1.7179349	1.7396957	1.6829569	1.6853342	1.7306047	1.7303	AVRG		4.9005
10)AM	bis(2-Chloroethyl) ether		1.3740409	1.5313648 1.4381556	1.4509624	1.3831992	1.4440015	1.4656014	1.4410	AVRG		3.6623
11)AM	2-Chlorophenol		1.3313540	1.4355767 1.4026650	1.3657573	1.3580816	1.3242809	1.4281028	1.3780	AVRG		3.2511
12)AM	n-Decane		1.8455660	2.1761942 1.9354807	1.9762600	1.9189156	1.9699293	1.9406247	1.9661	AVRG		5.1951
13)AM	1,3-Dichlorobenzene		1.5009710	1.5583293 1.5659711	1.5708102	1.5355013	1.5756538	1.5459473	1.5505	AVRG		1.6746
14)AMC	1,4-Dichlorobenzene		1.4794425	1.5155290 1.5525409	1.5262813	1.4938095	1.5407780	1.5694096	1.5254	AVRG		2.0934
15)AM	1,2-Dichlorobenzene			1.5867060	1.5060498	1.4742993	1.5010409	1.5023240				

Response Factor Report MSD1

GEL Laboratories, LLC

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Last Update : Tue Mar 26 10:15:58 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound		1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
	m1	m2	7	8	9	10						
			1.4136178	1.5198148					1.5006	AVRG		3.4493
16)AM	bis(2-Chloro-1-methyleth			2.8283531	2.6373742	2.5025101	2.5424596	2.5020010				
			2.3769199	2.4297849					2.5456	AVRG		5.8707
17)AM	Benzyl alcohol			1.0254264	0.9086140	0.9137547	0.9249589	0.9554539				
			0.9099104	0.9519812					0.9414	AVRG		4.4374
18)AM	o-Cresol			1.0657387	1.0800898	1.0615329	1.1005349	1.1123659				
			1.0786277	1.1578573					1.0938	AVRG		3.0642
19)AM	m,p-Cresols			1.3785544	1.3451651	1.3246934	1.3426679	1.3707579				
			1.3071366	1.3522029					1.3459	AVRG		1.8419
20)AMP	N-Nitrosodipropylamine			1.1947449	1.1792963	1.1121651	1.1330098	1.1637288				
			1.1476166	1.2102808					1.1630	AVRG		2.9848
21)AM	Hexachloroethane			0.6551513	0.6422435	0.6827584	0.6716746	0.6939492				
			0.6468561	0.6915904					0.6692	AVRG		3.1859
23)SA	Nitrobenzene-d5			0.4418914	0.4373967	0.4377959	0.4399799	0.4487571				
			0.4379669	0.4565791					0.4429	AVRG		1.6272
24)AM	Nitrobenzene			0.5008797	0.4712237	0.4282658	0.4515703	0.4469003				
			0.4334697	0.4484618					0.4544	AVRG		5.4383
25)AM	Isophorone			0.9468059	0.8720630	0.8155894	0.8188619	0.7980962				
			0.7676435	0.7763682					0.8279	AVRG		7.5586
26)AMC	2-Nitrophenol			0.1363891	0.1422166	0.1480572	0.1583422	0.1596464				
			0.1740307	0.1744685					0.1562	AVRG		9.5067
27)AM	2,4-Dimethylphenol			0.2916360	0.2756121	0.2419568	0.2542435	0.2463310				
			0.2472839	0.2507066					0.2583	AVRG		7.0992
28)AM	bis(2-Chloroethoxy)metha			0.5715842	0.5428766	0.4954201	0.5016929	0.4812576				
			0.4709128	0.4774574					0.5059	AVRG		7.4180
29)AMC	2,4-Dichlorophenol			0.3483417	0.3526892	0.3158906	0.3308411	0.3274859				
			0.3234595	0.3273960					0.3323	AVRG		4.0184

Response Factor Report MSD1

GEL Laboratories, LLC

Method File : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M

Last Update : Tue Mar 26 10:15:58 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

Compound			1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
b	m1	m2	7	8	9	10						
30)AM Benzoic acid					41795	96107	136532	239684		1/x^2		
-0.0579	0.2964	0.00	303872	364143						LINR	#	0.9934
31)AM 1,2,4-Trichlorobenzene				0.4174266	0.3832479	0.3545328	0.3608839	0.3570926				
			0.3466409	0.3555855					0.3679	AVRG		6.6916
32)AM alpha-Terpineol				0.4395519	0.4098718	0.3900898	0.3922233	0.3866674				
			0.3787054	0.3865659					0.3977	AVRG		5.2288
33)AM Naphthalene			1.0895169	1.1238844	1.0508323	0.9662834	0.9802300	0.9053712				
			0.8746172	0.8635113					0.9818	AVRG		10.0480
34)AM 4-Chloroaniline				0.4949316	0.4220944	0.4268158	0.4135460	0.4099444				
			0.3997628	0.4107032					0.4254	AVRG		7.4955
35)AMC Hexachlorobutadiene				0.2735171	0.2392570	0.2328104	0.2266078	0.2299788				
			0.2250669	0.2292313					0.2366	AVRG		7.1451
36)AMC 4-Chloro-3-methylphenol				0.3672846	0.3381545	0.3453396	0.3605602	0.3450998				
			0.3436299	0.3401934					0.3486	AVRG		3.1413
37)AM 2-Methylnaphthalene			0.8295699	0.7717731	0.7663900	0.6753423	0.6897292	0.6671221				
			0.6505457	0.6490273					0.7124	AVRG		9.4826
38)AM 1-Methylnaphthalene			0.7725888	0.7309416	0.6476992	0.6104099	0.6190403	0.6050656				
			0.5744787	0.5842895					0.6431	AVRG		11.1156
40)AMP Hexachlorocyclopentadien				0.4385225	0.4285090	0.4030765	0.4067968	0.4091530				
			0.3899949	0.4017804					0.4111	AVRG		4.0629
41)AM 2,3-Dichloroaniline				0.8476651	0.7512908	0.7359573	0.7041011	0.7141207				
			0.6708676	0.6668605					0.7273	AVRG		8.4552
42)AMC 2,4,6-Trichlorophenol				0.5041133	0.5060236	0.4721429	0.4736490	0.4647129				
			0.4733772	0.4736245					0.4811	AVRG		3.4684
43)AM 2,4,5-Trichlorophenol				0.4719257	0.4853542	0.4777807	0.4915064	0.4999521				
			0.4445643	0.4551380					0.4752	AVRG		4.1561
44)SA 2-Fluorobiphenyl				1.7293498	1.6781173	1.5132444	1.5008876	1.4320636				
			1.3296801	1.3186552					1.5003	AVRG		10.5744

Response Factor Report MSD1

GEL Laboratories, LLC

Method File : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M

Last Update : Tue Mar 26 10:15:58 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(x^2)$

Compound			1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
b	m1	m2	7	8	9	10						
45)AM	2-Chloronaphthalene		1.3599497 1.1438429	1.3866712 1.1406495	1.4168558	1.3141487	1.2693424	1.2510669	1.2853	AVRG		8.1253
46)AM	o-Nitroaniline		0.4652914	0.4147070 0.4665072	0.4493754	0.4614509	0.4516666	0.4875610	0.4567	AVRG		4.8863
47)A	1,4-Dinitrobenzene			6000	15345	30407	41557	77444		1/x		
	-0.0223 0.1714 0.00		97543	118201						LINR	#	0.9923
48)AM	m-Nitroaniline		0.3393427	0.2884390 0.3518815	0.3314211	0.3382691	0.3370317	0.3536430	0.3343	AVRG		6.5121
49)AM	Dimethylphthalate		1.5561715 1.3341166	1.7010144 1.3029769	1.6145679	1.5070526	1.4808967	1.4054577	1.4878	AVRG		9.2013
50)A	m-Dinitrobenzene		0.1788282	0.1291444 0.1907936	0.1443262	0.1618853	0.1722991	0.1982384	0.1679	AVRG		14.7419
51)AM	2,6-Dinitrotoluene		0.3002265	0.2499679 0.3079308	0.2908272	0.2844412	0.3066837	0.3177959	0.2940	AVRG		7.6064
52)AM	2,4-Dinitrotoluene		0.4122092	0.3041219 0.4053346	0.3614405	0.3947234	0.4022194	0.4198245	0.3857	AVRG		10.5053
53)AM	Acenaphthylene		2.2954889 1.5958382	2.1264564 1.5738966	2.0767011	1.8756170	1.8203889	1.7312146	1.8870	AVRG		13.7589
54)AMC	Acenaphthene		1.4158916 1.1597650	1.4287035 1.1720369	1.3510373	1.2973156	1.2506263	1.2246402	1.2875	AVRG		8.0671
55)AMP	2,4-Dinitrophenol				10474	23593	34830	67062		1/x		
	-0.0408 0.1555 0.00		82110	99272						LINR	#	0.9931
56)AM	Dibenzofuran		1.4816867	1.9844883 1.4353297	1.8794599	1.7147806	1.6727837	1.6105412	1.6827	AVRG		11.8290
57)A	2,3,4,6-Tetrachloropheno		0.4063056	0.3991611 0.4076419	0.4038924	0.4114803	0.4002675	0.4075125	0.4052	AVRG		1.0781
58)AM	Diethylphthalate		1.8877421	1.8583572	1.6809514	1.5564776	1.5780539	1.5049298				

Response Factor Report MSD1

GEL Laboratories, LLC

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Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

Compound			1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
b	m1	m2	7	8	9	10						
			1.4117461	1.3881714					1.6083	AVRG		11.6861
59)AMP 4-Nitrophenol				0.2407568	0.2435034	0.2408486	0.2517739	0.2561529				
			0.2549806	0.2553148					0.2490	AVRG		2.8350
60)AM Fluorene			1.7461019	1.5852587	1.4983603	1.3983311	1.3509739	1.3204149				
			1.2250346	1.2102054					1.4168	AVRG		12.9839
61)AM 4-Chlorophenylphenylethe				0.7994179	0.7801286	0.7230787	0.7159080	0.6997643				
			0.6721639	0.6703222					0.7230	AVRG		6.9281
62)AM p-Nitroaniline				0.2926508	0.3158206	0.3051950	0.3249705	0.3349419				
			0.3350720	0.3323287					0.3201	AVRG		5.1194
63)SA 2,4,6-Tribromophenol				0.2415786	0.2235874	0.2372409	0.2268819	0.2432684				
			0.2332754	0.2391328					0.2350	AVRG		3.1696
65)AM 2-Methyl-4,6-dinitrophen				6800	17566	35804	51545	94663		1/x		
-0.0151 0.1034 0.00			123144	141152						LINR	#	0.9924
66)AMC Diphenylamine				0.7143416	0.6722525	0.6425110	0.6225071	0.5901193				
			0.5655268	0.5554254					0.6232	AVRG		9.2869
67)AM 1,2-Diphenylhydrazine				0.9781870	0.9125167	0.8461587	0.8221735	0.7672338				
			0.7550601	0.7090845					0.8272	AVRG		11.3846
68)AM 4-Bromophenylphenylether				0.2651396	0.2390648	0.2442930	0.2384764	0.2269303				
			0.2267299	0.2226609					0.2376	AVRG		6.1019
69)AM Hexachlorobenzene				0.2685231	0.2435396	0.2592422	0.2529956	0.2444049				
			0.2397821	0.2363269					0.2493	AVRG		4.6269
70)AMC Pentachlorophenol				0.1543130	0.1578822	0.1581086	0.1651073	0.1685520				
			0.1730383	0.1690015					0.1637	AVRG		4.2761
71)AM n-Octadecane				0.7932364	0.7234394	0.6986377	0.6709934	0.6248667				
			0.6150844	0.5916791					0.6740	AVRG		10.4808
72)A Dinoseb				9336	25413	55564	79911	147893		1/x		
-0.0273 0.1633 0.00			188901	224523						LINR	#	0.9930

Response Factor Report MSD1

GEL Laboratories, LLC

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Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound		1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
	m1	m2	7	8	9	10						
73)AM	Phenanthrene		1.2768606 0.8764394	1.1578255 0.8392675	1.0716934	1.0208443	0.9925378	0.9122368	1.0185	AVRG		14.5289
74)AM	Anthracene		1.2443694 0.8959076	1.2064464 0.8617614	1.1576031	1.0534117	1.0350585	0.9373240	1.0490	AVRG		13.7645
75)AM	Carbazole		1.3092674	1.1790908	1.0856181	1.0150309	0.9776660	0.8850671	1.0753	AVRG		14.1022
76)AM	Di-n-butylphthalate		1.5293634 1.0695652	1.4943062	1.4308573	1.3068593	1.2607304	1.1299284	1.3174	AVRG		13.4720
77)AMC	Fluoranthene		1.5561158 1.0473538	1.4485782	1.3583264	1.2238278	1.2203367	1.1044238	1.2799	AVRG		14.3527
78)AM	Pyrene		1.5248906 1.0832735	1.4864819 1.0187147	1.4399102	1.2746795	1.2553876	1.1402847	1.2780	AVRG		14.9429
79)SA	p-Terphenyl-d14		0.8765198	1.1504833 0.8357728	1.0878968	1.0045166	0.9840165	0.9067605	0.9780	AVRG		11.6709
81)AM	Butylbenzylphthalate		0.5873183 0.5811136	0.6077424 0.5784990	0.5933786	0.6125949	0.6011822	0.5775518	0.5924	AVRG		2.2899
82)AM	bis(2-Ethylhexyl)phthala		0.9956488 0.8091531	0.9535053 0.7922121	0.9119398	0.8965356	0.8767283	0.8220774	0.8822	AVRG		8.1426
83)AM	Benzo(a)anthracene		1.5102583 1.0817120	1.3647511 1.0515446	1.2524042	1.1979614	1.1877534	1.0959436	1.2178	AVRG		12.8205
84)AM	Chrysene		1.2001278 1.0381992	1.2381391 0.9946422	1.2068313	1.1354975	1.1010150	1.0422548	1.1196	AVRG		8.0575
85)A	Methoxychlor		0.7344083	0.6338654 0.7128778	0.7036488	0.7129702	0.7347112	0.7179382	0.7072	AVRG		4.8534
86)A	Methylenebis(2-chloroani		0.2523560	0.2940193 0.2501179	0.2590115	0.2628723	0.2539950	0.2529286	0.2608	AVRG		5.8678
87)AMC	Di-n-octylphthalate		1.4662565 1.4518994	1.6371447 1.3905842	1.6450430	1.6069191	1.5418513	1.4524503	1.5240	AVRG		6.3762

Response Factor Report MSD1

GEL Laboratories, LLC

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Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound		1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
	m1	m2	7	8	9	10						
89)AM	Benzo(b)fluoranthene		1.2846440 1.0474284	1.2826081 1.0887028	1.2578903	1.1127664	1.1206734	1.0773360	1.1590	AVRG		8.5358
90)AM	Benzo(k)fluoranthene		1.2870020 0.9783910	1.2203276 0.9692987	1.1610865	1.0926812	1.0506967	0.9946973	1.0943	AVRG		10.8328
91)AMC	Benzo(a)pyrene		1.2070525 1.0015751	1.1832493 1.0281516	1.1512401	1.0629453	1.0480076	1.0191038	1.0877	AVRG		7.3936
92)AM	Indeno(1,2,3-cd)pyrene		1.0691857 1.0740919	1.1633080 1.0687018	1.1267086	1.0568016	1.0563991	1.0448329	1.0825	AVRG		3.7740
93)AM	Dibenzo(a,h)anthracene		1.1022708 0.9491785	1.0580148 0.9570722	1.0479272	0.9856684	0.9760650	0.9549486	1.0039	AVRG		5.7389
94)AM	Benzo(ghi)perylene		1.0665330 0.9684005	1.0841050 0.9839374	1.0653095	0.9761471	0.9996232	0.9499104	1.0117	AVRG		5.1489
95)A	Dibenzo(a,e)pyrene			0.8930605 0.8336840	0.8710373	0.8590013	0.8571136	0.8291988	0.8550	AVRG		2.6216
97)BM	1,4-Dioxane			0.6471413 0.5008031	0.5520675 0.5593274	0.5506896 0.5318156	0.5365772	0.4958812	0.5449	AVRG		8.0902
98)B	Methyl methacrylate			0.1952207 0.2011710	0.2278381 0.2067971	0.2119397 0.2066051	0.2174878	0.1982286	0.2082	AVRG		4.8266
99)B	Ethyl methacrylate			1.3480313 1.1865833	1.2950426 1.2887861	1.2895743 1.2522542	1.3110830	1.2256518	1.2698	AVRG		3.9232
100)B	2-Picoline			1.5684342 1.4880506	1.6032488 1.5737906	1.5762180 1.5663055	1.6535570	1.5160753	1.5603	AVRG		3.3810
101)B	N-Nitrosomethylethylamin			0.5925299 0.5643852	0.5892186 0.5619121	0.5714960 0.5793451	0.5807899	0.5673619	0.5773	AVRG		1.9876
102)B	Methyl methanesulfonate			0.9539403 0.8742273	0.9584138 0.9279828	0.9255809 0.9281586	0.9658974	0.9137321	0.9269	AVRG		3.2581
103)B	N-Nitrosodiethylamine			0.5992983	0.5706431	0.5817494	0.6163675	0.5696831				

Response Factor Report MSD1

GEL Laboratories, LLC

Method File : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M

Last Update : Tue Mar 26 10:15:58 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound		1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
	m1	m2	7	8	9	10						
			0.5539690	0.5797072	0.5760791	0.6210638			0.5854	AVRG		3.8242
104)B	2-Butoxyethanol			1.9761614	1.9901056	1.9437940	1.9304957	1.7790190				
			1.7339585	1.7606577	1.9157959	1.8638080			1.8771	AVRG		5.1660
105)B	Ethyl methanesulfonate			1.2741766	1.3300195	1.2603058	1.3177932	1.2280969				
			1.2049132	1.2276940	1.2960311	1.2708889			1.2678	AVRG		3.3481
106)BM	Benzaldehyde			1.3669097	1.3466729	1.3296282	1.3414639	1.1890251				
			1.1480366	1.1420085	1.3474905	1.2746446			1.2762	AVRG		7.1936
107)B	Pentachloroethane			0.5940893	0.5961825	0.5866062	0.6006764	0.5780233				
			0.5463473	0.5670032	0.6063125	0.5914600			0.5852	AVRG		3.2073
108)BM	N-Nitrosopyrrolidine			0.5860602	0.6238804	0.6358042	0.6845726	0.6596098				
			0.6349362	0.6631484	0.6231425	0.6583383			0.6411	AVRG		4.5245
109)BM	Acetophenone			2.1912227	2.1813914	2.0477215	2.0513938	1.9092099				
			1.8531402	1.8628339	2.1097674	2.0041513			2.0234	AVRG		6.3034
110)B	N-Nitrosomorpholine			0.9182406	0.8900198	0.8537925	0.8685389	0.8329807				
			0.8051079	0.8501700	0.8801165	0.8374050			0.8596	AVRG		3.9361
111)B	o-Toluidine			2.2929471	2.1719539	2.0354744	2.0894862	1.9301718				
			1.8367944	1.8445377	2.1102177	2.0227706			2.0372	AVRG		7.3750
113)B	N-Nitrosopiperidine			0.1611707	0.1797915	0.1781374	0.1816266	0.1824758				
			0.1810789	0.1769255	0.1711359	0.1753532			0.1764	AVRG		3.8114
114)B	a,a-Dimethylphenethylami			1.0343280	1.0706290	1.1575606	1.2131132	1.1797113				
			1.2069431	1.2056808	1.1383040	1.1918229			1.1553	AVRG		5.5231
115)BM	2,6-Dichlorophenol			0.3074195	0.2994872	0.3059634	0.3077255	0.3000861				
			0.2989362	0.2980416	0.3029548	0.3034540			0.3027	AVRG		1.2352
116)B	Hexachloropropene			0.2639554	0.2338748	0.2424825	0.2434486	0.2378077				
			0.2365218	0.2336448	0.2416116	0.2395903			0.2414	AVRG		3.7930
117)BM	Caprolactam			0.0925375	0.0821126	0.0919590	0.0892605	0.0908730				
			0.0889291	0.0866980	0.0911577	0.0865189			0.0889	AVRG		3.7373

Response Factor Report MSD1

GEL Laboratories, LLC

Method File : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M

Last Update : Tue Mar 26 10:15:58 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(x^2)$

b	Compound			1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
	m1	m2	7	8	9	10							
118)B	N-Nitrosodi-n-butylamine			0.2212111	0.2192733	0.2413057	0.2288298			0.2342	AVRG		7.6546
119)B	Safrole			0.2595884	0.2616038	0.2732826	0.2785511			0.2735	AVRG		3.1597
121)B	1,2,4,5-Tetrachlorobenze			0.6718737	0.6602497	0.7118610	0.7054003			0.7097	AVRG		4.8122
122)BM	1,1-Biphenyl			1.2481218	1.2343942	1.5351274	1.4377991			1.4458	AVRG		9.8966
123)B	Isosafrole			0.5189552	0.5298803	0.5658997	0.5638977			0.5610	AVRG		5.3199
124)B	1,4-Naphthoquinone			0.4853093	0.4641812	0.5673101	0.5363723			0.5330	AVRG		6.8299
125)B	Pentachlorobenzene			0.5548479	0.5617003	0.5899473	0.5978293			0.5969	AVRG		4.4702
126)B	1-Naphthylamine			1.1339775	1.0995565	1.3100860	1.2316418			1.2491	AVRG		7.7286
127)B	2-Naphthylamine			1.1134768	1.0871174	1.2821421	1.2225011			1.2587	AVRG		9.6814
128)B	5-Nitro-o-toluidine			0.3536235	0.3645102	0.3352464	0.3553288			0.3354	AVRG		7.6426
129)B	Tributylphosphate			1.6518759	1.5730628	2.0628700	1.9085795			1.9146	AVRG		11.1141
131)B	1,3,5-Trinitrobenzene			0.1797743	0.1888205	0.1409199	0.1626648			0.1567	AVRG		14.8305
132)B	Phenacetin			0.3754786	0.3712696	0.3938029	0.3805433			0.3903	AVRG		3.3944
133)B	Diallate			0.2337607	0.2265399	0.2385298	0.2319820			0.2367	AVRG		2.7743

Response Factor Report MSD1

GEL Laboratories, LLC

Method File : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M

Last Update : Tue Mar 26 10:15:58 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

Compound			1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
b	m1	m2	7	8	9	10						
134)B	Cis Diallate			0.2892659	0.2726072	0.2875029	0.2853927	0.2758974				
			0.2750126	0.2665175	0.2806233	0.2729200			0.2784	AVRG		2.7743
135)B	Trans Diallate			0.6551593	0.5558775	0.5843228	0.5986975	0.5717848				
			0.5906042	0.5769099	0.5537720	0.5697263			0.5841	AVRG		5.2179
136)BM50	Atrazine			0.2414975	0.2297402	0.2238978	0.2289696	0.2129092				
			0.2042481	0.2034075	0.2266576	0.2172311			0.2210	AVRG		5.7030
137)B	4-Aminobiphenyl			1.0031521	0.9160845	0.8523625	0.8418487	0.7596880				
			0.7178151	0.6795772	0.8914467	0.8168255			0.8310	AVRG		12.1931
138)B	Pentachloronitrobenzene			0.0969816	0.0905099	0.0967574	0.1002471	0.1027456				
			0.0976807	0.1018386	0.0885310	0.0906421			0.0962	AVRG		5.4032
139)B	Pronamide			0.4023457	0.3791196	0.3777001	0.3756215	0.3545950				
			0.3488160	0.3408907	0.3780567	0.3665846			0.3693	AVRG		5.0892
140)B	4-Nitroquinoline-1-oxide			0.0343053	0.0345625	0.0429756	0.0393778	0.0388102				
			0.0363786	0.0320514	0.0414090	0.0389983			0.0377	AVRG		9.4983
141)B	Methapyrilene			0.7821527	0.7692927	0.7605733	0.7483786	0.6720352				
			0.6311002	0.5997896	0.7591348	0.7008450			0.7137	AVRG		9.2598
142)B	Isodrin			0.1649886	0.1458304	0.1441540	0.1474144	0.1391861				
			0.1319174	0.1335759	0.1448013	0.1419623			0.1438	AVRG		6.6795
144)B	Aramite			0.0457771	0.0469051	0.0502488	0.0500442	0.0536957				
			0.0511079	0.0495246	0.0493322	0.0553310			0.0502	AVRG		5.9332
145)B	Kepone			0.1111873	0.1016574	0.1189315	0.1161873	0.1105843				
			0.1084495	0.1064978	0.1096984	0.1116732			0.1105	AVRG		4.5719
146)B	p-(Dimethylamino)azobenz			0.3291699	0.2944404	0.3218961	0.3164151	0.3080409				
			0.2934276	0.2913224	0.3256748	0.3168041			0.3108	AVRG		4.6983
147)B	Chlorobenzilate			0.3011753	0.3105263	0.3036093	0.3189829	0.3036204				
			0.2844728	0.2898399	0.3128211	0.3076075			0.3036	AVRG		3.5829
148)B	2-Acetylaminofluorene			0.4874856	0.4945078	0.5283441	0.5356253	0.5222706				

Response Factor Report MSD1

GEL Laboratories, LLC

Method File : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M

Last Update : Tue Mar 26 10:15:58 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound		1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
	m1	m2	7	8	9	10						
			0.5087431	0.5013043	0.5167187	0.5343339			0.5144	AVRG		3.3905
150)B	7,12-Dimethylbenz(a)anth			0.5185802	0.4770742	0.4895166	0.4789536	0.4714789				
			0.4520398	0.4548806	0.4973275	0.4674663			0.4786	AVRG		4.3788
151)B	3-Methylcholanthrene			0.1194635	0.1156814	0.1226974	0.1211460	0.1198689				
			0.1143933	0.1174337	0.1216522	0.1234768			0.1195	AVRG		2.6195
153)J	Sulfolane			0.1647178	0.1631838	0.1668649	0.1644642	0.1637995				
			0.1577792	0.1583147	0.1693948	0.1629398			0.1635	AVRG		2.2536
155)J	Prometon			0.1980611	0.1995778	0.2101996	0.2070536	0.2003612				
			0.1988911	0.1916888	0.2007965	0.1979011			0.2005	AVRG		2.6796
156)JM	Benzidine			0.9709723	0.9046739	0.8545585	0.8676185	0.7852471				
			0.7392511	0.6970730	0.8739780	0.8141727			0.8342	AVRG		10.1547
158)J	3,3'-Dimethylbenzidine			0.9162257	0.8488003	0.8453308	0.8366836	0.7584186				
			0.7102421	0.6866573	0.8555356	0.8084932			0.8074	AVRG		9.2468
159)JM	3,3'-Dichlorobenzidine			0.5142670	0.4788623	0.5037470	0.4984909	0.4800608				
			0.4643950	0.4609394	0.4797490	0.4927915			0.4859	AVRG		3.6642
161)D	Triethylphosphorothioate			0.2020656	0.1971682	0.1926146	0.1852495	0.1921389				
			0.1874264	0.1841862					0.1915	AVRG		3.4004
163)D	Thionazine			0.2800892	0.2789276	0.2647214	0.2747387	0.2791384				
			0.2583360	0.2636485					0.2714	AVRG		3.2910
165)D	Sulfotepp			0.0864739	0.0829919	0.0841789	0.0861459	0.0920512				
			0.0881138	0.0884321					0.0869	AVRG		3.4448
166)D	Phorate			0.6011552	0.5795780	0.5741227	0.5682293	0.5420276				
			0.5245637	0.5179839					0.5582	AVRG		5.5051
167)D	Dimethoate			0.3680321	0.3442739	0.3624589	0.3599400	0.3600305				
			0.3502584	0.3523508					0.3568	AVRG		2.2828
168)D	Disulfoton			0.5470998	0.4959901	0.4855707	0.4792756	0.4526716				
			0.4419799	0.4330414					0.4765	AVRG		8.1737

Response Factor Report MSD1

GEL Laboratories, LLC

Method File : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M

Last Update : Tue Mar 26 10:15:58 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

Compound			1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
b	m1	m2	7	8	9	10						
169)D	Methyl parathion			0.2003113	0.2052951	0.2248152	0.2252693	0.2419487				
			0.2510813	0.2523222					0.2287	AVRG		9.1276
170)D	Parathion			3867	9848	21598	29321	51099		1/x^2		
	-0.0060	0.0539	0.00	62157	78144					LINR	#	0.9951
172)D	Famphur			0.5348960	0.5629192	0.5348654	0.5429950	0.5164007				
			0.5103342	0.4966422					0.5284	AVRG		4.2085
174)E	p-Phenylenediamine			0.3820241	0.3741919	0.3613814	0.3609688	0.3602728				
			0.3450113						0.3640	AVRG		3.5168
176)E	Hexachlorophene			688805	962939	1056970	1648153	1482294		1/x^2		
	-0.3281	0.1230	0.00	1975063						LINR		0.9976

(#) = Out of Range (\$) = Individual RF Out of Range

AVRG = Average, LINR = Linear Regression, $1/x$ = the inverse of concentration, $1/x^2$ = the inverse square of concentration

LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2502.D
Acq On : 25 Mar 2024 11:23
Operator : LL2
InstName : MSD1
Sample : |WBN240312-01.1|ICAL|1|SVM|1|M-1
Misc : MIX[A]
ALS Vial : 2 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:21:14 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	114763	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	424702	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.362	7.367	1.000	235244	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	473975	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	509979	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.427	13.427	1.000	542843	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.362	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.427	13.421	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.362	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.427	13.437	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.911	2.917	0.689	4626	1.19	ng/uL	0.00
8) Phenol-d5	99	3.789	3.794	0.896	5463	1.07	ng/uL	0.00
23) Nitrobenzene-d5	82	4.832	4.837	0.857	4951	1.05	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.730	6.736	0.914	10289	1.17	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.062	8.062	1.095	1498	1.08	ng/uL	0.00
79) p-Terphenyl-d14	244	10.004	10.004	1.154	12645	1.09	ng/uL	0.00

Target Compounds								
3) N-Methyl-N-nitrosometh...	74	1.895	1.901	0.448	2575	0.97	ng/uL	80
30) Benzoic acid	105	5.473	5.324	0.971	896	8.10	ng/uL#	53
33) Naphthalene	128	5.666	5.666	1.005	11568	1.11	ng/uL	95
37) 2-Methylnaphthalene	142	6.377	6.377	1.131	8808	1.16	ng/uL	99
38) 1-Methylnaphthalene	142	6.474	6.474	1.148	8203	1.20	ng/uL	84
45) 2-Chloronaphthalene	162	6.848	6.848	0.930	7998	1.06	ng/uL	89
47) 1,4-Dinitrobenzene	168	7.073	7.067	0.961	672	5.87	ng/uL#	38
49) Dimethylphthalate	163	7.105	7.110	0.965	9152	1.05	ng/uL	90
53) Acenaphthylene	152	7.239	7.238	0.983	13500	1.22	ng/uL	93
54) Acenaphthene	153	7.394	7.394	1.004	8327	1.10	ng/uL	87
58) Diethylphthalate	149	7.736	7.741	1.051	11102	1.17	ng/uL	94
60) Fluorene	166	7.854	7.854	1.067	10269	1.23	ng/uL	99
73) Phenanthrene	178	8.688	8.688	1.002	15130	1.25	ng/uL	96
74) Anthracene	178	8.731	8.731	1.007	14745	1.19	ng/uL	100
75) Carbazole	167	8.859	8.859	1.022	15514	1.22	ng/uL	90
76) Di-n-butylphthalate	149	9.132	9.132	1.054	18122	1.16	ng/uL	96

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2502.D
Acq On : 25 Mar 2024 11:23
Operator : LL2
InstName : MSD1
Sample : |WBN240312-01.1|ICAL|1|SVM|1|M-1
Misc : MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 26 10:21:14 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

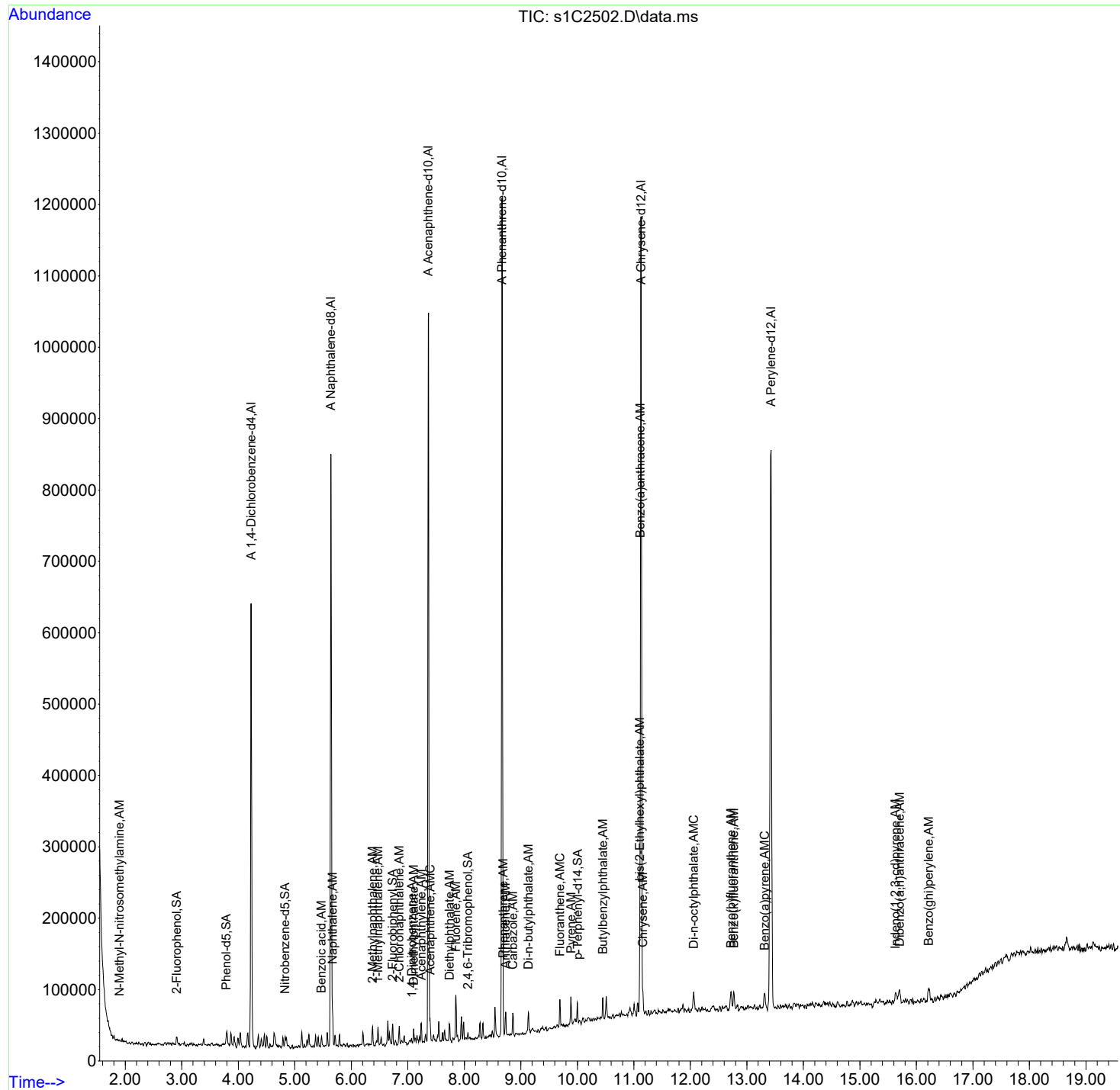
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
77) Fluoranthene	202	9.694	9.693	1.118	18439	1.22	ng/uL 96
78) Pyrene	202	9.886	9.886	1.141	18069	1.19	ng/uL 89
81) Butylbenzylphthalate	149	10.453	10.453	0.939	7488	0.99	ng/uL 79
82) bis(2-Ethylhexyl)phtha...	149	11.106	11.100	0.998	12694	1.13	ng/uL 99
83) Benzo(a)anthracene	228	11.116	11.116	0.999	19255	1.24	ng/uL 97
84) Chrysene	228	11.159	11.164	1.003	15301	1.07	ng/uL 94
87) Di-n-octylphthalate	149	12.058	12.058	1.084	18694	0.96	ng/uL 64
89) Benzo(b)fluoranthene	252	12.721	12.726	0.947	17434	1.11	ng/uL 93
90) Benzo(k)fluoranthene	252	12.769	12.774	0.951	17466	1.18	ng/uL 94
91) Benzo(a)pyrene	252	13.315	13.320	0.992	16381	1.11	ng/uL 99
92) Indeno(1,2,3-cd)pyrene	276	15.631	15.652	1.164	14510	0.99	ng/uL 83
93) Dibenzo(a,h)anthracene	278	15.705	15.711	1.170	14959	1.10	ng/uL 77
94) Benzo(ghi)perylene	276	16.219	16.240	1.208	14474	1.05	ng/uL 98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2502.D
Acq On : 25 Mar 2024 11:23
Operator : LL2
InstName : MSD1
Sample : |WBN240312-01.1|ICAL|1|SVM|1|M-1
Misc : MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 26 10:21:14 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2503.D
Acq On : 25 Mar 2024 11:48
Operator : LL2
InstName : MSD1
Sample : |WBN240312-02.1|ICAL|1|SVM|1|M-2
Misc : MIX[A]
ALS Vial : 3 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:22:04 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	118971	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	422321	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.362	7.367	1.000	233630	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	472883	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	501627	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.422	13.427	1.000	540586	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.362	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.422	13.421	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.362	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.422	13.437	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.917	2.917	0.690	41587	10.30	ng/uL	0.00
8) Phenol-d5	99	3.794	3.794	0.898	52934	10.01	ng/uL	0.00
23) Nitrobenzene-d5	82	4.832	4.837	0.857	46655	9.98	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.730	6.736	0.914	101007	11.53	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.062	8.062	1.095	14110	10.28	ng/uL	0.00
79) p-Terphenyl-d14	244	9.998	10.004	1.154	136011	11.76	ng/uL	0.00

Target Compounds								
2) 2-Ethoxyethanol	59	1.708	1.708	0.404	25841	9.12	ng/uL	91
3) N-Methyl-N-nitrosometh...	74	1.901	1.901	0.450	27098	9.90	ng/uL	97
4) Pyridine	79	1.943	1.938	0.460	36826	8.90	ng/uL	99
6) p-Benzoquinone	54	3.393	3.393	0.803	31002	9.86	ng/uL	96
7) Aniline	93	3.874	3.874	0.916	65401	10.39	ng/uL	99
9) Phenol	94	3.805	3.810	0.900	56759	11.03	ng/uL	97
10) bis(2-Chloroethyl) ether	93	3.933	3.933	0.930	45547	10.63	ng/uL	99
11) 2-Chlorophenol	128	3.997	3.997	0.946	42698	10.42	ng/uL	98
12) n-Decane	57	4.040	4.040	0.956	64726	11.07	ng/uL	94
13) 1,3-Dichlorobenzene	146	4.168	4.168	0.986	46349	10.05	ng/uL	95
14) 1,4-Dichlorobenzene	146	4.249	4.249	1.005	45076	9.94	ng/uL	92
15) 1,2-Dichlorobenzene	146	4.415	4.414	1.044	47193	10.57	ng/uL	97
16) bis(2-Chloro-1-methyle...	45	4.505	4.511	1.066	84123	11.11	ng/uL	98
17) Benzyl alcohol	108	4.356	4.361	1.030	30499	10.89	ng/uL	90
18) o-Cresol	107	4.468	4.468	1.057	31698	9.74	ng/uL	92
19) m,p-Cresols	108	4.634	4.639	1.096	41002	10.24	ng/uL	98

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2503.D
Acq On : 25 Mar 2024 11:48
Operator : LL2
InstName : MSD1
Sample : |WBN240312-02.1|ICAL|1|SVM|1|M-2
Misc : MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 26 10:22:04 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
20) N-Nitrosodipropylamine	70	4.655	4.660	1.101	35535	10.27	ng/uL	92
21) Hexachloroethane	117	4.794	4.794	1.134	19486	9.79	ng/uL	85
24) Nitrobenzene	77	4.853	4.858	0.861	52883	11.02	ng/uL	93
25) Isophorone	82	5.126	5.126	0.909	99964	11.44	ng/uL	99
26) 2-Nitrophenol	139	5.217	5.217	0.925	14400	8.73	ng/uL	91
27) 2,4-Dimethylphenol	122	5.249	5.254	0.931	30791	11.29	ng/uL	92
28) bis(2-Chloroethoxy)met...	93	5.367	5.372	0.952	60348	11.30	ng/uL	93
29) 2,4-Dichlorophenol	162	5.474	5.479	0.971	36778	10.48	ng/uL	98
30) Benzoic acid	105	5.286	5.324	0.937	15804	12.86	ng/uL	80
31) 1,2,4-Trichlorobenzene	180	5.575	5.580	0.989	44072	11.35	ng/uL	97
32) alpha-Terpineol	59	5.666	5.671	1.005	46408	11.05	ng/uL	96
33) Naphthalene	128	5.666	5.666	1.005	118660	11.45	ng/uL	98
34) 4-Chloroaniline	127	5.714	5.714	1.013	52255	11.63	ng/uL	99
35) Hexachlorobutadiene	225	5.794	5.794	1.028	28878	11.56	ng/uL	95
36) 4-Chloro-3-methylphenol	107	6.206	6.206	1.101	38778	10.54	ng/uL	94
37) 2-Methylnaphthalene	142	6.377	6.377	1.131	81484	10.83	ng/uL	87
38) 1-Methylnaphthalene	142	6.474	6.474	1.148	77173	11.37	ng/uL	98
40) Hexachlorocyclopentadiene	237	6.527	6.527	0.887	25613	10.67	ng/uL	99
41) 2,3-Dichloroaniline	161	6.650	6.650	0.903	49510	11.66	ng/uL	97
42) 2,4,6-Trichlorophenol	196	6.645	6.645	0.903	29444	10.48	ng/uL	94
43) 2,4,5-Trichlorophenol	196	6.677	6.677	0.907	27564	9.93	ng/uL	92
45) 2-Chloronaphthalene	162	6.848	6.848	0.930	80992	10.79	ng/uL	97
46) o-Nitroaniline	65	6.934	6.939	0.942	24222	9.08	ng/uL	96
47) 1,4-Dinitrobenzene	168	7.067	7.067	0.960	6000	11.20	ng/uL#	83
48) m-Nitroaniline	138	7.313	7.319	0.993	16847	8.63	ng/uL	94
49) Dimethylphthalate	163	7.105	7.110	0.965	99352	11.43	ng/uL	100
50) m-Dinitrobenzene	168	7.132	7.137	0.969	7543	7.69	ng/uL	96
51) 2,6-Dinitrotoluene	165	7.164	7.164	0.973	14600	8.50	ng/uL	80
52) 2,4-Dinitrotoluene	165	7.522	7.527	1.022	17763	7.89	ng/uL	83
53) Acenaphthylene	152	7.233	7.238	0.983	124201	11.27	ng/uL	99
54) Acenaphthene	153	7.394	7.394	1.004	83447	11.10	ng/uL	97
55) 2,4-Dinitrophenol	184	7.410	7.410	1.007	4768	15.76	ng/uL	78
56) Dibenzofuran	168	7.549	7.549	1.025	115909	11.79	ng/uL	96
57) 2,3,4,6-Tetrachlorophenol	232	7.650	7.650	1.039	23314	9.85	ng/uL	89
58) Diethylphthalate	149	7.736	7.741	1.051	108542	11.55	ng/uL	98
59) 4-Nitrophenol	109	7.447	7.452	1.012	14062	9.67	ng/uL	87
60) Fluorene	166	7.854	7.854	1.067	92591	11.19	ng/uL	98
61) 4-Chlorophenylphenylether	204	7.848	7.848	1.066	46692	11.06	ng/uL	99
62) p-Nitroaniline	138	7.854	7.859	1.067	17093	9.14	ng/uL	97
65) 2-Methyl-4,6-dinitroph...	198	7.880	7.886	0.909	6800	11.41	ng/uL	88
66) Diphenylamine	169	7.950	7.950	0.917	84450	11.46	ng/uL	97
67) 1,2-Diphenylhydrazine	77	7.987	7.987	0.922	115642	11.83	ng/uL	98
68) 4-Bromophenylphenylether	248	8.276	8.276	0.955	31345	11.16	ng/uL	95
69) Hexachlorobenzene	284	8.330	8.330	0.961	31745	10.77	ng/uL	96
70) Pentachlorophenol	266	8.496	8.495	0.980	18243	9.43	ng/uL	94
71) n-Octadecane	57	8.544	8.544	0.986	93777	11.77	ng/uL	97
72) Dinoseb	211	8.640	8.640	0.997	9336	11.53	ng/uL	90
73) Phenanthrene	178	8.688	8.688	1.002	136879	11.37	ng/uL	99
74) Anthracene	178	8.731	8.731	1.007	142627	11.50	ng/uL	98

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2503.D
Acq On : 25 Mar 2024 11:48
Operator : LL2
InstName : MSD1
Sample : |WBN240312-02.1|ICAL|1|SVM|1|M-2
Misc : MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 26 10:22:04 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

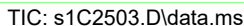
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
75) Carbazole	167	8.859	8.859	1.022	139393	10.97	ng/uL	96
76) Di-n-butylphthalate	149	9.132	9.132	1.054	176658	11.34	ng/uL	99
77) Fluoranthene	202	9.694	9.693	1.118	171252	11.32	ng/uL	97
78) Pyrene	202	9.886	9.886	1.141	175733	11.63	ng/uL	96
81) Butylbenzylphthalate	149	10.448	10.453	0.939	76215	10.26	ng/uL	96
82) bis(2-Ethylhexyl)phtha...	149	11.100	11.100	0.998	119576	10.81	ng/uL	99
83) Benzo(a)anthracene	228	11.111	11.116	0.999	171149	11.21	ng/uL	98
84) Chrysene	228	11.159	11.164	1.003	155271	11.06	ng/uL	99
85) Methoxychlor	227	11.004	11.004	0.989	79491	8.96	ng/uL	99
86) Methylenebis(2-chloroa...	231	11.068	11.068	0.995	36872	11.28	ng/uL	97
87) Di-n-octylphthalate	149	12.058	12.058	1.084	205309	10.74	ng/uL	98
89) Benzo(b)fluoranthene	252	12.721	12.726	0.948	173340	11.07	ng/uL	98
90) Benzo(k)fluoranthene	252	12.769	12.774	0.951	164923	11.15	ng/uL	98
91) Benzo(a)pyrene	252	13.315	13.320	0.992	159912	10.88	ng/uL	97
92) Indeno(1,2,3-cd)pyrene	276	15.636	15.652	1.165	157217	10.75	ng/uL	99
93) Dibenzo(a,h)anthracene	278	15.700	15.711	1.170	142987	10.54	ng/uL	96
94) Benzo(ghi)perylene	276	16.224	16.240	1.209	146513	10.72	ng/uL	99
95) Dibenzo(a,e)pyrene	302	18.658	18.674	1.390	120694	10.44	ng/uL	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

ALS Vial : 3 Sample Multiplier: 1

Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2504.D
Acq On : 25 Mar 2024 12:13
Operator : LL2
InstName : MSD1
Sample : |WBN240312-03.1|ICAL|1|SVM|1|M-3
Misc : MIX[A]
ALS Vial : 4 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:22:44 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	121988	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	435097	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.367	7.367	1.000	233582	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	483601	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	511707	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.422	13.427	1.000	568738	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.367	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.422	13.421	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.367	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.422	13.437	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.917	2.917	0.690	80940	19.54	ng/uL	0.00
8) Phenol-d5	99	3.789	3.794	0.896	110655	20.40	ng/uL	0.00
23) Nitrobenzene-d5	82	4.832	4.837	0.857	95155	19.75	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.730	6.736	0.914	195989	22.37	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.062	8.062	1.094	26113	19.03	ng/uL	0.00
79) p-Terphenyl-d14	244	9.998	10.004	1.154	263054	22.25	ng/uL	0.00

Target Compounds								QValue
2) 2-Ethoxyethanol	59	1.703	1.708	0.403	56131	19.32	ng/uL	97
3) N-Methyl-N-nitrosometh...	74	1.895	1.901	0.448	50017	17.82	ng/uL	96
4) Pyridine	79	1.938	1.938	0.458	77825	18.34	ng/uL	98
6) p-Benzoquinone	54	3.393	3.393	0.803	59559	18.47	ng/uL	99
7) Aniline	93	3.874	3.874	0.916	129496	20.06	ng/uL	97
9) Phenol	94	3.805	3.810	0.900	106111	20.11	ng/uL	98
10) bis(2-Chloroethyl) ether	93	3.928	3.933	0.929	88500	20.14	ng/uL	99
11) 2-Chlorophenol	128	3.997	3.997	0.946	83303	19.82	ng/uL	97
12) n-Decane	57	4.035	4.040	0.954	120540	20.10	ng/uL	94
13) 1,3-Dichlorobenzene	146	4.168	4.168	0.986	95810	20.26	ng/uL	98
14) 1,4-Dichlorobenzene	146	4.249	4.249	1.005	93094	20.01	ng/uL	97
15) 1,2-Dichlorobenzene	146	4.414	4.414	1.044	91860	20.07	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.505	4.511	1.066	160864	20.72	ng/uL	100
17) Benzyl alcohol	108	4.356	4.361	1.030	55420	19.30	ng/uL	96
18) o-Cresol	107	4.468	4.468	1.057	65879	19.75	ng/uL	97
19) m,p-Cresols	108	4.639	4.639	1.097	82047	19.99	ng/uL	96

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2504.D
Acq On : 25 Mar 2024 12:13
Operator : LL2
InstName : MSD1
Sample : |WBN240312-03.1|ICAL|1|SVM|1|M-3
Misc : MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 26 10:22:44 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
20) N-Nitrosodipropylamine	70	4.655	4.660	1.101	71930	20.28	ng/uL	95
21) Hexachloroethane	117	4.794	4.794	1.134	39173	19.20	ng/uL	82
24) Nitrobenzene	77	4.858	4.858	0.862	102514	20.74	ng/uL	96
25) Isophorone	82	5.126	5.126	0.909	189716	21.07	ng/uL	98
26) 2-Nitrophenol	139	5.217	5.217	0.925	30939	18.21	ng/uL	93
27) 2,4-Dimethylphenol	122	5.249	5.254	0.931	59959	21.34	ng/uL	94
28) bis(2-Chloroethoxy)met...	93	5.367	5.372	0.952	118102	21.46	ng/uL	99
29) 2,4-Dichlorophenol	162	5.474	5.479	0.971	76727	21.23	ng/uL	98
30) Benzoic acid	105	5.302	5.324	0.940	41795	20.77	ng/uL	92
31) 1,2,4-Trichlorobenzene	180	5.575	5.580	0.989	83375	20.83	ng/uL	97
32) alpha-Terpineol	59	5.671	5.671	1.006	89167	20.61	ng/uL	99
33) Naphthalene	128	5.666	5.666	1.005	228607	21.41	ng/uL	99
34) 4-Chloroaniline	127	5.714	5.714	1.013	91826	19.84	ng/uL	93
35) Hexachlorobutadiene	225	5.794	5.794	1.028	52050	20.22	ng/uL	98
36) 4-Chloro-3-methylphenol	107	6.206	6.206	1.101	73565	19.40	ng/uL	93
37) 2-Methylnaphthalene	142	6.377	6.377	1.131	166727	21.51	ng/uL	98
38) 1-Methylnaphthalene	142	6.474	6.474	1.148	140906	20.14	ng/uL	97
40) Hexachlorocyclopentadiene	237	6.527	6.527	0.886	50046	20.85	ng/uL	98
41) 2,3-Dichloroaniline	161	6.650	6.650	0.903	87744	20.66	ng/uL	93
42) 2,4,6-Trichlorophenol	196	6.645	6.645	0.902	59099	21.04	ng/uL	92
43) 2,4,5-Trichlorophenol	196	6.677	6.677	0.906	56685	20.43	ng/uL	99
45) 2-Chloronaphthalene	162	6.848	6.848	0.930	165476	22.05	ng/uL	98
46) o-Nitroaniline	65	6.939	6.939	0.942	52483	19.68	ng/uL	97
47) 1,4-Dinitrobenzene	168	7.067	7.067	0.959	15345	20.54	ng/uL	86
48) m-Nitroaniline	138	7.313	7.319	0.993	38707	19.83	ng/uL	94
49) Dimethylphthalate	163	7.110	7.110	0.965	188567	21.70	ng/uL	100
50) m-Dinitrobenzene	168	7.137	7.137	0.969	16856	17.19	ng/uL	98
51) 2,6-Dinitrotoluene	165	7.164	7.164	0.972	33966	19.79	ng/uL	98
52) 2,4-Dinitrotoluene	165	7.527	7.527	1.022	42213	18.74	ng/uL	91
53) Acenaphthylene	152	7.239	7.238	0.983	242540	22.01	ng/uL	99
54) Acenaphthene	153	7.394	7.394	1.004	157789	20.99	ng/uL	96
55) 2,4-Dinitrophenol	184	7.410	7.410	1.006	10474	22.04	ng/uL	92
56) Dibenzofuran	168	7.549	7.549	1.025	219504	22.34	ng/uL	96
57) 2,3,4,6-Tetrachlorophenol	232	7.650	7.650	1.038	47171	19.94	ng/uL	95
58) Diethylphthalate	149	7.741	7.741	1.051	196320	20.90	ng/uL	97
59) 4-Nitrophenol	109	7.447	7.452	1.011	28439	19.55	ng/uL	95
60) Fluorene	166	7.854	7.854	1.066	174995	21.15	ng/uL	100
61) 4-Chlorophenylphenylether	204	7.848	7.848	1.065	91112	21.58	ng/uL	97
62) p-Nitroaniline	138	7.859	7.859	1.067	36885	19.73	ng/uL	97
65) 2-Methyl-4,6-dinitroph...	198	7.880	7.886	0.909	17566	19.90	ng/uL	93
66) Diphenylamine	169	7.950	7.950	0.917	162551	21.57	ng/uL	99
67) 1,2-Diphenylhydrazine	77	7.987	7.987	0.922	220647	22.06	ng/uL	99
68) 4-Bromophenylphenylether	248	8.276	8.276	0.955	57806	20.12	ng/uL	93
69) Hexachlorobenzene	284	8.330	8.330	0.961	58888	19.54	ng/uL	88
70) Pentachlorophenol	266	8.495	8.495	0.980	38176	19.29	ng/uL	93
71) n-Octadecane	57	8.544	8.544	0.986	174928	21.47	ng/uL	99
72) Dinoseb	211	8.640	8.640	0.997	25413	19.56	ng/uL	100
73) Phenanthrene	178	8.688	8.688	1.002	259136	21.05	ng/uL	99
74) Anthracene	178	8.731	8.731	1.007	279909	22.07	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2504.D
Acq On : 25 Mar 2024 12:13
Operator : LL2
InstName : MSD1
Sample : |WBN240312-03.1|ICAL|1|SVM|1|M-3
Misc : MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 26 10:22:44 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

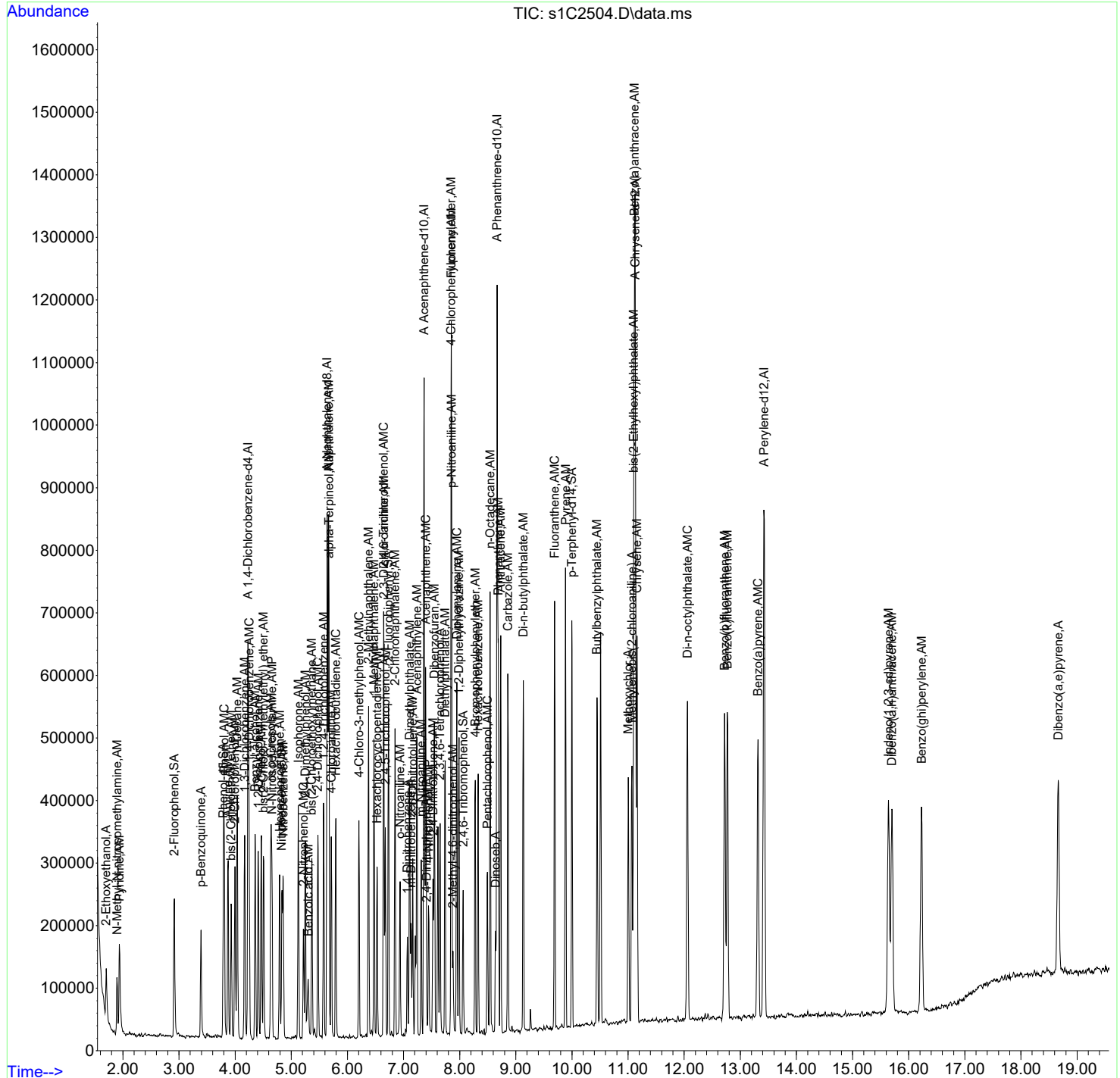
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
75) Carbazole	167	8.859	8.859	1.022	262503	20.19	ng/uL 99
76) Di-n-butylphthalate	149	9.132	9.132	1.054	345982	21.72	ng/uL 98
77) Fluoranthene	202	9.694	9.693	1.118	328444	21.23	ng/uL 96
78) Pyrene	202	9.886	9.886	1.141	348171	22.53	ng/uL 96
81) Butylbenzylphthalate	149	10.448	10.453	0.939	151818	20.03	ng/uL 100
82) bis(2-Ethylhexyl)phtha...	149	11.100	11.100	0.998	233323	20.67	ng/uL 99
83) Benzo(a)anthracene	228	11.116	11.116	0.999	320432	20.57	ng/uL 100
84) Chrysene	228	11.159	11.164	1.003	308772	21.56	ng/uL 97
85) Methoxychlor	227	11.004	11.004	0.989	180031	19.90	ng/uL 99
86) Methylenebis(2-chloroa...	231	11.068	11.068	0.995	66269	19.87	ng/uL 98
87) Di-n-octylphthalate	149	12.058	12.058	1.084	420890	21.59	ng/uL 98
89) Benzo(b)fluoranthene	252	12.721	12.726	0.948	357705	21.71	ng/uL 98
90) Benzo(k)fluoranthene	252	12.769	12.774	0.951	330177	21.22	ng/uL 99
91) Benzo(a)pyrene	252	13.315	13.320	0.992	327377	21.17	ng/uL 99
92) Indeno(1,2,3-cd)pyrene	276	15.641	15.652	1.165	320401	20.82	ng/uL 97
93) Dibenzo(a,h)anthracene	278	15.700	15.711	1.170	297998	20.88	ng/uL 98
94) Benzo(ghi)perylene	276	16.230	16.240	1.209	302941	21.06	ng/uL 97
95) Dibenzo(a,e)pyrene	302	18.669	18.674	1.391	247696	20.37	ng/uL 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : D:\MSDCHEM\1\Data\S032524ical\  
Data File : s1C2504.D  
Acq On : 25 Mar 2024 12:13  
Operator : LL2  
InstName : MSD1  
Sample : |WBN240312-03.1|ICAL|1|SVM|1|M-3  
Misc : MIX[A]  
ALS Vial : 4 Sample Multiplier: 1
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Quant Time: Mar 26 10:22:44 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2505.D
Acq On : 25 Mar 2024 12:38
Operator : LL2
InstName : MSD1
Sample : |WBN240312-04.1|ICAL|1|SVM|1|M-4
Misc : MIX[A]
ALS Vial : 5 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:01:53 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:01:52 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.233	4.233	1.000	120911	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.645	5.645	1.000	448266	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.367	7.367	1.000	236439	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	477349	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	493677	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.427	13.427	1.000	563998	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.233	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.367	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.427	13.421	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.367	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.427	13.437	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.917	2.917	0.689	160198	39.02	ng/uL	0.00
8) Phenol-d5	99	3.794	3.794	0.896	205889	38.30	ng/uL	0.00
23) Nitrobenzene-d5	82	4.837	4.837	0.857	196249	39.54	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.736	6.736	0.914	357790	40.35	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.062	8.062	1.094	56093	40.38	ng/uL	0.00
79) p-Terphenyl-d14	244	10.004	10.004	1.154	479505	41.08	ng/uL	0.00

Target Compounds								
2) 2-Ethoxyethanol	59	1.708	1.708	0.404	110493	38.37	ng/uL	100
3) N-Methyl-N-nitrosometh...	74	1.901	1.901	0.449	106969	38.44	ng/uL	100
4) Pyridine	79	1.938	1.938	0.458	159434	37.90	ng/uL	100
6) p-Benzoquinone	54	3.393	3.393	0.802	125491	39.26	ng/uL	100
7) Aniline	93	3.874	3.874	0.915	253390	39.60	ng/uL	100
9) Phenol	94	3.810	3.810	0.900	203488	38.91	ng/uL	100
10) bis(2-Chloroethyl) ether	93	3.933	3.933	0.929	167244	38.39	ng/uL	100
11) 2-Chlorophenol	128	3.997	3.997	0.944	164207	39.42	ng/uL	100
12) n-Decane	57	4.040	4.040	0.955	232018	39.04	ng/uL	100
13) 1,3-Dichlorobenzene	146	4.168	4.168	0.985	185659	39.61	ng/uL	100
14) 1,4-Dichlorobenzene	146	4.249	4.249	1.004	180618	39.17	ng/uL	100
15) 1,2-Dichlorobenzene	146	4.414	4.414	1.043	178259	39.30	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.511	4.511	1.066	302581	39.32	ng/uL	100
17) Benzyl alcohol	108	4.361	4.361	1.030	110483	38.82	ng/uL	100
18) o-Cresol	107	4.468	4.468	1.056	128351	38.82	ng/uL	100
19) m,p-Cresols	108	4.639	4.639	1.096	160170	39.37	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2505.D
Acq On : 25 Mar 2024 12:38
Operator : LL2
InstName : MSD1
Sample : |WBN240312-04.1|ICAL|1|SVM|1|M-4
Misc : MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 26 10:01:53 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:01:52 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
20) N-Nitrosodipropylamine	70	4.660	4.660	1.101	134473	38.25	ng/uL 100
21) Hexachloroethane	117	4.794	4.794	1.133	82553	40.81	ng/uL 100
24) Nitrobenzene	77	4.858	4.858	0.861	191977	37.70	ng/uL 100
25) Isophorone	82	5.126	5.126	0.908	365601	39.40	ng/uL 100
26) 2-Nitrophenol	139	5.217	5.217	0.924	66369	37.92	ng/uL 100
27) 2,4-Dimethylphenol	122	5.254	5.254	0.931	108461	37.48	ng/uL 100
28) bis(2-Chloroethoxy)met...	93	5.372	5.372	0.952	222080	39.17	ng/uL 100
29) 2,4-Dichlorophenol	162	5.479	5.479	0.971	141603	38.02	ng/uL 100
30) Benzoic acid	105	5.324	5.324	0.943	96107	36.74	ng/uL 100
31) 1,2,4-Trichlorobenzene	180	5.580	5.580	0.989	158925	38.54	ng/uL 100
32) alpha-Terpineol	59	5.671	5.671	1.005	174864	39.24	ng/uL 100
33) Naphthalene	128	5.666	5.666	1.004	433152	39.37	ng/uL 100
34) 4-Chloroaniline	127	5.714	5.714	1.012	191327	40.13	ng/uL 100
35) Hexachlorobutadiene	225	5.794	5.794	1.027	104361	39.35	ng/uL 100
36) 4-Chloro-3-methylphenol	107	6.206	6.206	1.099	154804	39.62	ng/uL 100
37) 2-Methylnaphthalene	142	6.377	6.377	1.130	302733	37.92	ng/uL 100
38) 1-Methylnaphthalene	142	6.474	6.474	1.147	273626	37.97	ng/uL 100
40) Hexachlorocyclopentadiene	237	6.527	6.527	0.886	95303	39.22	ng/uL 100
41) 2,3-Dichloroaniline	161	6.650	6.650	0.903	174009	40.48	ng/uL 100
42) 2,4,6-Trichlorophenol	196	6.645	6.645	0.902	111633	39.26	ng/uL 100
43) 2,4,5-Trichlorophenol	196	6.677	6.677	0.906	112966	40.22	ng/uL 100
45) 2-Chloronaphthalene	162	6.848	6.848	0.930	310716	40.90	ng/uL 100
46) o-Nitroaniline	65	6.939	6.939	0.942	109105	40.42	ng/uL 100
47) 1,4-Dinitrobenzene	168	7.067	7.067	0.959	30407	35.42	ng/uL 100
48) m-Nitroaniline	138	7.319	7.319	0.993	79980	40.48	ng/uL 100
49) Dimethylphthalate	163	7.110	7.110	0.965	356326	40.52	ng/uL 100
50) m-Dinitrobenzene	168	7.137	7.137	0.969	38276	38.56	ng/uL 100
51) 2,6-Dinitrotoluene	165	7.164	7.164	0.972	67253	38.70	ng/uL 100
52) 2,4-Dinitrotoluene	165	7.527	7.527	1.022	93328	40.94	ng/uL 100
53) Acenaphthylene	152	7.238	7.238	0.983	443469	39.76	ng/uL 100
54) Acenaphthene	153	7.394	7.394	1.004	306736	40.30	ng/uL 100
55) 2,4-Dinitrophenol	184	7.410	7.410	1.006	23593	36.17	ng/uL 100
56) Dibenzofuran	168	7.549	7.549	1.025	405441	40.76	ng/uL 100
57) 2,3,4,6-Tetrachlorophenol	232	7.650	7.650	1.038	97290	40.62	ng/uL 100
58) Diethylphthalate	149	7.741	7.741	1.051	368012	38.71	ng/uL 100
59) 4-Nitrophenol	109	7.452	7.452	1.012	56946	38.68	ng/uL 100
60) Fluorene	166	7.854	7.854	1.066	330620	39.48	ng/uL 100
61) 4-Chlorophenylphenylether	204	7.848	7.848	1.065	170964	40.01	ng/uL 100
62) p-Nitroaniline	138	7.859	7.859	1.067	72160	38.13	ng/uL 100
65) 2-Methyl-4,6-dinitroph...	198	7.886	7.886	0.910	35804	34.86	ng/uL 100
66) Diphenylamine	169	7.950	7.950	0.917	306702	41.24	ng/uL 100
67) 1,2-Diphenylhydrazine	77	7.987	7.987	0.922	403913	40.92	ng/uL 100
68) 4-Bromophenylphenylether	248	8.276	8.276	0.955	116613	41.12	ng/uL 100
69) Hexachlorobenzene	284	8.330	8.330	0.961	123749	41.60	ng/uL 100
70) Pentachlorophenol	266	8.495	8.495	0.980	75473	38.63	ng/uL 100
71) n-Octadecane	57	8.544	8.544	0.986	333494	41.46	ng/uL 100
72) Dinoseb	211	8.640	8.640	0.997	55564	35.20	ng/uL 100
73) Phenanthrene	178	8.688	8.688	1.002	487299	40.09	ng/uL 100
74) Anthracene	178	8.731	8.731	1.007	502845	40.17	ng/uL 100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2505.D
Acq On : 25 Mar 2024 12:38
Operator : LL2
InstName : MSD1
Sample : |WBN240312-04.1|ICAL|1|SVM|1|M-4
Misc : MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 26 10:01:53 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:01:52 2024
Response via : Initial Calibration
Integrator: RTE

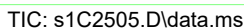
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
75) Carbazole	167	8.859	8.859	1.022	484524	37.76	ng/uL 100
76) Di-n-butylphthalate	149	9.132	9.132	1.054	623828	39.68	ng/uL 100
77) Fluoranthene	202	9.693	9.693	1.118	584193	38.25	ng/uL 100
78) Pyrene	202	9.886	9.886	1.141	608467	39.90	ng/uL 100
81) Butylbenzylphthalate	149	10.453	10.453	0.939	302424	41.36	ng/uL 100
82) bis(2-Ethylhexyl)phtha...	149	11.100	11.100	0.998	442599	40.65	ng/uL 100
83) Benzo(a)anthracene	228	11.116	11.116	0.999	591406	39.35	ng/uL 100
84) Chrysene	228	11.164	11.164	1.003	560569	40.57	ng/uL 100
85) Methoxychlor	227	11.004	11.004	0.989	351977	40.33	ng/uL 100
86) Methylenebis(2-chloroa...	231	11.068	11.068	0.995	129774	40.32	ng/uL 100
87) Di-n-octylphthalate	149	12.058	12.058	1.084	793299	42.18	ng/uL 100
89) Benzo(b)fluoranthene	252	12.726	12.726	0.948	627598	38.40	ng/uL 100
90) Benzo(k)fluoranthene	252	12.774	12.774	0.951	616270	39.94	ng/uL 100
91) Benzo(a)pyrene	252	13.320	13.320	0.992	599499	39.09	ng/uL 100
92) Indeno(1,2,3-cd)pyrene	276	15.652	15.652	1.166	596034	39.05	ng/uL 100
93) Dibenzo(a,h)anthracene	278	15.711	15.711	1.170	555915	39.27	ng/uL 100
94) Benzo(ghi)perylene	276	16.240	16.240	1.210	550545	38.59	ng/uL 100
95) Dibenzo(a,e)pyrene	302	18.674	18.674	1.391	484475	40.19	ng/uL 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

ALS Vial : 5 Sample Multiplier: 1

Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2506.D
Acq On : 25 Mar 2024 13:04
Operator : LL2
InstName : MSD1
Sample : |WBN240312-05|ICAL|1|SVM|1|M-5
Misc : MIX[A]
ALS Vial : 6 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:19:18 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.233	4.233	1.000	120955	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.645	5.645	1.000	447335	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.367	7.367	1.000	242230	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	494573	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.132	11.127	1.000	519881	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.427	13.427	1.000	601846	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.233	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.367	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.132	11.127	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.427	13.421	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.132	11.127	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.367	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.132	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.427	13.437	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.917	2.917	0.689	198444	48.32	ng/uL	0.00
8) Phenol-d5	99	3.794	3.794	0.896	266798	49.61	ng/uL	0.00
23) Nitrobenzene-d5	82	4.837	4.837	0.857	246023	49.67	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.736	6.736	0.914	454450	50.02	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.062	8.062	1.094	68697	48.27	ng/uL	0.00
79) p-Terphenyl-d14	244	10.004	10.004	1.154	608335	50.31	ng/uL	0.00

Target Compounds								
2) 2-Ethoxyethanol	59	1.703	1.708	0.402	144045	50.00	ng/uL	95
3) N-Methyl-N-nitrosometh...	74	1.895	1.901	0.448	141621	50.87	ng/uL	95
4) Pyridine	79	1.938	1.938	0.458	209691	49.83	ng/uL	99
6) p-Benzoquinone	54	3.393	3.393	0.802	162241	50.74	ng/uL	96
7) Aniline	93	3.874	3.874	0.915	322304	50.35	ng/uL	97
9) Phenol	94	3.810	3.810	0.900	254812	48.70	ng/uL	97
10) bis(2-Chloroethyl) ether	93	3.933	3.933	0.929	218324	50.10	ng/uL	100
11) 2-Chlorophenol	128	3.997	3.997	0.944	200223	48.05	ng/uL	95
12) n-Decane	57	4.040	4.040	0.955	297841	50.10	ng/uL	100
13) 1,3-Dichlorobenzene	146	4.168	4.168	0.985	238229	50.81	ng/uL	98
14) 1,4-Dichlorobenzene	146	4.249	4.249	1.004	232956	50.50	ng/uL	99
15) 1,2-Dichlorobenzene	146	4.415	4.414	1.043	226948	50.02	ng/uL	99
16) bis(2-Chloro-1-methyle...	45	4.511	4.511	1.066	384404	49.94	ng/uL	98
17) Benzyl alcohol	108	4.361	4.361	1.030	139848	49.12	ng/uL	97
18) o-Cresol	107	4.468	4.468	1.056	166394	50.31	ng/uL	98
19) m,p-Cresols	108	4.639	4.639	1.096	203003	49.88	ng/uL	98

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2506.D
Acq On : 25 Mar 2024 13:04
Operator : LL2
InstName : MSD1
Sample : |WBN240312-05|ICAL|1|SVM|1|M-5
Misc : MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 26 10:19:18 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
20) N-Nitrosodipropylamine	70	4.661	4.660	1.101	171304	48.71	ng/uL	97
21) Hexachloroethane	117	4.794	4.794	1.133	101553	50.19	ng/uL	93
24) Nitrobenzene	77	4.858	4.858	0.861	252504	49.69	ng/uL	97
25) Isophorone	82	5.131	5.126	0.909	457882	49.45	ng/uL	98
26) 2-Nitrophenol	139	5.222	5.217	0.925	88540	50.70	ng/uL	99
27) 2,4-Dimethylphenol	122	5.254	5.254	0.931	142165	49.22	ng/uL	97
28) bis(2-Chloroethoxy)met...	93	5.372	5.372	0.952	280531	49.59	ng/uL	96
29) 2,4-Dichlorophenol	162	5.479	5.479	0.971	184996	49.78	ng/uL	99
30) Benzoic acid	105	5.334	5.324	0.945	136532	49.00	ng/uL	99
31) 1,2,4-Trichlorobenzene	180	5.580	5.580	0.989	201795	49.04	ng/uL	98
32) alpha-Terpineol	59	5.671	5.671	1.005	219319	49.32	ng/uL	99
33) Naphthalene	128	5.666	5.666	1.004	548114	49.92	ng/uL	99
34) 4-Chloroaniline	127	5.714	5.714	1.012	231242	48.61	ng/uL	96
35) Hexachlorobutadiene	225	5.794	5.794	1.027	126712	47.88	ng/uL	99
36) 4-Chloro-3-methylphenol	107	6.206	6.206	1.099	201614	51.71	ng/uL	96
37) 2-Methylnaphthalene	142	6.377	6.377	1.130	385675	48.41	ng/uL	99
38) 1-Methylnaphthalene	142	6.474	6.474	1.147	346148	48.13	ng/uL	99
40) Hexachlorocyclopentadiene	237	6.527	6.527	0.886	123173	49.47	ng/uL	99
41) 2,3-Dichloroaniline	161	6.650	6.650	0.903	213193	48.41	ng/uL	97
42) 2,4,6-Trichlorophenol	196	6.645	6.645	0.902	143415	49.23	ng/uL	93
43) 2,4,5-Trichlorophenol	196	6.677	6.677	0.906	148822	51.72	ng/uL	95
45) 2-Chloronaphthalene	162	6.848	6.848	0.930	384341	49.38	ng/uL	96
46) o-Nitroaniline	65	6.939	6.939	0.942	136759	49.45	ng/uL	97
47) 1,4-Dinitrobenzene	168	7.073	7.067	0.960	41557	45.25	ng/uL	91
48) m-Nitroaniline	138	7.319	7.319	0.993	102049	50.41	ng/uL	95
49) Dimethylphthalate	163	7.110	7.110	0.965	448397	49.77	ng/uL	100
50) m-Dinitrobenzene	168	7.137	7.137	0.969	52170	51.30	ng/uL	96
51) 2,6-Dinitrotoluene	165	7.169	7.164	0.973	92860	52.16	ng/uL	97
52) 2,4-Dinitrotoluene	165	7.527	7.527	1.022	121787	52.14	ng/uL	92
53) Acenaphthylene	152	7.239	7.238	0.983	551191	48.24	ng/uL	99
54) Acenaphthene	153	7.394	7.394	1.004	378674	48.57	ng/uL	99
55) 2,4-Dinitrophenol	184	7.410	7.410	1.006	34830	47.49	ng/uL	93
56) Dibenzofuran	168	7.549	7.549	1.025	506498	49.70	ng/uL	99
57) 2,3,4,6-Tetrachlorophenol	232	7.650	7.650	1.038	121196	49.39	ng/uL	95
58) Diethylphthalate	149	7.741	7.741	1.051	477815	49.06	ng/uL	97
59) 4-Nitrophenol	109	7.453	7.452	1.012	76234	50.55	ng/uL	96
60) Fluorene	166	7.854	7.854	1.066	409058	47.68	ng/uL	99
61) 4-Chlorophenylphenylether	204	7.848	7.848	1.065	216768	49.51	ng/uL	99
62) p-Nitroaniline	138	7.864	7.859	1.068	98397	50.75	ng/uL	94
65) 2-Methyl-4,6-dinitroph...	198	7.886	7.886	0.910	51545	46.16	ng/uL	95
66) Diphenylamine	169	7.950	7.950	0.917	384844	49.94	ng/uL	100
67) 1,2-Diphenylhydrazine	77	7.987	7.987	0.922	508281	49.70	ng/uL	99
68) 4-Bromophenylphenylether	248	8.276	8.276	0.955	147430	50.18	ng/uL	95
69) Hexachlorobenzene	284	8.330	8.330	0.961	156406	50.75	ng/uL	99
70) Pentachlorophenol	266	8.496	8.495	0.980	102072	50.43	ng/uL	98
71) n-Octadecane	57	8.544	8.544	0.986	414819	49.78	ng/uL	98
72) Dinoseb	211	8.640	8.640	0.997	79911	46.27	ng/uL	100
73) Phenanthrene	178	8.688	8.688	1.002	613603	48.73	ng/uL	99
74) Anthracene	178	8.731	8.731	1.007	639890	49.34	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2506.D
Acq On : 25 Mar 2024 13:04
Operator : LL2
InstName : MSD1
Sample : |WBN240312-05|ICAL|1|SVM|1|M-5
Misc : MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 26 10:19:18 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

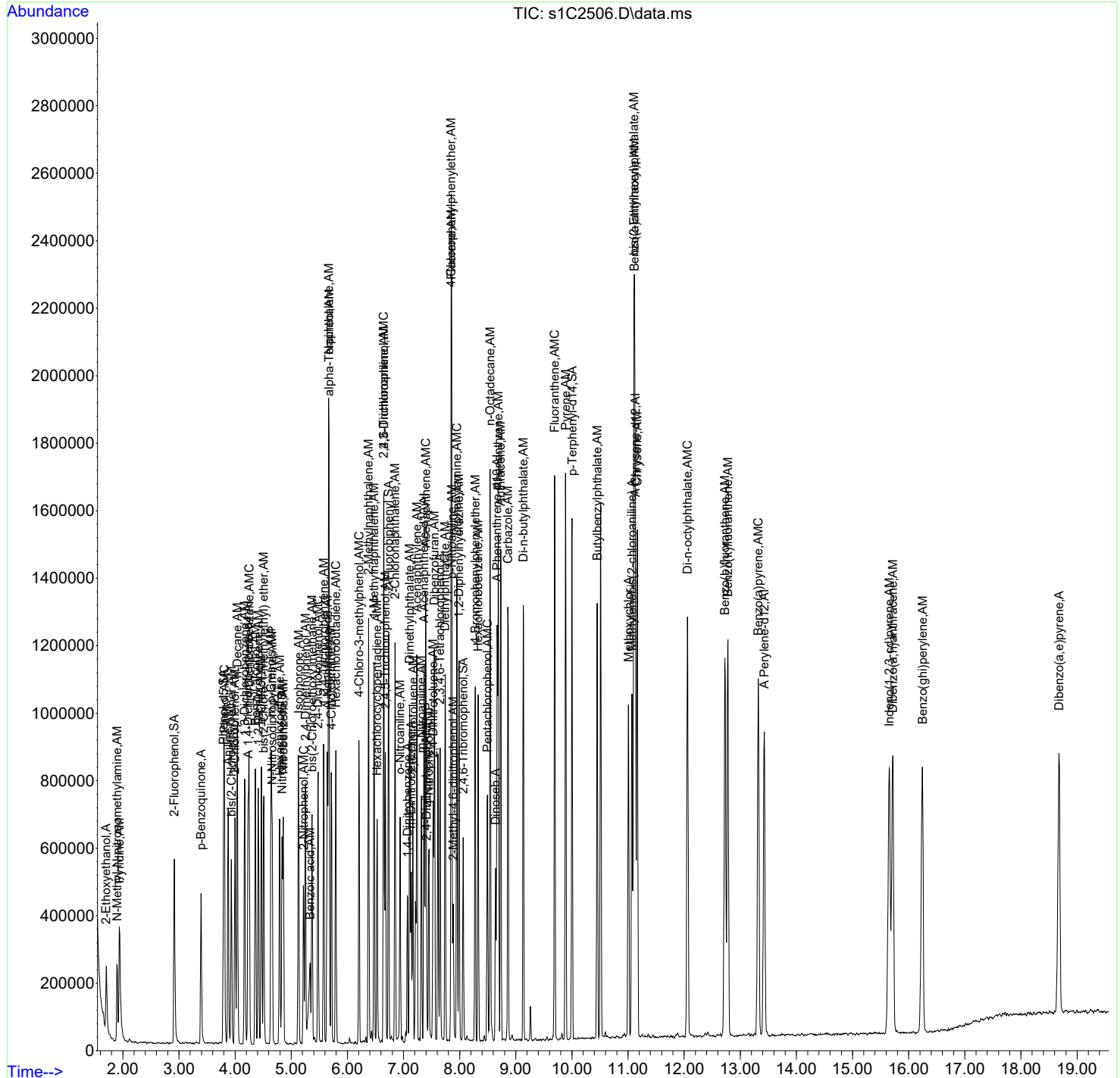
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
75) Carbazole	167	8.859	8.859	1.022	604409	45.46	ng/uL 100
76) Di-n-butylphthalate	149	9.132	9.132	1.054	779404	47.85	ng/uL 99
77) Fluoranthene	202	9.694	9.693	1.118	754432	47.67	ng/uL 99
78) Pyrene	202	9.886	9.886	1.141	776101	49.12	ng/uL 99
81) Butylbenzylphthalate	149	10.453	10.453	0.939	390679	50.74	ng/uL 98
82) bis(2-Ethylhexyl)phtha...	149	11.106	11.100	0.998	569743	49.69	ng/uL 100
83) Benzo(a)anthracene	228	11.116	11.116	0.999	771863	48.77	ng/uL 99
84) Chrysene	228	11.164	11.164	1.003	715496	49.17	ng/uL 99
85) Methoxychlor	227	11.009	11.004	0.989	477453	51.94	ng/uL 100
86) Methylenebis(2-chloroa...	231	11.068	11.068	0.994	165059	48.70	ng/uL 98
87) Di-n-octylphthalate	149	12.058	12.058	1.083	1001974	50.59	ng/uL 97
89) Benzo(b)fluoranthene	252	12.726	12.726	0.948	843091	48.35	ng/uL 99
90) Benzo(k)fluoranthene	252	12.780	12.774	0.952	790447	48.01	ng/uL 99
91) Benzo(a)pyrene	252	13.320	13.320	0.992	788424	48.18	ng/uL 99
92) Indeno(1,2,3-cd)pyrene	276	15.657	15.652	1.166	794737	48.79	ng/uL 100
93) Dibenzo(a,h)anthracene	278	15.716	15.711	1.170	734301	48.61	ng/uL 99
94) Benzo(ghi)perylene	276	16.246	16.240	1.210	752024	49.40	ng/uL 99
95) Dibenzo(a,e)pyrene	302	18.679	18.674	1.391	644813	50.12	ng/uL 99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDCHEM\1\Data\S032524ical\  
Data File : s1C2506.D  
Acq On : 25 Mar 2024 13:04  
Operator : LL2  
InstName : MSD1  
Sample : |WBN240312-05|ICAL|1|SVM|1|M-5  
Misc : MIX[A]  
ALS Vial : 6 Sample Multiplier: 1
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Quant Time: Mar 26 10:19:18 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2507.D
Acq On : 25 Mar 2024 13:29
Operator : LL2
InstName : MSD1
Sample : |WBN240312-06|ICAL|1|SVM|1|M-6
Misc : MIX[A]
ALS Vial : 7 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:02:08 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:02:07 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.233	4.233	1.000	119191	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.645	5.645	1.000	453731	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.367	7.367	1.000	240173	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	500614	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.132	11.127	1.000	528331	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.427	13.427	1.000	608649	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.233	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.367	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.132	11.127	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.427	13.421	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.132	11.127	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.367	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.132	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.427	13.437	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.917	2.917	0.689	328326	81.13	ng/uL	0.00
8) Phenol-d5	99	3.799	3.794	0.898	430848	81.30	ng/uL	0.00
23) Nitrobenzene-d5	82	4.837	4.837	0.857	407230	81.06	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.736	6.736	0.914	687886	76.36	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.068	8.062	1.095	116853	82.82	ng/uL	0.00
79) p-Terphenyl-d14	244	10.004	10.004	1.154	907874	74.17	ng/uL	0.00

Target Compounds								
2) 2-Ethoxyethanol	59	1.708	1.708	0.404	239689	84.43	ng/uL	97
3) N-Methyl-N-nitrosometh...	74	1.901	1.901	0.449	226133	82.44	ng/uL	98
4) Pyridine	79	1.943	1.938	0.459	350575	84.55	ng/uL	98
6) p-Benzoquinone	54	3.393	3.393	0.802	259631	82.41	ng/uL	95
7) Aniline	93	3.880	3.874	0.917	510257	80.89	ng/uL	97
9) Phenol	94	3.810	3.810	0.900	412545	80.02	ng/uL	98
10) bis(2-Chloroethyl) ether	93	3.933	3.933	0.929	349373	81.36	ng/uL	96
11) 2-Chlorophenol	128	4.003	3.997	0.946	340434	82.91	ng/uL	100
12) n-Decane	57	4.040	4.040	0.955	462610	78.96	ng/uL	98
13) 1,3-Dichlorobenzene	146	4.174	4.168	0.986	368526	79.77	ng/uL	99
14) 1,4-Dichlorobenzene	146	4.249	4.249	1.004	374119	82.31	ng/uL	99
15) 1,2-Dichlorobenzene	146	4.415	4.414	1.043	358127	80.09	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.511	4.511	1.066	596432	78.63	ng/uL	97
17) Benzyl alcohol	108	4.361	4.361	1.030	227763	81.19	ng/uL	98
18) o-Cresol	107	4.468	4.468	1.056	265168	81.36	ng/uL	99
19) m,p-Cresols	108	4.645	4.639	1.097	326764	81.48	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2507.D
Acq On : 25 Mar 2024 13:29
Operator : LL2
InstName : MSD1
Sample : |WBN240312-06|ICAL|1|SVM|1|M-6
Misc : MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 26 10:02:08 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:02:07 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
20) N-Nitrosodipropylamine	70	4.666	4.660	1.102	277412	80.05	ng/uL 95
21) Hexachloroethane	117	4.794	4.794	1.133	165425	82.96	ng/uL 96
24) Nitrobenzene	77	4.864	4.858	0.862	405545	78.68	ng/uL 99
25) Isophorone	82	5.131	5.126	0.909	724242	77.12	ng/uL 98
26) 2-Nitrophenol	139	5.222	5.217	0.925	144873	81.78	ng/uL 97
27) 2,4-Dimethylphenol	122	5.254	5.254	0.931	223536	76.31	ng/uL 99
28) bis(2-Chloroethoxy)met...	93	5.372	5.372	0.952	436723	76.11	ng/uL 95
29) 2,4-Dichlorophenol	162	5.479	5.479	0.971	297181	78.84	ng/uL 98
30) Benzoic acid	105	5.356	5.324	0.949	239684	79.10	ng/uL 98
31) 1,2,4-Trichlorobenzene	180	5.581	5.580	0.989	324048	77.65	ng/uL 97
32) alpha-Terpineol	59	5.671	5.671	1.005	350886	77.79	ng/uL 97
33) Naphthalene	128	5.666	5.666	1.004	821590	73.77	ng/uL 98
34) 4-Chloroaniline	127	5.720	5.714	1.013	372009	77.09	ng/uL 95
35) Hexachlorobutadiene	225	5.794	5.794	1.027	208697	77.75	ng/uL 98
36) 4-Chloro-3-methylphenol	107	6.206	6.206	1.099	313165	79.19	ng/uL 97
37) 2-Methylnaphthalene	142	6.377	6.377	1.130	605388	74.91	ng/uL 99
38) 1-Methylnaphthalene	142	6.474	6.474	1.147	549074	75.27	ng/uL 98
40) Hexachlorocyclopentadiene	237	6.533	6.527	0.887	196535	79.62	ng/uL 94
41) 2,3-Dichloroaniline	161	6.650	6.650	0.903	343025	78.55	ng/uL 96
42) 2,4,6-Trichlorophenol	196	6.650	6.645	0.903	223223	77.28	ng/uL 99
43) 2,4,5-Trichlorophenol	196	6.677	6.677	0.906	240150	84.17	ng/uL 98
45) 2-Chloronaphthalene	162	6.854	6.848	0.930	600945	77.87	ng/uL 96
46) o-Nitroaniline	65	6.939	6.939	0.942	234198	85.42	ng/uL 96
47) 1,4-Dinitrobenzene	168	7.073	7.067	0.960	77444	82.77	ng/uL 95
48) m-Nitroaniline	138	7.319	7.319	0.993	169871	84.63	ng/uL 98
49) Dimethylphthalate	163	7.116	7.110	0.966	675106	75.57	ng/uL 98
50) m-Dinitrobenzene	168	7.142	7.137	0.970	95223	94.44	ng/uL 87
51) 2,6-Dinitrotoluene	165	7.169	7.164	0.973	152652	86.48	ng/uL 96
52) 2,4-Dinitrotoluene	165	7.533	7.527	1.023	201661	87.08	ng/uL 93
53) Acenaphthylene	152	7.239	7.238	0.983	831582	73.40	ng/uL 97
54) Acenaphthene	153	7.399	7.394	1.004	588251	76.09	ng/uL 97
55) 2,4-Dinitrophenol	184	7.410	7.410	1.006	67062	82.33	ng/uL 87
56) Dibenzofuran	168	7.554	7.549	1.025	773617	76.57	ng/uL 96
57) 2,3,4,6-Tetrachlorophenol	232	7.656	7.650	1.039	195747	80.46	ng/uL 96
58) Diethylphthalate	149	7.747	7.741	1.052	722887	74.86	ng/uL 97
59) 4-Nitrophenol	109	7.453	7.452	1.012	123042	82.28	ng/uL 95
60) Fluorene	166	7.854	7.854	1.066	634256	74.56	ng/uL 98
61) 4-Chlorophenylphenylether	204	7.848	7.848	1.065	336129	77.43	ng/uL 98
62) p-Nitroaniline	138	7.864	7.859	1.068	160888	83.70	ng/uL 93
65) 2-Methyl-4,6-dinitroph...	198	7.891	7.886	0.911	94663	78.99	ng/uL 98
66) Diphenylamine	169	7.955	7.950	0.918	590844	75.75	ng/uL 97
67) 1,2-Diphenylhydrazine	77	7.987	7.987	0.922	768176	74.20	ng/uL 97
68) 4-Bromophenylphenylether	248	8.276	8.276	0.955	227209	76.40	ng/uL 94
69) Hexachlorobenzene	284	8.330	8.330	0.961	244705	78.44	ng/uL 96
70) Pentachlorophenol	266	8.496	8.495	0.980	168759	82.36	ng/uL 99
71) n-Octadecane	57	8.544	8.544	0.986	625634	74.17	ng/uL 97
72) Dinoseb	211	8.645	8.640	0.998	147893	79.05	ng/uL 96
73) Phenanthrene	178	8.688	8.688	1.002	913357	71.66	ng/uL 95
74) Anthracene	178	8.736	8.731	1.008	938475	71.48	ng/uL 96

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2507.D
Acq On : 25 Mar 2024 13:29
Operator : LL2
InstName : MSD1
Sample : |WBN240312-06|ICAL|1|SVM|1|M-6
Misc : MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 26 10:02:08 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:02:07 2024
Response via : Initial Calibration
Integrator: RTE

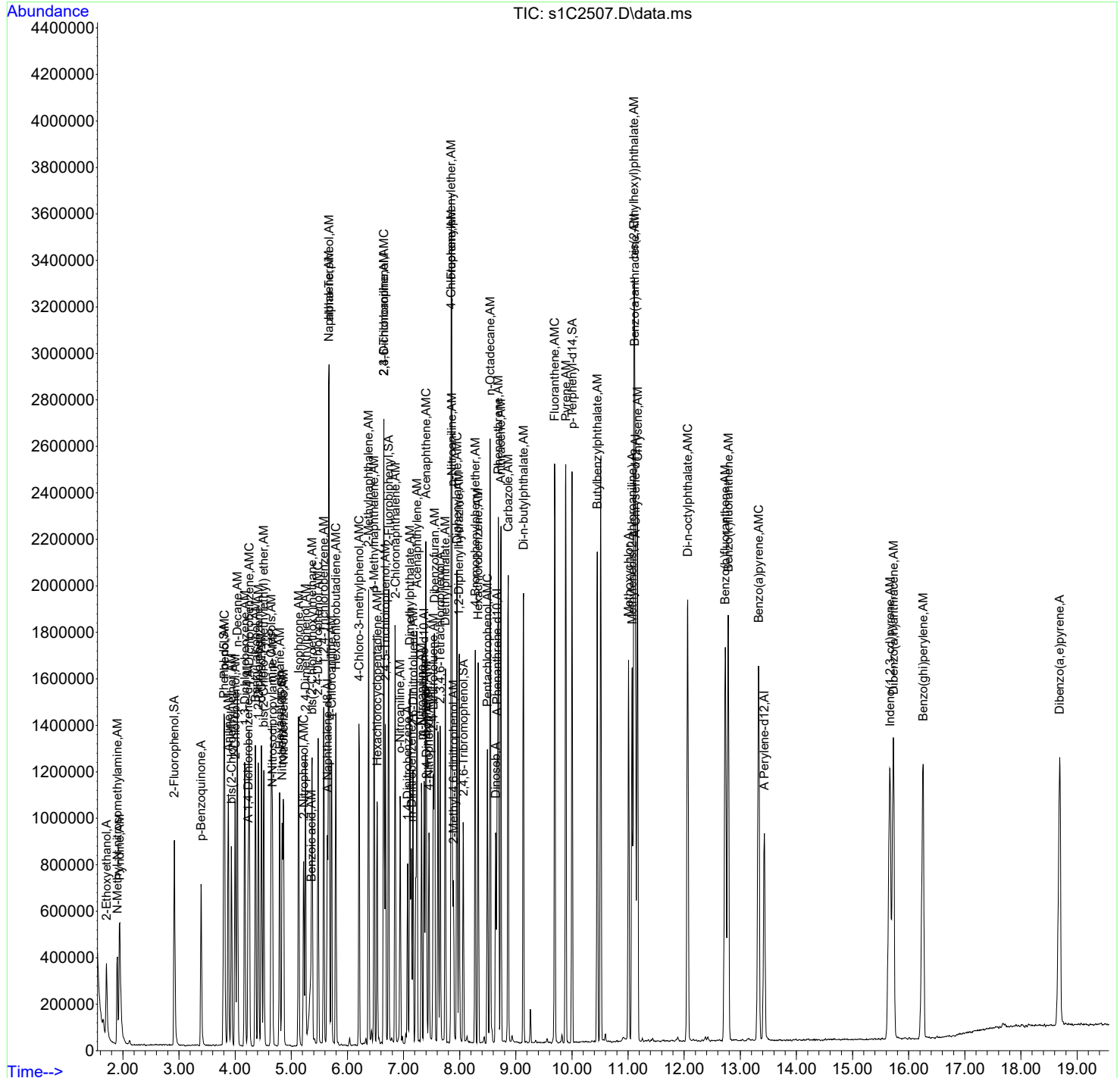
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
75) Carbazole	167	8.865	8.859	1.023	886154	65.85	ng/uL 96
76) Di-n-butylphthalate	149	9.137	9.132	1.054	1131316	68.62	ng/uL 96
77) Fluoranthene	202	9.694	9.693	1.118	1105780	69.03	ng/uL 97
78) Pyrene	202	9.892	9.886	1.141	1141685	71.38	ng/uL 97
81) Butylbenzylphthalate	149	10.453	10.453	0.939	610277	77.99	ng/uL 97
82) bis(2-Ethylhexyl)phtha...	149	11.106	11.100	0.998	868658	74.55	ng/uL 95
83) Benzo(a)anthracene	228	11.122	11.116	0.999	1158042	72.00	ng/uL 96
84) Chrysene	228	11.170	11.164	1.003	1101311	74.47	ng/uL 97
85) Methoxychlor	227	11.009	11.004	0.989	758618	81.21	ng/uL 99
86) Methylenebis(2-chloroa...	231	11.074	11.068	0.995	267260	77.60	ng/uL 98
87) Di-n-octylphthalate	149	12.063	12.058	1.084	1534749	76.24	ng/uL 96
89) Benzo(b)fluoranthene	252	12.732	12.726	0.948	1311439	74.36	ng/uL 98
90) Benzo(k)fluoranthene	252	12.785	12.774	0.952	1210843	72.72	ng/uL 96
91) Benzo(a)pyrene	252	13.325	13.320	0.992	1240553	74.96	ng/uL 99
92) Indeno(1,2,3-cd)pyrene	276	15.668	15.652	1.167	1271873	77.22	ng/uL 100
93) Dibenzo(a,h)anthracene	278	15.727	15.711	1.171	1162457	76.10	ng/uL 100
94) Benzo(ghi)perylene	276	16.256	16.240	1.211	1156324	75.11	ng/uL 96
95) Dibenzo(a,e)pyrene	302	18.690	18.674	1.392	1009382	77.58	ng/uL 99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2507.D
Acq On : 25 Mar 2024 13:29
Operator : LL2
InstName : MSD1
Sample : |WBN240312-06|ICAL|1|SVM|1|M-6
Misc : MIX[A]
ALS Vial : 7 Sample Multiplier: 1
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Quant Time: Mar 26 10:02:08 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:02:07 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2508.D
Acq On : 25 Mar 2024 13:54
Operator : LL2
InstName : MSD1
Sample : |WBN240312-07|ICAL|1|SVM|1|M-7
Misc : MIX[A]
ALS Vial : 8 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:02:17 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:02:17 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.233	4.233	1.000	117816	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.645	5.645	1.000	438403	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.367	7.367	1.000	238837	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.672	8.667	1.000	477989	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.138	11.127	1.000	501948	40.00	ng/uL	0.01
88) A Perylene-d12	264	13.427	13.427	1.000	597566	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.233	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.367	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.672	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.138	11.127	1.000	0m	40.00	ng/uL	0.01
149) B Perylene-d12	264	13.427	13.421	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.672	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.138	11.127	1.000	0m	40.00	ng/uL	0.01
160) D Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.367	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.672	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.138	11.127	1.000	0m	40.00	ng/uL	0.01
173) E Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.427	13.437	1.000	0m	40.00	ng/uL	-0.01
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.917	2.917	0.689	398691	99.67	ng/uL	0.00
8) Phenol-d5	99	3.799	3.794	0.898	511007	97.55	ng/uL	0.00
23) Nitrobenzene-d5	82	4.837	4.837	0.857	480015	98.88	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.736	6.736	0.914	793942	88.63	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.068	8.062	1.095	139287	99.27	ng/uL	0.00
79) p-Terphenyl-d14	244	10.004	10.004	1.154	1047417	89.62	ng/uL	0.00
Target Compounds								QValue
2) 2-Ethoxyethanol	59	1.703	1.708	0.402	291800	103.98	ng/uL	95
3) N-Methyl-N-nitrosometh...	74	1.895	1.901	0.448	280691	103.52	ng/uL	99
4) Pyridine	79	1.938	1.938	0.458	439970	107.35	ng/uL	99
6) p-Benzoquinone	54	3.393	3.393	0.802	312175	100.24	ng/uL	98
7) Aniline	93	3.880	3.874	0.917	590002	94.62	ng/uL	96
9) Phenol	94	3.810	3.810	0.900	485109	95.19	ng/uL	98
10) bis(2-Chloroethyl) ether	93	3.933	3.933	0.929	404710	95.35	ng/uL	99
11) 2-Chlorophenol	128	4.003	3.997	0.946	392137	96.62	ng/uL	99
12) n-Decane	57	4.040	4.040	0.955	543593	93.87	ng/uL	98
13) 1,3-Dichlorobenzene	146	4.168	4.168	0.985	442096	96.81	ng/uL	99
14) 1,4-Dichlorobenzene	146	4.249	4.249	1.004	435755	96.99	ng/uL	98
15) 1,2-Dichlorobenzene	146	4.414	4.414	1.043	416367	94.21	ng/uL	98
16) bis(2-Chloro-1-methyle...	45	4.511	4.511	1.066	700098	93.37	ng/uL	96
17) Benzyl alcohol	108	4.361	4.361	1.030	268005	96.65	ng/uL	98
18) o-Cresol	107	4.468	4.468	1.056	317699	98.61	ng/uL	98
19) m,p-Cresols	108	4.644	4.639	1.097	385004	97.12	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2508.D
Acq On : 25 Mar 2024 13:54
Operator : LL2
InstName : MSD1
Sample : |WBN240312-07|ICAL|1|SVM|1|M-7
Misc : MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 26 10:02:17 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:02:17 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
20) N-Nitrosodipropylamine	70	4.666	4.660	1.102	338019	98.68	ng/uL	95
21) Hexachloroethane	117	4.794	4.794	1.133	190525	96.66	ng/uL	91
24) Nitrobenzene	77	4.864	4.858	0.862	475086	95.39	ng/uL	99
25) Isophorone	82	5.131	5.126	0.909	841343	92.72	ng/uL	96
26) 2-Nitrophenol	139	5.222	5.217	0.925	190739	111.44	ng/uL	95
27) 2,4-Dimethylphenol	122	5.254	5.254	0.931	271025	95.75	ng/uL	96
28) bis(2-Chloroethoxy)met...	93	5.372	5.372	0.952	516124	93.09	ng/uL	97
29) 2,4-Dichlorophenol	162	5.479	5.479	0.971	354514	97.34	ng/uL	98
30) Benzoic acid	105	5.367	5.324	0.951	303872	101.35	ng/uL	98
31) 1,2,4-Trichlorobenzene	180	5.580	5.580	0.989	379921	94.22	ng/uL	96
32) alpha-Terpineol	59	5.671	5.671	1.005	415064	95.23	ng/uL	97
33) Naphthalene	128	5.666	5.666	1.004	958587	89.08	ng/uL	97
34) 4-Chloroaniline	127	5.720	5.714	1.013	438143	93.97	ng/uL	98
35) Hexachlorobutadiene	225	5.794	5.794	1.027	246675	95.11	ng/uL	95
36) 4-Chloro-3-methylphenol	107	6.212	6.206	1.100	376621	98.57	ng/uL	97
37) 2-Methylnaphthalene	142	6.377	6.377	1.130	713003	91.31	ng/uL	98
38) 1-Methylnaphthalene	142	6.479	6.474	1.148	629633	89.33	ng/uL	98
40) Hexachlorocyclopentadiene	237	6.533	6.527	0.887	232863	94.86	ng/uL	96
41) 2,3-Dichloroaniline	161	6.650	6.650	0.903	400570	92.25	ng/uL	98
42) 2,4,6-Trichlorophenol	196	6.650	6.645	0.903	282650	98.40	ng/uL	96
43) 2,4,5-Trichlorophenol	196	6.677	6.677	0.906	265446	93.56	ng/uL	98
45) 2-Chloronaphthalene	162	6.853	6.848	0.930	682980	88.99	ng/uL	93
46) o-Nitroaniline	65	6.944	6.939	0.943	277822	101.89	ng/uL	94
47) 1,4-Dinitrobenzene	168	7.073	7.067	0.960	97543	103.77	ng/uL	92
48) m-Nitroaniline	138	7.324	7.319	0.994	202619	101.51	ng/uL	99
49) Dimethylphthalate	163	7.116	7.110	0.966	796591	89.67	ng/uL	98
50) m-Dinitrobenzene	168	7.142	7.137	0.970	106777	106.49	ng/uL	97
51) 2,6-Dinitrotoluene	165	7.169	7.164	0.973	179263	102.12	ng/uL	97
52) 2,4-Dinitrotoluene	165	7.533	7.527	1.023	246127	106.87	ng/uL	95
53) Acenaphthylene	152	7.239	7.238	0.983	952863	84.57	ng/uL	94
54) Acenaphthene	153	7.399	7.394	1.004	692487	90.08	ng/uL	96
55) 2,4-Dinitrophenol	184	7.415	7.410	1.007	82110	98.94	ng/uL	90
56) Dibenzofuran	168	7.554	7.549	1.025	884704	88.05	ng/uL	95
57) 2,3,4,6-Tetrachlorophenol	232	7.656	7.650	1.039	242602	100.28	ng/uL	98
58) Diethylphthalate	149	7.747	7.741	1.052	842943	87.78	ng/uL	96
59) 4-Nitrophenol	109	7.458	7.452	1.012	152247	102.38	ng/uL	97
60) Fluorene	166	7.859	7.854	1.067	731459	86.46	ng/uL	99
61) 4-Chlorophenylphenylether	204	7.854	7.848	1.066	401344	92.97	ng/uL	98
62) p-Nitroaniline	138	7.870	7.859	1.068	200069	104.66	ng/uL	92
65) 2-Methyl-4,6-dinitroph...	198	7.891	7.886	0.910	123144	105.49	ng/uL	97
66) Diphenylamine	169	7.955	7.950	0.917	675789	90.74	ng/uL	96
67) 1,2-Diphenylhydrazine	77	7.993	7.987	0.922	902276	91.28	ng/uL	96
68) 4-Bromophenylphenylether	248	8.276	8.276	0.954	270936	95.42	ng/uL	95
69) Hexachlorobenzene	284	8.330	8.330	0.961	286533	96.20	ng/uL	96
70) Pentachlorophenol	266	8.495	8.495	0.980	206776	105.70	ng/uL	98
71) n-Octadecane	57	8.544	8.544	0.985	735009	91.26	ng/uL	97
72) Dinoseb	211	8.645	8.640	0.997	188901	103.49	ng/uL	99
73) Phenanthrene	178	8.693	8.688	1.002	1047321	86.06	ng/uL	93
74) Anthracene	178	8.736	8.731	1.007	1070585	85.41	ng/uL	94

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2508.D
Acq On : 25 Mar 2024 13:54
Operator : LL2
InstName : MSD1
Sample : |WBN240312-07|ICAL|1|SVM|1|M-7
Misc : MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 26 10:02:17 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:02:17 2024
Response via : Initial Calibration
Integrator: RTE

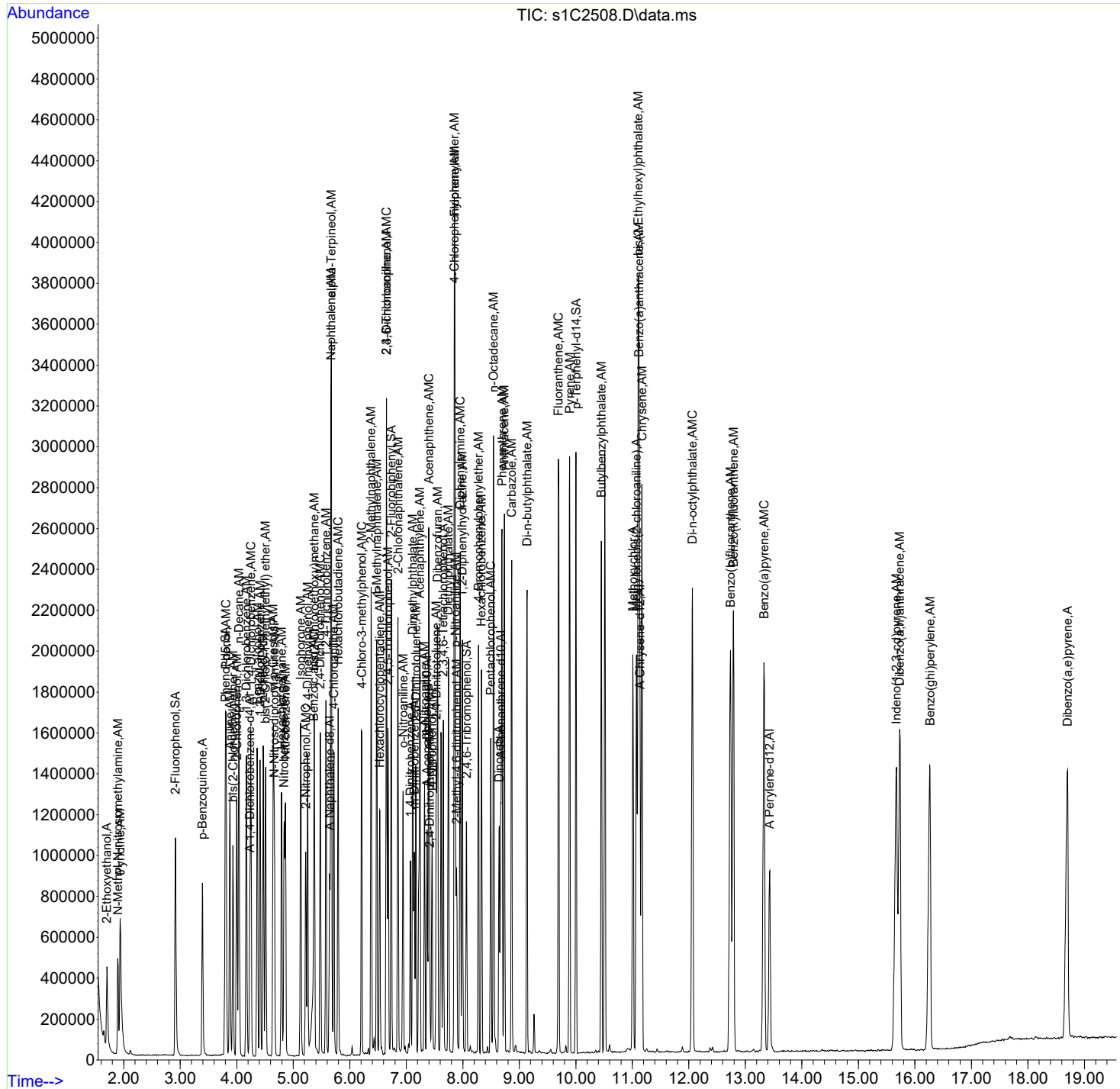
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
75) Carbazole	167	8.865	8.859	1.022	1022620	79.58	ng/uL	93
76) Di-n-butylphthalate	149	9.137	9.132	1.054	1278101	81.19	ng/uL	94
77) Fluoranthene	202	9.694	9.693	1.118	1251559	81.83	ng/uL	95
78) Pyrene	202	9.891	9.886	1.141	1294482	84.77	ng/uL	94
81) Butylbenzylphthalate	149	10.453	10.453	0.939	729222	98.09	ng/uL	98
82) bis(2-Ethylhexyl)phtha...	149	11.106	11.100	0.997	1015382	91.72	ng/uL	94
83) Benzo(a)anthracene	228	11.122	11.116	0.999	1357408	88.83	ng/uL	94
84) Chrysene	228	11.170	11.164	1.003	1302805	92.73	ng/uL	95
85) Methoxychlor	227	11.009	11.004	0.988	921587	103.85	ng/uL	97
86) Methylenebis(2-chloroa...	231	11.073	11.068	0.994	316674	96.78	ng/uL	98
87) Di-n-octylphthalate	149	12.063	12.058	1.083	1821945	95.27	ng/uL	95
89) Benzo(b)fluoranthene	252	12.737	12.726	0.949	1564769	90.37	ng/uL	98
90) Benzo(k)fluoranthene	252	12.790	12.774	0.953	1461633	89.41	ng/uL	96
91) Benzo(a)pyrene	252	13.331	13.320	0.993	1496268	92.08	ng/uL	99
92) Indeno(1,2,3-cd)pyrene	276	15.673	15.652	1.167	1604602	99.22	ng/uL	98
93) Dibenzo(a,h)anthracene	278	15.732	15.711	1.172	1417992	94.55	ng/uL	98
94) Benzo(ghi)perylene	276	16.267	16.240	1.212	1446708	95.72	ng/uL	97
95) Dibenzo(a,e)pyrene	302	18.701	18.674	1.393	1245453	97.50	ng/uL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

ALS Vial : 8 Sample Multiplier: 1

Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2509.D
Acq On : 25 Mar 2024 14:19
Operator : LL2
InstName : MSD1
Sample : |WBN240312-08|ICAL|1|SVM|1|M-8
Misc : MIX[A]
ALS Vial : 9 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:02:26 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:02:26 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.233	4.233	1.000	107916	40.00	ng/uL	# 0.00
22) A Naphthalene-d8	136	5.645	5.645	1.000	411465	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.367	7.367	1.000	226959	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.672	8.667	1.000	465268	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.138	11.127	1.000	479242	40.00	ng/uL	0.01
88) A Perylene-d12	264	13.432	13.427	1.000	547773	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.233	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.367	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.672	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.138	11.127	1.000	0m	40.00	ng/uL	0.01
149) B Perylene-d12	264	13.432	13.421	1.000	0m	40.00	ng/uL	0.01
152) J Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.672	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.138	11.127	1.000	0m	40.00	ng/uL	0.01
160) D Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.367	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.672	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.138	11.127	1.000	0m	40.00	ng/uL	0.01
173) E Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.432	13.437	1.000	0m	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.917	2.917	0.689	457595	124.88	ng/uL	0.00 A
8) Phenol-d5	99	3.799	3.794	0.898	597462	124.52	ng/uL	0.00 A
23) Nitrobenzene-d5	82	4.842	4.837	0.858	563599	123.70	ng/uL	0.00 A
44) 2-Fluorobiphenyl	172	6.736	6.736	0.914	897842	105.47	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.068	8.062	1.095	162820	122.11	ng/uL	0.00 A
79) p-Terphenyl-d14	244	10.004	10.004	1.154	1166575	102.55	ng/uL	0.00
Target Compounds								QValue
2) 2-Ethoxyethanol	59	1.708	1.708	0.404	329439	128.16	ng/uL	96 A
3) N-Methyl-N-nitrosometh...	74	1.901	1.901	0.449	320519	129.05	ng/uL	99 A
4) Pyridine	79	1.938	1.938	0.458	503964	134.24	ng/uL	99 A
6) p-Benzoquinone	54	3.393	3.393	0.802	363426	127.40	ng/uL	98 A
7) Aniline	93	3.880	3.874	0.917	688135	120.49	ng/uL	97 A
9) Phenol	94	3.816	3.810	0.901	556178	119.14	ng/uL	97
10) bis(2-Chloroethyl) ether	93	3.933	3.933	0.929	465600	119.76	ng/uL	99
11) 2-Chlorophenol	128	4.003	3.997	0.946	454110	122.15	ng/uL	97 A
12) n-Decane	57	4.040	4.040	0.955	626608	118.13	ng/uL	99
13) 1,3-Dichlorobenzene	146	4.174	4.168	0.986	506980	121.20	ng/uL	99 A
14) 1,4-Dichlorobenzene	146	4.249	4.249	1.004	502632	122.14	ng/uL	97 A
15) 1,2-Dichlorobenzene	146	4.415	4.414	1.043	492037	121.54	ng/uL	99 A
16) bis(2-Chloro-1-methyle...	45	4.511	4.511	1.066	786638	114.54	ng/uL	95
17) Benzyl alcohol	108	4.366	4.361	1.032	308202	121.34	ng/uL	96 A
18) o-Cresol	107	4.473	4.468	1.057	374854	127.03	ng/uL	95 A
19) m,p-Cresols	108	4.650	4.639	1.099	437773	120.56	ng/uL	97 A

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2509.D
Acq On : 25 Mar 2024 14:19
Operator : LL2
InstName : MSD1
Sample : |WBN240312-08|ICAL|1|SVM|1|M-8
Misc : MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 26 10:02:26 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:02:26 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
20) N-Nitrosodipropylamine	70	4.666	4.660	1.102	391826	124.88	ng/uL	95 A
21) Hexachloroethane	117	4.794	4.794	1.133	223901	124.02	ng/uL	91 A
24) Nitrobenzene	77	4.864	4.858	0.862	553579	118.43	ng/uL	99
25) Isophorone	82	5.131	5.126	0.909	958345	112.53	ng/uL	97
26) 2-Nitrophenol	139	5.222	5.217	0.925	215363	134.07	ng/uL	99 A
27) 2,4-Dimethylphenol	122	5.254	5.254	0.931	309471	116.49	ng/uL	97
28) bis(2-Chloroethoxy)met...	93	5.372	5.372	0.952	589371	113.26	ng/uL	95
29) 2,4-Dichlorophenol	162	5.479	5.479	0.971	404136	118.23	ng/uL	97
30) Benzoic acid	105	5.377	5.324	0.953	364143	127.24	ng/uL	97 A
31) 1,2,4-Trichlorobenzene	180	5.581	5.580	0.989	438933	115.98	ng/uL	97
32) alpha-Terpineol	59	5.677	5.671	1.006	477175	116.65	ng/uL	97
33) Naphthalene	128	5.666	5.666	1.004	1065914	105.54	ng/uL	94
34) 4-Chloroaniline	127	5.720	5.714	1.013	506970	115.85	ng/uL	97
35) Hexachlorobutadiene	225	5.794	5.794	1.027	282962	116.24	ng/uL	93
36) 4-Chloro-3-methylphenol	107	6.212	6.206	1.100	419933	117.10	ng/uL	96
37) 2-Methylnaphthalene	142	6.377	6.377	1.130	801156	109.32	ng/uL	99
38) 1-Methylnaphthalene	142	6.479	6.474	1.148	721244	109.03	ng/uL	98
40) Hexachlorocyclopentadiene	237	6.533	6.527	0.887	273563	117.27	ng/uL	99
41) 2,3-Dichloroaniline	161	6.650	6.650	0.903	454050	110.03	ng/uL	93
42) 2,4,6-Trichlorophenol	196	6.650	6.645	0.903	322480	118.14	ng/uL	96
43) 2,4,5-Trichlorophenol	196	6.682	6.677	0.907	309893	114.94	ng/uL	98
45) 2-Chloronaphthalene	162	6.854	6.848	0.930	776642	106.49	ng/uL	93
46) o-Nitroaniline	65	6.944	6.939	0.943	317634	122.59	ng/uL	92 A
47) 1,4-Dinitrobenzene	168	7.073	7.067	0.960	118201	131.22	ng/uL	90 A
48) m-Nitroaniline	138	7.324	7.319	0.994	239588	126.31	ng/uL	98 A
49) Dimethylphthalate	163	7.116	7.110	0.966	887167	105.09	ng/uL	97
50) m-Dinitrobenzene	168	7.142	7.137	0.970	129907	136.34	ng/uL	93 A
51) 2,6-Dinitrotoluene	165	7.169	7.164	0.973	209663	125.69	ng/uL	98 A
52) 2,4-Dinitrotoluene	165	7.533	7.527	1.023	275983	126.11	ng/uL	96 A
53) Acenaphthylene	152	7.244	7.238	0.983	1071630	100.09	ng/uL	95
54) Acenaphthene	153	7.399	7.394	1.004	798013	109.24	ng/uL	97
55) 2,4-Dinitrophenol	184	7.415	7.410	1.007	99272	123.02	ng/uL	93 A
56) Dibenzofuran	168	7.554	7.549	1.025	977283	102.36	ng/uL	93
57) 2,3,4,6-Tetrachlorophenol	232	7.656	7.650	1.039	277554	120.73	ng/uL	95 A
58) Diethylphthalate	149	7.747	7.741	1.052	945174	103.58	ng/uL	96
59) 4-Nitrophenol	109	7.458	7.452	1.012	173838	123.02	ng/uL	97 A
60) Fluorene	166	7.859	7.854	1.067	824001	102.50	ng/uL	99
61) 4-Chlorophenylphenylether	204	7.854	7.848	1.066	456407	111.26	ng/uL	98
62) p-Nitroaniline	138	7.870	7.859	1.068	226275	124.57	ng/uL	94 A
65) 2-Methyl-4,6-dinitroph...	198	7.891	7.886	0.910	141152	123.19	ng/uL	93 A
66) Diphenylamine	169	7.955	7.950	0.917	775265	106.94	ng/uL	97
67) 1,2-Diphenylhydrazine	77	7.993	7.987	0.922	989743	102.87	ng/uL	93
68) 4-Bromophenylphenylether	248	8.276	8.276	0.954	310791	112.45	ng/uL	96
69) Hexachlorobenzene	284	8.335	8.330	0.961	329866	113.77	ng/uL	96
70) Pentachlorophenol	266	8.496	8.495	0.980	235893	123.88	ng/uL	99 A
71) n-Octadecane	57	8.544	8.544	0.985	825868	105.34	ng/uL	98
72) Dinoseb	211	8.645	8.640	0.997	224523	124.89	ng/uL	100 A
73) Phenanthrene	178	8.693	8.688	1.002	1171453	98.89	ng/uL	93
74) Anthracene	178	8.736	8.731	1.007	1202850	98.58	ng/uL	93

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2509.D
Acq On : 25 Mar 2024 14:19
Operator : LL2
InstName : MSD1
Sample : |WBN240312-08|ICAL|1|SVM|1|M-8
Misc : MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 26 10:02:26 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:02:26 2024
Response via : Initial Calibration
Integrator: RTE

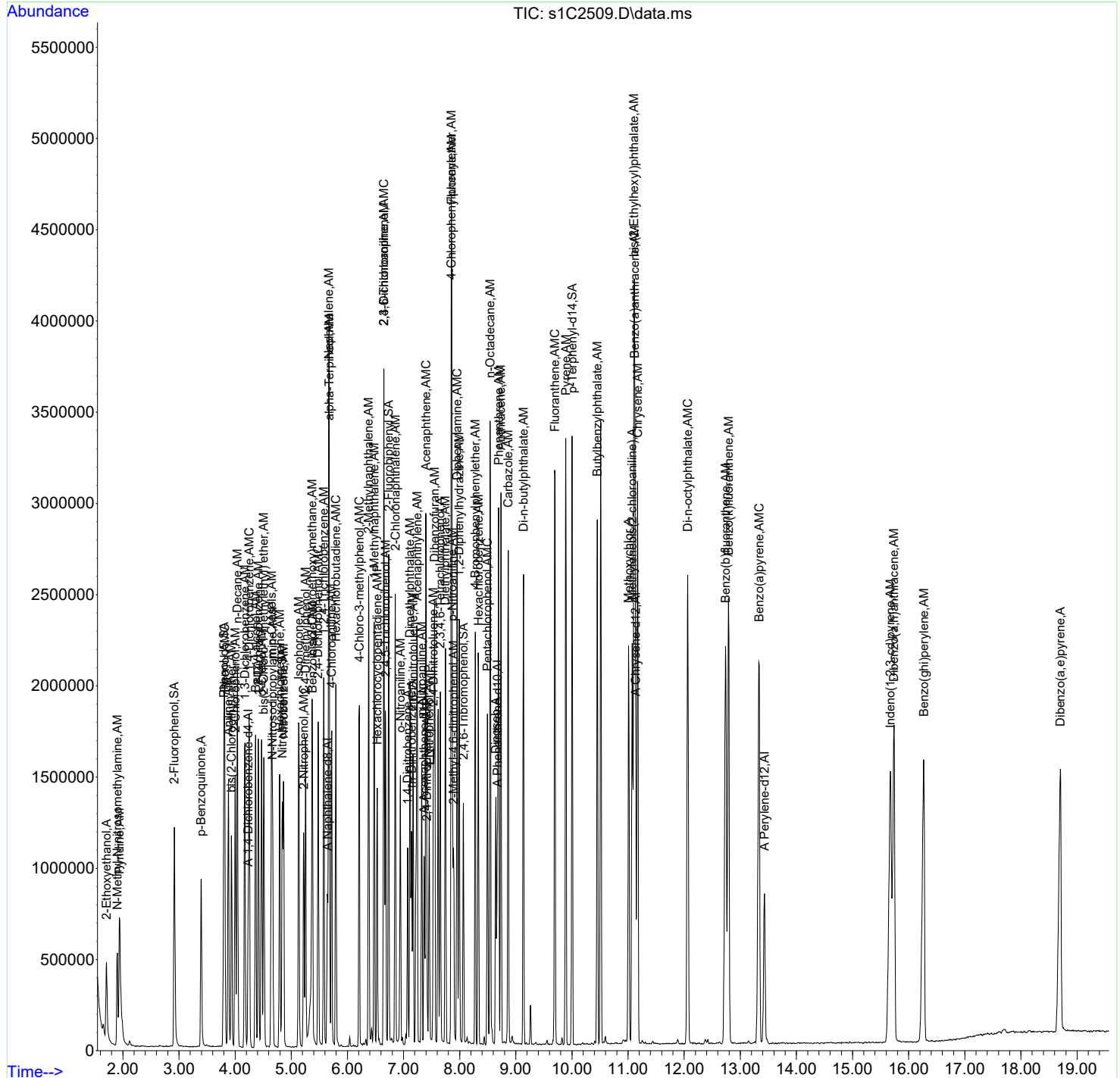
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
75) Carbazole	167	8.865	8.859	1.022	1148876	94.61	ng/uL	92
76) Di-n-butylphthalate	149	9.137	9.132	1.054	1412487	92.18	ng/uL	92
77) Fluoranthene	202	9.699	9.693	1.118	1387930	93.23	ng/uL	93
78) Pyrene	202	9.892	9.886	1.141	1421926	95.66	ng/uL	93
81) Butylbenzylphthalate	149	10.453	10.453	0.939	831723	117.18	ng/uL	99
82) bis(2-Ethylhexyl)phtha...	149	11.106	11.100	0.997	1138984	107.76	ng/uL	92
83) Benzo(a)anthracene	228	11.122	11.116	0.999	1511833	103.62	ng/uL	94
84) Chrysene	228	11.170	11.164	1.003	1430023	106.61	ng/uL	93
85) Methoxychlor	227	11.009	11.004	0.988	1024923	120.96	ng/uL	97 A
86) Methylenebis(2-chloroa...	231	11.074	11.068	0.994	359601	115.10	ng/uL	98
87) Di-n-octylphthalate	149	12.063	12.058	1.083	1999279	109.49	ng/uL	95
89) Benzo(b)fluoranthene	252	12.737	12.726	0.948	1789086	112.72	ng/uL	97
90) Benzo(k)fluoranthene	252	12.791	12.774	0.952	1592867	106.30	ng/uL	95
91) Benzo(a)pyrene	252	13.336	13.320	0.993	1689581	113.43	ng/uL	99
92) Indeno(1,2,3-cd)pyrene	276	15.673	15.652	1.167	1756218	118.47	ng/uL	98
93) Dibenzo(a,h)anthracene	278	15.738	15.711	1.172	1572775	114.40	ng/uL	97
94) Benzo(ghi)perylene	276	16.267	16.240	1.211	1616923	116.70	ng/uL	98
95) Dibenzo(a,e)pyrene	302	18.701	18.674	1.392	1383725	118.18	ng/uL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2509.D
Acq On    : 25 Mar 2024  14:19
Operator  : LL2
InstName  : MSD1
Sample    : |WBN240312-08|ICAL|1|SVM|1|M-8
Misc      : MIX[A]
ALS Vial  : 9      Sample Multiplier: 1
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Quant Time: Mar 26 10:02:26 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:02:26 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 660771
Instrument ID: MSD1.I
Injection Date: 25-MAR-24 14:44
Data File: S032524ical\s1C2510.D
Init. Cal. Date(s): 25-MAR-24 11:23 - 15-MAR-24 23:28
Lab Sample ID: WBN240312-43
Method: S032524ical\MSD1_8270C_8270D_032524.M
Quant Type: ISTD
Method Update: 26-MAR-24 10:15

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S2-Fluorophenol	1.3581	1.41185		.01		3.95774	30		Averaged
SPhenol-d5	1.7784	1.85482		.01		4.29712	30		Averaged
SNitrobenzene-d5	0.4429	0.45378		.01		2.45654	30		Averaged
S2-Fluorobiphenyl	1.5003	1.63249		.01		8.8109	30		Averaged
S2,4,6-Tribromophenol	0.235	0.24663		.01		4.94894	30		Averaged
Sp-Terphenyl-d14	0.978	1.04369		.01		6.71677	30		Averaged
N-Methyl-N-nitrosomethylami	0.9206	0.92813		.01		0.81794	30		Averaged
Pyridine	1.3915	1.78066		.01		27.96694	30		Averaged
Phenol	1.7303	1.89193		.8		9.34115	30		Averaged
Aniline	2.1169	2.60831		.01		23.21366	30		Averaged
bis(2-Chloroethyl) ether	1.441	1.49633		.7		3.83969	30		Averaged
2-Chlorophenol	1.378	1.46489		.8		6.30552	30		Averaged
1,3-Dichlorobenzene	1.5505	1.63604		.01		5.51693	30		Averaged
1,4-Dichlorobenzene	1.5254	1.59372		.01		4.47883	30		Averaged
Benzyl alcohol	0.9414	1.04341		.01		10.83599	30		Averaged
1,2-Dichlorobenzene	1.5006	1.51808		.01		1.16487	30		Averaged
o-Cresol	1.0938	1.25488		.7		14.72664	30		Averaged
bis(2-Chloro-1-methylethyl)eth	2.5456	2.37871		.01		-6.55602	30		Averaged
m,p-Cresols	1.3459	1.421		.6		5.57991	30		Averaged
N-Nitrosodipropylamine	1.163	1.13997		.5		-1.98022	30		Averaged
Hexachloroethane	0.6692	0.73581		.3		9.95368	30		Averaged
Nitrobenzene	0.4544	0.44945		.2		-1.08935	30		Averaged
Isophorone	0.8279	0.75962		.4		-8.24737	30		Averaged
2-Nitrophenol	0.1562	0.16794		.1		7.51601	30		Averaged
2,4-Dimethylphenol	0.2583	0.30614		.2		18.5211	30		Averaged
Benzoic acid	40	40.73	40			1.825	30		Linear
bis(2-Chloroethoxy)methane	0.5059	0.50517		.3		-0.1443	30		Averaged
2,4-Dichlorophenol	0.3323	0.34177		.2		2.84983	30		Averaged
1,2,4-Trichlorobenzene	0.3679	0.37988		.01		3.25632	30		Averaged
Naphthalene	0.9818	0.99108		.7		0.9452	30		Averaged
4-Chloroaniline	0.4254	0.42777		.01		0.55712	30		Averaged
Hexachlorobutadiene	0.2366	0.24905		.01		5.26205	30		Averaged
4-Chloro-3-methylphenol	0.3486	0.35664		.2		2.30637	30		Averaged
2-Methylnaphthalene	0.7124	0.71078		.4		-0.2274	30		Averaged
1-Methylnaphthalene	0.6431	0.69539		.4		8.13093	30		Averaged
Hexachlorocyclopentadiene	0.4111	0.48399		.05		17.73048	30		Averaged
2,4,6-Trichlorophenol	0.4811	0.52795		.2		9.7381	30		Averaged

Continuing Calibration Summary

Instrument ID: MSD1.I

Injection Date: 25-MAR-24 14:44

Data File: S032524ical\1C2510.D

Init. Cal. Date(s) 25-MAR-24 11:23 15-MAR-24 23:28

Lab Sample ID WBN240312-43

Method: S032524ical\MSD1_8270C_8270D_032524.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
2,4,5-Trichlorophenol	0.4752	0.50634		.2		6.55303	30		Averaged
2-Chloronaphthalene	1.2853	1.32878		.8		3.38287	30		Averaged
o-Nitroaniline	0.4567	0.5077		.01		11.16707	30		Averaged
Dimethylphthalate	1.4878	1.4774		.01		-0.69902	30		Averaged
m-Dinitrobenzene	0.1679	0.21541		.01		28.29661	30		Averaged
2,6-Dinitrotoluene	0.294	0.29912		.2		1.7415	30		Averaged
Acenaphthylene	1.887	1.93008		.9		2.28299	30		Averaged
m-Nitroaniline	0.3343	0.35611		.01		6.52408	30		Averaged
Acenaphthene	1.2875	1.29741		.9		0.76971	30		Averaged
2,4-Dinitrophenol	40	44.12	40			10.3	30		Linear
4-Nitrophenol	0.249	0.28162		.05		13.1004	30		Averaged
2,4-Dinitrotoluene	0.3857	0.42606		.2		10.46409	30		Averaged
Dibenzofuran	1.6827	1.79017		.8		6.38676	30		Averaged
2,3,4,6-Tetrachlorophenol	0.4052	0.4337		.01		7.03356	30		Averaged
Diethylphthalate	1.6083	1.62914		.01		1.29578	30		Averaged
4-Chlorophenylphenylether	0.723	0.72999		.4		0.9668	30		Averaged
Fluorene	1.4168	1.44635		.9		2.08569	30		Averaged
p-Nitroaniline	0.3201	0.34641		.01		8.21931	30		Averaged
2-Methyl-4,6-dinitrophenol	40	40	40			0	30		Linear
Diphenylamine	0.6232	0.65672		.01		5.37869	30		Averaged
1,2-Diphenylhydrazine	0.8272	0.8407		.01		1.63201	30		Averaged
4-Bromophenylphenylether	0.2376	0.23062		.1		-2.93771	30		Averaged
Hexachlorobenzene	0.2493	0.25419		.1		1.96149	30		Averaged
Pentachlorophenol	0.1637	0.17824		.05		8.8821	30		Averaged
Dinoseb	40	40.97	40			2.425	30		Linear
Phenanthrene	1.0185	1.05189		.7		3.27835	30		Averaged
Anthracene	1.049	1.04644		.7		-0.24404	30		Averaged
Carbazole	1.0753	1.01999		.01		-5.14368	30		Averaged
Di-n-butylphthalate	1.3174	1.34297		.01		1.94094	30		Averaged
Fluoranthene	1.2799	1.28656		.6		0.52035	30		Averaged
Pyrene	1.278	1.29605		.6		1.41236	30		Averaged
Butylbenzylphthalate	0.5924	0.60192		.01		1.60702	30		Averaged
Methoxychlor	0.7072	0.78668		.01		11.23869	30		Averaged
bis(2-Ethylhexyl)phthalate	0.8822	0.87212		.01		-1.1426	30		Averaged
Benzo(a)anthracene	1.2178	1.1637		.8		-4.44244	30		Averaged
Chrysene	1.1196	1.13976		.7		1.80064	30		Averaged
Di-n-octylphthalate	1.524	1.53865		.01		0.96129	30		Averaged

Continuing Calibration Summary

Instrument ID: MSD1.I

Injection Date: 25-MAR-24 14:44

Data File: S032524\cal\s1C2510.D

Init. Cal. Date(s) 25-MAR-24 11:23 25-MAR-24 23:28

Lab Sample ID WBN240312-43

Method: S032524\cal\MSD1_8270C_8270D_032524.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Benzo(b)fluoranthene	1.159	1.16272		.7		0.32097	30		Averaged
Benzo(k)fluoranthene	1.0943	1.06522		.7		-2.65741	30		Averaged
Benzo(a)pyrene	1.0877	1.11934		.7		2.90889	30		Averaged
Indeno(1,2,3-cd)pyrene	1.0825	1.03033		.5		-4.8194	30		Averaged
Dibenzo(a,h)anthracene	1.0039	1.0221		.4		1.81293	30		Averaged
Benzo(ghi)perylene	1.0117	1.05268		.5		4.05061	30		Averaged

LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2510.D
Acq On : 25 Mar 2024 14:44
Operator : LL2
InstName : MSD1
Sample : |WBN240312-43|ICV|1|SVM|1|M-ICV
Misc : MIX[A]
ALS Vial : 10 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:59:04 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.233	4.233	1.000	109155	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.645	5.645	1.000	426422	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.367	7.367	1.000	225827	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	470544	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	499278	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.421	13.427	1.000	552618	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.233	4.227	1.000	109155	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.645	5.639	1.000	426422	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.367	7.361	1.000	225827	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	470544	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	499278	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.421	13.421	1.000	552618	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.645	5.639	1.000	426422	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	470544	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	499278	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.645	5.639	1.000	426422	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.367	7.362	1.000	225827	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	470544	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	499278	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.645	5.639	1.000	426422	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.421	13.437	1.000	552618	40.00	ng/uL	-0.02
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.917	2.917	0.689	154111	41.58	ng/uL	0.00
8) Phenol-d5	99	3.794	3.794	0.896	202463	41.72	ng/uL	0.00
23) Nitrobenzene-d5	82	4.837	4.837	0.857	193500	40.98	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.736	6.736	0.914	368660	43.52	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.062	8.062	1.094	55695	41.98	ng/uL	0.00
79) p-Terphenyl-d14	244	10.004	10.004	1.154	491101	42.69	ng/uL	0.00
Target Compounds								QValue
2) 2-Ethoxyethanol	59	1.708	1.708	0.404	109609	42.16	ng/uL	99
3) N-Methyl-N-nitrosometh...	74	1.901	1.901	0.449	101310	40.33	ng/uL	91
4) Pyridine	79	1.938	1.938	0.458	194368	51.19	ng/uL	99
7) Aniline	93	3.874	3.874	0.915	284710	49.28	ng/uL	98
9) Phenol	94	3.810	3.810	0.900	206514	43.74	ng/uL	99
10) bis(2-Chloroethyl) ether	93	3.933	3.933	0.929	163332	41.53	ng/uL	99
11) 2-Chlorophenol	128	3.997	3.997	0.944	159900	42.52	ng/uL	96
12) n-Decane	57	4.040	4.040	0.955	247775	46.18	ng/uL	98
13) 1,3-Dichlorobenzene	146	4.168	4.168	0.985	178582	42.21	ng/uL	98
14) 1,4-Dichlorobenzene	146	4.249	4.249	1.004	173963	41.79	ng/uL	98
15) 1,2-Dichlorobenzene	146	4.414	4.414	1.043	165706	40.47	ng/uL	97
16) bis(2-Chloro-1-methyle...	45	4.516	4.511	1.067	259648	37.38	ng/uL	91
17) Benzyl alcohol	108	4.361	4.361	1.030	113893	44.33	ng/uL	98
18) o-Cresol	107	4.468	4.468	1.056	136976	45.89	ng/uL	97
19) m,p-Cresols	108	4.639	4.639	1.096	155109	42.23	ng/uL	88
20) N-Nitrosodipropylamine	70	4.660	4.660	1.101	124433	39.21	ng/uL	98

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2510.D
Acq On : 25 Mar 2024 14:44
Operator : LL2
InstName : MSD1
Sample : |WBN240312-43|ICV|1|SVM|1|M-ICV
Misc : MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 26 10:59:04 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
21) Hexachloroethane	117	4.794	4.794	1.133	80317	43.98	ng/uL 90
24) Nitrobenzene	77	4.858	4.858	0.861	191657	39.56	ng/uL 98
25) Isophorone	82	5.126	5.126	0.908	323918	36.70	ng/uL 100
26) 2-Nitrophenol	139	5.217	5.217	0.924	71612	43.02	ng/uL 98
27) 2,4-Dimethylphenol	122	5.254	5.254	0.931	130546	47.42	ng/uL 98
28) bis(2-Chloroethoxy)met...	93	5.372	5.372	0.952	215415	39.94	ng/uL 98
29) 2,4-Dichlorophenol	162	5.479	5.479	0.971	145740	41.14	ng/uL 97
30) Benzoic acid	105	5.324	5.324	0.943	104011	40.73	ng/uL 98
31) 1,2,4-Trichlorobenzene	180	5.580	5.580	0.989	161990	41.30	ng/uL 99
32) alpha-Terpineol	59	5.671	5.671	1.005	169996	40.10	ng/uL 98
33) Naphthalene	128	5.666	5.666	1.004	422619	40.38	ng/uL 98
34) 4-Chloroaniline	127	5.714	5.714	1.012	182409	40.22	ng/uL 99
35) Hexachlorobutadiene	225	5.794	5.794	1.027	106202	42.10	ng/uL 96
36) 4-Chloro-3-methylphenol	107	6.206	6.206	1.099	152079	40.92	ng/uL 98
37) 2-Methylnaphthalene	142	6.377	6.377	1.130	303093	39.91	ng/uL 98
38) 1-Methylnaphthalene	142	6.474	6.474	1.147	296530	43.25	ng/uL 98
40) Hexachlorocyclopentadiene	237	6.527	6.527	0.886	109297	47.09	ng/uL 95
41) 2,3-Dichloroaniline	161	6.650	6.650	0.903	180703	44.01	ng/uL 99
42) 2,4,6-Trichlorophenol	196	6.645	6.645	0.902	119226	43.90	ng/uL 93
43) 2,4,5-Trichlorophenol	196	6.677	6.677	0.906	114345	42.62	ng/uL 98
45) 2-Chloronaphthalene	162	6.848	6.848	0.930	300074	41.35	ng/uL 99
46) o-Nitroaniline	65	6.939	6.939	0.942	114653	44.47	ng/uL 97
47) 1,4-Dinitrobenzene	168	7.073	7.067	0.960	35279	41.67	ng/uL 95
48) m-Nitroaniline	138	7.319	7.319	0.993	80419	42.61	ng/uL 98
49) Dimethylphthalate	163	7.110	7.110	0.965	333637	39.72	ng/uL 98
50) m-Dinitrobenzene	168	7.137	7.137	0.969	48646	51.31	ng/uL 92
51) 2,6-Dinitrotoluene	165	7.164	7.164	0.972	67550	40.70	ng/uL 90
52) 2,4-Dinitrotoluene	165	7.527	7.527	1.022	96215	44.19	ng/uL 99
53) Acenaphthylene	152	7.238	7.238	0.983	435864	40.91	ng/uL 98
54) Acenaphthene	153	7.394	7.394	1.004	292991	40.31	ng/uL 99
55) 2,4-Dinitrophenol	184	7.410	7.410	1.006	29510	44.12	ng/uL 90
56) Dibenzofuran	168	7.549	7.549	1.025	404268	42.55	ng/uL 100
57) 2,3,4,6-Tetrachlorophenol	232	7.650	7.650	1.038	97941	42.82	ng/uL 97
58) Diethylphthalate	149	7.741	7.741	1.051	367904	40.52	ng/uL 98
59) 4-Nitrophenol	109	7.452	7.452	1.012	63598	45.23	ng/uL 95
60) Fluorene	166	7.854	7.854	1.066	326624	40.83	ng/uL 99
61) 4-Chlorophenylphenylether	204	7.848	7.848	1.065	164852	40.39	ng/uL 98
62) p-Nitroaniline	138	7.859	7.859	1.067	78228	43.28	ng/uL 95
65) 2-Methyl-4,6-dinitroph...	198	7.886	7.886	0.910	41548	40.00	ng/uL 94
66) Diphenylamine	169	7.950	7.950	0.917	309017	42.15	ng/uL 97
67) 1,2-Diphenylhydrazine	77	7.987	7.987	0.922	395585	40.65	ng/uL 99
68) 4-Bromophenylphenylether	248	8.276	8.276	0.955	108518	38.82	ng/uL 92
69) Hexachlorobenzene	284	8.330	8.330	0.961	119609	40.79	ng/uL 98
70) Pentachlorophenol	266	8.495	8.495	0.980	83869	43.55	ng/uL 98
71) n-Octadecane	57	8.544	8.544	0.986	327438	41.30	ng/uL 99
72) Dinoseb	211	8.640	8.640	0.997	65859	40.97	ng/uL 99
73) Phenanthrene	178	8.688	8.688	1.002	494962	41.31	ng/uL 100
74) Anthracene	178	8.731	8.731	1.007	492398	39.90	ng/uL 99
75) Carbazole	167	8.859	8.859	1.022	479949	37.94	ng/uL 100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2510.D
Acq On : 25 Mar 2024 14:44
Operator : LL2
InstName : MSD1
Sample : |WBN240312-43|ICV|1|SVM|1|M-ICV
Misc : MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 26 10:59:04 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

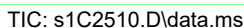
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
76) Di-n-butylphthalate	149	9.132	9.132	1.054	631926	40.78	ng/uL 99
77) Fluoranthene	202	9.693	9.693	1.118	605383	40.21	ng/uL 97
78) Pyrene	202	9.886	9.886	1.141	609848	40.57	ng/uL 99
81) Butylbenzylphthalate	149	10.453	10.453	0.939	300524	40.64	ng/uL 97
82) bis(2-Ethylhexyl)phtha...	149	11.100	11.100	0.998	435431	39.54	ng/uL 100
83) Benzo(a)anthracene	228	11.116	11.116	0.999	581010	38.22	ng/uL 99
84) Chrysene	228	11.159	11.164	1.003	569056	40.72	ng/uL 99
85) Methoxychlor	227	11.004	11.004	0.989	392772	44.50	ng/uL 97
86) Methylenebis(2-chloroa...	231	11.068	11.068	0.995	140167	43.07	ng/uL 97
87) Di-n-octylphthalate	149	12.058	12.058	1.084	768212	40.38	ng/uL 98
89) Benzo(b)fluoranthene	252	12.726	12.726	0.948	642542	40.13	ng/uL 99
90) Benzo(k)fluoranthene	252	12.774	12.774	0.952	588659	38.94	ng/uL 99
91) Benzo(a)pyrene	252	13.320	13.320	0.992	618565	41.16	ng/uL 98
92) Indeno(1,2,3-cd)pyrene	276	15.647	15.652	1.166	569379	38.07	ng/uL 99
93) Dibenzo(a,h)anthracene	278	15.711	15.711	1.171	564833	40.73	ng/uL 99
94) Benzo(ghi)perylene	276	16.235	16.240	1.210	581730	41.62	ng/uL 100
95) Dibenzo(a,e)pyrene	302	18.674	18.674	1.391	504301	42.69	ng/uL 99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

ALS Vial : 10 Sample Multiplier: 1

Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2511.D
Acq On : 25 Mar 2024 15:10
Operator : LL2
InstName : MSD1
Sample : |WBN240201-51.1|ICAL|1|SVM|1|APX-2
Misc : |MIX[B,J]
ALS Vial : 11 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:10:42 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:05:28 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.362	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.422	13.427	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	120561	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	436407	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.362	7.361	1.000	233121	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	470481	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	520959	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.422	13.421	1.000	547950	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.639	5.639	1.000	436407	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	470481	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	520959	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.362	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.422	13.437	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	

Target Compounds								QValue
97) 1,4-Dioxane	88	1.714	1.713	0.405	19505	11.88	ng/uL	98
98) Methyl methacrylate	100	1.708	1.708	0.404	5884	9.38	ng/uL#	68
99) Ethyl methacrylate	69	2.200	2.200	0.520	40630	10.62	ng/uL	98
100) 2-Picoline	93	2.462	2.462	0.582	47273	10.05	ng/uL	93
101) N-Nitrosomethylethylamine	88	2.532	2.532	0.599	17859	10.26	ng/uL	96
102) Methyl methanesulfonate	80	2.778	2.778	0.657	28752	10.29	ng/uL	94
103) N-Nitrosodiethylamine	102	3.142	3.141	0.743	18063	10.24	ng/uL	86
104) 2-Butoxyethanol	57	3.195	3.200	0.756	59562	10.53	ng/uL	99
105) Ethyl methanesulfonate	79	3.409	3.414	0.806	38404	10.05	ng/uL	98
106) Benzaldehyde	77	3.773	3.773	0.892	41199	10.71	ng/uL	99
107) Pentachloroethane	167	3.933	3.933	0.930	17906	10.15	ng/uL	97
108) N-Nitrosopyrrolidine	100	4.629	4.634	1.095	17664	9.14	ng/uL	85
109) Acetophenone	105	4.661	4.660	1.102	66044	10.83	ng/uL	99
110) N-Nitrosomorpholine	56	4.677	4.676	1.106	27676	10.68	ng/uL	96
111) o-Toluidine	106	4.698	4.703	1.111	69110	11.26	ng/uL	95
113) N-Nitrosopiperidine	114	5.024	5.029	0.891	17584	9.14	ng/uL#	74

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2511.D
Acq On : 25 Mar 2024 15:10
Operator : LL2
InstName : MSD1
Sample : |WBN240201-51.1|ICAL|1|SVM|1|APX-2
Misc : |MIX[B,J]
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 26 10:10:42 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:05:28 2024
Response via : Initial Calibration
Integrator: RTE

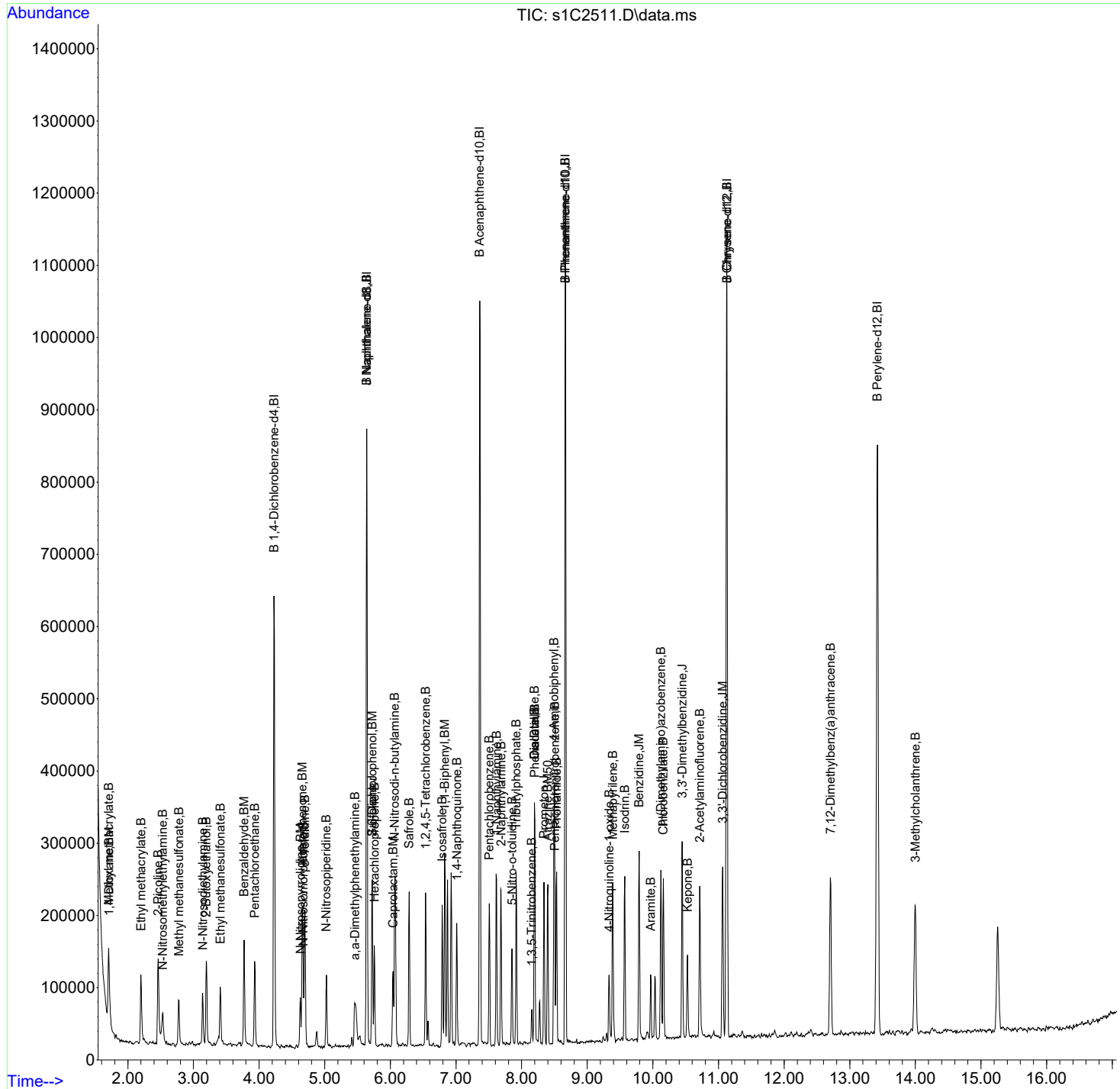
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
114) a,a-Dimethylphenethyla...	58	5.458	5.495	0.968	112847	8.95	ng/uL 93
115) 2,6-Dichlorophenol	162	5.725	5.725	1.015	33540	10.16	ng/uL 98
116) Hexachloropropene	213	5.757	5.757	1.021	28798	10.93	ng/uL 99
117) Caprolactam	113	6.041	6.051	1.071	10096	10.41	ng/uL 93
118) N-Nitrosodi-n-butylamine	57	6.067	6.067	1.076	30324	11.87	ng/uL# 62
119) Safrole	162	6.287	6.286	1.115	31078	10.41	ng/uL 95
121) 1,2,4,5-Tetrachloroben...	216	6.538	6.538	0.888	45261	10.94	ng/uL 96
122) 1,1-Biphenyl	154	6.827	6.832	0.927	96308	11.43	ng/uL 99
123) Isosafrole	162	6.789	6.794	0.922	36306	11.11	ng/uL 95
124) 1,4-Naphthoquinone	158	7.014	7.014	0.953	32954	10.61	ng/uL 98
125) Pentachlorobenzene	250	7.506	7.511	1.020	36943	10.62	ng/uL 97
126) 1-Naphthylamine	143	7.618	7.618	1.035	81501	11.20	ng/uL 100
127) 2-Naphthylamine	143	7.688	7.688	1.044	86466	11.79	ng/uL 97
128) 5-Nitro-o-toluidine	152	7.854	7.854	1.067	17833	9.12	ng/uL 87
129) Tributylphosphate	99	7.918	7.918	1.076	130190	11.67	ng/uL 97
131) 1,3,5-Trinitrobenzene	75	8.153	8.158	0.941	14447	7.84	ng/uL 96
132) Phenacetin	108	8.201	8.207	0.946	47977	10.45	ng/uL 100
133) Diallate	86	8.196	8.196	0.946	28920	10.39	ng/uL 98
134) Cis Diallate	86	8.196	8.196	0.946	28920	8.83	ng/uL 98
136) Atrazine	200	8.399	8.404	0.969	28405	10.93	ng/uL 98
137) 4-Aminobiphenyl	169	8.496	8.495	0.980	117991	12.07	ng/uL 96
138) Pentachloronitrobenzene	237	8.506	8.506	0.981	11407	10.08	ng/uL 99
139) Pronamide	173	8.533	8.533	0.985	47324	10.89	ng/uL 100
140) 4-Nitroquinoline-1-oxide	128	9.335	9.335	1.077	4035	9.11	ng/uL 96
141) Methapyrilene	58	9.389	9.389	1.083	91997	10.96	ng/uL 95
142) Isodrin	193	9.571	9.570	1.104	19406	11.48	ng/uL 88
144) Aramite	185	9.966	9.966	0.896	5962	9.12	ng/uL 75
145) Kepone	272	10.528	10.528	0.946	14481	10.06	ng/uL 94
146) p-(Dimethylamino)azobe...	120	10.122	10.127	0.910	42871	10.59	ng/uL 98
147) Chlorobenzilate	251	10.159	10.164	0.913	39225	9.92	ng/uL 94
148) 2-Acetylaminofluorene	181	10.715	10.720	0.963	63490	9.48	ng/uL 97
150) 7,12-Dimethylbenz(a)an...	256	12.705	12.710	0.947	71039	10.84	ng/uL 99
151) 3-Methylcholanthrene	269	13.999	14.004	1.043	16365	9.99	ng/uL 94
153) Sulfolane	56	5.725	5.730	1.015	17971	10.07	ng/uL 91
155) Prometon	210	8.340	8.346	0.962	23296	9.88	ng/uL 92
156) Benzidine	184	9.790	9.795	1.130	114206	11.64	ng/uL 100
158) 3,3'-Dimethylbenzidine	212	10.448	10.448	0.939	119329	11.35	ng/uL 96
159) 3,3'-Dichlorobenzidine	252	11.063	11.068	0.994	66978	10.58	ng/uL 98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : D:\MSDCHEM\1\Data\S032524ical\  
Data File : s1C2511.D  
Acq On    : 25 Mar 2024 15:10  
Operator  : LL2  
InstName  : MSD1  
Sample    : |WBN240201-51.1|ICAL|1|SVM|1|APX-2  
Misc      : |MIX[B,J]  
ALS Vial  : 11 Sample Multiplier: 1
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Quant Time: Mar 26 10:10:42 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:05:28 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2512.D
Acq On : 25 Mar 2024 15:32
Operator : LL2
InstName : MSD1
Sample : |WBN240201-52|ICAL|1|SVM|1|APX-3
Misc : |MIX[B,J]
ALS Vial : 12 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:10:55 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:10:52 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.362	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.422	13.427	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	126941	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	483994	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.362	7.361	1.000	257559	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	526351	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	572177	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.422	13.421	1.000	616227	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.639	5.639	1.000	483994	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	526351	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	572177	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.362	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.422	13.437	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
97) 1,4-Dioxane	88	1.713	1.713	0.405	35040	20.26	ng/uL	94
98) Methyl methacrylate	100	1.708	1.708	0.404	14461	21.89	ng/uL#	81
99) Ethyl methacrylate	69	2.200	2.200	0.520	82197	20.40	ng/uL	97
100) 2-Picoline	93	2.462	2.462	0.582	101759	20.55	ng/uL	95
101) N-Nitrosomethylethylamine	88	2.532	2.532	0.599	37398	20.41	ng/uL	98
102) Methyl methanesulfonate	80	2.778	2.778	0.657	60831	20.68	ng/uL	99
103) N-Nitrosodiethylamine	102	3.142	3.141	0.743	36219	19.50	ng/uL	86
104) 2-Butoxyethanol	57	3.200	3.200	0.757	126313	21.20	ng/uL	99
105) Ethyl methanesulfonate	79	3.409	3.414	0.806	84417	20.98	ng/uL	95
106) Benzaldehyde	77	3.773	3.773	0.892	85474	21.10	ng/uL	93
107) Pentachloroethane	167	3.933	3.933	0.930	37840	20.38	ng/uL	91
108) N-Nitrosopyrrolidine	100	4.628	4.634	1.095	39598	19.46	ng/uL	97
109) Acetophenone	105	4.661	4.660	1.102	138454	21.56	ng/uL	97
110) N-Nitrosomorpholine	56	4.677	4.676	1.106	56490	20.71	ng/uL	99
111) o-Toluidine	106	4.698	4.703	1.111	137855	21.32	ng/uL	96
113) N-Nitrosopiperidine	114	5.030	5.029	0.892	43509	20.38	ng/uL	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2512.D
Acq On : 25 Mar 2024 15:32
Operator : LL2
InstName : MSD1
Sample : |WBN240201-52|ICAL|1|SVM|1|APX-3
Misc : |MIX[B,J]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 26 10:10:55 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:10:52 2024
Response via : Initial Calibration
Integrator: RTE

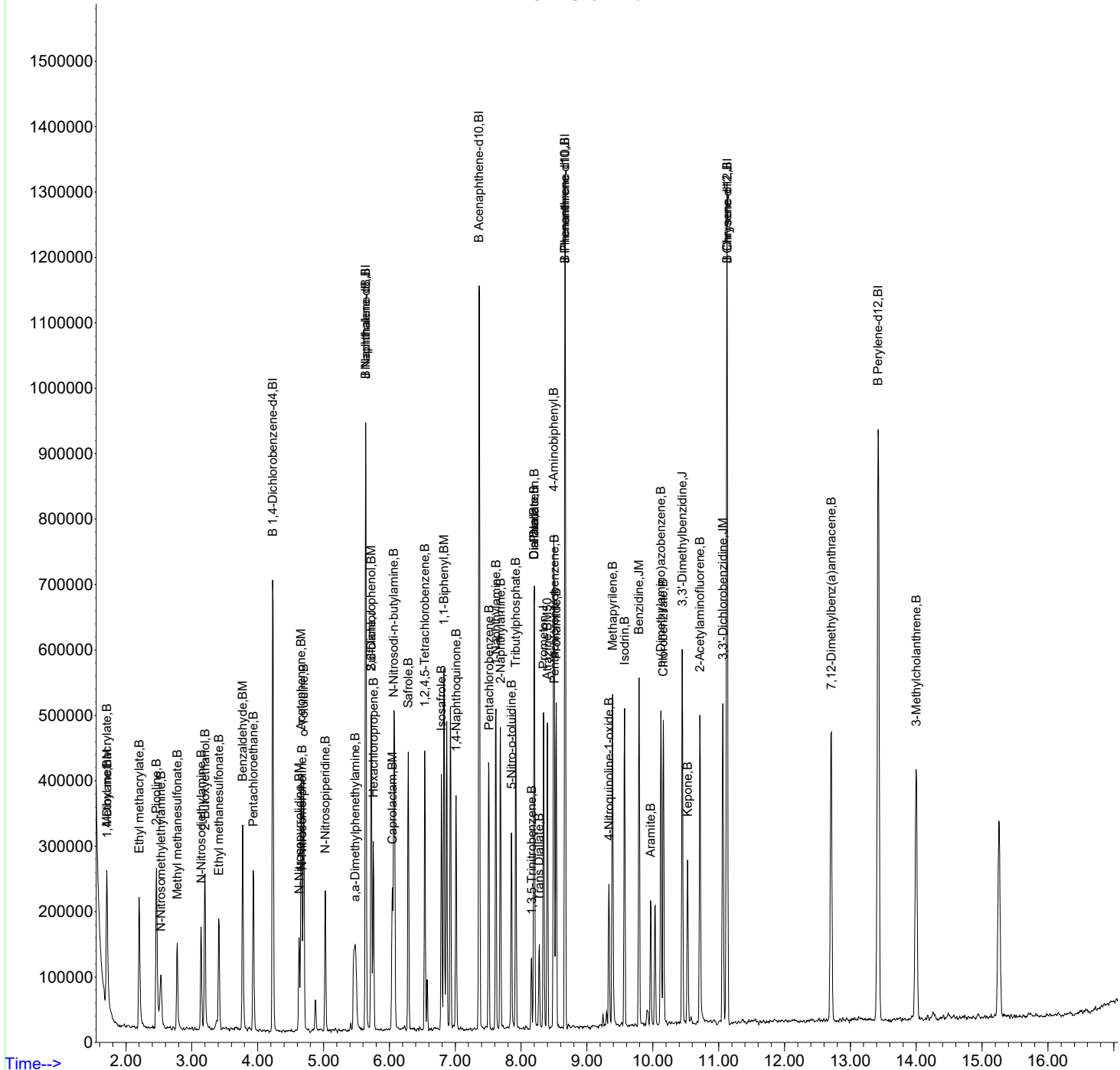
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
114) a,a-Dimethylphenethyla...	58	5.479	5.495	0.972	259089	18.53	ng/uL 98
115) 2,6-Dichlorophenol	162	5.725	5.725	1.015	72475	19.79	ng/uL 99
116) Hexachloropropene	213	5.757	5.757	1.021	56597	19.37	ng/uL 96
117) Caprolactam	113	6.046	6.051	1.072	19871	18.47	ng/uL 90
118) N-Nitrosodi-n-butylamine	57	6.067	6.067	1.076	57714	20.36	ng/uL# 80
119) Safrole	162	6.287	6.286	1.115	65683	19.85	ng/uL 98
121) 1,2,4,5-Tetrachloroben...	216	6.538	6.538	0.888	91668	20.06	ng/uL 99
122) 1,1-Biphenyl	154	6.827	6.832	0.927	203658	21.88	ng/uL 99
123) Isosafrole	162	6.789	6.794	0.922	73377	20.31	ng/uL 97
124) 1,4-Naphthoquinone	158	7.014	7.014	0.953	71686	20.89	ng/uL 95
125) Pentachlorobenzene	250	7.511	7.511	1.020	80992	21.07	ng/uL 97
126) 1-Naphthylamine	143	7.618	7.618	1.035	170671	21.22	ng/uL 100
127) 2-Naphthylamine	143	7.688	7.688	1.044	172520	21.29	ng/uL 98
128) 5-Nitro-o-toluidine	152	7.854	7.854	1.067	37519	17.37	ng/uL 97
129) Tributylphosphate	99	7.918	7.918	1.076	262825	21.32	ng/uL 98
131) 1,3,5-Trinitrobenzene	75	8.159	8.158	0.941	33986	16.49	ng/uL 97
132) Phenacetin	108	8.201	8.207	0.946	107250	20.89	ng/uL 97
133) Diallate	86	8.196	8.196	0.946	60982	19.58	ng/uL 96
134) Cis Diallate	86	8.196	8.196	0.946	60982	16.65	ng/uL 96
135) Trans Diallate	86	8.276	8.276	0.955	21944	2.86	ng/uL 97
136) Atrazine	200	8.399	8.404	0.969	60462	20.80	ng/uL 99
137) 4-Aminobiphenyl	169	8.496	8.495	0.980	241091	22.05	ng/uL 97
138) Pentachloronitrobenzene	237	8.506	8.506	0.981	23820	18.81	ng/uL 98
139) Pronamide	173	8.533	8.533	0.985	99775	20.53	ng/uL 97
140) 4-Nitroquinoline-1-oxide	128	9.335	9.335	1.077	9096	18.36	ng/uL 83
141) Methapyrilene	58	9.389	9.389	1.083	202459	21.56	ng/uL 99
142) Isodrin	193	9.571	9.570	1.104	38379	20.29	ng/uL 98
144) Aramite	185	9.966	9.966	0.896	13419	18.68	ng/uL 91
145) Kepone	272	10.528	10.528	0.946	29083	18.39	ng/uL 94
146) p-(Dimethylamino)azobe...	120	10.121	10.127	0.910	84236	18.95	ng/uL 96
147) Chlorobenzilate	251	10.159	10.164	0.913	88838	20.45	ng/uL 95
148) 2-Acetylaminofluorene	181	10.715	10.720	0.963	141473	19.23	ng/uL 96
150) 7,12-Dimethylbenz(a)an...	256	12.710	12.710	0.947	146993	19.94	ng/uL 97
151) 3-Methylcholanthrene	269	13.999	14.004	1.043	35643	19.36	ng/uL 95
153) Sulfolane	56	5.725	5.730	1.015	39490	19.96	ng/uL 100
155) Prometon	210	8.340	8.346	0.962	52524	19.91	ng/uL 97
156) Benزيدine	184	9.790	9.795	1.130	238088	21.69	ng/uL 98
158) 3,3'-Dimethylbenزيدine	212	10.448	10.448	0.939	242832	21.03	ng/uL 96
159) 3,3'-Dichlorobenزيدine	252	11.063	11.068	0.994	136997	19.71	ng/uL 99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

ALS Vial : 12 Sample Multiplier: 1

Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2513.D
Acq On : 25 Mar 2024 15:54
Operator : LL2
InstName : MSD1
Sample : |WBN240201-53|ICAL|1|SVM|1|APX-9
Misc : |MIX[B,J]
ALS Vial : 13 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:11:04 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:01 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.361	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.666	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.421	13.427	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	136185	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	496985	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.361	7.361	1.000	266582	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.666	8.667	1.000	537951	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	578094	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.421	13.421	1.000	623329	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.639	5.639	1.000	496985	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.666	8.667	1.000	537951	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	578094	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.361	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.666	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.421	13.437	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	3.714	3.794	0.879	0d	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	

Target Compounds								
97) 1,4-Dioxane	88	1.713	1.713	0.405	57129	30.79	ng/uL	QValue
98) Methyl methacrylate	100	1.708	1.708	0.404	21122	29.80	ng/uL	95
99) Ethyl methacrylate	69	2.200	2.200	0.520	131635	30.45	ng/uL	97
100) 2-Picoline	93	2.462	2.462	0.582	160745	30.26	ng/uL	97
101) N-Nitrosomethylethylamine	88	2.532	2.532	0.599	57393	29.20	ng/uL	96
102) Methyl methanesulfonate	80	2.778	2.778	0.657	94783	30.04	ng/uL	98
103) N-Nitrosodiethylamine	102	3.141	3.141	0.743	58840	29.52	ng/uL	95
104) 2-Butoxyethanol	57	3.200	3.200	0.757	195677	30.62	ng/uL	99
105) Ethyl methanesulfonate	79	3.409	3.414	0.806	132375	30.67	ng/uL	96
106) Benzaldehyde	77	3.772	3.773	0.892	137631	31.68	ng/uL	97
107) Pentachloroethane	167	3.933	3.933	0.930	61928	31.08	ng/uL	95
108) N-Nitrosopyrrolidine	100	4.628	4.634	1.095	63647	29.16	ng/uL	97
109) Acetophenone	105	4.660	4.660	1.102	215489	31.28	ng/uL	99
110) N-Nitrosomorpholine	56	4.676	4.676	1.106	89894	30.72	ng/uL	98
111) o-Toluidine	106	4.698	4.703	1.111	215535	31.08	ng/uL	97
113) N-Nitrosopiperidine	114	5.029	5.029	0.892	63789	29.10	ng/uL	93

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2513.D
Acq On : 25 Mar 2024 15:54
Operator : LL2
InstName : MSD1
Sample : |WBN240201-53|ICAL|1|SVM|1|APX-9
Misc : |MIX[B,J]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 26 10:11:04 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:01 2024
Response via : Initial Calibration
Integrator: RTE

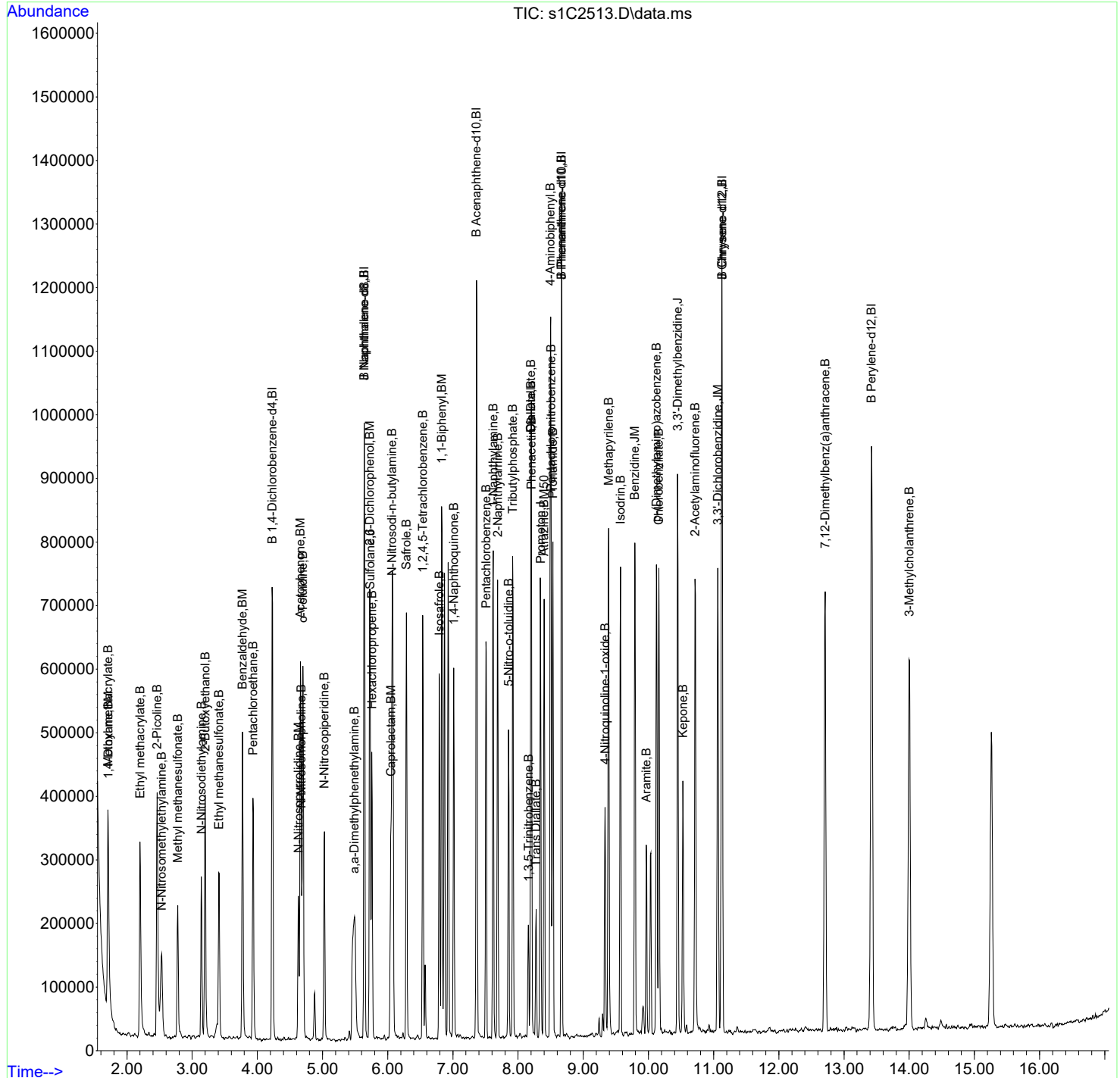
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
114) a,a-Dimethylphenethyla...	58	5.489	5.495	0.973	424290	29.56	ng/uL 100
115) 2,6-Dichlorophenol	162	5.725	5.725	1.015	112923	30.03	ng/uL 94
116) Hexachloropropene	213	5.757	5.757	1.021	90058	30.02	ng/uL 98
117) Caprolactam	113	6.051	6.051	1.073	33978	30.76	ng/uL 97
118) N-Nitrosodi-n-butylamine	57	6.067	6.067	1.076	89944	30.91	ng/uL 96
119) Safrole	162	6.286	6.286	1.115	101863	29.97	ng/uL 96
121) 1,2,4,5-Tetrachloroben...	216	6.538	6.538	0.888	142327	30.09	ng/uL 94
122) 1,1-Biphenyl	154	6.827	6.832	0.927	306928	31.85	ng/uL 98
123) Isosafrole	162	6.794	6.794	0.923	113144	30.26	ng/uL 94
124) 1,4-Naphthoquinone	158	7.014	7.014	0.953	113426	31.93	ng/uL 97
125) Pentachlorobenzene	250	7.511	7.511	1.020	117952	29.65	ng/uL 97
126) 1-Naphthylamine	143	7.618	7.618	1.035	261934	31.47	ng/uL 100
127) 2-Naphthylamine	143	7.688	7.688	1.044	256347	30.56	ng/uL 98
128) 5-Nitro-o-toluidine	152	7.853	7.854	1.067	67028	29.98	ng/uL 93
129) Tributylphosphate	99	7.918	7.918	1.076	412443	32.32	ng/uL 99
131) 1,3,5-Trinitrobenzene	75	8.158	8.158	0.941	56856	26.99	ng/uL 95
132) Phenacetin	108	8.207	8.207	0.947	158885	30.27	ng/uL 99
133) Diallate	86	8.196	8.196	0.946	96238	30.24	ng/uL 99
134) Cis Diallate	86	8.196	8.196	0.946	96238	25.70	ng/uL 99
135) Trans Diallate	86	8.276	8.276	0.955	33514	4.27	ng/uL 95
136) Atrazine	200	8.399	8.404	0.969	91448	30.77	ng/uL 100
137) 4-Aminobiphenyl	169	8.495	8.495	0.980	359666	32.18	ng/uL 98
138) Pentachloronitrobenzene	237	8.506	8.506	0.981	35719	27.60	ng/uL 94
139) Pronamide	173	8.533	8.533	0.985	152532	30.71	ng/uL 99
140) 4-Nitroquinoline-1-oxide	128	9.335	9.335	1.077	16707	32.99	ng/uL 94
141) Methapyrilene	58	9.389	9.389	1.083	306283	31.91	ng/uL 99
142) Isodrin	193	9.570	9.570	1.104	58422	30.22	ng/uL 94
144) Aramite	185	9.966	9.966	0.896	21389	29.47	ng/uL 91
145) Kepone	272	10.528	10.528	0.946	47562	29.77	ng/uL 93
146) p-(Dimethylamino)azobe...	120	10.121	10.127	0.910	141203	31.44	ng/uL 94
147) Chlorobenzilate	251	10.159	10.164	0.913	135630	30.91	ng/uL 99
148) 2-Acetylaminofluorene	181	10.715	10.720	0.963	224034	30.14	ng/uL 99
150) 7,12-Dimethylbenz(a)an...	256	12.710	12.710	0.947	232499	31.17	ng/uL 98
151) 3-Methylcholanthrene	269	13.999	14.004	1.043	56872	30.53	ng/uL 97
153) Sulfolane	56	5.730	5.730	1.016	63140	31.08	ng/uL 97
155) Prometon	210	8.346	8.346	0.963	81014	30.04	ng/uL 98
156) Benzydine	184	9.790	9.795	1.130	352618	31.43	ng/uL 99
158) 3,3'-Dimethylbenzidine	212	10.448	10.448	0.939	370935	31.79	ng/uL 97
159) 3,3'-Dichlorobenzidine	252	11.063	11.068	0.994	208005	29.62	ng/uL 97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524\ical\
Data File : s1C2513.D
Acq On : 25 Mar 2024 15:54
Operator : LL2
InstName : MSD1
Sample : |WBN240201-53|ICAL|1|SVM|1|APX-9
Misc : |MIX[B,J]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 26 10:11:04 2024
Quant Method : D:\MSDCHEM\1\Data\S032524\ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:01 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2514.D
Acq On : 25 Mar 2024 16:17
Operator : LL2
InstName : MSD1
Sample : |WBN240201-54.1|ICAL|1|SVM|1|APX-4
Misc : |MIX[B,J]
ALS Vial : 14 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:11:13 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:10 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.361	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.421	13.427	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	133420	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	491817	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.361	7.361	1.000	258796	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	517294	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	557506	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.421	13.421	1.000	614210	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.639	5.639	1.000	491817	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	517294	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	557506	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.361	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.421	13.437	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	

Target Compounds								
97) 1,4-Dioxane	88	1.713	1.713	0.405	73473	40.42	ng/uL	QValue
98) Methyl methacrylate	100	1.708	1.708	0.404	28277	40.72	ng/uL	100
99) Ethyl methacrylate	69	2.200	2.200	0.520	172055	40.62	ng/uL	100
100) 2-Picoline	93	2.462	2.462	0.582	210299	40.41	ng/uL	100
101) N-Nitrosomethylethylamine	88	2.532	2.532	0.599	76249	39.60	ng/uL	100
102) Methyl methanesulfonate	80	2.778	2.778	0.657	123491	39.94	ng/uL	100
103) N-Nitrosodiethylamine	102	3.141	3.141	0.743	77617	39.75	ng/uL	100
104) 2-Butoxyethanol	57	3.200	3.200	0.757	259341	41.42	ng/uL	100
105) Ethyl methanesulfonate	79	3.414	3.414	0.808	168150	39.76	ng/uL	100
106) Benzaldehyde	77	3.773	3.773	0.892	177399	41.67	ng/uL	100
107) Pentachloroethane	167	3.933	3.933	0.930	78265	40.10	ng/uL	100
108) N-Nitrosopyrrolidine	100	4.634	4.634	1.096	84829	39.67	ng/uL	100
109) Acetophenone	105	4.660	4.660	1.102	273207	40.48	ng/uL	100
110) N-Nitrosomorpholine	56	4.676	4.676	1.106	113913	39.73	ng/uL	100
111) o-Toluidine	106	4.703	4.703	1.113	271573	39.97	ng/uL	100
113) N-Nitrosopiperidine	114	5.029	5.029	0.892	87611	40.39	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2514.D
Acq On : 25 Mar 2024 16:17
Operator : LL2
InstName : MSD1
Sample : |WBN240201-54.1|ICAL|1|SVM|1|APX-4
Misc : |MIX[B,J]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 26 10:11:13 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:10 2024
Response via : Initial Calibration
Integrator: RTE

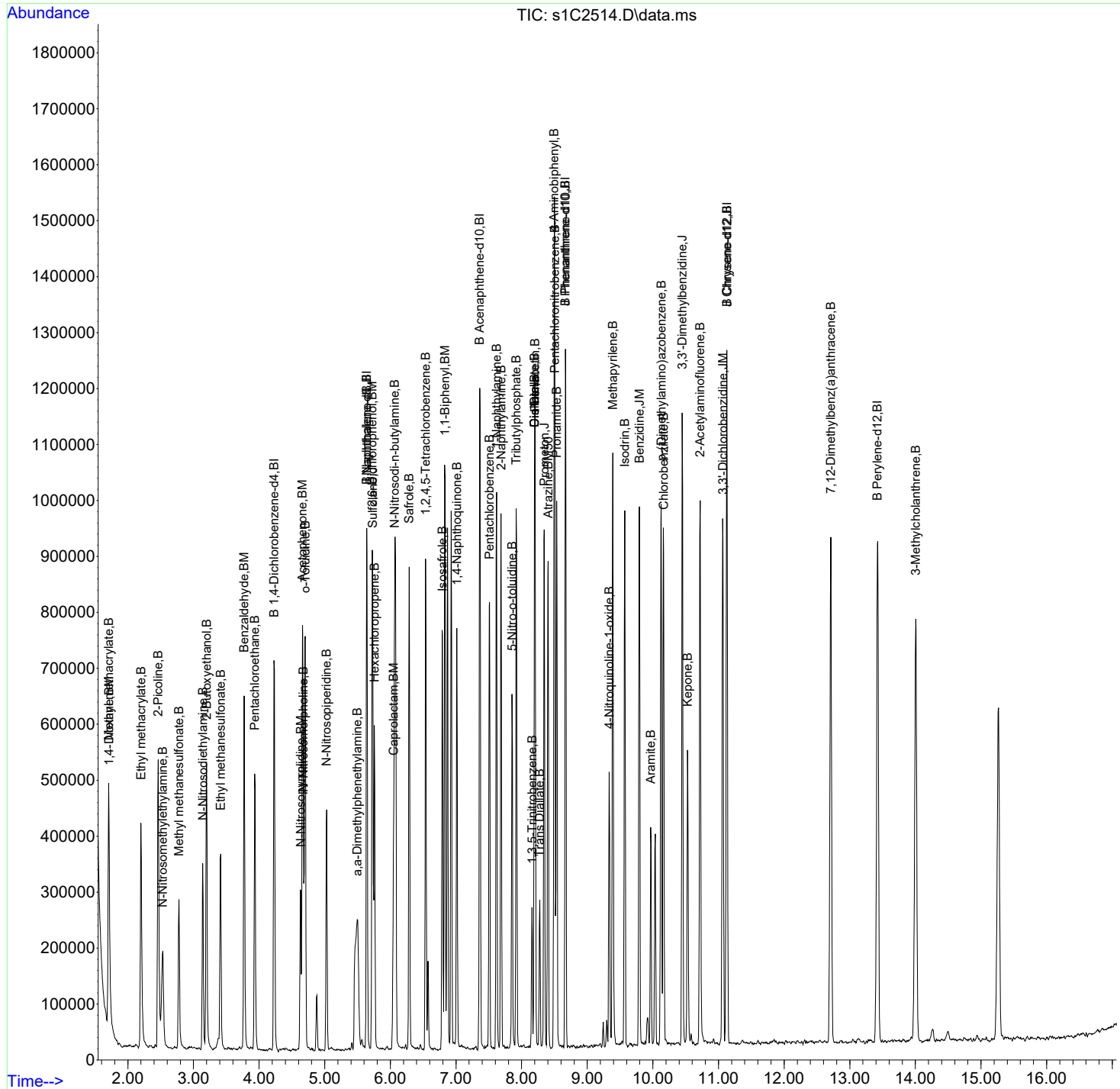
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
114) a,a-Dimethylphenethyla...	58	5.495	5.495	0.974	569308	40.08	ng/uL 100
115) 2,6-Dichlorophenol	162	5.725	5.725	1.015	150478	40.43	ng/uL 100
116) Hexachloropropene	213	5.757	5.757	1.021	119257	40.17	ng/uL 100
117) Caprolactam	113	6.051	6.051	1.073	45227	41.38	ng/uL 100
118) N-Nitrosodi-n-butylamine	57	6.067	6.067	1.076	111662	38.77	ng/uL 100
119) Safrole	162	6.286	6.286	1.115	136219	40.51	ng/uL 100
121) 1,2,4,5-Tetrachloroben...	216	6.538	6.538	0.888	190538	41.49	ng/uL 100
122) 1,1-Biphenyl	154	6.832	6.832	0.928	386657	41.33	ng/uL 100
123) Isosafrole	162	6.794	6.794	0.923	148238	40.84	ng/uL 100
124) 1,4-Naphthoquinone	158	7.014	7.014	0.953	142652	41.36	ng/uL 100
125) Pentachlorobenzene	250	7.511	7.511	1.020	156061	40.41	ng/uL 100
126) 1-Naphthylamine	143	7.618	7.618	1.035	333050	41.21	ng/uL 100
127) 2-Naphthylamine	143	7.688	7.688	1.044	342798	42.09	ng/uL 100
128) 5-Nitro-o-toluidine	152	7.854	7.854	1.067	81925	37.75	ng/uL 100
129) Tributylphosphate	99	7.918	7.918	1.076	522793	42.20	ng/uL 100
131) 1,3,5-Trinitrobenzene	75	8.158	8.158	0.941	75161	37.10	ng/uL 100
132) Phenacetin	108	8.207	8.207	0.947	202150	40.05	ng/uL 100
133) Diallate	86	8.196	8.196	0.946	126415	41.31	ng/uL 100
134) Cis Diallate	86	8.196	8.196	0.946	126415	35.11	ng/uL 100
135) Trans Diallate	86	8.276	8.276	0.955	45340	6.00	ng/uL 100
136) Atrazine	200	8.404	8.404	0.970	115821	40.53	ng/uL 100
137) 4-Aminobiphenyl	169	8.495	8.495	0.980	440922	41.03	ng/uL 100
138) Pentachloronitrobenzene	237	8.506	8.506	0.981	50052	40.23	ng/uL 100
139) Pronamide	173	8.533	8.533	0.985	195382	40.91	ng/uL 100
140) 4-Nitroquinoline-1-oxide	128	9.335	9.335	1.077	22231	45.66	ng/uL 100
141) Methapyrilene	58	9.389	9.389	1.083	393440	42.63	ng/uL 100
142) Isodrin	193	9.570	9.570	1.104	74570	40.11	ng/uL 100
144) Aramite	185	9.966	9.966	0.896	28014	40.02	ng/uL 100
145) Kepone	272	10.528	10.528	0.946	66305	43.04	ng/uL 100
146) p-(Dimethylamino)azobe...	120	10.127	10.127	0.910	179459	41.43	ng/uL 100
147) Chlorobenzilate	251	10.164	10.164	0.913	169264	40.00	ng/uL 100
148) 2-Acetylaminofluorene	181	10.720	10.720	0.963	294555	41.09	ng/uL 100
150) 7,12-Dimethylbenz(a)an...	256	12.710	12.710	0.947	300666	40.91	ng/uL 100
151) 3-Methylcholanthrene	269	14.004	14.004	1.043	75362	41.06	ng/uL 100
153) Sulfolane	56	5.730	5.730	1.016	82067	40.82	ng/uL 100
155) Prometon	210	8.346	8.346	0.963	108735	41.93	ng/uL 100
156) Benzidine	184	9.795	9.795	1.130	442058	40.98	ng/uL 100
158) 3,3'-Dimethylbenzidine	212	10.448	10.448	0.939	471277	41.88	ng/uL 100
159) 3,3'-Dichlorobenzidine	252	11.068	11.068	0.995	280842	41.47	ng/uL 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2514.D
Acq On : 25 Mar 2024 16:17
Operator : LL2
InstName : MSD1
Sample : |WBN240201-54.1|ICAL|1|SVM|1|APX-4
Misc : |MIX[B,J]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 26 10:11:13 2024
Quant Method : D:\MSDCHEM\1\Data\S032524\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:10 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2515.D
Acq On : 25 Mar 2024 16:39
Operator : LL2
InstName : MSD1
Sample : |WBN240201-55|ICAL|1|SVM|1|APX-5
Misc : |MIX[B,J]
ALS Vial : 15 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:11:22 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:18 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.362	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.427	13.427	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	134242	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	493029	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.362	7.361	1.000	264004	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	518343	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	562671	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.427	13.421	1.000	628729	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.639	5.639	1.000	493029	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	518343	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	562671	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.362	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.427	13.437	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	4.885	4.837	0.866	0d	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	

Target Compounds								QValue
97) 1,4-Dioxane	88	1.713	1.713	0.405	90039	49.23	ng/uL	89
98) Methyl methacrylate	100	1.708	1.708	0.404	36495	52.23	ng/uL	95
99) Ethyl methacrylate	69	2.200	2.200	0.520	220003	51.62	ng/uL	97
100) 2-Picoline	93	2.462	2.462	0.582	277471	52.99	ng/uL	99
101) N-Nitrosomethylethylamine	88	2.532	2.532	0.599	97458	50.30	ng/uL	95
102) Methyl methanesulfonate	80	2.778	2.778	0.657	162080	52.11	ng/uL	92
103) N-Nitrosodiethylamine	102	3.141	3.141	0.743	103428	52.65	ng/uL	94
104) 2-Butoxyethanol	57	3.200	3.200	0.757	323942	51.42	ng/uL	100
105) Ethyl methanesulfonate	79	3.414	3.414	0.808	221129	51.97	ng/uL	97
106) Benzaldehyde	77	3.773	3.773	0.892	225101	52.56	ng/uL	97
107) Pentachloroethane	167	3.938	3.933	0.932	100795	51.32	ng/uL	99
108) N-Nitrosopyrrolidine	100	4.634	4.634	1.096	114873	53.39	ng/uL	97
109) Acetophenone	105	4.666	4.660	1.104	344229	50.69	ng/uL	97
110) N-Nitrosomorpholine	56	4.682	4.676	1.108	145743	50.52	ng/uL	98
111) o-Toluidine	106	4.703	4.703	1.113	350621	51.28	ng/uL	96
113) N-Nitrosopiperidine	114	5.030	5.029	0.892	111934	51.48	ng/uL	98

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2515.D
Acq On : 25 Mar 2024 16:39
Operator : LL2
InstName : MSD1
Sample : |WBN240201-55|ICAL|1|SVM|1|APX-5
Misc : |MIX[B,J]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 26 10:11:22 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:18 2024
Response via : Initial Calibration
Integrator: RTE

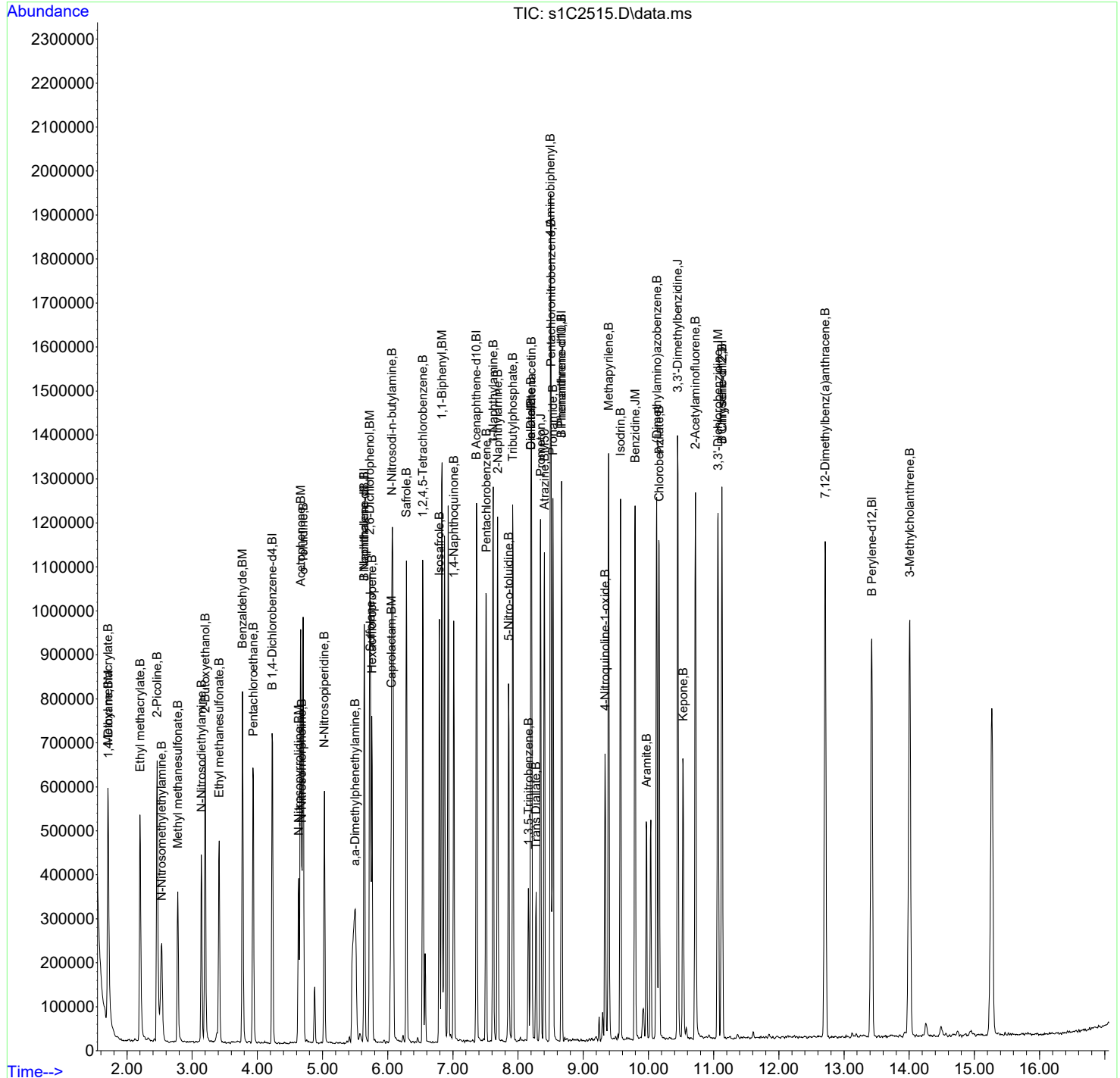
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
114) a,a-Dimethylphenethyla...	58	5.500	5.495	0.975	747625	52.50	ng/uL 98
115) 2,6-Dichlorophenol	162	5.725	5.725	1.015	189647	50.83	ng/uL 98
116) Hexachloropropene	213	5.757	5.757	1.021	150034	50.42	ng/uL 97
117) Caprolactam	113	6.056	6.051	1.074	55010	50.21	ng/uL 95
118) N-Nitrosodi-n-butylamine	57	6.067	6.067	1.076	141341	48.96	ng/uL 97
119) Safrole	162	6.286	6.286	1.115	174411	51.73	ng/uL 99
121) 1,2,4,5-Tetrachloroben...	216	6.538	6.538	0.888	236777	50.55	ng/uL 97
122) 1,1-Biphenyl	154	6.832	6.832	0.928	485689	50.90	ng/uL 99
123) Isosafrole	162	6.795	6.794	0.923	185095	49.99	ng/uL 99
124) 1,4-Naphthoquinone	158	7.014	7.014	0.953	181651	51.63	ng/uL 99
125) Pentachlorobenzene	250	7.511	7.511	1.020	201408	51.12	ng/uL 97
126) 1-Naphthylamine	143	7.618	7.618	1.035	420790	51.04	ng/uL 98
127) 2-Naphthylamine	143	7.688	7.688	1.044	423347	50.96	ng/uL 99
128) 5-Nitro-o-toluidine	152	7.854	7.854	1.067	111658	50.43	ng/uL 96
129) Tributylphosphate	99	7.918	7.918	1.076	651395	51.55	ng/uL 98
131) 1,3,5-Trinitrobenzene	75	8.158	8.158	0.941	106568	52.50	ng/uL 99
132) Phenacetin	108	8.207	8.207	0.947	258846	51.18	ng/uL 97
133) Diallate	86	8.196	8.196	0.946	157177	51.25	ng/uL 99
134) Cis Diallate	86	8.196	8.196	0.946	157177	43.57	ng/uL 99
135) Trans Diallate	86	8.276	8.276	0.955	58187	7.69	ng/uL 98
136) Atrazine	200	8.405	8.404	0.970	148356	51.81	ng/uL 97
137) 4-Aminobiphenyl	169	8.495	8.495	0.980	545458	50.65	ng/uL 100
138) Pentachloronitrobenzene	237	8.506	8.506	0.981	64953	52.10	ng/uL 96
139) Pronamide	173	8.533	8.533	0.985	243376	50.86	ng/uL 99
140) 4-Nitroquinoline-1-oxide	128	9.335	9.335	1.077	25514	52.29	ng/uL 86
141) Methapyrilene	58	9.389	9.389	1.083	484896	52.43	ng/uL 98
142) Isodrin	193	9.571	9.570	1.104	95514	51.27	ng/uL 96
144) Aramite	185	9.972	9.966	0.896	35198	49.83	ng/uL 93
145) Kepone	272	10.533	10.528	0.947	81719	52.55	ng/uL 94
146) p-(Dimethylamino)azobe...	120	10.127	10.127	0.910	222547	50.90	ng/uL 97
147) Chlorobenzilate	251	10.164	10.164	0.913	224353	52.53	ng/uL 96
148) 2-Acetylaminofluorene	181	10.720	10.720	0.963	376726	52.07	ng/uL 98
150) 7,12-Dimethylbenz(a)an...	256	12.710	12.710	0.947	376415	50.04	ng/uL 98
151) 3-Methylcholanthrene	269	14.010	14.004	1.043	95210	50.67	ng/uL 98
153) Sulfolane	56	5.736	5.730	1.017	101357	50.30	ng/uL 100
155) Prometon	210	8.346	8.346	0.963	134156	51.63	ng/uL 98
156) Benzydine	184	9.795	9.795	1.130	562155	52.00	ng/uL 99
158) 3,3'-Dimethylbenzydine	212	10.448	10.448	0.939	588472	51.81	ng/uL 97
159) 3,3'-Dichlorobenzidine	252	11.068	11.068	0.995	350608	51.29	ng/uL 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2515.D
Acq On : 25 Mar 2024 16:39
Operator : LL2
InstName : MSD1
Sample : |WBN240201-55|ICAL|1|SVM|1|APX-5
Misc : |MIX[B,J]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 26 10:11:22 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:18 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2516.D
Acq On : 25 Mar 2024 17:02
Operator : LL2
InstName : MSD1
Sample : |WBN240201-56|ICAL|1|SVM|1|APX-10
Misc : |MIX[B,J]
ALS Vial : 16 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:11:31 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:28 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.362	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.422	13.427	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	129758	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	473091	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.362	7.361	1.000	251840	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	506637	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	540637	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.422	13.421	1.000	598466	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.639	5.639	1.000	473091	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	506637	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	540637	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.362	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.422	13.437	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	3.730	3.794	0.882	0d	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	

Target Compounds								
97) 1,4-Dioxane	88	1.713	1.713	0.405	103511	58.55	ng/uL	QValue
98) Methyl methacrylate	100	1.708	1.708	0.404	40213	59.54	ng/uL	96
99) Ethyl methacrylate	69	2.200	2.200	0.520	243735	59.17	ng/uL	98
100) 2-Picoline	93	2.462	2.462	0.582	304861	60.23	ng/uL	97
101) N-Nitrosomethylethylamine	88	2.532	2.532	0.599	112762	60.21	ng/uL	97
102) Methyl methanesulfonate	80	2.778	2.778	0.657	180654	60.08	ng/uL	100
103) N-Nitrosodiethylamine	102	3.142	3.141	0.743	120882	63.66	ng/uL	92
104) 2-Butoxyethanol	57	3.200	3.200	0.757	362766	59.58	ng/uL	98
105) Ethyl methanesulfonate	79	3.414	3.414	0.808	247362	60.15	ng/uL	99
106) Benzaldehyde	77	3.773	3.773	0.892	248093	59.93	ng/uL	96
107) Pentachloroethane	167	3.933	3.933	0.930	115120	60.64	ng/uL	99
108) N-Nitrosopyrrolidine	100	4.634	4.634	1.096	128137	61.62	ng/uL	99
109) Acetophenone	105	4.666	4.660	1.104	390082	59.43	ng/uL	99
110) N-Nitrosomorpholine	56	4.682	4.676	1.108	162990	58.45	ng/uL	96
111) o-Toluidine	106	4.703	4.703	1.113	393706	59.58	ng/uL	98
113) N-Nitrosopiperidine	114	5.030	5.029	0.892	124437	59.64	ng/uL	95

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2516.D
Acq On : 25 Mar 2024 17:02
Operator : LL2
InstName : MSD1
Sample : |WBN240201-56|ICAL|1|SVM|1|APX-10
Misc : |MIX[B,J]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 26 10:11:31 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:28 2024
Response via : Initial Calibration
Integrator: RTE

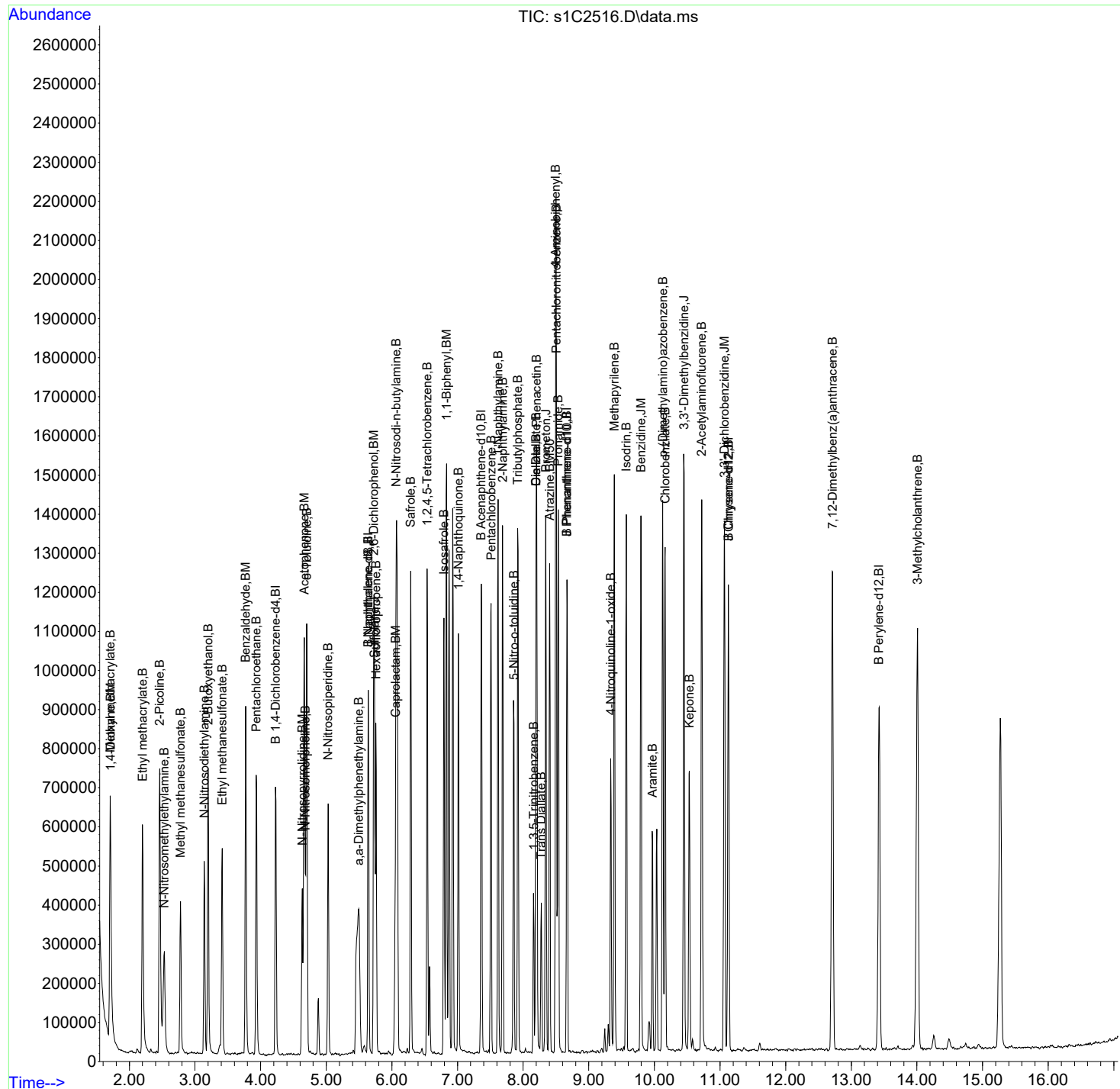
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
114) a,a-Dimethylphenethyla...	58	5.495	5.495	0.974	845761	61.89	ng/uL	99
115) 2,6-Dichlorophenol	162	5.725	5.725	1.015	215342	60.15	ng/uL	98
116) Hexachloropropene	213	5.757	5.757	1.021	170022	59.54	ng/uL	96
117) Caprolactam	113	6.057	6.051	1.074	61397	58.40	ng/uL	91
118) N-Nitrosodi-n-butylamine	57	6.067	6.067	1.076	162386	58.62	ng/uL	98
119) Safrole	162	6.287	6.286	1.115	197670	61.11	ng/uL	97
121) 1,2,4,5-Tetrachloroben...	216	6.538	6.538	0.888	266472	59.63	ng/uL	96
122) 1,1-Biphenyl	154	6.832	6.832	0.928	543143	59.67	ng/uL	98
123) Isosafrole	162	6.795	6.794	0.923	213018	60.31	ng/uL	100
124) 1,4-Naphthoquinone	158	7.014	7.014	0.953	202620	60.37	ng/uL	98
125) Pentachlorobenzene	250	7.511	7.511	1.020	225836	60.09	ng/uL	98
126) 1-Naphthylamine	143	7.618	7.618	1.035	465265	59.16	ng/uL	100
127) 2-Naphthylamine	143	7.688	7.688	1.044	461812	58.27	ng/uL	97
128) 5-Nitro-o-toluidine	152	7.859	7.854	1.068	134229	63.56	ng/uL	91
129) Tributylphosphate	99	7.918	7.918	1.076	720985	59.81	ng/uL	97
131) 1,3,5-Trinitrobenzene	75	8.159	8.158	0.941	123618	62.30	ng/uL	97
132) Phenacetin	108	8.207	8.207	0.947	289196	58.51	ng/uL	97
133) Diallate	86	8.196	8.196	0.946	176296	58.82	ng/uL	97
134) Cis Diallate	86	8.196	8.196	0.946	176296	49.99	ng/uL	97
135) Trans Diallate	86	8.276	8.276	0.955	64945	8.78	ng/uL	95
136) Atrazine	200	8.405	8.404	0.970	165086	58.99	ng/uL	98
137) 4-Aminobiphenyl	169	8.495	8.495	0.980	620751	58.98	ng/uL	99
138) Pentachloronitrobenzene	237	8.506	8.506	0.981	68884	56.52	ng/uL	94
139) Pronamide	173	8.533	8.533	0.985	278588	59.56	ng/uL	96
140) 4-Nitroquinoline-1-oxide	128	9.335	9.335	1.077	29637	62.15	ng/uL	93
141) Methapyrilene	58	9.389	9.389	1.083	532611	58.92	ng/uL	98
142) Isodrin	193	9.571	9.570	1.104	107885	59.25	ng/uL	95
144) Aramite	185	9.972	9.966	0.896	44871	66.11	ng/uL	92
145) Kepone	272	10.533	10.528	0.947	90562	60.61	ng/uL	95
146) p-(Dimethylamino)azobe...	120	10.127	10.127	0.910	256914	61.16	ng/uL	98
147) Chlorobenzilate	251	10.164	10.164	0.913	249456	60.79	ng/uL	96
148) 2-Acetylaminofluorene	181	10.721	10.720	0.963	433321	62.33	ng/uL	100
150) 7,12-Dimethylbenz(a)an...	256	12.716	12.710	0.947	419644	58.61	ng/uL	98
151) 3-Methylcholanthrene	269	14.010	14.004	1.044	110845	61.98	ng/uL	95
153) Sulfolane	56	5.736	5.730	1.017	115628	59.80	ng/uL	98
155) Prometon	210	8.346	8.346	0.963	150396	59.22	ng/uL	97
156) Benzidine	184	9.795	9.795	1.130	618735	58.56	ng/uL	100
158) 3,3'-Dimethylbenzidine	212	10.453	10.448	0.939	655652	60.08	ng/uL	100
159) 3,3'-Dichlorobenzidine	252	11.068	11.068	0.995	399632	60.85	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2516.D
Acq On : 25 Mar 2024 17:02
Operator : LL2
InstName : MSD1
Sample : |WBN240201-56|ICAL|1|SVM|1|APX-10
Misc : |MIX[B,J]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 26 10:11:31 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:28 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2517.D
Acq On : 25 Mar 2024 17:24
Operator : LL2
InstName : MSD1
Sample : |WBN240201-57|ICAL|1|SVM|1|APX-6
Misc : |MIX[B,J]
ALS Vial : 17 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:11:40 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:36 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.362	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.672	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.427	13.427	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	141304	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	501546	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.362	7.361	1.000	266121	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.672	8.667	1.000	531278	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	577532	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.427	13.421	1.000	648642	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.639	5.639	1.000	501546	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.672	8.667	1.000	531278	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	577532	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.362	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.672	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.427	13.437	1.000	0m	40.00	ng/uL	0.00

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	4.880	4.837	0.865	0d	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	

Target Compounds								QValue
97) 1,4-Dioxane	88	1.713	1.713	0.405	140140	72.80	ng/uL	92
98) Methyl methacrylate	100	1.708	1.708	0.404	56021	76.17	ng/uL	96
99) Ethyl methacrylate	69	2.200	2.200	0.520	346379	77.22	ng/uL	99
100) 2-Picoline	93	2.462	2.462	0.582	428455	77.73	ng/uL	100
101) N-Nitrosomethylethylamine	88	2.532	2.532	0.599	160341	78.62	ng/uL	99
102) Methyl methanesulfonate	80	2.778	2.778	0.657	258228	78.87	ng/uL	92
103) N-Nitrosodiethylamine	102	3.142	3.141	0.743	160997	77.85	ng/uL	98
104) 2-Butoxyethanol	57	3.200	3.200	0.757	502765	75.82	ng/uL	97
105) Ethyl methanesulfonate	79	3.414	3.414	0.808	347070	77.50	ng/uL	98
106) Benzaldehyde	77	3.773	3.773	0.892	336028	74.53	ng/uL	98
107) Pentachloroethane	167	3.933	3.933	0.930	163354	79.02	ng/uL	100
108) N-Nitrosopyrrolidine	100	4.634	4.634	1.096	186411	82.32	ng/uL	95
109) Acetophenone	105	4.666	4.660	1.104	539558	75.48	ng/uL	97
110) N-Nitrosomorpholine	56	4.682	4.676	1.108	235407	77.52	ng/uL	97
111) o-Toluidine	106	4.703	4.703	1.113	545482	75.80	ng/uL	97
113) N-Nitrosopiperidine	114	5.030	5.029	0.892	183040	82.75	ng/uL	98

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2517.D
Acq On : 25 Mar 2024 17:24
Operator : LL2
InstName : MSD1
Sample : |WBN240201-57|ICAL|1|SVM|1|APX-6
Misc : |MIX[B,J]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 26 10:11:40 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:36 2024
Response via : Initial Calibration
Integrator: RTE

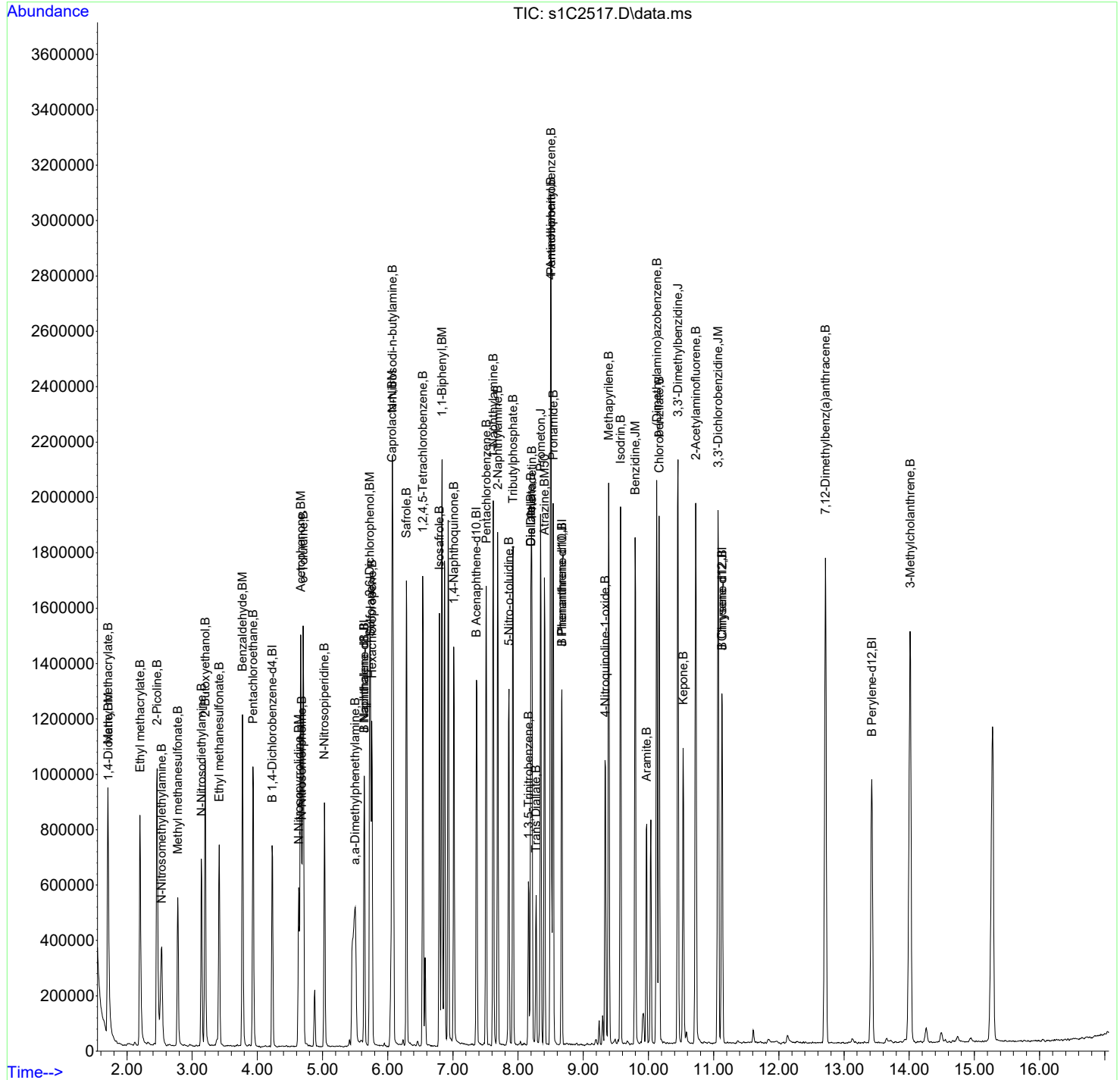
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
114) a,a-Dimethylphenethyla...	58	5.500	5.495	0.975	1183359	81.69	ng/uL 100
115) 2,6-Dichlorophenol	162	5.725	5.725	1.015	301014	79.32	ng/uL 97
116) Hexachloropropene	213	5.757	5.757	1.021	238543	78.80	ng/uL 97
117) Caprolactam	113	6.067	6.051	1.076	91154	81.78	ng/uL 94
118) N-Nitrosodi-n-butylamine	57	6.073	6.067	1.077	225204	76.68	ng/uL 99
119) Safrole	162	6.287	6.286	1.115	273190	79.66	ng/uL 100
121) 1,2,4,5-Tetrachloroben...	216	6.538	6.538	0.888	370482	78.46	ng/uL 97
122) 1,1-Biphenyl	154	6.832	6.832	0.928	722356	75.10	ng/uL 96
123) Isosafrole	162	6.795	6.794	0.923	289348	77.53	ng/uL 98
124) 1,4-Naphthoquinone	158	7.014	7.014	0.953	277028	78.12	ng/uL 97
125) Pentachlorobenzene	250	7.511	7.511	1.020	314864	79.29	ng/uL 98
126) 1-Naphthylamine	143	7.618	7.618	1.035	628339	75.61	ng/uL 97
127) 2-Naphthylamine	143	7.688	7.688	1.044	634836	75.81	ng/uL 98
128) 5-Nitro-o-toluidine	152	7.859	7.854	1.068	190551	85.38	ng/uL 90
129) Tributylphosphate	99	7.923	7.918	1.076	940044	73.80	ng/uL 94
131) 1,3,5-Trinitrobenzene	75	8.159	8.158	0.941	186994	89.87	ng/uL 99
132) Phenacetin	108	8.212	8.207	0.947	409574	79.02	ng/uL 99
133) Diallate	86	8.196	8.196	0.945	249183	79.28	ng/uL 96
134) Cis Diallate	86	8.196	8.196	0.945	249183	67.38	ng/uL 96
135) Trans Diallate	86	8.276	8.276	0.954	91133	11.75	ng/uL 99
136) Atrazine	200	8.405	8.404	0.969	226228	77.09	ng/uL 99
137) 4-Aminobiphenyl	169	8.501	8.495	0.980	807211	73.14	ng/uL 97
138) Pentachloronitrobenzene	237	8.506	8.506	0.981	109173	85.43	ng/uL 99
139) Pronamide	173	8.538	8.533	0.985	376777	76.81	ng/uL 95
140) 4-Nitroquinoline-1-oxide	128	9.335	9.335	1.076	41238	82.46	ng/uL 91
141) Methapyrilene	58	9.389	9.389	1.083	714075	75.33	ng/uL 95
142) Isodrin	193	9.571	9.570	1.104	147893	77.46	ng/uL 95
144) Aramite	185	9.972	9.966	0.896	62022	85.54	ng/uL 100
145) Kepone	272	10.533	10.528	0.947	127732	80.03	ng/uL 91
146) p-(Dimethylamino)azobe...	120	10.127	10.127	0.910	355807	79.29	ng/uL 99
147) Chlorobenzilate	251	10.164	10.164	0.913	350701	80.00	ng/uL 99
148) 2-Acetylaminofluorene	181	10.726	10.720	0.964	603256	81.23	ng/uL 100
150) 7,12-Dimethylbenz(a)an...	256	12.716	12.710	0.947	611642	78.81	ng/uL 99
151) 3-Methylcholanthrene	269	14.015	14.004	1.044	155504	80.22	ng/uL 98
153) Sulfolane	56	5.736	5.730	1.017	164306	80.15	ng/uL 100
155) Prometon	210	8.346	8.346	0.962	212895	79.94	ng/uL 99
156) Benzidine	184	9.795	9.795	1.130	834369	75.31	ng/uL 99
158) 3,3'-Dimethylbenzidine	212	10.453	10.448	0.939	876022	75.15	ng/uL 98
159) 3,3'-Dichlorobenzidine	252	11.068	11.068	0.995	554501	79.03	ng/uL 99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2517.D
Acq On : 25 Mar 2024 17:24
Operator : LL2
InstName : MSD1
Sample : |WBN240201-57|ICAL|1|SVM|1|APX-6
Misc : |MIX[B,J]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 26 10:11:40 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:36 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2518.D
Acq On : 25 Mar 2024 17:47
Operator : LL2
InstName : MSD1
Sample : |WBN240201-58|ICAL|1|SVM|1|APX-7
Misc : |MIX[B,J]
ALS Vial : 18 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:11:51 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:47 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.233	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.367	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.672	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.427	13.427	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.233	4.227	1.000	139706	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	492572	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.367	7.361	1.000	267230	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.672	8.667	1.000	521405	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	574933	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.427	13.421	1.000	634422	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.639	5.639	1.000	492572	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.672	8.667	1.000	521405	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	574933	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.367	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.672	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.427	13.437	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	3.778	3.794	0.893	0d	0.00	ng/uL	
23) Nitrobenzene-d5	82	4.874	4.837	0.864	0d	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
97) 1,4-Dioxane	88	1.713	1.713	0.405	174913	91.90	ng/uL	96
98) Methyl methacrylate	100	1.708	1.708	0.404	70262	96.63	ng/uL	96
99) Ethyl methacrylate	69	2.200	2.200	0.520	414432	93.44	ng/uL	98
100) 2-Picoline	93	2.462	2.462	0.582	519724	95.37	ng/uL	99
101) N-Nitrosomethylethylamine	88	2.532	2.532	0.598	197120	97.76	ng/uL	95
102) Methyl methanesulfonate	80	2.783	2.778	0.658	305337	94.32	ng/uL	98
103) N-Nitrosodiethylamine	102	3.147	3.141	0.743	193482	94.63	ng/uL	97
104) 2-Butoxyethanol	57	3.200	3.200	0.756	605611	92.37	ng/uL	98
105) Ethyl methanesulfonate	79	3.414	3.414	0.807	420834	95.04	ng/uL	100
106) Benzaldehyde	77	3.773	3.773	0.891	400969	89.96	ng/uL	98
107) Pentachloroethane	167	3.938	3.933	0.930	190820	93.36	ng/uL	100
108) N-Nitrosopyrrolidine	100	4.639	4.634	1.096	221761	99.05	ng/uL	99
109) Acetophenone	105	4.666	4.660	1.102	647237	91.58	ng/uL	99
110) N-Nitrosomorpholine	56	4.687	4.676	1.107	281196	93.66	ng/uL	95
111) o-Toluidine	106	4.709	4.703	1.112	641528	90.16	ng/uL	98
113) N-Nitrosopiperidine	114	5.035	5.029	0.893	222986	102.65	ng/uL	95

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2518.D
Acq On : 25 Mar 2024 17:47
Operator : LL2
InstName : MSD1
Sample : |WBN240201-58|ICAL|1|SVM|1|APX-7
Misc : |MIX[B,J]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 26 10:11:51 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:47 2024
Response via : Initial Calibration
Integrator: RTE

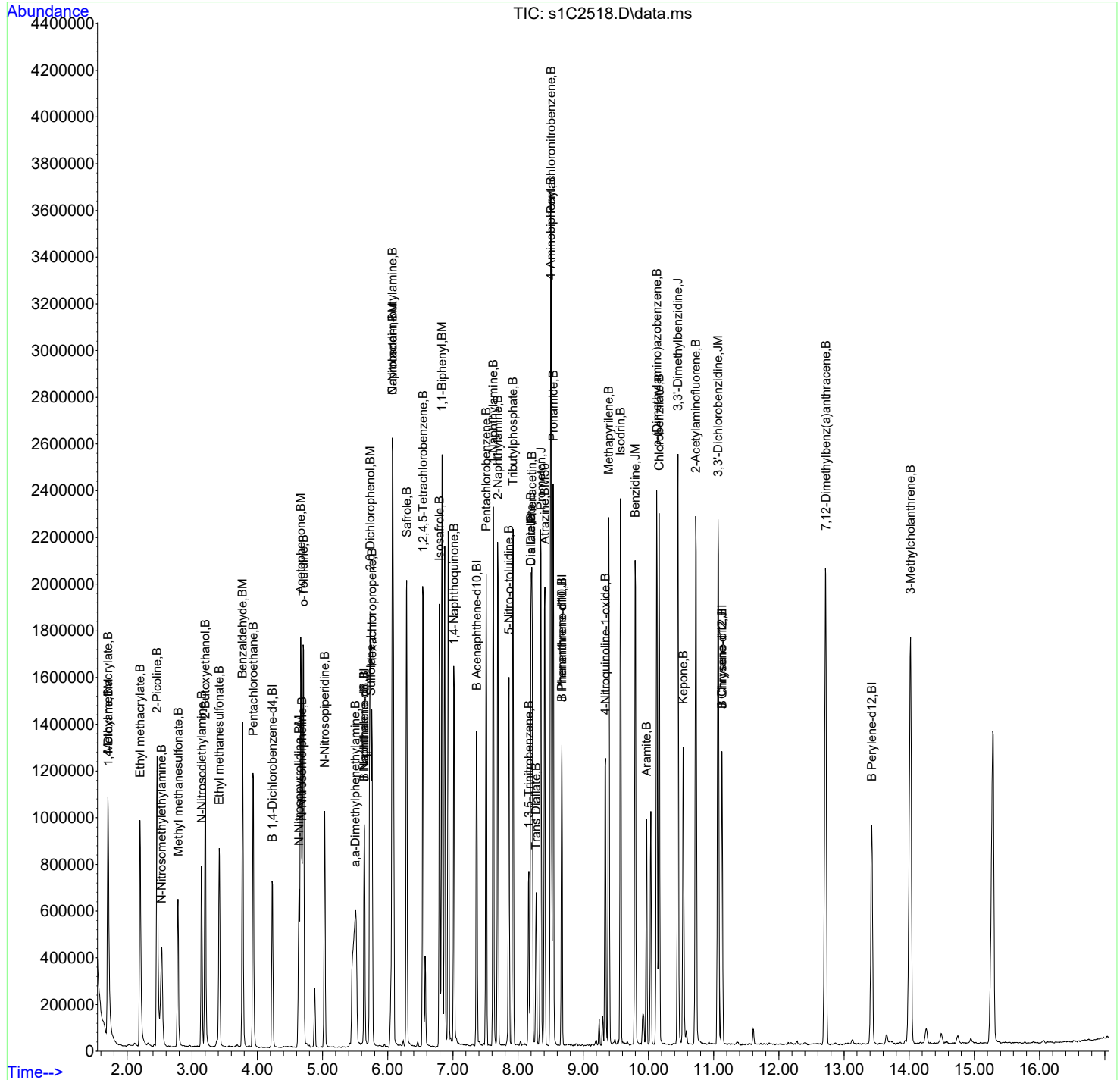
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
114) a,a-Dimethylphenethyla...	58	5.505	5.495	0.976	1486266	104.47	ng/uL	99
115) 2,6-Dichlorophenol	162	5.730	5.725	1.016	368119	98.76	ng/uL	98
116) Hexachloropropene	213	5.757	5.757	1.021	291260	97.96	ng/uL	99
117) Caprolactam	113	6.072	6.051	1.077	109510	100.04	ng/uL	98
118) N-Nitrosodi-n-butylamine	57	6.072	6.067	1.077	272406	94.45	ng/uL	96
119) Safrole	162	6.292	6.286	1.116	319665	94.91	ng/uL	98
121) 1,2,4,5-Tetrachloroben...	216	6.543	6.538	0.888	448862	94.67	ng/uL	96
122) 1,1-Biphenyl	154	6.832	6.832	0.927	833839	86.33	ng/uL	94
123) Isosafrole	162	6.795	6.794	0.922	346701	92.51	ng/uL	98
124) 1,4-Naphthoquinone	158	7.019	7.014	0.953	324223	91.04	ng/uL	98
125) Pentachlorobenzene	250	7.511	7.511	1.020	370680	92.96	ng/uL	98
126) 1-Naphthylamine	143	7.618	7.618	1.034	757582	90.79	ng/uL	97
127) 2-Naphthylamine	143	7.688	7.688	1.044	743886	88.46	ng/uL	96
128) 5-Nitro-o-toluidine	152	7.859	7.854	1.067	236247	105.42	ng/uL	91
129) Tributylphosphate	99	7.923	7.918	1.076	1103577	86.28	ng/uL	95
131) 1,3,5-Trinitrobenzene	75	8.164	8.158	0.941	234338	114.76	ng/uL	97
132) Phenacetin	108	8.212	8.207	0.947	489441	96.21	ng/uL	99
133) Diallate	86	8.196	8.196	0.945	304710	98.78	ng/uL	97
134) Cis Diallate	86	8.196	8.196	0.945	304710	83.96	ng/uL	97
135) Trans Diallate	86	8.276	8.276	0.954	115479	15.17	ng/uL	98
136) Atrazine	200	8.410	8.404	0.970	266240	92.44	ng/uL	99
137) 4-Aminobiphenyl	169	8.501	8.495	0.980	935681	86.38	ng/uL	97
138) Pentachloronitrobenzene	237	8.506	8.506	0.981	127328	101.52	ng/uL	98
139) Pronamide	173	8.538	8.533	0.985	454686	94.45	ng/uL	97
140) 4-Nitroquinoline-1-oxide	128	9.340	9.335	1.077	47420	96.62	ng/uL	89
141) Methapyrilene	58	9.389	9.389	1.083	822647	88.43	ng/uL	93
142) Isodrin	193	9.570	9.570	1.104	171956	91.76	ng/uL	100
144) Aramite	185	9.972	9.966	0.896	73459	101.77	ng/uL	98
145) Kepone	272	10.533	10.528	0.947	155878	98.11	ng/uL	93
146) p-(Dimethylamino)azobe...	120	10.127	10.127	0.910	421753	94.41	ng/uL	96
147) Chlorobenzilate	251	10.164	10.164	0.913	408882	93.69	ng/uL	99
148) 2-Acetylaminofluorene	181	10.726	10.720	0.964	731233	98.91	ng/uL	99
150) 7,12-Dimethylbenz(a)an...	256	12.721	12.710	0.947	716960	94.45	ng/uL	99
151) 3-Methylcholanthrene	269	14.021	14.004	1.044	181434	95.70	ng/uL	97
153) Sulfolane	56	5.741	5.730	1.018	194294	96.50	ng/uL	99
155) Prometon	210	8.351	8.346	0.963	259257	99.20	ng/uL	99
156) Benzydine	184	9.795	9.795	1.130	963623	88.62	ng/uL	98
158) 3,3'-Dimethylbenzidine	212	10.453	10.448	0.939	1020854	87.97	ng/uL	99
159) 3,3'-Dichlorobenzidine	252	11.068	11.068	0.995	667490	95.57	ng/uL	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2518.D
Acq On : 25 Mar 2024 17:47
Operator : LL2
InstName : MSD1
Sample : |WBN240201-58|ICAL|1|SVM|1|APX-7
Misc : |MIX[B,J]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 26 10:11:51 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:47 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2519.D
Acq On : 25 Mar 2024 18:09
Operator : LL2
InstName : MSD1
Sample : |WBN240201-59|ICAL|1|SVM|1|APX-8
Misc : |MIX[B,J]
ALS Vial : 19 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:11:59 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:56 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.233	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.645	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.361	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.672	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.427	13.427	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.233	4.227	1.000	132924	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.645	5.639	1.000	478450	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.361	7.361	1.000	259156	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.672	8.667	1.000	510409	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	554459	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.427	13.421	1.000	613484	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.645	5.639	1.000	478450	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.672	8.667	1.000	510409	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	554459	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.361	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.672	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.645	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.427	13.437	1.000	0m	40.00	ng/uL	-0.01
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	
Target Compounds								QValue
97) 1,4-Dioxane	88	1.719	1.713	0.406	211440	116.76	ng/uL	95
98) Methyl methacrylate	100	1.713	1.708	0.405	83105	120.12	ng/uL#	92 A
99) Ethyl methacrylate	69	2.200	2.200	0.520	491121	116.38	ng/uL	98
100) 2-Picoline	93	2.462	2.462	0.582	596956	115.13	ng/uL	99
101) N-Nitrosomethylethylamine	88	2.532	2.532	0.598	234703	122.34	ng/uL	98 A
102) Methyl methanesulfonate	80	2.783	2.778	0.658	356409	115.72	ng/uL	97
103) N-Nitrosodiethylamine	102	3.147	3.141	0.743	231171	118.83	ng/uL	97
104) 2-Butoxyethanol	57	3.206	3.200	0.757	702101	112.56	ng/uL	97
105) Ethyl methanesulfonate	79	3.420	3.414	0.808	489570	116.21	ng/uL	100
106) Benzaldehyde	77	3.778	3.773	0.893	455401	107.38	ng/uL	97
107) Pentachloroethane	167	3.938	3.933	0.930	226105	116.27	ng/uL	98
108) N-Nitrosopyrrolidine	100	4.639	4.634	1.096	264445	124.14	ng/uL	97 A
109) Acetophenone	105	4.666	4.660	1.102	742846	110.48	ng/uL	97
110) N-Nitrosomorpholine	56	4.687	4.676	1.107	339024	118.68	ng/uL	98
111) o-Toluidine	106	4.709	4.703	1.112	735550	108.65	ng/uL	100
113) N-Nitrosopiperidine	114	5.035	5.029	0.892	253950	120.35	ng/uL	97 A

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2519.D
Acq On : 25 Mar 2024 18:09
Operator : LL2
InstName : MSD1
Sample : |WBN240201-59|ICAL|1|SVM|1|APX-8
Misc : |MIX[B,J]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 26 10:11:59 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:56 2024
Response via : Initial Calibration
Integrator: RTE

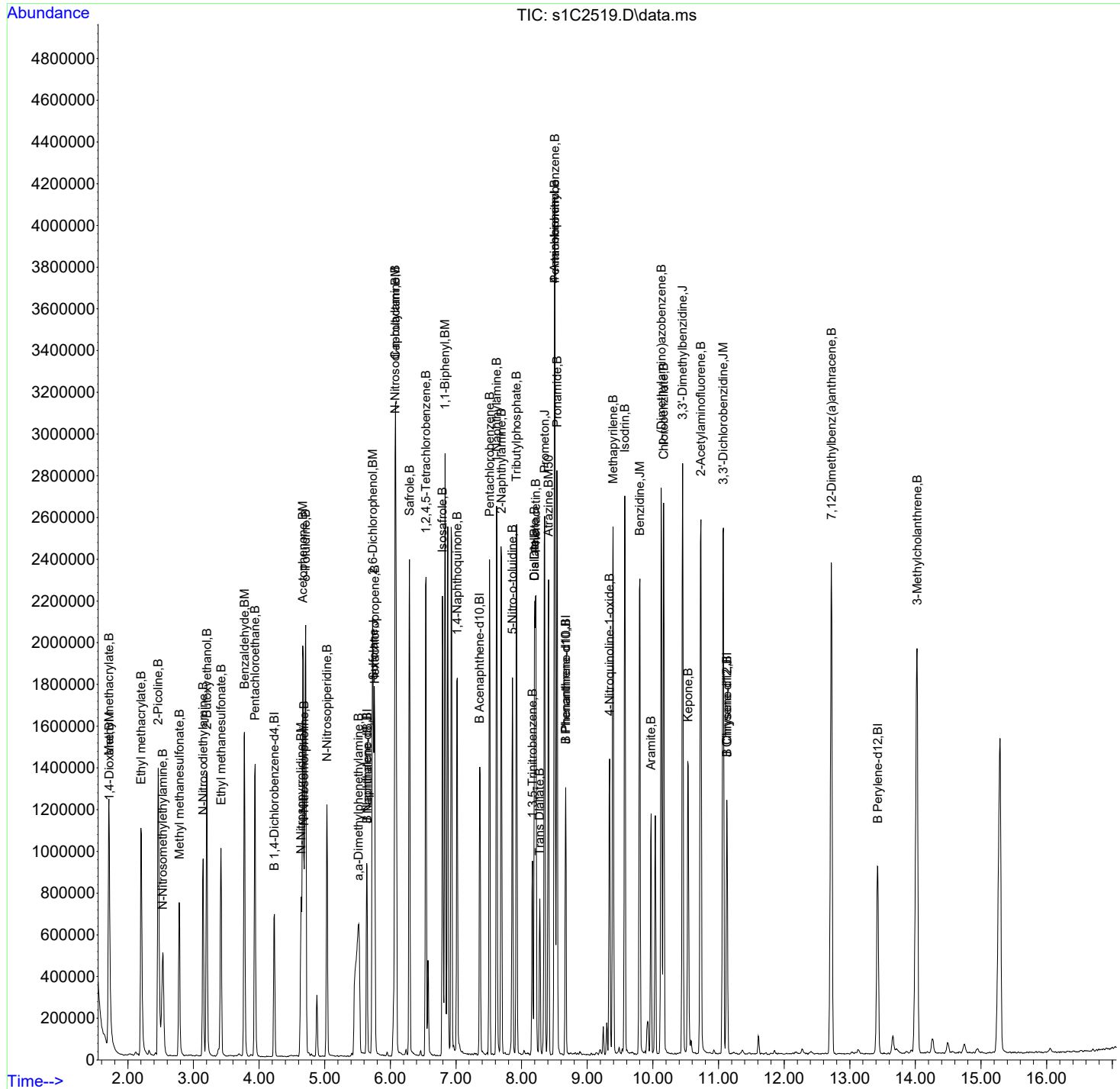
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
114) a,a-Dimethylphenethyla...	58	5.516	5.495	0.977	1730574	125.23	ng/uL	99 A
115) 2,6-Dichlorophenol	162	5.730	5.725	1.015	427794	118.16	ng/uL	96
116) Hexachloropropene	213	5.762	5.757	1.021	335362	116.13	ng/uL	97
117) Caprolactam	113	6.078	6.051	1.077	124442	117.04	ng/uL	97
118) N-Nitrosodi-n-butylamine	57	6.072	6.067	1.076	314734	112.34	ng/uL	98
119) Safrole	162	6.292	6.286	1.115	375493	114.77	ng/uL	99
121) 1,2,4,5-Tetrachloroben...	216	6.543	6.538	0.889	513323	111.63	ng/uL	95
122) 1,1-Biphenyl	154	6.832	6.832	0.928	959702	102.45	ng/uL	93
123) Isosafrole	162	6.795	6.794	0.923	411965	113.35	ng/uL	99
124) 1,4-Naphthoquinone	158	7.019	7.014	0.953	360886	104.50	ng/uL	96
125) Pentachlorobenzene	250	7.511	7.511	1.020	436704	112.92	ng/uL	99
126) 1-Naphthylamine	143	7.618	7.618	1.035	854870	105.64	ng/uL	96
127) 2-Naphthylamine	143	7.693	7.688	1.045	845199	103.64	ng/uL	94
128) 5-Nitro-o-toluidine	152	7.859	7.854	1.068	283395	130.40	ng/uL	90 A
129) Tributylphosphate	99	7.923	7.918	1.076	1223006	98.59	ng/uL	92
131) 1,3,5-Trinitrobenzene	75	8.164	8.158	0.941	289127	144.64	ng/uL	98 A
132) Phenacetin	108	8.217	8.207	0.948	568498	114.16	ng/uL	99
133) Diallate	86	8.196	8.196	0.945	346884	114.87	ng/uL	96
134) Cis Diallate	86	8.196	8.196	0.945	346884	97.64	ng/uL	96
135) Trans Diallate	86	8.276	8.276	0.954	132507	17.78	ng/uL	100
136) Atrazine	200	8.410	8.404	0.970	311463	110.47	ng/uL	97
137) 4-Aminobiphenyl	169	8.501	8.495	0.980	1040587	98.14	ng/uL	94
138) Pentachloronitrobenzene	237	8.506	8.506	0.981	155938	127.01	ng/uL	98 A
139) Pronamide	173	8.538	8.533	0.985	521981	110.77	ng/uL	94
140) 4-Nitroquinoline-1-oxide	128	9.340	9.335	1.077	49078	102.15	ng/uL	83
141) Methapyrilene	58	9.394	9.389	1.083	918414	100.85	ng/uL	93
142) Isodrin	193	9.570	9.570	1.104	204535	111.50	ng/uL	98
144) Aramite	185	9.972	9.966	0.896	82378	118.34	ng/uL	93
145) Kepone	272	10.539	10.528	0.947	177146	115.61	ng/uL	93
146) p-(Dimethylamino)azobe...	120	10.127	10.127	0.910	484579	112.48	ng/uL	98
147) Chlorobenzilate	251	10.164	10.164	0.913	482113	114.55	ng/uL	97
148) 2-Acetylaminofluorene	181	10.731	10.720	0.964	833858	116.95	ng/uL	98
150) 7,12-Dimethylbenz(a)an...	256	12.721	12.710	0.947	837186	114.05	ng/uL	98
151) 3-Methylcholanthrene	269	14.026	14.004	1.045	216131	117.89	ng/uL	97
153) Sulfolane	56	5.741	5.730	1.017	227237	116.20	ng/uL	100
155) Prometon	210	8.351	8.346	0.963	293519	114.72	ng/uL	97
156) Benزيدine	184	9.800	9.795	1.130	1067377	100.28	ng/uL	97
158) 3,3'-Dimethylbenزيدine	212	10.453	10.448	0.939	1142170	102.06	ng/uL	99
159) 3,3'-Dichlorobenzidide	252	11.073	11.068	0.995	766716	113.83	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2519.D
Acq On : 25 Mar 2024 18:09
Operator : LL2
InstName : MSD1
Sample : |WBN240201-59|ICAL|1|SVM|1|APX-8
Misc : |MIX[B,J]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 26 10:11:59 2024
Quant Method : D:\MSDCHEM\1\Data\S032524\cal\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:11:56 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 660771
Instrument ID: MSD1.I
Injection Date: 25-MAR-24 18:32
Data File: S032524ical\slC2520.D
Init. Cal. Date(s): 25-MAR-24 11:23 - 15-MAR-24 23:28
Lab Sample ID: WBN240221-20
Method: S032524ical\MSD1_8270C_8270D_032524.M
Quant Type: ISTD
Method Update: 26-MAR-24 10:15

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Methyl methacrylate	0.2082	0.21615		.01		3.81844	30		Averaged
1,4-Dioxane	0.5449	0.52466		.01		-3.71444	30		Averaged
Ethyl methacrylate	1.2698	1.29347		.01		1.86407	30		Averaged
2-Picoline	1.5603	1.63941		.01		5.07018	30		Averaged
N-Nitrosomethylethylamine	0.5773	0.60451		.01		4.71332	30		Averaged
Methyl methanesulfonate	0.9269	1.01404		.01		9.40123	30		Averaged
N-Nitrosodiethylamine	0.5854	0.59887		.01		2.30099	30		Averaged
Ethyl Methanesulfonate	1.2678	1.34166		.01		5.82584	30		Averaged
Pentachloroethane	0.5852	0.61984		.01		5.91934	30		Averaged
N-Nitrosopyrrolidine	0.6411	0.71782		.01		11.96693	30		Averaged
Acetophenone	2.0234	2.15105		.01		6.30869	30		Averaged
N-Nitrosomorpholine	0.8596	0.90457		.01		5.2315	30		Averaged
o-Toluidine	2.0372	2.17796		.01		6.90948	30		Averaged
N-Nitrosopiperidine	0.1764	0.19683		.01		11.58163	30		Averaged
a,a-Dimethylphenethylamine	1.1553	1.16898		.01		1.18411	30		Averaged
2,6-Dichlorophenol	0.3027	0.32822		.01		8.43079	30		Averaged
Hexachloropropene	0.2414	0.26		.01		7.70505	30		Averaged
N-Nitrosodi-n-butylamine	0.2342	0.25774		.01		10.05124	30		Averaged
Safrole	0.2735	0.2778		.01		1.57221	30		Averaged
1,2,4,5-Tetrachlorobenzene	0.7097	0.75769		.01		6.76201	30		Averaged
Isosafrole	0.561	0.55653		.01		-0.79679	30		Averaged
1,4-Naphthoquinone	0.533	0.58522		.01		9.79737	30		Averaged
Pentachlorobenzene	0.5969	0.64337		.01		7.78522	30		Averaged
1-Naphthylamine	1.2491	1.32035		.01		5.70411	30		Averaged
2-Naphthylamine	1.2587	1.30437		.01		3.62835	30		Averaged
5-Nitro-o-toluidine	0.3354	0.34136		.01		1.77698	30		Averaged
Tributylphosphate	1.9146	2.17758		.01		13.73551	30		Averaged
1,3,5-Trinitrobenzene	0.1567	0.16822		.01		7.35163	30		Averaged
Diallate	0.2367	0.28698		.01		21.24208	30		Averaged
Phenacetin	0.3903	0.43725		.01		12.02921	30		Averaged
4-Aminobiphenyl	0.831	0.88881		.01		6.95668	30		Averaged
Pentachloronitrobenzene	0.0962	0.10923		.01		13.5447	30		Averaged
Pronamide	0.3693	0.41356		.01		11.98484	30		Averaged
4-Nitroquinoline-1-oxide	0.0377	0.0488		.01		29.44297	30		Averaged
Methapyrilene	0.7137	0.56566		.01		-20.74261	30		Averaged
Isodrin	0.1438	0.15232		.01		5.9249	30		Averaged
Aramite	0.0502	0.05808		.01		15.69721	30		Averaged

Continuing Calibration Summary

Instrument ID: MSD1.I

Injection Date: 25-MAR-24 18:32

Data File: S032524ical\s1C2520.D

Init. Cal. Date(s) 25-MAR-24 11:23 15-MAR-24 23:28

Lab Sample ID WBN240221-20

Method: S032524ical\MSD1_8270C_8270D_032524.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
p-(Dimethylamino)azobenzene	0.3108	0.35082		.01		12.87645	30		Averaged
Chlorobenzilate	0.3036	0.33625		.01		10.75428	30		Averaged
3,3'-Dimethylbenzidine	0.8074	0.95176		.01		17.87961	30		Averaged
Kepone	0.1105	0.10747		.01		-2.74208	30		Averaged
2-Acetylaminofluorene	0.5144	0.56875		.01		10.56571	30		Averaged
3,3'-Dichlorobenzidine	0.4859	0.57715		.01		18.77958	30		Averaged
7,12Dimethylbenz(a)anthracene	0.4786	0.52586		.01		9.87463	30		Averaged
3-Methylcholanthrene	0.1195	0.12254		.01		2.54393	30		Averaged

LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2520.D
Acq On : 25 Mar 2024 18:32
Operator : LL2
InstName : MSD1
Sample : |WBN240221-20|ICV|1|SVM|1|APX-ICV
Misc : |MIX[B,J]
ALS Vial : 20 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 11:01:05 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	135011	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	471041	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.362	7.367	1.000	261343	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	509323	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	558612	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.422	13.427	1.000	617637	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	135011	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	476974	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.362	7.361	1.000	261343	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	509323	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	558612	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.422	13.421	1.000	617637	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.639	5.639	1.000	476974	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	509323	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	558612	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	476974	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.362	7.362	1.000	261343	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	509323	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	558612	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	476974	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.422	13.437	1.000	617637	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	6.784	6.736	0.922	555	0.06	ng/uL	0.05
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	

Target Compounds								QValue
97) 1,4-Dioxane	88	1.713	1.713	0.405	70835	38.51	ng/uL	92
98) Methyl methacrylate	100	1.708	1.708	0.404	29183	41.53	ng/uL	97
99) Ethyl methacrylate	69	2.200	2.200	0.520	174633	40.74	ng/uL	99
100) 2-Picoline	93	2.462	2.462	0.582	221339	42.03	ng/uL	99
101) N-Nitrosomethylethylamine	88	2.532	2.532	0.599	81616	41.89	ng/uL	100
102) Methyl methanesulfonate	80	2.778	2.778	0.657	136907	43.76	ng/uL	96
103) N-Nitrosodiethylamine	102	3.141	3.141	0.743	80854	40.92	ng/uL	97
104) 2-Butoxyethanol	57	3.200	3.200	0.757	247900	39.13	ng/uL	98
105) Ethyl methanesulfonate	79	3.409	3.414	0.806	181139	42.33	ng/uL	94
106) Benzaldehyde	77	3.773	3.773	0.892	185882	43.15	ng/uL	97
107) Pentachloroethane	167	3.933	3.933	0.930	83685	42.37	ng/uL	96
108) N-Nitrosopyrrolidine	100	4.628	4.634	1.095	96914	44.79	ng/uL	95
109) Acetophenone	105	4.660	4.660	1.102	290416	42.52	ng/uL	99
110) N-Nitrosomorpholine	56	4.677	4.676	1.106	122127	42.09	ng/uL	96
111) o-Toluidine	106	4.703	4.703	1.113	294048	42.76	ng/uL	96
113) N-Nitrosopiperidine	114	5.030	5.029	0.892	93883	44.63	ng/uL	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2520.D
Acq On : 25 Mar 2024 18:32
Operator : LL2
InstName : MSD1
Sample : |WBN240221-20|ICV|1|SVM|1|APX-ICV
Misc : |MIX[B,J]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 26 11:01:05 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

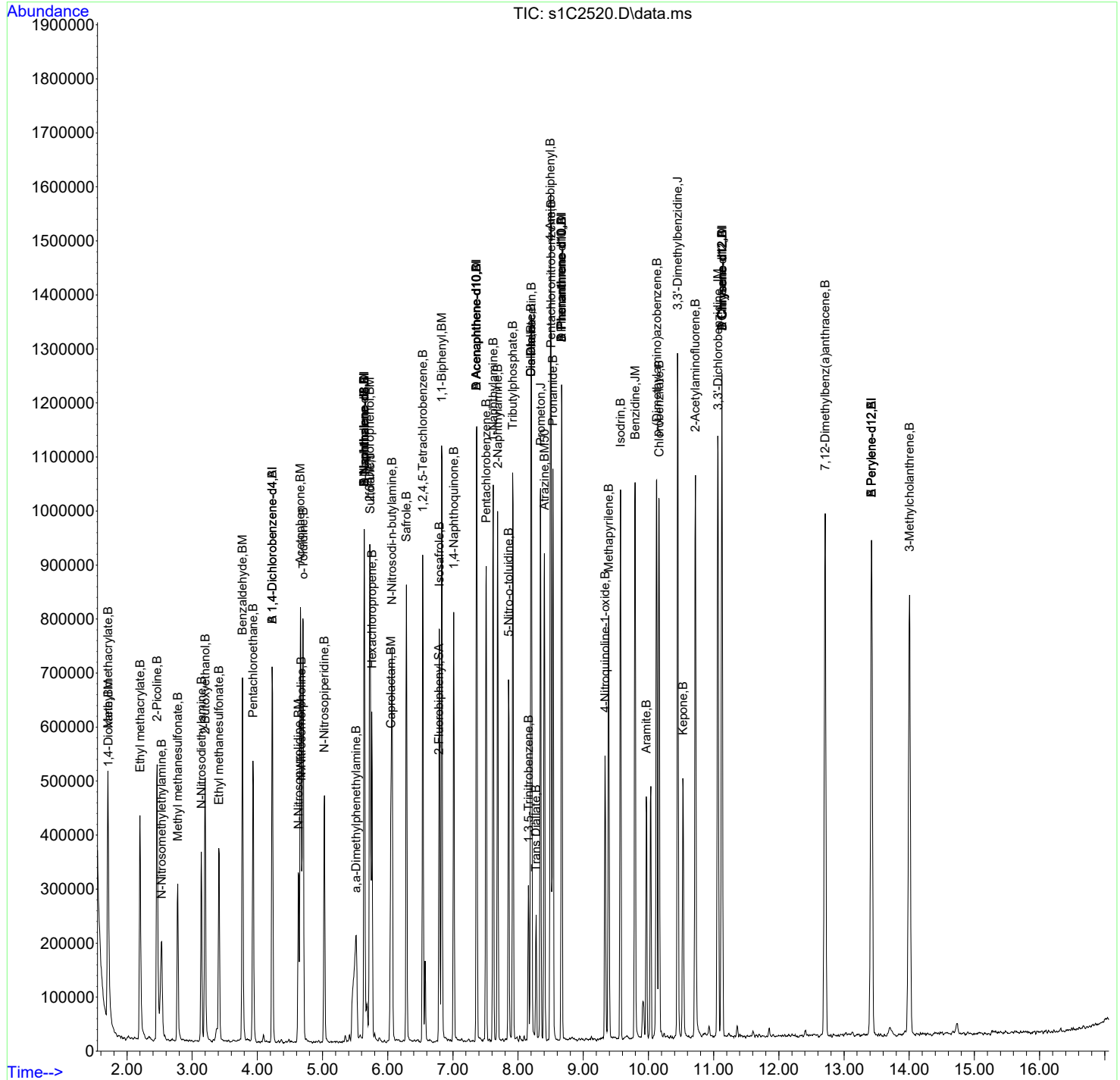
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
114) a,a-Dimethylphenethyla...	58	5.516	5.495	0.978	557572	40.47	ng/uL	95
115) 2,6-Dichlorophenol	162	5.725	5.725	1.015	156553	43.38	ng/uL	99
116) Hexachloropropene	213	5.757	5.757	1.021	124012	43.07	ng/uL	97
117) Caprolactam	113	6.051	6.051	1.073	46751	44.10	ng/uL	93
118) N-Nitrosodi-n-butylamine	57	6.067	6.067	1.076	122936	44.02	ng/uL	92
119) Safrole	162	6.286	6.286	1.115	132504	40.63	ng/uL	99
121) 1,2,4,5-Tetrachloroben...	216	6.538	6.538	0.888	198018	42.70	ng/uL	98
122) 1,1-Biphenyl	154	6.827	6.832	0.927	405401	42.92	ng/uL	98
123) Isosafrole	162	6.795	6.794	0.923	145444	39.68	ng/uL	96
124) 1,4-Naphthoquinone	158	7.014	7.014	0.953	152942	43.91	ng/uL	96
125) Pentachlorobenzene	250	7.511	7.511	1.020	168140	43.11	ng/uL	99
126) 1-Naphthylamine	143	7.618	7.618	1.035	345064	42.28	ng/uL	98
127) 2-Naphthylamine	143	7.688	7.688	1.044	340887	41.45	ng/uL	99
128) 5-Nitro-o-toluidine	152	7.854	7.854	1.067	89213	40.71	ng/uL	99
129) Tributylphosphate	99	7.918	7.918	1.076	569095	45.49	ng/uL	99
131) 1,3,5-Trinitrobenzene	75	8.158	8.158	0.941	85680	42.95	ng/uL	98
132) Phenacetin	108	8.207	8.207	0.947	222704	44.82	ng/uL	99
133) Diallate	86	8.196	8.196	0.946	146167	48.51	ng/uL	99
134) Cis Diallate	86	8.196	8.196	0.946	146167	41.23	ng/uL	99
135) Trans Diallate	86	8.276	8.276	0.955	42830	5.76	ng/uL	86
136) Atrazine	200	8.405	8.404	0.970	120381	42.79	ng/uL	99
137) 4-Aminobiphenyl	169	8.495	8.495	0.980	452691	42.78	ng/uL	100
138) Pentachloronitrobenzene	237	8.506	8.506	0.981	55632	45.41	ng/uL	94
139) Pronamide	173	8.533	8.533	0.985	210637	44.79	ng/uL	99
140) 4-Nitroquinoline-1-oxide	128	9.335	9.335	1.077	24853	51.84	ng/uL	95
141) Methapyrilene	58	9.389	9.389	1.083	288103	31.70	ng/uL	97
142) Isodrin	193	9.571	9.570	1.104	77579	42.38	ng/uL	99
144) Aramite	185	9.966	9.966	0.896	32442	46.26	ng/uL	93
145) Kepone	272	10.528	10.528	0.946	60034	38.89	ng/uL	93
146) p-(Dimethylamino)azobe...	120	10.127	10.127	0.910	195970	45.15	ng/uL	99
147) Chlorobenzilate	251	10.164	10.164	0.913	187833	44.30	ng/uL	99
148) 2-Acetylaminofluorene	181	10.720	10.720	0.963	317710	44.23	ng/uL	100
150) 7,12-Dimethylbenz(a)an...	256	12.710	12.710	0.947	324793	43.95	ng/uL	98
151) 3-Methylcholanthrene	269	14.005	14.004	1.043	75688	41.01	ng/uL	94
153) Sulfolane	56	5.730	5.730	1.016	89348	45.83	ng/uL	99
155) Prometon	210	8.346	8.346	0.963	114070	44.68	ng/uL	97
156) Benzidine	184	9.795	9.795	1.130	474665	44.69	ng/uL	100
158) 3,3'-Dimethylbenzidine	212	10.448	10.448	0.939	531664	47.15	ng/uL	97
159) 3,3'-Dichlorobenzidine	252	11.068	11.068	0.995	322401	47.51	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2520.D
Acq On : 25 Mar 2024 18:32
Operator : LL2
InstName : MSD1
Sample : |WBN240221-20|ICV|1|SVM|1|APX-ICV
Misc : |MIX[B,J]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 26 11:01:05 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2521.D
Acq On : 25 Mar 2024 18:54
Operator : LL2
InstName : MSD1
Sample : |WBN240227-27.1|ICAL|1|SVM|1|P-2
Misc : |MIX[D]
ALS Vial : 21 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:23:51 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

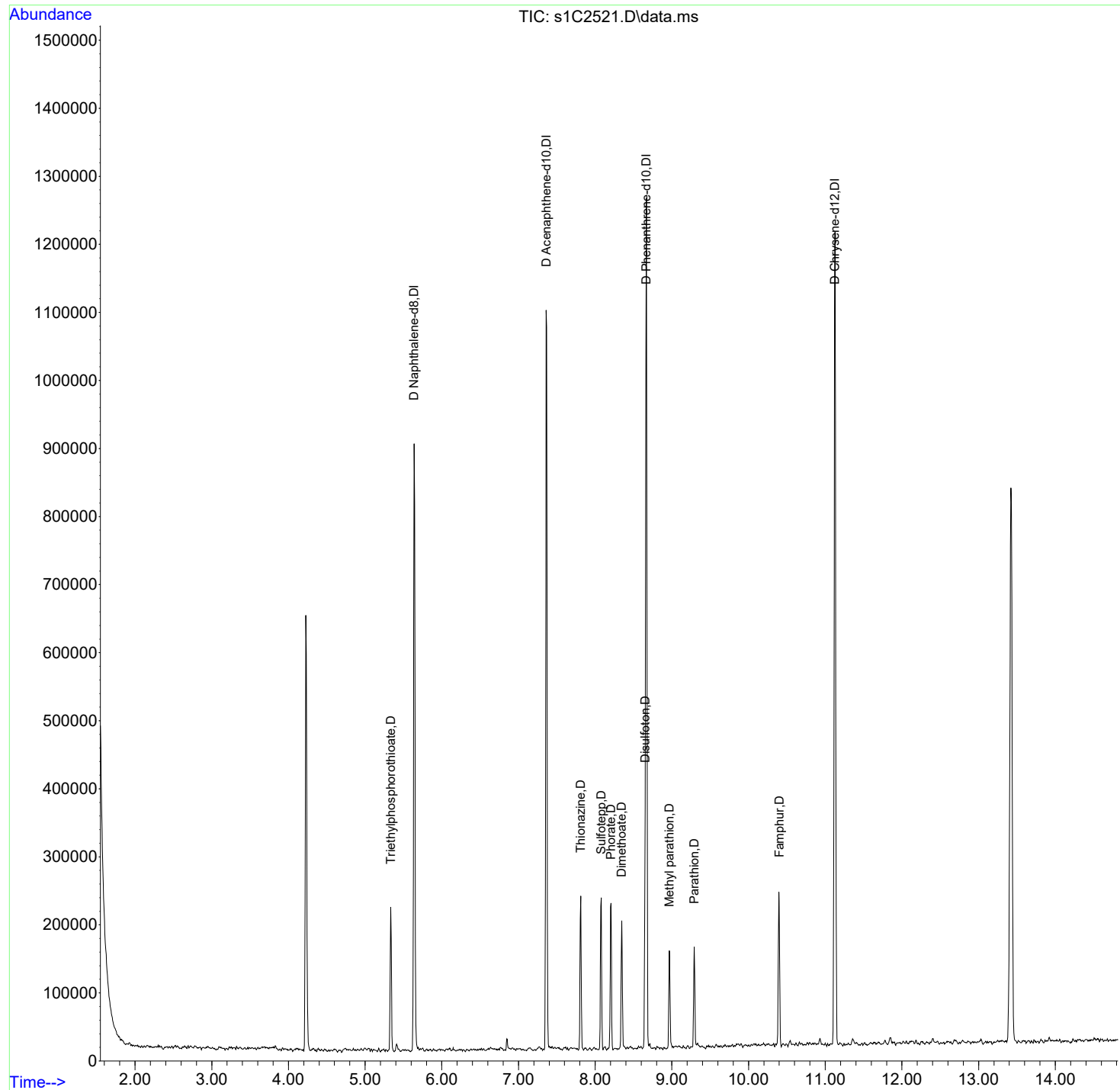
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.362	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.422	13.427	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.362	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.422	13.421	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	457970	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.362	7.362	1.000	242537	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	488240	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	539761	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.422	13.437	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	
Target Compounds								QValue
161) Triethylphosphorothioate	198	5.334	5.334	0.946	23135	10.55	ng/uL	94
163) Thionazine	107	7.811	7.811	1.061	16983	10.32	ng/uL	88
165) Sulfotepp	322	8.078	8.078	0.932	10555	9.95	ng/uL	96
166) Phorate	75	8.207	8.207	0.947	73377	10.77	ng/uL	98
167) Dimethoate	87	8.346	8.351	0.963	44922	10.32	ng/uL	92
168) Disulfoton	88	8.651	8.651	0.998	66779	11.48	ng/uL	96
169) Methyl parathion	109	8.966	8.972	1.035	24450	8.76	ng/uL	97
170) Parathion	291	9.292	9.292	1.072	3867	10.35	ng/uL#	48
172) Famphur	218	10.400	10.400	0.935	72179	10.12	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2521.D
Acq On : 25 Mar 2024 18:54
Operator : LL2
InstName : MSD1
Sample : |WBN240227-27.1|ICAL|1|SVM|1|P-2
Misc : |MIX[D]
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 26 10:23:51 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2522.D
Acq On : 25 Mar 2024 19:14
Operator : LL2
InstName : MSD1
Sample : |WBN240227-26|ICAL|1|SVM|1|P-3
Misc : |MIX[D]
ALS Vial : 22 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:12:25 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:12:22 2024
Response via : Initial Calibration
Integrator: RTE

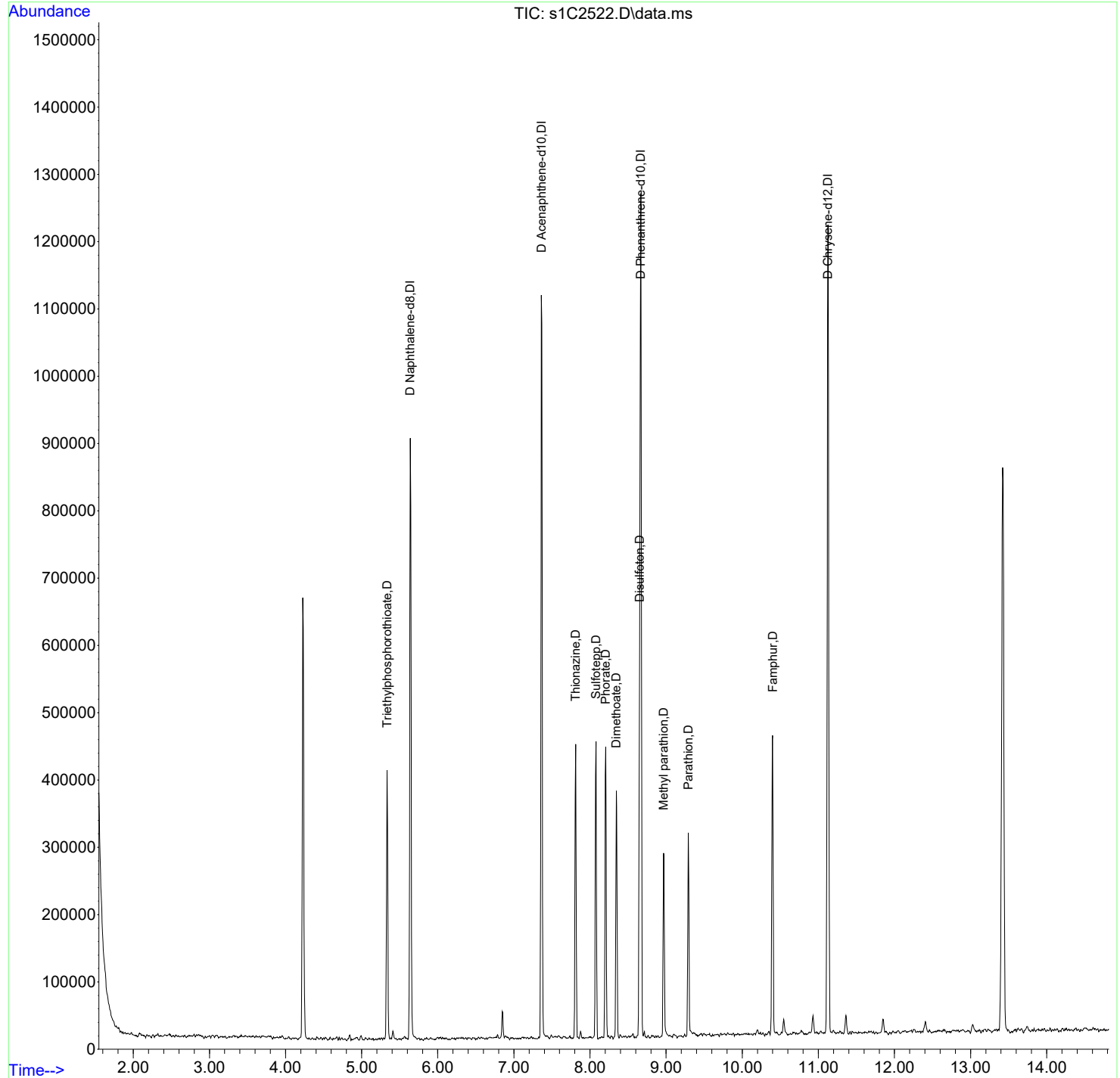
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.361	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.421	13.427	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.361	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.421	13.421	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	456534	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.361	7.362	1.000	248724	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	496651	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	556929	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.421	13.437	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	
Target Compounds								QValue
161) Triethylphosphorothioate	198	5.334	5.334	0.946	45007	20.59	ng/uL	98
163) Thionazine	107	7.811	7.811	1.061	34688	20.56	ng/uL	100
165) Sulfotepp	322	8.078	8.078	0.932	20609	19.10	ng/uL	95
166) Phorate	75	8.207	8.207	0.947	143924	20.76	ng/uL	98
167) Dimethoate	87	8.346	8.351	0.963	85492	19.30	ng/uL	95
168) Disulfoton	88	8.650	8.651	0.998	123167	20.82	ng/uL	98
169) Methyl parathion	109	8.966	8.972	1.035	50980	17.95	ng/uL	88
170) Parathion	291	9.292	9.292	1.072	9848	19.61	ng/uL	94
172) Famphur	218	10.399	10.400	0.935	156753	21.31	ng/uL	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2522.D
Acq On : 25 Mar 2024 19:14
Operator : LL2
InstName : MSD1
Sample : |WBN240227-26|ICAL|1|SVM|1|P-3
Misc : |MIX[D]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 26 10:12:25 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:12:22 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2523.D
Acq On : 25 Mar 2024 19:34
Operator : LL2
InstName : MSD1
Sample : |WBN240227-25.1|ICAL|1|SVM|1|P-4
Misc : |MIX[D]
ALS Vial : 23 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:12:33 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:12:30 2024
Response via : Initial Calibration
Integrator: RTE

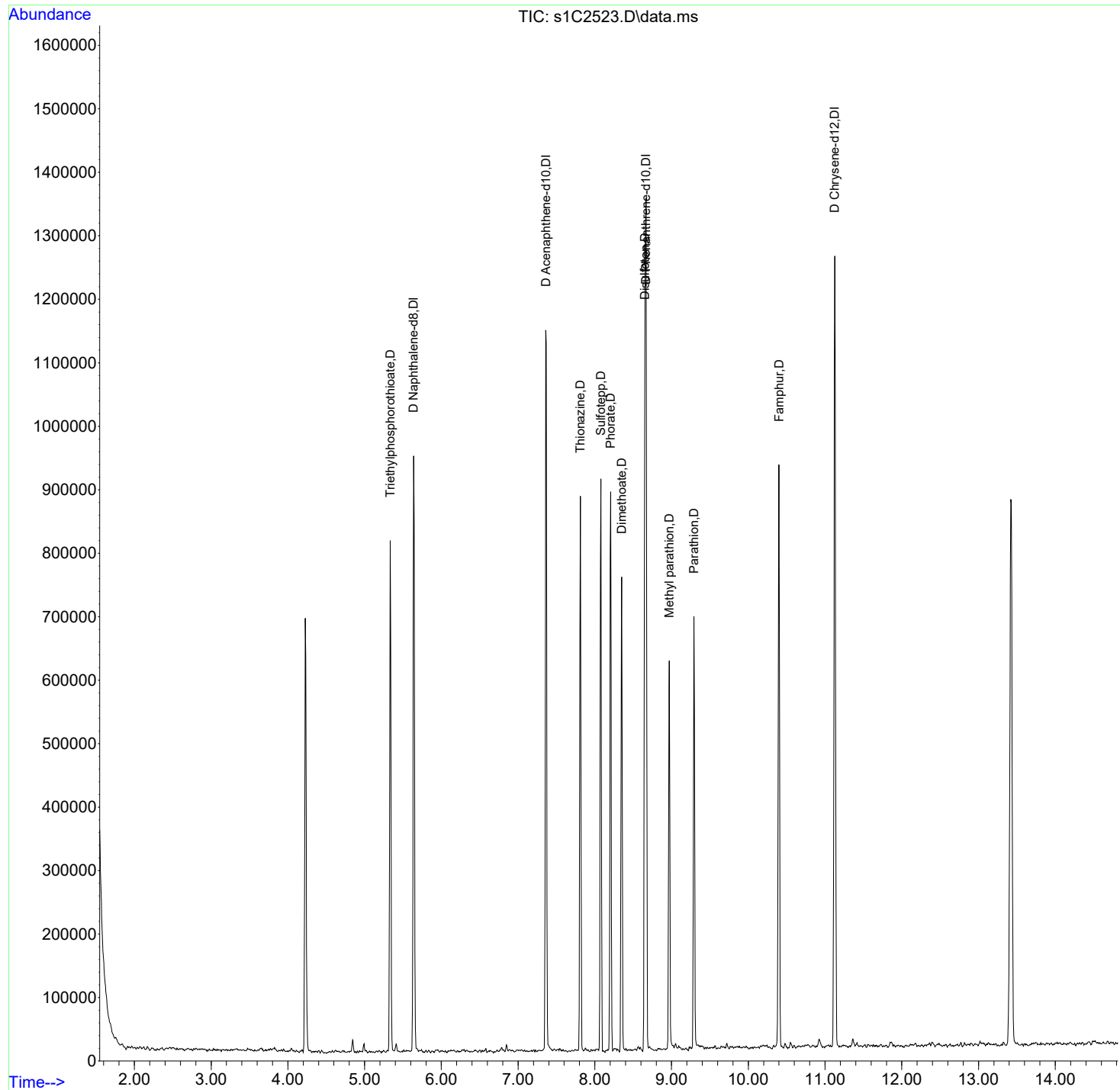
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.362	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.422	13.427	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.362	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.422	13.421	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	475831	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.362	7.362	1.000	255937	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	496906	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	558391	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.422	13.437	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	
Target Compounds								QValue
161) Triethylphosphorothioate	198	5.334	5.334	0.946	91652	40.22	ng/uL	100
163) Thionazine	107	7.811	7.811	1.061	67752	39.02	ng/uL	100
165) Sulfotepp	322	8.078	8.078	0.932	41829	38.74	ng/uL	100
166) Phorate	75	8.207	8.207	0.947	285285	41.14	ng/uL	100
167) Dimethoate	87	8.351	8.351	0.964	180108	40.64	ng/uL	100
168) Disulfoton	88	8.651	8.651	0.998	241283	40.76	ng/uL	100
169) Methyl parathion	109	8.972	8.972	1.035	111712	39.32	ng/uL	100
170) Parathion	291	9.292	9.292	1.072	21598	36.53	ng/uL	100
172) Famphur	218	10.400	10.400	0.935	298664	40.49	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2523.D
Acq On : 25 Mar 2024 19:34
Operator : LL2
InstName : MSD1
Sample : |WBN240227-25.1|ICAL|1|SVM|1|P-4
Misc : |MIX[D]
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 26 10:12:33 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:12:30 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2524.D
Acq On : 25 Mar 2024 19:54
Operator : LL2
InstName : MSD1
Sample : |WBN240227-24|ICAL|1|SVM|1|P-5
Misc : |MIX[D]
ALS Vial : 24 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:12:41 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:12:37 2024
Response via : Initial Calibration
Integrator: RTE

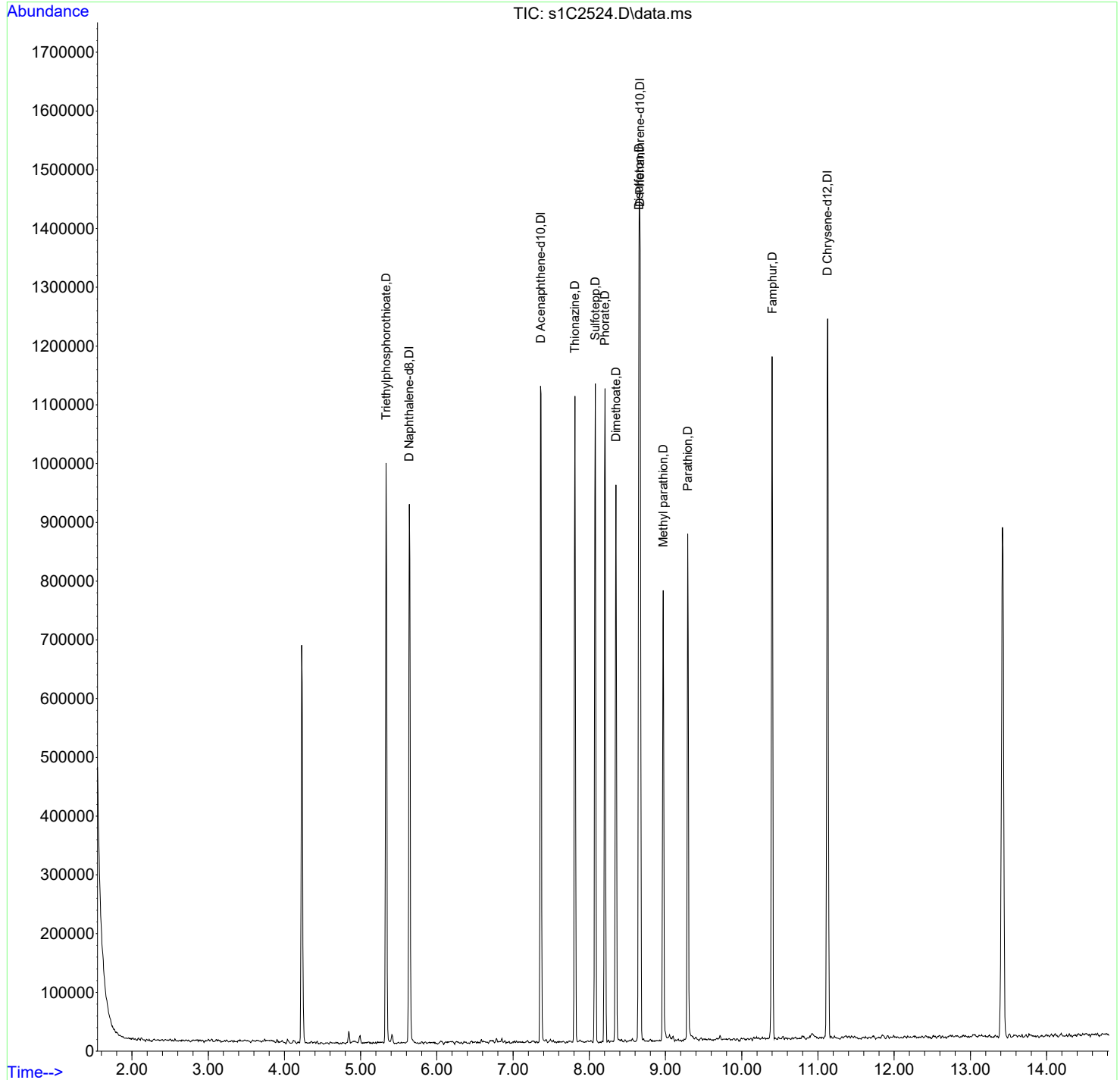
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.362	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.422	13.427	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.362	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.422	13.421	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	470561	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.362	7.362	1.000	249520	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	491213	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	559930	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.422	13.437	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	
Target Compounds								QValue
161) Triethylphosphorothioate	198	5.334	5.334	0.946	108964	48.36	ng/uL	98
163) Thionazine	107	7.811	7.811	1.061	85691	50.62	ng/uL	97
165) Sulfotepp	322	8.078	8.078	0.932	52895	49.56	ng/uL	93
166) Phorate	75	8.207	8.207	0.947	348902	50.89	ng/uL	98
167) Dimethoate	87	8.351	8.351	0.964	221009	50.45	ng/uL	95
168) Disulfoton	88	8.651	8.651	0.998	294283	50.29	ng/uL	99
169) Methyl parathion	109	8.972	8.972	1.035	138319	49.25	ng/uL	99
170) Parathion	291	9.292	9.292	1.072	29321	48.15	ng/uL	91
172) Famphur	218	10.400	10.400	0.935	380049	51.38	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2524.D
Acq On : 25 Mar 2024 19:54
Operator : LL2
InstName : MSD1
Sample : |WBN240227-24|ICAL|1|SVM|1|P-5
Misc : |MIX[D]
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 26 10:12:41 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:12:37 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2525.D
Acq On : 25 Mar 2024 20:14
Operator : LL2
InstName : MSD1
Sample : |WBN240227-23|ICAL|1|SVM|1|P-6
Misc : |MIX[D]
ALS Vial : 25 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:12:49 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:12:46 2024
Response via : Initial Calibration
Integrator: RTE

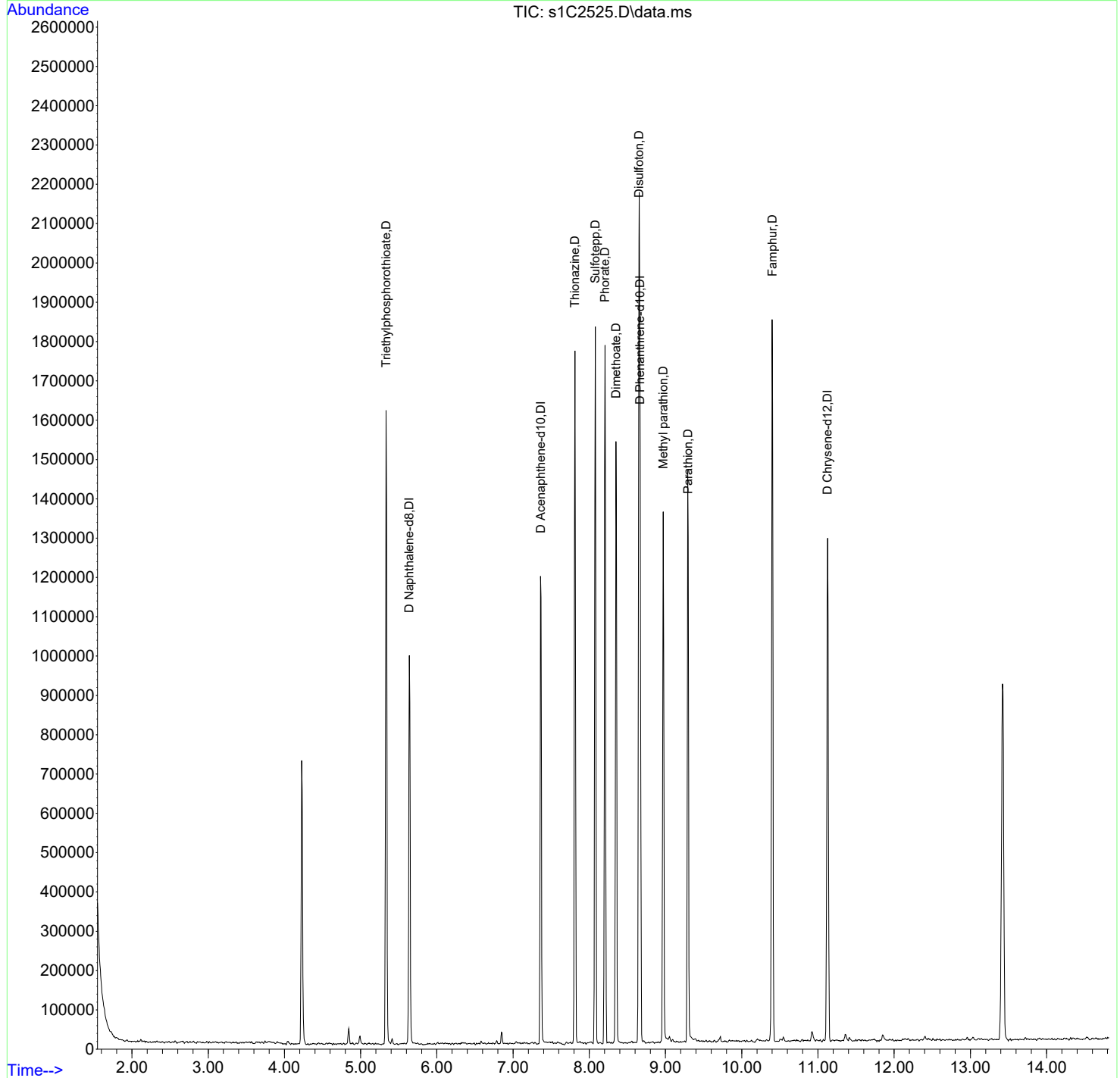
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.362	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.422	13.427	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.362	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.422	13.421	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	496659	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.362	7.362	1.000	264539	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	496626	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	583756	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.422	13.437	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	
Target Compounds								QValue
161) Triethylphosphorothioate	198	5.334	5.334	0.946	190855	80.25	ng/uL	94
163) Thionazine	107	7.811	7.811	1.061	147686	82.29	ng/uL	91
165) Sulfotepp	322	8.078	8.078	0.932	91430	84.73	ng/uL	90
166) Phorate	75	8.207	8.207	0.947	538370	77.68	ng/uL	97
167) Dimethoate	87	8.351	8.351	0.964	357601	80.73	ng/uL	96
168) Disulfoton	88	8.651	8.651	0.998	449617	76.00	ng/uL	98
169) Methyl parathion	109	8.972	8.972	1.035	240316	84.63	ng/uL	97
170) Parathion	291	9.298	9.292	1.073	51099	79.09	ng/uL#	85
172) Famphur	218	10.400	10.400	0.935	602904	78.18	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2525.D
Acq On : 25 Mar 2024 20:14
Operator : LL2
InstName : MSD1
Sample : |WBN240227-23|ICAL|1|SVM|1|P-6
Misc : |MIX[D]
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 26 10:12:49 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:12:46 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2526.D
Acq On : 25 Mar 2024 20:34
Operator : LL2
InstName : MSD1
Sample : |WBN240227-22|ICAL|1|SVM|1|P-7
Misc : |MIX[D]
ALS Vial : 26 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:12:57 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:12:54 2024
Response via : Initial Calibration
Integrator: RTE

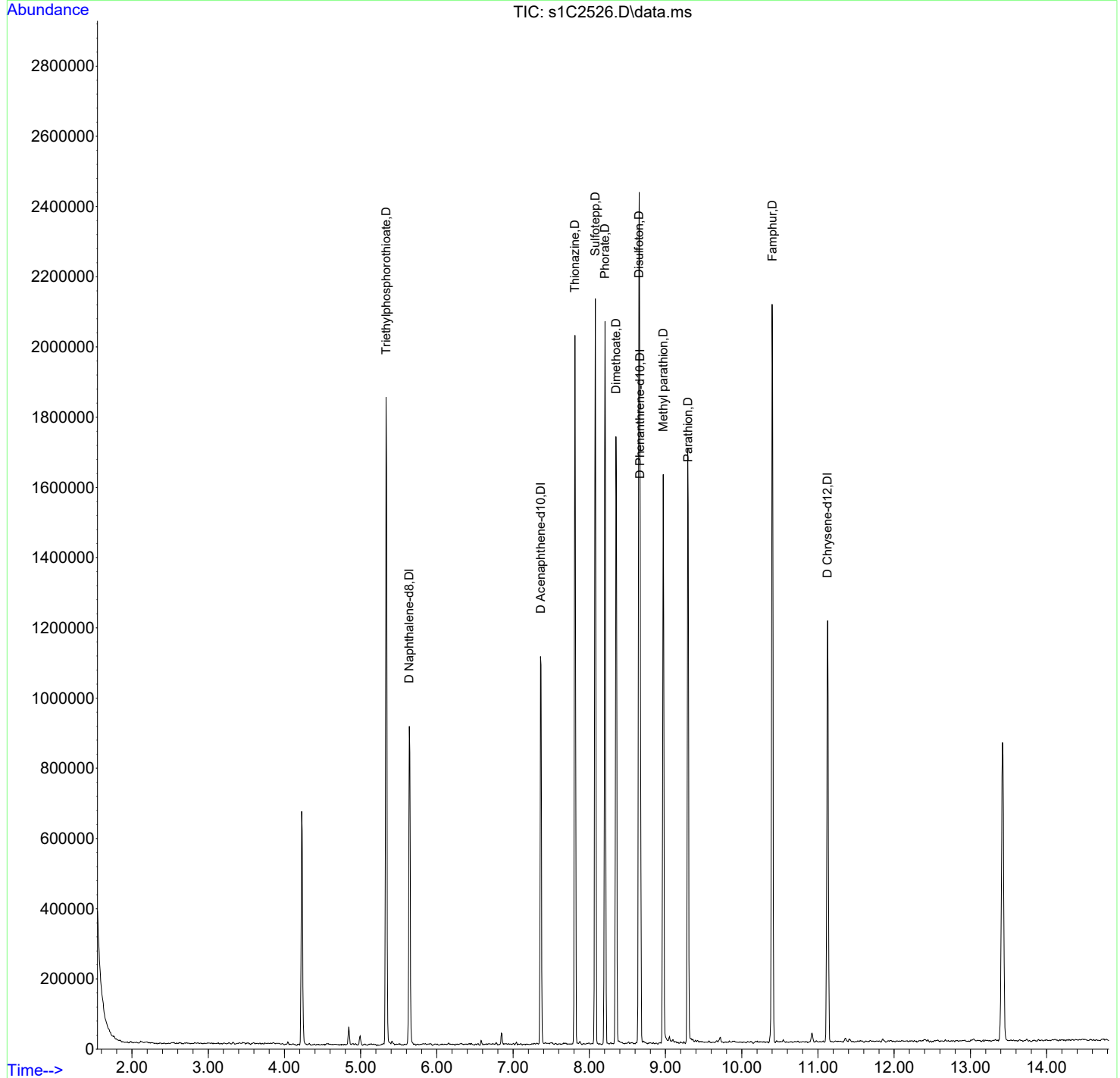
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.361	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.666	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.421	13.427	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.361	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.666	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.421	13.421	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.666	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	466929	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.361	7.362	1.000	247840	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.666	8.667	1.000	469225	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	539104	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.421	13.437	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	
Target Compounds								QValue
161) Triethylphosphorothioate	198	5.334	5.334	0.946	218787	97.85	ng/uL	94
163) Thionazine	107	7.811	7.811	1.061	160065	95.20	ng/uL	96
165) Sulfotepp	322	8.078	8.078	0.932	103363	101.38	ng/uL	90
166) Phorate	75	8.206	8.207	0.947	615346	93.97	ng/uL	96
167) Dimethoate	87	8.351	8.351	0.964	410875	98.18	ng/uL	95
168) Disulfoton	88	8.650	8.651	0.998	518470	92.75	ng/uL	96
169) Methyl parathion	109	8.971	8.972	1.035	294534	109.78	ng/uL	95
170) Parathion	291	9.298	9.292	1.073	62157	100.27	ng/uL#	81
172) Famphur	218	10.399	10.400	0.935	687808	96.57	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2526.D
Acq On : 25 Mar 2024 20:34
Operator : LL2
InstName : MSD1
Sample : |WBN240227-22|ICAL|1|SVM|1|P-7
Misc : |MIX[D]
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 26 10:12:57 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:12:54 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2527.D
Acq On : 25 Mar 2024 20:53
Operator : LL2
InstName : MSD1
Sample : |WBN240227-21|ICAL|1|SVM|1|P-8
Misc : |MIX[D]
ALS Vial : 27 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:13:06 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:13:03 2024
Response via : Initial Calibration
Integrator: RTE

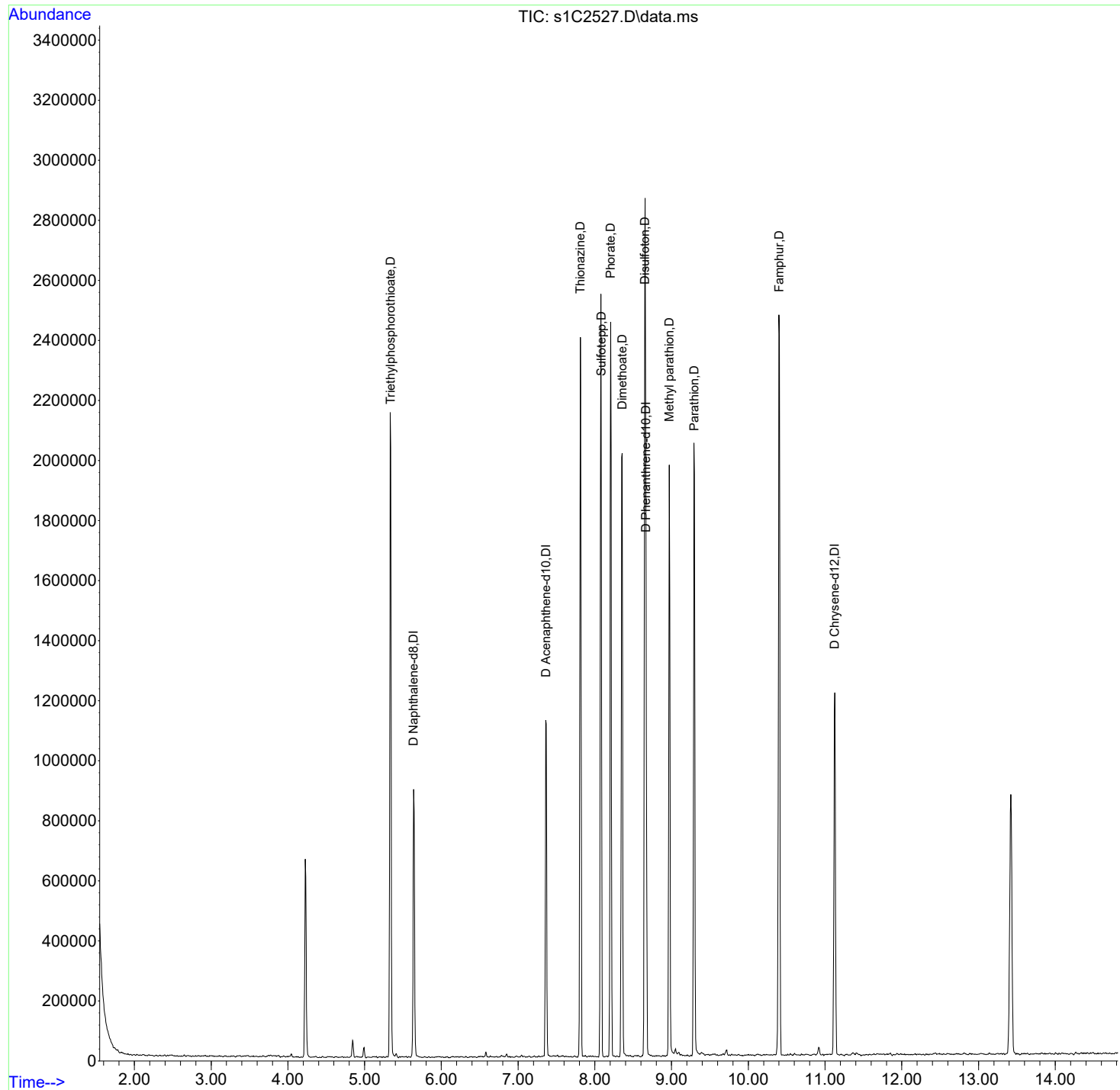
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.362	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.422	13.427	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.362	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.422	13.421	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	459944	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.362	7.362	1.000	254570	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	466833	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	552842	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.422	13.437	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	
Target Compounds								QValue
161) Triethylphosphorothioate	198	5.340	5.334	0.947	254146	115.39	ng/uL	98
163) Thionazine	107	7.811	7.811	1.061	201351	116.58	ng/uL	94
165) Sulfotepp	322	8.084	8.078	0.933	123849	122.10	ng/uL	91 A
166) Phorate	75	8.207	8.207	0.947	725436	111.35	ng/uL	94
167) Dimethoate	87	8.356	8.351	0.964	493467	118.52	ng/uL	93
168) Disulfoton	88	8.651	8.651	0.998	606474	109.05	ng/uL	95
169) Methyl parathion	109	8.972	8.972	1.035	353377	132.38	ng/uL	95 A
170) Parathion	291	9.298	9.292	1.073	78144	125.27	ng/uL#	83 A
172) Famphur	218	10.405	10.400	0.935	823694	112.78	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2527.D
Acq On : 25 Mar 2024 20:53
Operator : LL2
InstName : MSD1
Sample : |WBN240227-21|ICAL|1|SVM|1|P-8
Misc : |MIX[D]
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 26 10:13:06 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:13:03 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Instrument ID: MSD1.I
Data File: S032524ical\s1C2528.D
Lab Sample ID: WBN240228-26
Quant Type: ISTD

Client SDG: 660771
Injection Date: 25-MAR-24 21:13
Init. Cal. Date(s): 25-MAR-24 11:23 - 25-MAR-24 23:28
Method: S032524ical\MSD1_8270C_8270D_032524.M
Method Update: 26-MAR-24 10:15

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Triethylphosphorothioate	0.1915	0.1998		.01		4.3342	30		Averaged
Thionazin	0.2714	0.29122		.01		7.30287	30		Averaged
Sulfotepp	0.0869	0.09874		.01		13.62486	30		Averaged
Phorate	0.5582	0.60895		.01		9.09172	30		Averaged
Dimethoate	0.3568	0.39213		.01		9.90191	30		Averaged
Disulfoton	0.4765	0.49418		.01		3.71039	30		Averaged
Methyl parathion	0.2287	0.2385		.01		4.28509	30		Averaged
Parathion	40	39.34	40			-1.65	30		Linear
Famphur	0.5284	0.5879		.01		11.26041	30		Averaged

LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2528.D
Acq On : 25 Mar 2024 21:13
Operator : LL2
InstName : MSD1
Sample : |WBN240228-26|ICV|1|SVM|1|P-ICV
Misc : |MIX[D]
ALS Vial : 28 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 11:04:01 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

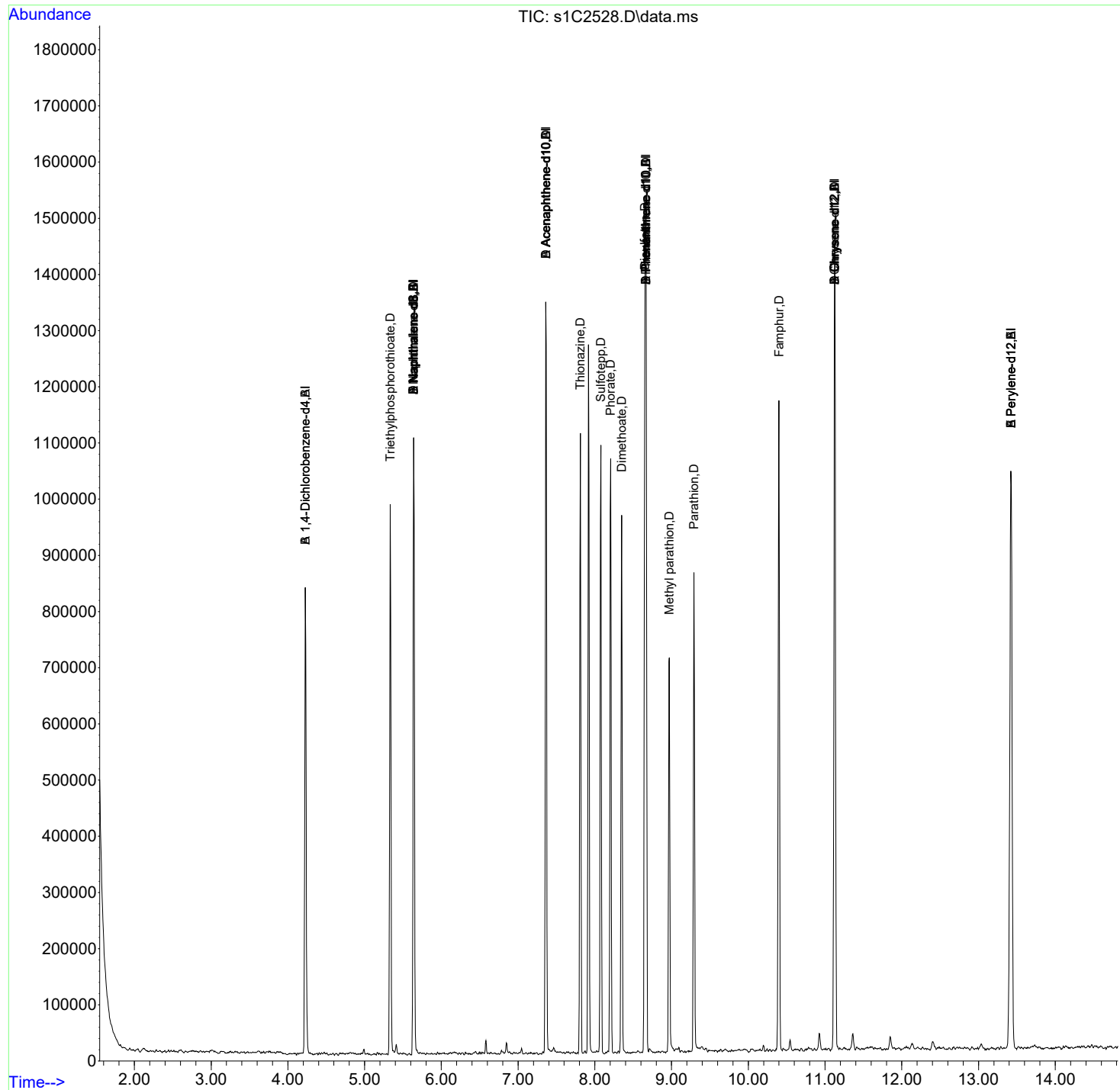
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	154812	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	543277	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.362	7.367	1.000	297085	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	561525	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	649314	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.422	13.427	1.000	705412	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	154812	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	553202	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.362	7.361	1.000	297085	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	561525	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	649314	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.422	13.421	1.000	705412	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.639	5.639	1.000	553202	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	561525	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	649314	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	553202	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.362	7.362	1.000	297085	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	561525	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	649314	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	553202	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.422	13.437	1.000	705412	40.00	ng/uL	-0.02
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	
Target Compounds								QValue
161) Triethylphosphorothioate	198	5.334	5.334	0.946	110532	41.72	ng/uL	97
163) Thionazine	107	7.811	7.811	1.061	86516	42.93	ng/uL	97
165) Sulfotepp	322	8.078	8.078	0.932	55443	45.44	ng/uL	84
166) Phorate	75	8.207	8.207	0.947	341941	43.63	ng/uL	99
167) Dimethoate	87	8.351	8.351	0.964	220189	43.96	ng/uL	94
168) Disulfoton	88	8.651	8.651	0.998	277494	41.48	ng/uL	99
169) Methyl parathion	109	8.971	8.972	1.035	133926	41.71	ng/uL	97
170) Parathion	291	9.292	9.292	1.072	26378	39.34	ng/uL	92
172) Famphur	218	10.400	10.400	0.935	381731	44.50	ng/uL	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2528.D
Acq On : 25 Mar 2024 21:13
Operator : LL2
InstName : MSD1
Sample : |WBN240228-26|ICV|1|SVM|1|P-ICV
Misc : |MIX[D]
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 26 11:04:01 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2530.D
Acq On : 25 Mar 2024 21:50
Operator : LL2
InstName : MSD1
Sample : |WBN240313-31.1|ICAL|1|SVM|1|H-2
Misc : |MIX[E]
ALS Vial : 29 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:58:25 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

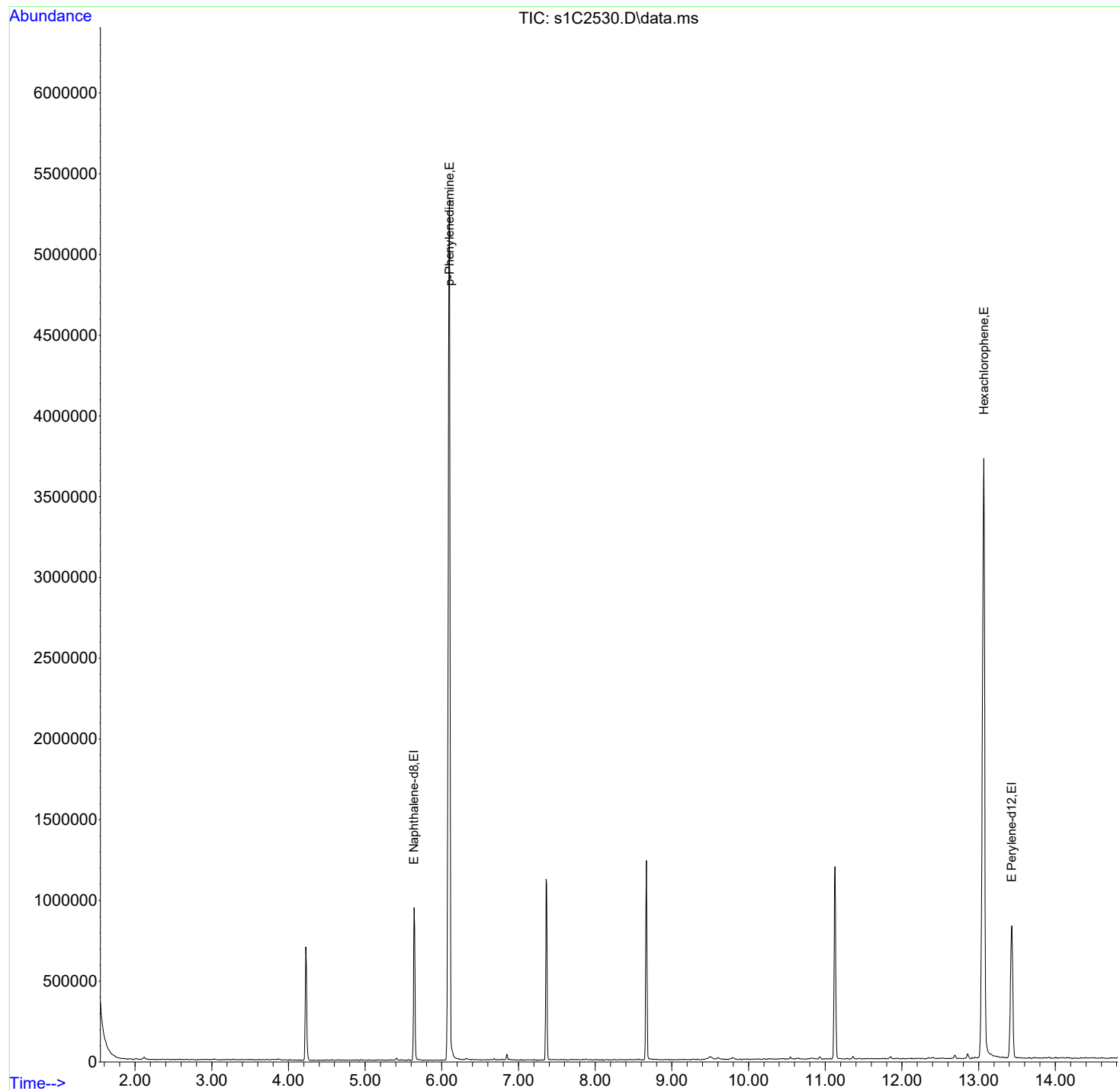
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.361	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.432	13.427	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.361	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.432	13.421	1.000	0m	40.00	ng/uL	0.01
152) J Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.361	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	480618	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.432	13.437	1.000	578947	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	
Target Compounds								QValue
174) p-Phenylenediamine	108	6.099	6.099	1.082	2295096	524.79	ng/uL	99
176) Hexachlorophene	196	13.068	13.074	0.973	688805	493.45	ng/uL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2530.D
Acq On : 25 Mar 2024 21:50
Operator : LL2
InstName : MSD1
Sample : |WBN240313-31.1|ICAL|1|SVM|1|H-2
Misc : |MIX[E]
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 26 10:58:25 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2531.D
Acq On : 25 Mar 2024 22:09
Operator : LL2
InstName : MSD1
Sample : |WBN240313-32|ICAL|1|SVM|1|H-3
Misc : |MIX[E]
ALS Vial : 30 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:13:26 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:13:23 2024
Response via : Initial Calibration
Integrator: RTE

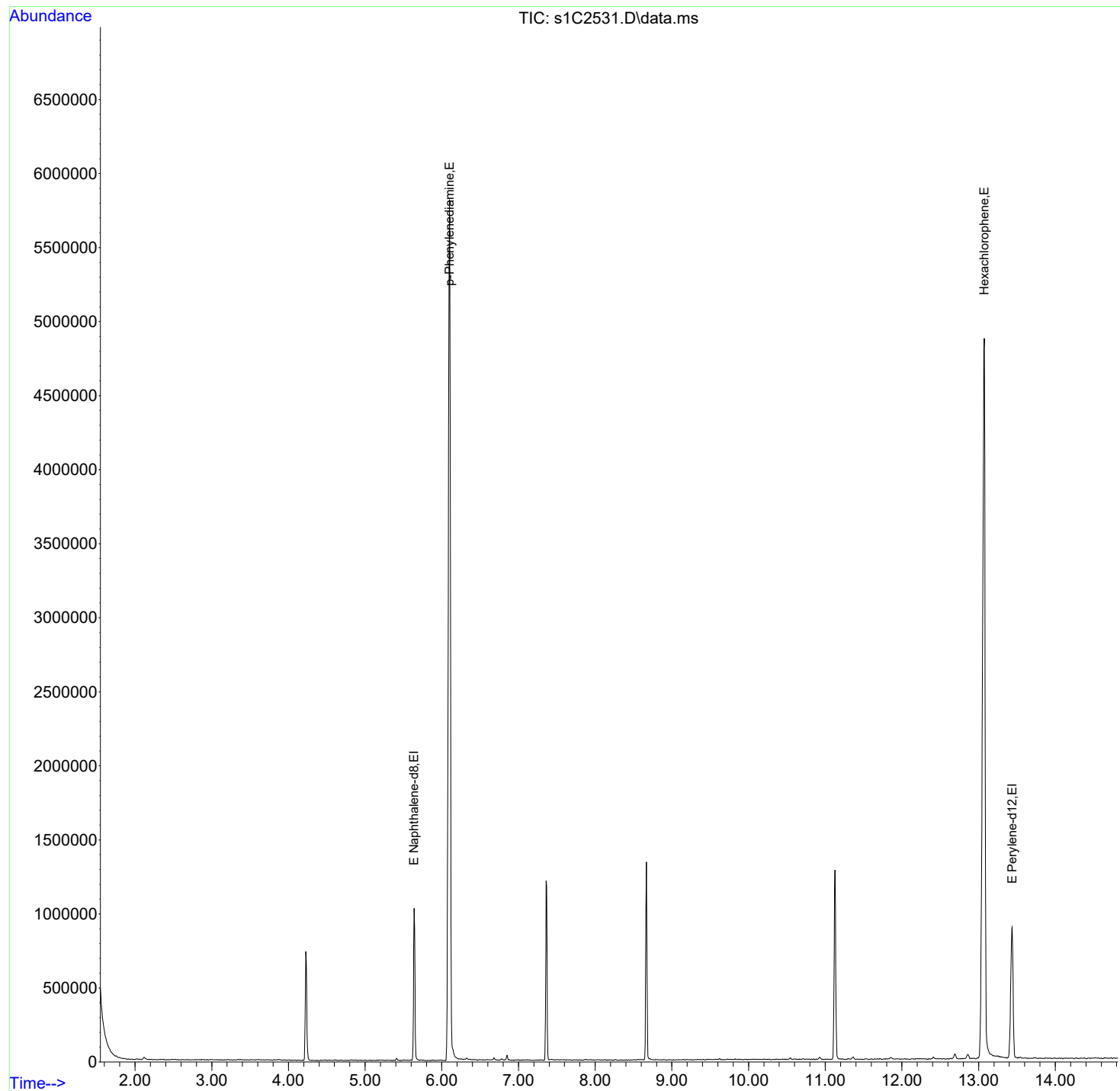
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.361	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.438	13.427	1.000	0m	40.00	ng/uL	0.01
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.361	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.438	13.421	1.000	0m	40.00	ng/uL	0.02
152) J Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.361	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	515231	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.438	13.437	1.000	621157	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	
Target Compounds								QValue
174) p-Phenylenediamine	108	6.099	6.099	1.082	2891929	616.84	ng/uL	99
176) Hexachlorophene	196	13.074	13.074	0.973	962939	609.16	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2531.D
Acq On : 25 Mar 2024 22:09
Operator : LL2
InstName : MSD1
Sample : |WBN240313-32|ICAL|1|SVM|1|H-3
Misc : |MIX[E]
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 26 10:13:26 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:13:23 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2532.D
Acq On : 25 Mar 2024 22:29
Operator : LL2
InstName : MSD1
Sample : |WBN240313-33|ICAL|1|SVM|1|H-4
Misc : |MIX[E]
ALS Vial : 31 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:13:34 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:13:31 2024
Response via : Initial Calibration
Integrator: RTE

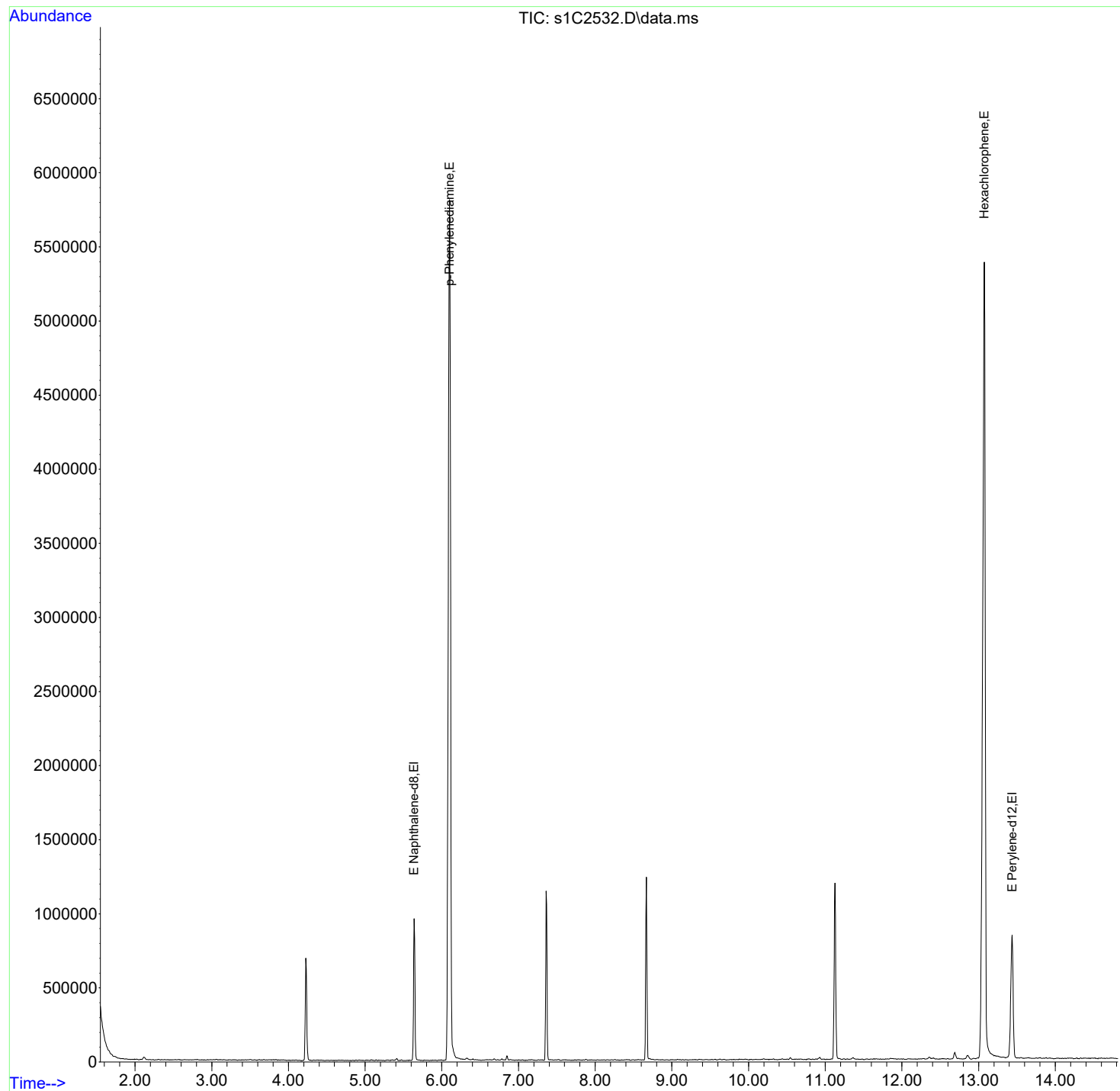
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.361	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.666	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.437	13.427	1.000	0m	40.00	ng/uL	0.01
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.361	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.666	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.437	13.421	1.000	0m	40.00	ng/uL	0.02
152) J Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.666	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.361	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.666	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	486085	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.437	13.437	1.000	580640	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	
Target Compounds								QValue
174) p-Phenylenediamine	108	6.099	6.099	1.082	3074086	695.01	ng/uL	100
176) Hexachlorophene	196	13.074	13.074	0.973	1056970	698.07	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2532.D
Acq On : 25 Mar 2024 22:29
Operator : LL2
InstName : MSD1
Sample : |WBN240313-33|ICAL|1|SVM|1|H-4
Misc : |MIX[E]
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 26 10:13:34 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:13:31 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2533.D
Acq On : 25 Mar 2024 22:49
Operator : LL2
InstName : MSD1
Sample : |WBN240313-34|ICAL|1|SVM|1|H-5
Misc : |MIX[E]
ALS Vial : 32 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:13:42 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:13:39 2024
Response via : Initial Calibration
Integrator: RTE

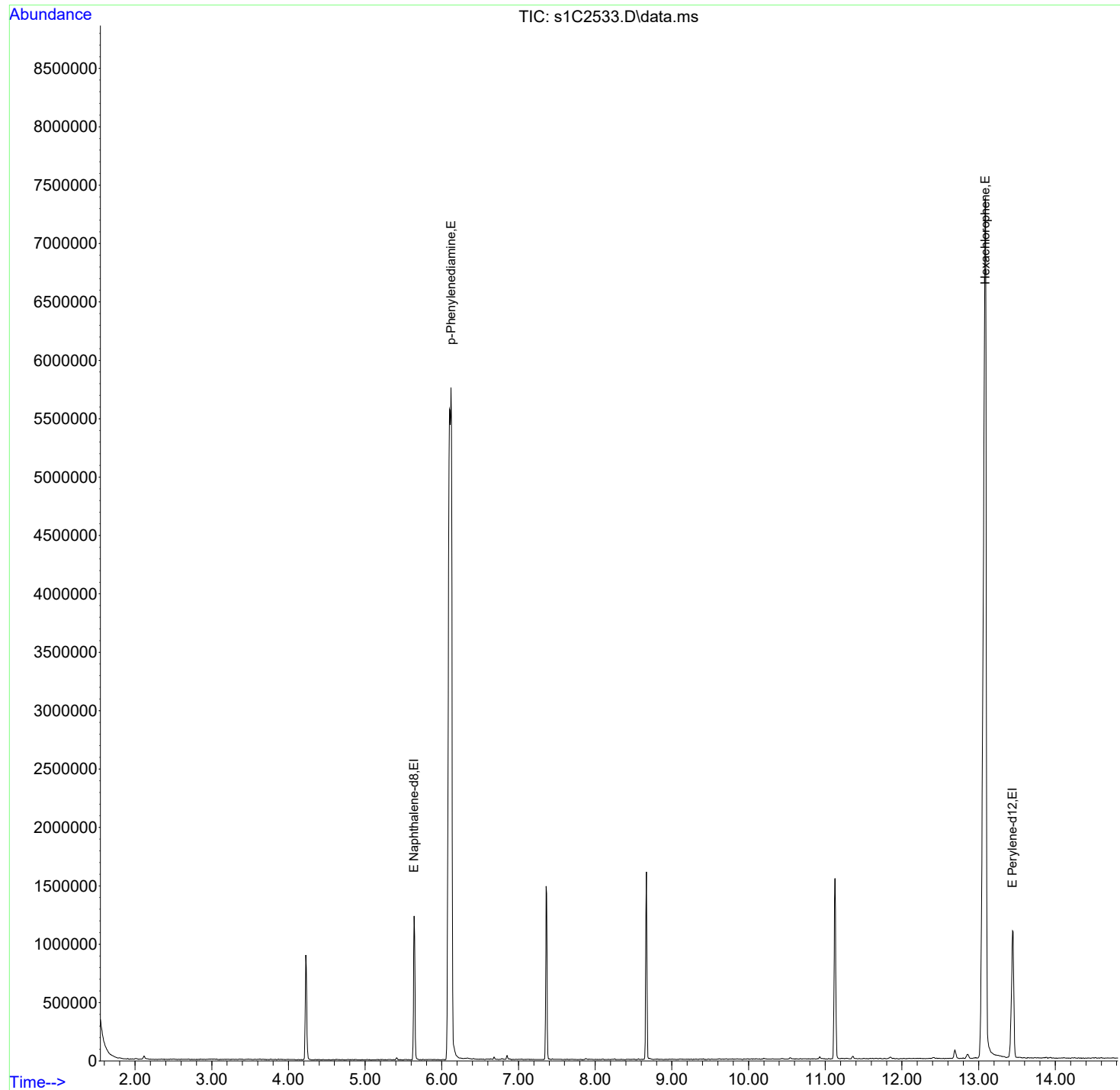
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.362	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.443	13.427	1.000	0m	40.00	ng/uL	0.02
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.362	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.443	13.421	1.000	0m	40.00	ng/uL	0.02
152) J Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.362	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	620505	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.443	13.437	1.000	761140	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	6.779	6.736	0.921	0d	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	
Target Compounds								QValue
174) p-Phenylenediamine	108	6.121	6.099	1.085	4479659	793.39	ng/uL	99
176) Hexachlorophene	196	13.085	13.074	0.973	1648153	811.63	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2533.D
Acq On : 25 Mar 2024 22:49
Operator : LL2
InstName : MSD1
Sample : |WBN240313-34|ICAL|1|SVM|1|H-5
Misc : |MIX[E]
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 26 10:13:42 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:13:39 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2534.D
Acq On : 25 Mar 2024 23:09
Operator : LL2
InstName : MSD1
Sample : |WBN240313-35|ICAL|1|SVM|1|H-6
Misc : |MIX[E]
ALS Vial : 33 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:13:50 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:13:47 2024
Response via : Initial Calibration
Integrator: RTE

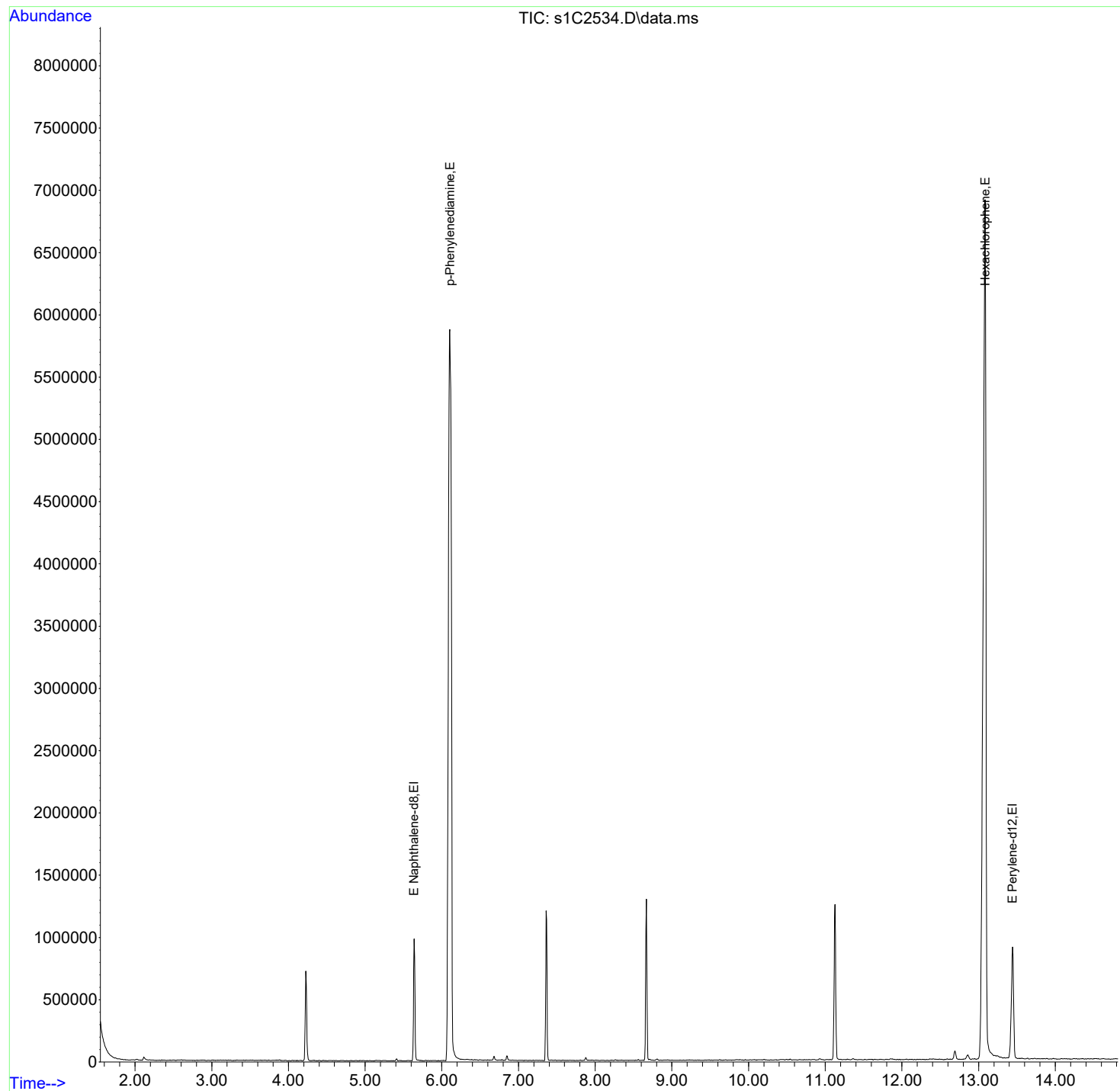
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.361	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.443	13.427	1.000	0m	40.00	ng/uL	0.02
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.361	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.443	13.421	1.000	0m	40.00	ng/uL	0.02
152) J Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.361	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	498723	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.443	13.437	1.000	614127	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	
Target Compounds								QValue
174) p-Phenylenediamine	108	6.105	6.099	1.083	4042718	890.85	ng/uL	99
176) Hexachlorophene	196	13.085	13.074	0.973	1482294	893.35	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2534.D
Acq On : 25 Mar 2024 23:09
Operator : LL2
InstName : MSD1
Sample : |WBN240313-35|ICAL|1|SVM|1|H-6
Misc : |MIX[E]
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 26 10:13:50 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:13:47 2024
Response via : Initial Calibration
Integrator: RTE



LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2535.D
Acq On : 25 Mar 2024 23:28
Operator : LL2
InstName : MSD1
Sample : |WBN240313-37|ICAL|1|SVM|1|H-7
Misc : |MIX[E]
ALS Vial : 34 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 10:13:58 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:13:54 2024
Response via : Initial Calibration
Integrator: RTE

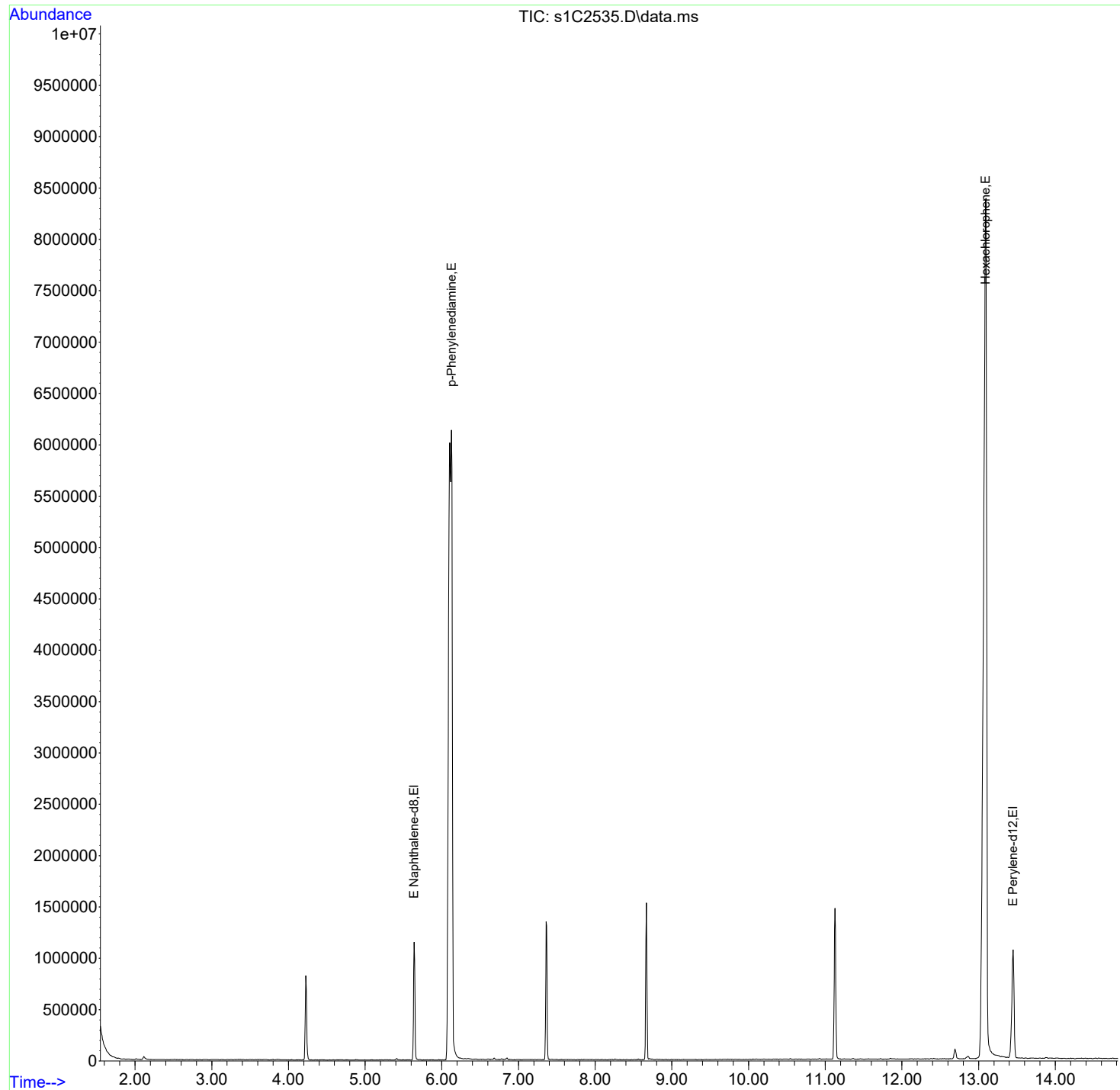
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.362	7.367	1.000	0m	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.448	13.427	1.000	0m	40.00	ng/uL	0.02
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.362	7.361	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.448	13.421	1.000	0m	40.00	ng/uL	0.03
152) J Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.362	7.362	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.667	8.667	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	583141	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.448	13.437	1.000	723615	40.00	ng/uL	0.01
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	
Target Compounds								QValue
174) p-Phenylenediamine	108	6.126	6.099	1.086	5029756	947.90	ng/uL	98
176) Hexachlorophene	196	13.090	13.074	0.973	1975063	997.29	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2535.D
Acq On : 25 Mar 2024 23:28
Operator : LL2
InstName : MSD1
Sample : |WBN240313-37|ICAL|1|SVM|1|H-7
Misc : |MIX[E]
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 26 10:13:58 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:13:54 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Instrument ID: MSD1.I

Data File: S032524ical\s1C2536.D

Lab Sample ID WBN240228-38

Quant Type ISTD

Client SDG: 660771

Injection Date: 25-MAR-24 23:48

Init. Cal. Date(s) 25-MAR-24 11:23 - 15-MAR-24 23:28

Method: S032524ical\MSD1_8270C_8270D_032524.M

Method Update: 26-MAR-24 10:15

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
p-Phenylenediamine	0.364	0.33706		.01		-7.4011	30		Averaged
Hexachlorophene	600	695.39	600			15.89833	30		Linear

LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2536.D
Acq On : 25 Mar 2024 23:48
Operator : LL2
InstName : MSD1
Sample : |WBN240228-38|ICV|1|SVM|1|H-ICV
Misc : |MIX[E]
ALS Vial : 35 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 11:06:36 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

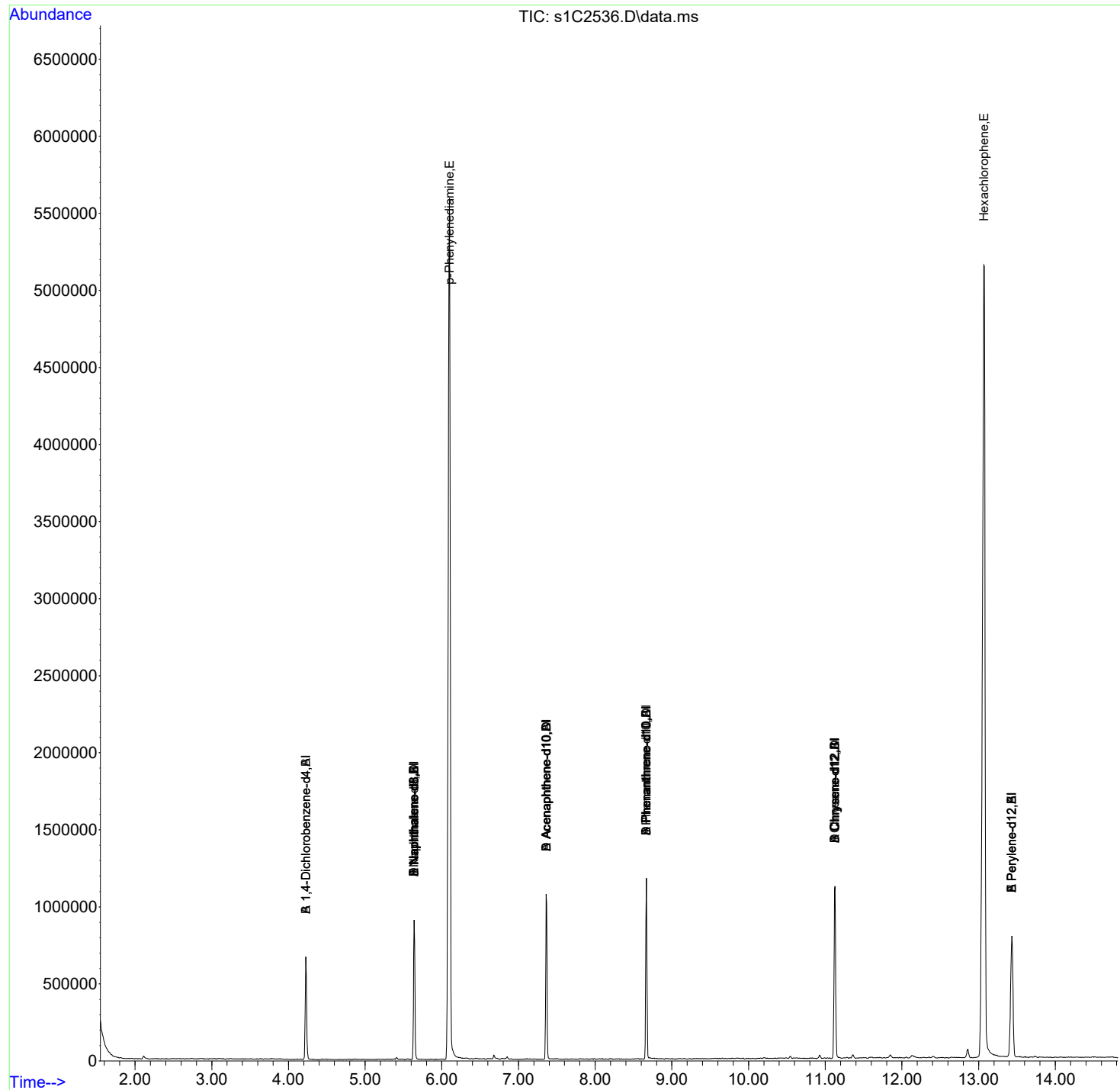
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.227	4.233	1.000	119558	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.639	5.645	1.000	449722	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.361	7.367	1.000	234056	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.666	8.667	1.000	480055	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.127	11.127	1.000	530026	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.432	13.427	1.000	561099	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.227	4.227	1.000	119558	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.639	5.639	1.000	456212	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.361	7.361	1.000	234056	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.666	8.667	1.000	480055	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.127	11.127	1.000	530026	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.432	13.421	1.000	561099	40.00	ng/uL	0.01
152) J Naphthalene-d8	136	5.639	5.639	1.000	456212	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.666	8.667	1.000	480055	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.127	11.127	1.000	530026	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.639	5.639	1.000	456212	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.361	7.362	1.000	234056	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.666	8.667	1.000	480055	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.127	11.127	1.000	530026	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.639	5.639	1.000	456212	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.432	13.437	1.000	561099	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.917	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.794	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.837	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.736	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.062	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.004	0.000	0	0.00	ng/uL	
Target Compounds								QValue
174) p-Phenylenediamine	108	6.099	6.099	1.082	2690991	648.24	ng/uL	98
176) Hexachlorophene	196	13.068	13.074	0.973	1016125	695.39	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2536.D
Acq On : 25 Mar 2024 23:48
Operator : LL2
InstName : MSD1
Sample : |WBN240228-38|ICV|1|SVM|1|H-ICV
Misc : |MIX[E]
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Mar 26 11:06:36 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Instrument ID: MSD1.I
Data File: S040224\SD0202.D
Lab Sample ID WBN240304-04.24
Quant Type ISTD

Client SDG: 660771
Injection Date: 02-APR-24 10:10
Init. Cal. Date(s) 25-MAR-24 11:23 - 15-MAR-24 23:28
Method: S040224\MSD1_8270C_8270D_032524.M
Method Update: 26-MAR-24 10:15

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S2-Fluorophenol	1.3581	1.25491		.01		-7.59812	20		Averaged
SPhenol-d5	1.7784	1.66699		.01		-6.26462	20		Averaged
SNitrobenzene-d5	0.4429	0.4257		.01		-3.8835	20		Averaged
S2-Fluorobiphenyl	1.5003	1.38787		.01		-7.49383	20		Averaged
S2,4,6-Tribromophenol	0.235	0.2163		.01		-7.95745	20		Averaged
Sp-Terphenyl-d14	0.978	0.94798		.01		-3.06953	20		Averaged
N-Methyl-N-nitrosomethylami	0.9206	0.83914		.01		-8.84858	20		Averaged
Pyridine	1.3915	1.35438		.01		-2.66762	20		Averaged
Phenol	1.7303	1.62341		.8		-6.17754	20		Averaged
Aniline	2.1169	1.81807		.01		-14.1164	20		Averaged
bis(2-Chloroethyl) ether	1.441	1.33694		.7		-7.22137	20		Averaged
2-Chlorophenol	1.378	1.28119		.8		-7.0254	20		Averaged
1,3-Dichlorobenzene	1.5505	1.44532		.01		-6.78362	20		Averaged
1,4-Dichlorobenzene	1.5254	1.39889		.01		-8.29356	20		Averaged
Benzyl alcohol	0.9414	0.84861		.01		-9.8566	20		Averaged
1,2-Dichlorobenzene	1.5006	1.41098		.01		-5.97228	20		Averaged
o-Cresol	1.0938	1.08032		.7		-1.2324	20		Averaged
bis(2-Chloro-1-methylethyl)eth	2.5456	2.43186		.01		-4.4681	20		Averaged
m,p-Cresols	1.3459	1.26376		.6		-6.10298	20		Averaged
N-Nitrosodipropylamine	1.163	1.0731		.5		-7.73001	20		Averaged
Hexachloroethane	0.6692	0.64456		.3		-3.68201	20		Averaged
Nitrobenzene	0.4544	0.44022		.2		-3.1206	20		Averaged
Isophorone	0.8279	0.77353		.4		-6.56722	20		Averaged
2-Nitrophenol	0.1562	0.1618		.1		3.58515	20		Averaged
2,4-Dimethylphenol	0.2583	0.21322		.2		-17.45257	20		Averaged
Benzoic acid	40	41.91	40			4.775	20		Linear
bis(2-Chloroethoxy)methane	0.5059	0.4782		.3		-5.47539	20		Averaged
2,4-Dichlorophenol	0.3323	0.29978		.2		-9.78634	20		Averaged
1,2,4-Trichlorobenzene	0.3679	0.35492		.01		-3.52813	20		Averaged
Naphthalene	0.9818	0.91491		.7		-6.813	20		Averaged
4-Chloroaniline	0.4254	0.3892		.01		-8.50964	20		Averaged
Hexachlorobutadiene	0.2366	0.21602		.01		-8.69822	20		Averaged
4-Chloro-3-methylphenol	0.3486	0.32891		.2		-5.64831	20		Averaged
2-Methylnaphthalene	0.7124	0.63777		.4		-10.47586	20		Averaged
1-Methylnaphthalene	0.6431	0.59373		.4		-7.67688	20		Averaged
Hexachlorocyclopentadiene	0.4111	0.34268		.05		-16.64315	20		Averaged
2,4,6-Trichlorophenol	0.4811	0.45055		.2		-6.35003	20		Averaged

Continuing Calibration Summary

Instrument ID: MSD1.I

Injection Date: 02-APR-24 10:10

Data File: S040224\SD0202.D

Init. Cal. Date(s) 25-MAR-24 11:23 15-MAR-24 23:28

Lab Sample ID WBN240304-04.24

Method: S040224\MSD1_8270C_8270D_032524.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
2,4,5-Trichlorophenol	0.4752	0.47983		.2		0.97433	20		Averaged
2-Chloronaphthalene	1.2853	1.17222		.8		-8.79795	20		Averaged
o-Nitroaniline	0.4567	0.46852		.01		2.58813	20		Averaged
Dimethylphthalate	1.4878	1.44731		.01		-2.72147	20		Averaged
m-Dinitrobenzene	0.1679	0.19168		.01		14.16319	20		Averaged
2,6-Dinitrotoluene	0.294	0.29446		.2		0.15646	20		Averaged
Acenaphthylene	1.887	1.78942		.9		-5.17117	20		Averaged
m-Nitroaniline	0.3343	0.33855		.01		1.27131	20		Averaged
Acenaphthene	1.2875	1.17404		.9		-8.81243	20		Averaged
2,4-Dinitrophenol	40	47.53	40			18.825	20		Linear
4-Nitrophenol	0.249	0.26484		.05		6.36145	20		Averaged
2,4-Dinitrotoluene	0.3857	0.41452		.2		7.47213	20		Averaged
Dibenzofuran	1.6827	1.59648		.8		-5.12391	20		Averaged
2,3,4,6-Tetrachlorophenol	0.4052	0.39061		.01		-3.60069	20		Averaged
Diethylphthalate	1.6083	1.51342		.01		-5.8994	20		Averaged
4-Chlorophenylphenylether	0.723	0.68992		.4		-4.57538	20		Averaged
p-Nitroaniline	0.3201	0.32334		.01		1.01218	20		Averaged
Fluorene	1.4168	1.31017		.9		-7.52612	20		Averaged
2-Methyl-4,6-dinitrophenol	40	45.13	40			12.825	20		Linear
Diphenylamine	0.6232	0.60078		.01		-3.59756	20		Averaged
1,2-Diphenylhydrazine	0.8272	0.81727		.01		-1.20044	20		Averaged
4-Bromophenylphenylether	0.2376	0.22922		.1		-3.52694	20		Averaged
Hexachlorobenzene	0.2493	0.24137		.1		-3.18091	20		Averaged
Pentachlorophenol	0.1637	0.16766		.05		2.41906	20		Averaged
Dinoseb	40	46.08	40			15.2	20		Linear
Phenanthrene	1.0185	0.96197		.7		-5.55032	20		Averaged
Anthracene	1.049	0.99983		.7		-4.68732	20		Averaged
Carbazole	1.0753	0.96013		.01		-10.7105	20		Averaged
Di-n-butylphthalate	1.3174	1.27936		.01		-2.88751	20		Averaged
Fluoranthene	1.2799	1.15293		.6		-9.92031	20		Averaged
Pyrene	1.278	1.22554		.6		-4.10485	20		Averaged
Butylbenzylphthalate	0.5924	0.60185		.01		1.59521	20		Averaged
Methoxychlor	0.7072	0.76752		.01		8.52941	20		Averaged
bis(2-Ethylhexyl)phthalate	0.8822	0.85981		.01		-2.53797	20		Averaged
Benzo(a)anthracene	1.2178	1.16271		.8		-4.52373	20		Averaged
Chrysene	1.1196	1.09543		.7		-2.15881	20		Averaged
Di-n-octylphthalate	1.524	1.49561		.01		-1.86286	20		Averaged

Continuing Calibration Summary

Instrument ID: MSD1.I

Injection Date: 02-APR-24 10:10

Data File: S040224\SD0202.D

Init. Cal. Date(s) 25-MAR-24 11:23 15-MAR-24 23:28

Lab Sample ID WBN240304-04.24

Method: S040224\MSD1_8270C_8270D_032524.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Benzo(b)fluoranthene	1.159	1.12223		.7		-3.17256	20		Averaged
Benzo(k)fluoranthene	1.0943	1.02174		.7		-6.63072	20		Averaged
Benzo(a)pyrene	1.0877	1.04037		.7		-4.35138	20		Averaged
Indeno(1,2,3-cd)pyrene	1.0825	0.99409		.5		-8.16721	20		Averaged
Dibenzo(a,h)anthracene	1.0039	0.92635		.4		-7.72487	20		Averaged
Benzo(ghi)perylene	1.0117	0.9305		.5		-8.02609	20		Averaged

LL
04/02/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0202.D
Acq On : 02 Apr 2024 10:10
Operator : LL2
InstName : MSD1
Sample : |WBN240304-04.24|CCV|1|SVM|1|M-4
Misc : MIX[A]
ALS Vial : 2 Sample Multiplier: 1

RB
04/02/2024

Quant Time: Apr 02 11:37:24 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.308	4.308	1.000	135917	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	500714	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.437	7.437	1.000	281978	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.742	8.742	1.000	570855	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.250	11.250	1.000	588545	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.620	13.620	1.000	641208	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.308	4.308	1.000	135917	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	514095	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.437	7.437	1.000	281978	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.742	8.742	1.000	570855	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.250	11.250	1.000	588545	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.620	13.620	1.000	641208	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.714	5.714	1.000	514095	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.742	8.742	1.000	570855	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.250	11.250	1.000	588545	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	514095	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.437	7.437	1.000	281978	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.742	8.742	1.000	570855	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.250	11.250	1.000	588545	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	514095	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.620	13.620	1.000	641208	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.986	2.986	0.693	170564	36.96	ng/uL	0.00
8) Phenol-d5	99	3.874	3.874	0.899	226572	37.49	ng/uL	0.00
23) Nitrobenzene-d5	82	4.917	4.917	0.861	218849	39.47	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.805	6.805	0.915	391349	37.00	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.137	8.137	1.094	60991	36.82	ng/uL	0.00
79) p-Terphenyl-d14	244	10.084	10.084	1.154	541161	38.77	ng/uL	0.00
Target Compounds								QValue
2) 2-Ethoxyethanol	59	1.762	1.762	0.409	112066	34.62	ng/uL	97
3) N-Methyl-N-nitrosometh...	74	1.960	1.960	0.455	114053	36.46	ng/uL	95
4) Pyridine	79	2.002	2.002	0.465	184996	39.13	ng/uL	99
6) p-Benzoquinone	54	3.468	3.468	0.805	138977	38.68	ng/uL	97
7) Aniline	93	3.949	3.949	0.917	247106	34.35	ng/uL	96
9) Phenol	94	3.885	3.885	0.902	220649	37.53	ng/uL	98
10) bis(2-Chloroethyl) ether	93	4.003	4.003	0.929	180561	36.88	ng/uL	98
11) 2-Chlorophenol	128	4.078	4.078	0.947	174136	37.19	ng/uL	98
12) n-Decane	57	4.104	4.104	0.953	253582	37.96	ng/uL	99
13) 1,3-Dichlorobenzene	146	4.243	4.243	0.985	196443	37.29	ng/uL	98
14) 1,4-Dichlorobenzene	146	4.324	4.324	1.004	190133	36.68	ng/uL	96
15) 1,2-Dichlorobenzene	146	4.489	4.489	1.042	191776	37.61	ng/uL	97
16) bis(2-Chloro-1-methyle...	45	4.580	4.580	1.063	330531	38.21	ng/uL	95
17) Benzyl alcohol	108	4.436	4.436	1.030	115340	36.06	ng/uL	94
18) o-Cresol	107	4.548	4.548	1.056	146834	39.51	ng/uL	96
19) m,p-Cresols	108	4.719	4.719	1.096	171766	37.56	ng/uL	98

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0202.D
Acq On : 02 Apr 2024 10:10
Operator : LL2
InstName : MSD1
Sample : |WBN240304-04.24|CCV|1|SVM|1|M-4
Misc : MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 02 11:37:24 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
20) N-Nitrosodipropylamine	70	4.736	4.736	1.099	145853	36.91	ng/uL	95
21) Hexachloroethane	117	4.869	4.869	1.130	87607	38.53	ng/uL	93
24) Nitrobenzene	77	4.939	4.939	0.864	226656	39.85	ng/uL	99
25) Isophorone	82	5.206	5.206	0.911	397890	38.39	ng/uL	99
26) 2-Nitrophenol	139	5.297	5.297	0.927	83181	42.55	ng/uL	97
27) 2,4-Dimethylphenol	122	5.329	5.329	0.933	109614	33.91	ng/uL	98
28) bis(2-Chloroethoxy)met...	93	5.442	5.442	0.952	245841	38.82	ng/uL	100
29) 2,4-Dichlorophenol	162	5.554	5.554	0.972	154116	37.05	ng/uL	96
30) Benzoic acid	105	5.409	5.409	0.947	132398	43.50	ng/uL	97
31) 1,2,4-Trichlorobenzene	180	5.650	5.650	0.989	182461	39.62	ng/uL	100
32) alpha-Terpineol	59	5.741	5.741	1.005	197771	39.73	ng/uL	99
33) Naphthalene	128	5.741	5.741	1.005	470352	38.27	ng/uL	99
34) 4-Chloroaniline	127	5.789	5.789	1.013	200473	37.65	ng/uL	97
35) Hexachlorobutadiene	225	5.864	5.864	1.026	111056	37.49	ng/uL	95
36) 4-Chloro-3-methylphenol	107	6.281	6.281	1.099	169091	38.75	ng/uL	97
37) 2-Methylnaphthalene	142	6.447	6.447	1.128	327872	36.76	ng/uL	99
38) 1-Methylnaphthalene	142	6.549	6.549	1.146	305232	37.92	ng/uL	99
40) Hexachlorocyclopentadiene	237	6.602	6.602	0.888	96628	33.34	ng/uL	98
41) 2,3-Dichloroaniline	161	6.720	6.720	0.904	187141	36.50	ng/uL	97
42) 2,4,6-Trichlorophenol	196	6.720	6.720	0.904	127044	37.46	ng/uL	98
43) 2,4,5-Trichlorophenol	196	6.752	6.752	0.908	134421	40.13	ng/uL	97
45) 2-Chloronaphthalene	162	6.923	6.923	0.931	330539	36.48	ng/uL	97
46) o-Nitroaniline	65	7.014	7.014	0.943	132112	41.04	ng/uL	98
47) 1,4-Dinitrobenzene	168	7.142	7.142	0.960	46048	43.32	ng/uL	91
48) m-Nitroaniline	138	7.394	7.394	0.994	95465	40.51	ng/uL	98
49) Dimethylphthalate	163	7.180	7.180	0.965	408109	38.91	ng/uL	99
50) m-Dinitrobenzene	168	7.212	7.212	0.970	54050	45.66	ng/uL	90
51) 2,6-Dinitrotoluene	165	7.239	7.239	0.973	83032	40.07	ng/uL	95
52) 2,4-Dinitrotoluene	165	7.602	7.602	1.022	116607	42.89	ng/uL	92
53) Acenaphthylene	152	7.308	7.308	0.983	504578	37.93	ng/uL	99
54) Acenaphthene	153	7.469	7.469	1.004	331053	36.47	ng/uL	98
55) 2,4-Dinitrophenol	184	7.485	7.485	1.006	40581	47.53	ng/uL	90
56) Dibenzofuran	168	7.624	7.624	1.025	450173	37.95	ng/uL	98
57) 2,3,4,6-Tetrachlorophenol	232	7.725	7.725	1.039	110144	38.56	ng/uL	94
58) Diethylphthalate	149	7.811	7.811	1.050	426750	37.64	ng/uL	100
59) 4-Nitrophenol	109	7.533	7.533	1.013	75671	43.10	ng/uL	90
60) Fluorene	166	7.929	7.929	1.066	369438	36.99	ng/uL	100
61) 4-Chlorophenylphenylether	204	7.918	7.918	1.065	194542	38.17	ng/uL	99
62) p-Nitroaniline	138	7.934	7.934	1.067	91175	40.40	ng/uL	91
65) 2-Methyl-4,6-dinitroph...	198	7.961	7.961	0.911	57978	45.13	ng/uL	94
66) Diphenylamine	169	8.020	8.020	0.917	342961	38.56	ng/uL	98
67) 1,2-Diphenylhydrazine	77	8.062	8.062	0.922	465842	39.46	ng/uL	99
68) 4-Bromophenylphenylether	248	8.346	8.346	0.955	130853	38.59	ng/uL	94
69) Hexachlorobenzene	284	8.405	8.405	0.961	137790	38.73	ng/uL	96
70) Pentachlorophenol	266	8.570	8.570	0.980	95708	40.96	ng/uL	98
71) n-Octadecane	57	8.608	8.608	0.985	357566	37.17	ng/uL	98
72) Dinoseb	211	8.715	8.715	0.997	91799	46.08	ng/uL	97
73) Phenanthrene	178	8.763	8.763	1.002	549145	37.78	ng/uL	99
74) Anthracene	178	8.806	8.806	1.007	570756	38.13	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0202.D
Acq On : 02 Apr 2024 10:10
Operator : LL2
InstName : MSD1
Sample : |WBN240304-04.24|CCV|1|SVM|1|M-4
Misc : MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 02 11:37:24 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

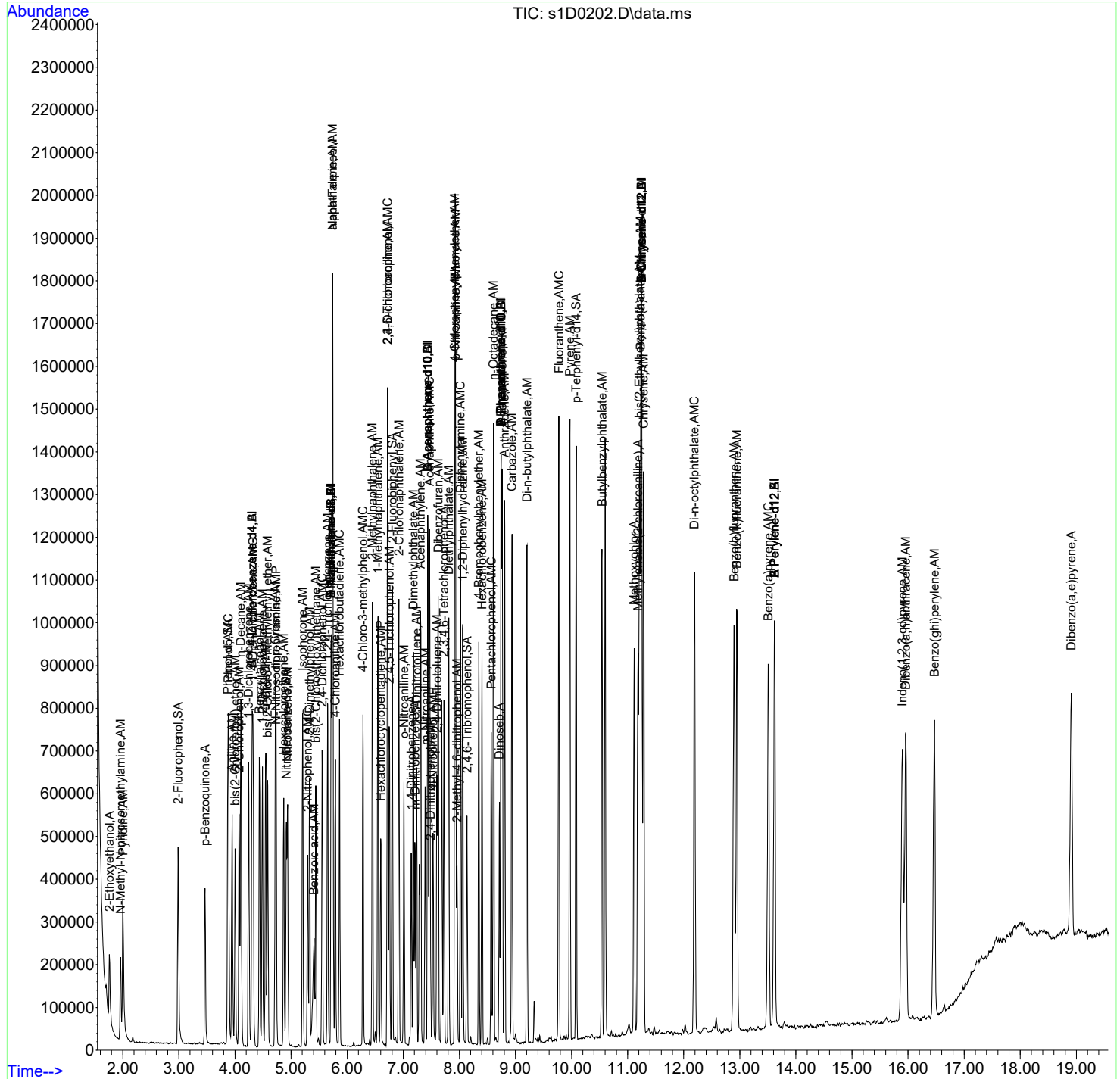
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
75) Carbazole	167	8.940	8.940	1.023	548094	35.72	ng/uL 98
76) Di-n-butylphthalate	149	9.207	9.207	1.053	730330	38.85	ng/uL 99
77) Fluoranthene	202	9.774	9.774	1.118	661339	36.21	ng/uL 99
78) Pyrene	202	9.972	9.972	1.141	699606	38.36	ng/uL 99
81) Butylbenzylphthalate	149	10.544	10.544	0.937	354213	40.64	ng/uL 99
82) bis(2-Ethylhexyl)phtha...	149	11.213	11.213	0.997	506036	38.98	ng/uL 90
83) Benzo(a)anthracene	228	11.234	11.234	0.999	683879	38.17	ng/uL 97
84) Chrysene	228	11.282	11.282	1.003	644466	39.12	ng/uL 99
85) Methoxychlor	227	11.116	11.116	0.988	451719	43.41	ng/uL 99
86) Methylenebis(2-chloroa...	231	11.186	11.186	0.994	146551	38.20	ng/uL 99
87) Di-n-octylphthalate	149	12.192	12.192	1.084	881272	39.30	ng/uL 99
89) Benzo(b)fluoranthene	252	12.898	12.898	0.947	719582	38.73	ng/uL 98
90) Benzo(k)fluoranthene	252	12.951	12.951	0.951	655148	37.35	ng/uL 97
91) Benzo(a)pyrene	252	13.507	13.507	0.992	666774	38.24	ng/uL 99
92) Indeno(1,2,3-cd)pyrene	276	15.898	15.898	1.167	637416	36.73	ng/uL 96
93) Dibenzo(a,h)anthracene	278	15.962	15.962	1.172	594343	36.93	ng/uL 100
94) Benzo(ghi)perylene	276	16.470	16.470	1.209	596646	36.79	ng/uL 100
95) Dibenzo(a,e)pyrene	302	18.909	18.909	1.388	485368	35.41	ng/uL 99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

```
Data Path : D:\MSDCHEM\1\Data\S040224\  
Data File : s1D0202.D  
Acq On : 02 Apr 2024 10:10  
Operator : LL2  
InstName : MSD1  
Sample : |WBN240304-04.24|CCV|1|SVM|1|M-4  
Misc : MIX[A]  
ALS Vial : 2 Sample Multiplier: 1
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Quant Time: Apr 02 11:37:24 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Instrument ID: MSD1.I
Data File: S040224\MSD0203.D
Lab Sample ID WBN240201-54.10
Quant Type ISTD

Client SDG: 660771
Injection Date: 02-APR-24 10:35
Init. Cal. Date(s) 25-MAR-24 11:23 - 15-MAR-24 23:28
Method: S040224\MSD1_8270C_8270D_032524.M
Method Update: 26-MAR-24 10:15

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Methyl methacrylate	0.2082	0.20702		.01		-0.56676	20		Averaged
1,4-Dioxane	0.5449	0.48651		.01		-10.71573	20		Averaged
Ethyl methacrylate	1.2698	1.30614		.01		2.86187	20		Averaged
2-Picoline	1.5603	1.60725		.01		3.00904	20		Averaged
N-Nitrosomethylethylamine	0.5773	0.58741		.01		1.75126	20		Averaged
Methyl methanesulfonate	0.9269	0.98142		.01		5.88197	20		Averaged
N-Nitrosodiethylamine	0.5854	0.59679		.01		1.94568	20		Averaged
Ethyl Methanesulfonate	1.2678	1.35477		.01		6.85991	20		Averaged
Pentachloroethane	0.5852	0.62798		.01		7.31032	20		Averaged
N-Nitrosopyrrolidine	0.6411	0.67917		.01		5.93823	20		Averaged
Acetophenone	2.0234	2.1269		.01		5.11515	20		Averaged
N-Nitrosomorpholine	0.8596	0.90658		.01		5.46533	20		Averaged
o-Toluidine	2.0372	2.20241		.01		8.10966	20		Averaged
N-Nitrosopiperidine	0.1764	0.18144		.01		2.85714	20		Averaged
a,a-Dimethylphenethylamine	1.1553	1.13369		.01		-1.87051	20		Averaged
2,6-Dichlorophenol	0.3027	0.32589		.01		7.66105	20		Averaged
Hexachloropropene	0.2414	0.25278		.01		4.71417	20		Averaged
N-Nitrosodi-n-butylamine	0.2342	0.24369		.01		4.05209	20		Averaged
Safrole	0.2735	0.28376		.01		3.75137	20		Averaged
1,2,4,5-Tetrachlorobenzene	0.7097	0.72262		.01		1.82049	20		Averaged
Isosafrole	0.561	0.57166		.01		1.90018	20		Averaged
1,4-Naphthoquinone	0.533	0.55974		.01		5.01689	20		Averaged
Pentachlorobenzene	0.5969	0.61912		.01		3.72257	20		Averaged
1-Naphthylamine	1.2491	1.30203		.01		4.23745	20		Averaged
2-Naphthylamine	1.2587	1.32359		.01		5.15532	20		Averaged
5-Nitro-o-toluidine	0.3354	0.39621		.01		18.13059	20		Averaged
Tributylphosphate	1.9146	2.09133		.01		9.23065	20		Averaged
1,3,5-Trinitrobenzene	0.1567	0.21485		.01		37.10913	20	*	Averaged
Diallate	0.2367	0.23361		.01		-1.30545	20		Averaged
Phenacetin	0.3903	0.42512		.01		8.92134	20		Averaged
4-Aminobiphenyl	0.831	0.84408		.01		1.57401	20		Averaged
Pentachloronitrobenzene	0.0962	0.10803		.01		12.2973	20		Averaged
Pronamide	0.3693	0.39635		.01		7.32467	20		Averaged
4-Nitroquinoline-1-oxide	0.0377	0.02125		.01		-43.63395	20	*	Averaged
Methapyrilene	0.7137	0.74803		.01		4.81014	20		Averaged
Isodrin	0.1438	0.1455		.01		1.1822	20		Averaged
Aramite	0.0502	0.05681		.01		13.16733	20		Averaged

Continuing Calibration Summary

Instrument ID: MSD1.I

Injection Date: 02-APR-24 10:35

Data File: S040224\SD0203.D

Init. Cal. Date(s) 25-MAR-24 11:23 15-MAR-24 23:28

Lab Sample ID WBN240201-54.10

Method: S040224\MSD1_8270C_8270D_032524.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
p-(Dimethylamino)azobenzene	0.3108	0.31697		.01		1.9852	20		Averaged
Chlorobenzilate	0.3036	0.34694		.01		14.27536	20		Averaged
3,3'-Dimethylbenzidine	0.8074	0.80104		.01		-0.78771	20		Averaged
Kepone	0.1105	0.10475		.01		-5.20362	20		Averaged
2-Acetylaminofluorene	0.5144	0.55673		.01		8.229	20		Averaged
3,3'-Dichlorobenzidine	0.4859	0.49701		.01		2.28648	20		Averaged
7,12Dimethylbenz(a)anthracene	0.4786	0.50875		.01		6.29962	20		Averaged
3-Methylcholanthrene	0.1195	0.12406		.01		3.8159	20		Averaged

LL
04/02/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0203.D
Acq On : 02 Apr 2024 10:35
Operator : LL2
InstName : MSD1
Sample : |WBN240201-54.10|CCV|1|SVM|1|APX-4
Misc : MIX[B,J]
ALS Vial : 3 Sample Multiplier: 1

RAB
04/02/2024

Quant Time: Apr 02 11:38:06 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	121015	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	457580	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	255249	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.741	8.741	1.000	523455	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.245	11.245	1.000	568578	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.609	13.609	1.000	590931	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	121015	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	464001	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	255249	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.741	8.741	1.000	523455	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.245	11.245	1.000	568578	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.609	13.609	1.000	590931	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.714	5.714	1.000	464001	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.741	8.741	1.000	523455	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.245	11.245	1.000	568578	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	464001	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	255249	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.741	8.741	1.000	523455	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.245	11.245	1.000	568578	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	464001	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.609	13.609	1.000	590931	40.00	ng/uL	0.00

System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.986	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.874	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.917	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.805	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.137	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.084	0.000	0	0.00	ng/uL	

Target Compounds								
97) 1,4-Dioxane	88	1.767	1.767	0.411	55928	33.92	ng/uL	QValue
98) Methyl methacrylate	100	1.761	1.761	0.409	25337	40.23	ng/uL#	81
99) Ethyl methacrylate	69	2.259	2.259	0.525	158867	41.35	ng/uL	94
100) 2-Picoline	93	2.532	2.532	0.588	194634	41.23	ng/uL	99
101) N-Nitrosomethylethylamine	88	2.601	2.601	0.605	71085	40.70	ng/uL	98
102) Methyl methanesulfonate	80	2.847	2.847	0.662	118767	42.35	ng/uL	90
103) N-Nitrosodiethylamine	102	3.211	3.211	0.746	72221	40.78	ng/uL	93
104) 2-Butoxyethanol	57	3.270	3.270	0.760	235333	41.44	ng/uL	99
105) Ethyl methanesulfonate	79	3.484	3.484	0.810	164050	42.77	ng/uL	96
106) Benzaldehyde	77	3.847	3.847	0.894	169106	43.80	ng/uL	98
107) Pentachloroethane	167	4.008	4.008	0.932	75995	42.92	ng/uL	97
108) N-Nitrosopyrrolidine	100	4.709	4.709	1.094	82190	42.38	ng/uL	98
109) Acetophenone	105	4.741	4.741	1.102	257387	42.05	ng/uL	93
110) N-Nitrosomorpholine	56	4.757	4.757	1.106	110876	42.63	ng/uL	96
111) o-Toluidine	106	4.778	4.778	1.111	266625	43.26	ng/uL	97
113) N-Nitrosopiperidine	114	5.110	5.110	0.894	84188	41.14	ng/uL	96

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0203.D
Acq On : 02 Apr 2024 10:35
Operator : LL2
InstName : MSD1
Sample : |WBN240201-54.10|CCV|1|SVM|1|APX-4
Misc : MIX[B,J]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 02 11:38:06 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

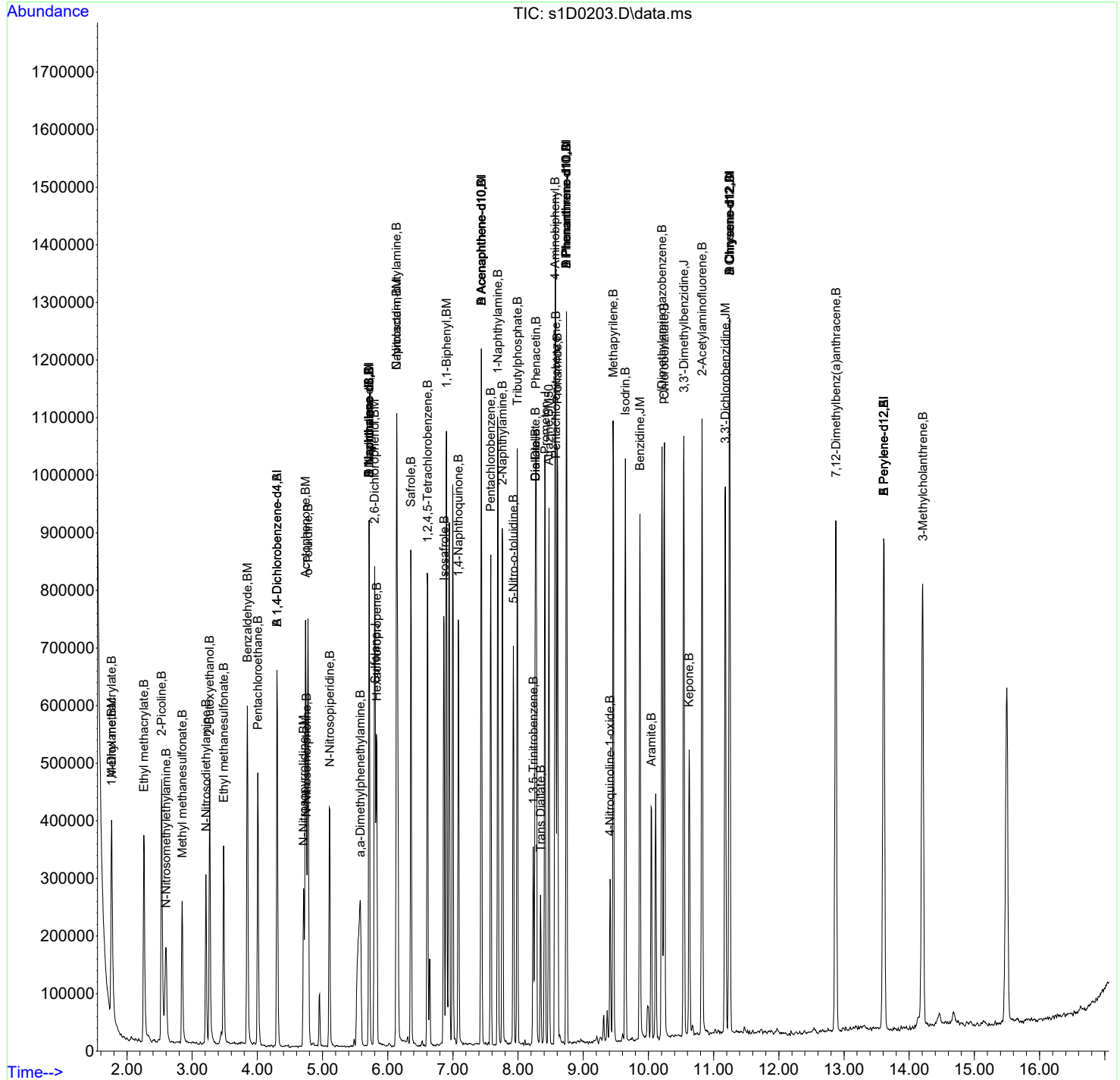
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
114) a,a-Dimethylphenethyla...	58	5.580	5.580	0.977	526032	39.25	ng/uL 99
115) 2,6-Dichlorophenol	162	5.800	5.800	1.015	151213	43.07	ng/uL 99
116) Hexachloropropene	213	5.832	5.832	1.021	117288	41.88	ng/uL 99
117) Caprolactam	113	6.137	6.137	1.074	41423	40.17	ng/uL 90
118) N-Nitrosodi-n-butylamine	57	6.137	6.137	1.074	113072	41.62	ng/uL 98
119) Safrole	162	6.356	6.356	1.112	131664	41.50	ng/uL 100
121) 1,2,4,5-Tetrachloroben...	216	6.613	6.613	0.889	184448	40.73	ng/uL 95
122) 1,1-Biphenyl	154	6.902	6.902	0.928	388717	42.13	ng/uL 100
123) Isosafrole	162	6.864	6.864	0.923	145916	40.76	ng/uL 99
124) 1,4-Naphthoquinone	158	7.083	7.083	0.953	142874	42.00	ng/uL 97
125) Pentachlorobenzene	250	7.581	7.581	1.019	158029	41.49	ng/uL 99
126) 1-Naphthylamine	143	7.688	7.688	1.034	332341	41.70	ng/uL 99
127) 2-Naphthylamine	143	7.757	7.757	1.043	337846	42.06	ng/uL 99
128) 5-Nitro-o-toluidine	152	7.928	7.928	1.066	101132	47.25	ng/uL 91
129) Tributylphosphate	99	7.987	7.987	1.074	533809	43.69	ng/uL 98
131) 1,3,5-Trinitrobenzene	75	8.233	8.233	0.942	112466	54.86	ng/uL 98
132) Phenacetin	108	8.276	8.276	0.947	222531	43.57	ng/uL 99
133) Diallate	86	8.265	8.265	0.946	122283	39.49	ng/uL 98
134) Cis Diallate	86	8.265	8.265	0.946	122283	33.56	ng/uL 98
135) Trans Diallate	86	8.346	8.346	0.955	44532	5.83	ng/uL 98
136) Atrazine	200	8.474	8.474	0.969	124715	43.13	ng/uL 99
137) 4-Aminobiphenyl	169	8.570	8.570	0.980	442495	40.69	ng/uL 99
138) Pentachloronitrobenzene	237	8.581	8.581	0.982	56550	44.91	ng/uL 94
139) Pronamide	173	8.602	8.602	0.984	207471	42.93	ng/uL 100
140) 4-Nitroquinoline-1-oxide	128	9.410	9.410	1.076	11121	22.57	ng/uL 80
141) Methapyrilene	58	9.458	9.458	1.082	391558	41.92	ng/uL 97
142) Isodrin	193	9.645	9.645	1.103	76161	40.48	ng/uL 93
144) Aramite	185	10.047	10.047	0.893	32302	45.25	ng/uL 95
145) Kepone	272	10.624	10.624	0.945	59560	37.91	ng/uL 93
146) p-(Dimethylamino)azobe...	120	10.207	10.207	0.908	180225	40.79	ng/uL 96
147) Chlorobenzilate	251	10.244	10.244	0.911	197263	45.71	ng/uL 94
148) 2-Acetylaminofluorene	181	10.822	10.822	0.962	316545	43.29	ng/uL 98
150) 7,12-Dimethylbenz(a)an...	256	12.876	12.876	0.946	300635	42.52	ng/uL 97
151) 3-Methylcholanthrene	269	14.208	14.208	1.044	73308	41.51	ng/uL 96
153) Sulfolane	56	5.810	5.810	1.017	82355	43.42	ng/uL 99
155) Prometon	210	8.415	8.415	0.963	110777	42.22	ng/uL 99
156) Benzydine	184	9.870	9.870	1.129	425410	38.97	ng/uL 97
158) 3,3'-Dimethylbenzidine	212	10.544	10.544	0.938	455452	39.69	ng/uL 98
159) 3,3'-Dichlorobenzidine	252	11.180	11.180	0.994	282591	40.91	ng/uL 98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0203.D
Acq On : 02 Apr 2024 10:35
Operator : LL2
InstName : MSD1
Sample : |WBN240201-54.10|CCV|1|SVM|1|APX-4
Misc : MIX[B,J]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 02 11:38:06 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Instrument ID: MSD1.I
Data File: S040224\SD0204.D
Lab Sample ID WBN240227-25.6
Quant Type ISTD

Client SDG: 660771
Injection Date: 02-APR-24 10:58
Init. Cal. Date(s) 25-MAR-24 11:23 - 15-MAR-24 23:28
Method: S040224\MSD1_8270C_8270D_032524.M
Method Update: 26-MAR-24 10:15

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Triethylphosphorothioate	0.1915	0.20114		.01		5.03394	20		Averaged
Thionazin	0.2714	0.27991		.01		3.13559	20		Averaged
Sulfotepp	0.0869	0.0872		.01		0.34522	20		Averaged
Phorate	0.5582	0.57489		.01		2.98997	20		Averaged
Dimethoate	0.3568	0.3689		.01		3.39126	20		Averaged
Disulfoton	0.4765	0.47483		.01		-0.35047	20		Averaged
Methyl parathion	0.2287	0.28019		.01		22.51421	20	*	Averaged
Parathion	40	48.42	40			21.05	20	*	Linear
Famphur	0.5284	0.59568		.01		12.73278	20		Averaged

LL
04/02/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0204.D
Acq On : 02 Apr 2024 10:58
Operator : LL2
InstName : MSD1
Sample : |WBN240227-25.6|CCV|1|SVM|1|P-4
Misc : MIX[D]
ALS Vial : 4 Sample Multiplier: 1

RB
04/02/2024

Quant Time: Apr 02 11:38:17 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

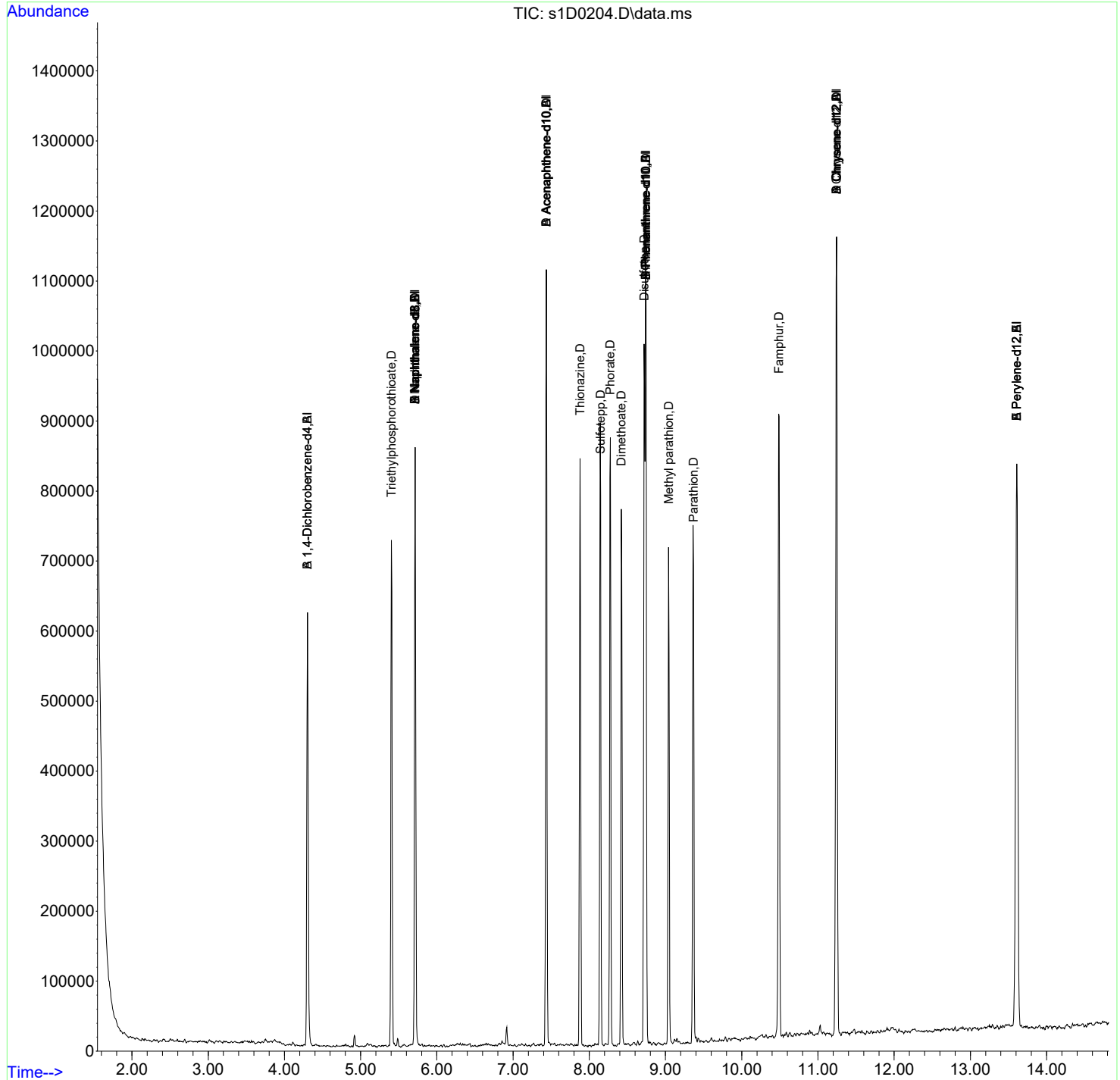
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	116384	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	425220	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	233846	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.741	8.741	1.000	490539	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.245	11.245	1.000	528520	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.609	13.609	1.000	556521	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	116384	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	430831	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	233846	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.741	8.741	1.000	490539	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.245	11.245	1.000	528520	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.609	13.609	1.000	556521	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.714	5.714	1.000	430831	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.741	8.741	1.000	490539	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.245	11.245	1.000	528520	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	430831	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	233846	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.741	8.741	1.000	490539	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.245	11.245	1.000	528520	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	430831	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.609	13.609	1.000	556521	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.986	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.874	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.917	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.805	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.137	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.084	0.000	0	0.00	ng/uL	
Target Compounds								QValue
161) Triethylphosphorothioate	198	5.404	5.404	0.946	86658	42.00	ng/uL	93
163) Thionazine	107	7.880	7.875	1.060	65455	41.26	ng/uL	93
165) Sulfotepp	322	8.148	8.142	0.932	42777	40.13	ng/uL	93
166) Phorate	75	8.276	8.271	0.947	282007	41.19	ng/uL	98
167) Dimethoate	87	8.420	8.415	0.963	180961	41.36	ng/uL	97
168) Disulfoton	88	8.720	8.720	0.998	232923	39.86	ng/uL	99
169) Methyl parathion	109	9.041	9.041	1.034	137446	49.00	ng/uL	90
170) Parathion	291	9.367	9.362	1.072	29042	48.42	ng/uL#	79
172) Famphur	218	10.490	10.485	0.933	314829	45.09	ng/uL	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0204.D
Acq On : 02 Apr 2024 10:58
Operator : LL2
InstName : MSD1
Sample : |WBN240227-25.6|CCV|1|SVM|1|P-4
Misc : MIX[D]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 02 11:38:17 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Instrument ID: MSD1.I
Data File: S040224\SD0205.D
Lab Sample ID WBN240212-33.4
Quant Type ISTD

Client SDG: 660771
Injection Date: 02-APR-24 11:18
Init. Cal. Date(s) 25-MAR-24 11:23 - 15-MAR-24 23:28
Method: S040224\MSD1_8270C_8270D_032524.M
Method Update: 26-MAR-24 10:15

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
p-Phenylenediamine	0.364	0.36705		.01		0.83791	20		Averaged
Hexachlorophene	700	703.24	700			0.46286	20		Linear

LL
04/02/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0205.D
Acq On : 02 Apr 2024 11:18
Operator : LL2
InstName : MSD1
Sample : |WBN240212-33.4|CCV|1|SVM|1|H-4
Misc : MIX[E]
ALS Vial : 5 Sample Multiplier: 1

RB
04/02/2024

Quant Time: Apr 02 11:39:15 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

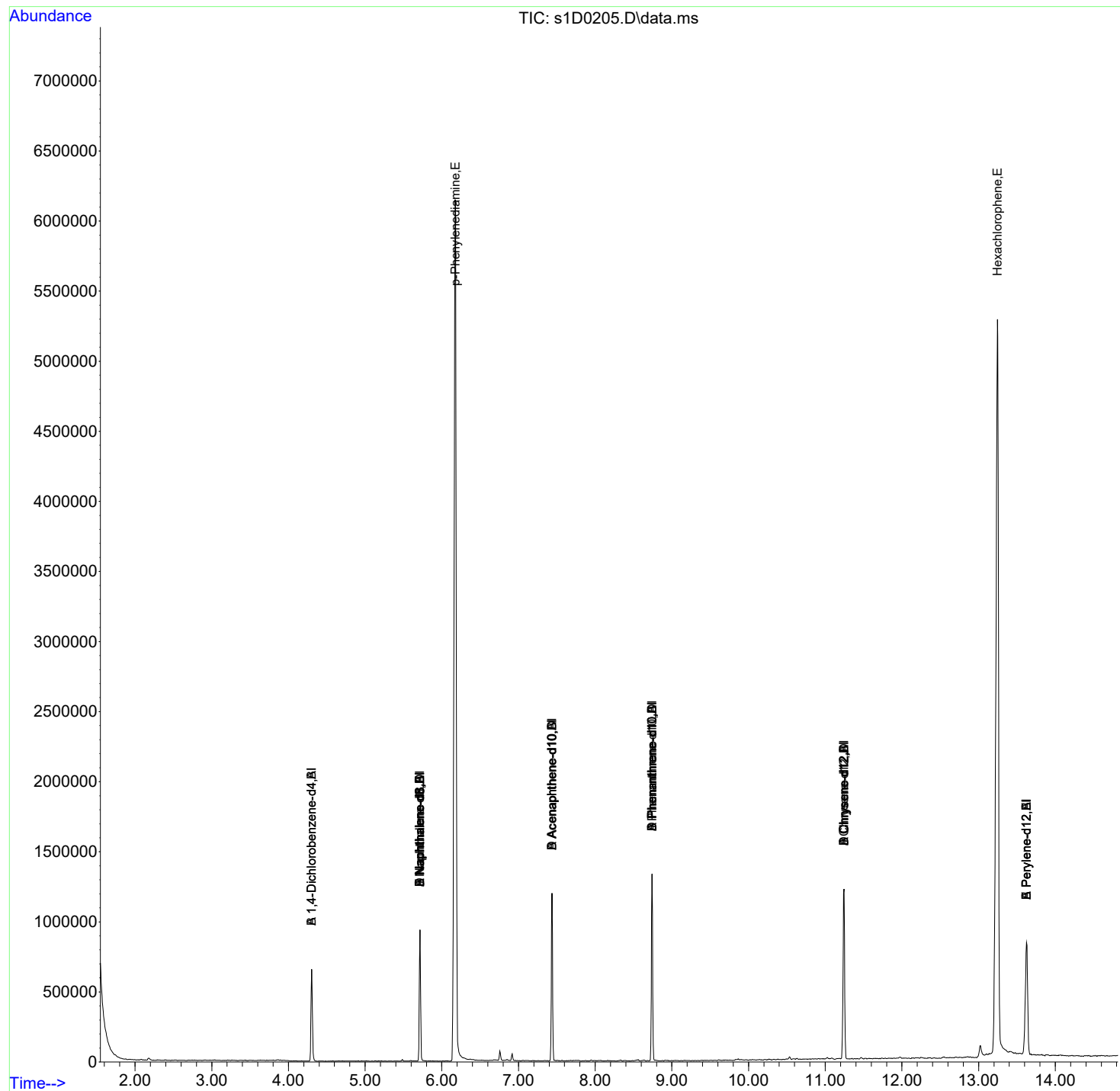
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	123811	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	465263	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	256966	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.741	8.741	1.000	531577	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.245	11.245	1.000	569555	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.625	13.625	1.000	582986	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	123811	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	472579	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	256966	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.741	8.741	1.000	531577	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.245	11.245	1.000	569555	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.625	13.625	1.000	582986	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.714	5.714	1.000	472579	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.741	8.741	1.000	531577	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.245	11.245	1.000	569555	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	472579	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	256966	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.741	8.741	1.000	531577	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.245	11.245	1.000	569555	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	472579	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.625	13.625	1.000	582986	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.986	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.874	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.917	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.805	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.137	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.084	0.000	0	0.00	ng/uL	
Target Compounds								QValue
174) p-Phenylenediamine	108	6.174	6.174	1.080	3036519	706.14	ng/uL	100
176) Hexachlorophene	196	13.245	13.245	0.972	1068645	702.58	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0205.D
Acq On : 02 Apr 2024 11:18
Operator : LL2
InstName : MSD1
Sample : |WBN240212-33.4|CCV|1|SVM|1|H-4
Misc : MIX[E]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 02 11:39:15 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Instrument ID: MSD1.I
Data File: S040324\SD0302.D
Lab Sample ID WBN240304-04.24
Quant Type ISTD

Client SDG: 660771
Injection Date: 03-APR-24 14:50
Init. Cal. Date(s) 25-MAR-24 11:23 - 15-MAR-24 23:28
Method: S040324\MSD1_8270C_8270D_032524.M
Method Update: 26-MAR-24 10:15

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S2-Fluorophenol	1.3581	1.2891		.01		-5.08063	20		Averaged
SPhenol-d5	1.7784	1.65356		.01		-7.01979	20		Averaged
SNitrobenzene-d5	0.4429	0.47337		.01		6.87966	20		Averaged
S2-Fluorobiphenyl	1.5003	1.51115		.01		0.72319	20		Averaged
S2,4,6-Tribromophenol	0.235	0.23832		.01		1.41277	20		Averaged
Sp-Terphenyl-d14	0.978	1.0144		.01		3.72188	20		Averaged
N-Methyl-N-nitrosomethylami	0.9206	0.90494		.01		-1.70106	20		Averaged
Pyridine	1.3915	1.35808		.01		-2.40172	20		Averaged
Phenol	1.7303	1.67667		.8		-3.09946	20		Averaged
Aniline	2.1169	1.88975		.01		-10.73031	20		Averaged
bis(2-Chloroethyl) ether	1.441	1.36192		.7		-5.48786	20		Averaged
2-Chlorophenol	1.378	1.31707		.8		-4.42163	20		Averaged
1,3-Dichlorobenzene	1.5505	1.50282		.01		-3.07514	20		Averaged
1,4-Dichlorobenzene	1.5254	1.4318		.01		-6.1361	20		Averaged
Benzyl alcohol	0.9414	0.88285		.01		-6.21946	20		Averaged
1,2-Dichlorobenzene	1.5006	1.37869		.01		-8.12408	20		Averaged
o-Cresol	1.0938	1.05127		.7		-3.88828	20		Averaged
bis(2-Chloro-1-methylethyl)eth	2.5456	2.25983		.01		-11.22604	20		Averaged
m,p-Cresols	1.3459	1.30335		.6		-3.16145	20		Averaged
N-Nitrosodipropylamine	1.163	1.11865		.5		-3.81341	20		Averaged
Hexachloroethane	0.6692	0.62571		.3		-6.4988	20		Averaged
Nitrobenzene	0.4544	0.46454		.2		2.23151	20		Averaged
Isophorone	0.8279	0.83931		.4		1.37819	20		Averaged
2-Nitrophenol	0.1562	0.17712		.1		13.39309	20		Averaged
2,4-Dimethylphenol	0.2583	0.22484		.2		-12.95393	20		Averaged
Benzoic acid	40	43.2	40			8	20		Linear
bis(2-Chloroethoxy)methane	0.5059	0.51782		.3		2.3562	20		Averaged
2,4-Dichlorophenol	0.3323	0.32766		.2		-1.39633	20		Averaged
1,2,4-Trichlorobenzene	0.3679	0.35532		.01		-3.41941	20		Averaged
Naphthalene	0.9818	0.97738		.7		-0.45019	20		Averaged
4-Chloroaniline	0.4254	0.40963		.01		-3.7071	20		Averaged
Hexachlorobutadiene	0.2366	0.21961		.01		-7.1809	20		Averaged
4-Chloro-3-methylphenol	0.3486	0.35277		.2		1.19621	20		Averaged
2-Methylnaphthalene	0.7124	0.66763		.4		-6.28439	20		Averaged
1-Methylnaphthalene	0.6431	0.62604		.4		-2.65278	20		Averaged
Hexachlorocyclopentadiene	0.4111	0.40232		.05		-2.13573	20		Averaged
2,4,6-Trichlorophenol	0.4811	0.4991		.2		3.74143	20		Averaged

Continuing Calibration Summary

Instrument ID: MSD1.I

Injection Date: 03-APR-24 14:50

Data File: S040324\SD0302.D

Init. Cal. Date(s) 25-MAR-24 11:23 15-MAR-24 23:28

Lab Sample ID WBN240304-04.24

Method: S040324\MSD1_8270C_8270D_032524.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
2,4,5-Trichlorophenol	0.4752	0.50616		.2		6.51515	20		Averaged
2-Chloronaphthalene	1.2853	1.29321		.8		0.61542	20		Averaged
o-Nitroaniline	0.4567	0.49793		.01		9.02781	20		Averaged
Dimethylphthalate	1.4878	1.54596		.01		3.90913	20		Averaged
m-Dinitrobenzene	0.1679	0.19977		.01		18.98154	20		Averaged
2,6-Dinitrotoluene	0.294	0.32307		.2		9.88776	20		Averaged
Acenaphthylene	1.887	1.94121		.9		2.87281	20		Averaged
m-Nitroaniline	0.3343	0.35376		.01		5.82112	20		Averaged
Acenaphthene	1.2875	1.24638		.9		-3.19379	20		Averaged
2,4-Dinitrophenol	40	56.43	40			41.075	20	*	Linear
4-Nitrophenol	0.249	0.28441		.05		14.22088	20		Averaged
2,4-Dinitrotoluene	0.3857	0.45074		.2		16.86285	20		Averaged
Dibenzofuran	1.6827	1.70837		.8		1.52552	20		Averaged
2,3,4,6-Tetrachlorophenol	0.4052	0.42749		.01		5.50099	20		Averaged
Diethylphthalate	1.6083	1.60242		.01		-0.3656	20		Averaged
4-Chlorophenylphenylether	0.723	0.72435		.4		0.18672	20		Averaged
p-Nitroaniline	0.3201	0.35079		.01		9.58763	20		Averaged
Fluorene	1.4168	1.43101		.9		1.00296	20		Averaged
2-Methyl-4,6-dinitrophenol	40	53.37	40			33.425	20	*	Linear
Diphenylamine	0.6232	0.64236		.01		3.07445	20		Averaged
1,2-Diphenylhydrazine	0.8272	0.85018		.01		2.77805	20		Averaged
4-Bromophenylphenylether	0.2376	0.24685		.1		3.8931	20		Averaged
Hexachlorobenzene	0.2493	0.24918		.1		-0.04813	20		Averaged
Pentachlorophenol	0.1637	0.1684		.05		2.87111	20		Averaged
Dinoseb	40	52.81	40			32.025	20	*	Linear
Phenanthrene	1.0185	1.02737		.7		0.87089	20		Averaged
Anthracene	1.049	1.07421		.7		2.40324	20		Averaged
Carbazole	1.0753	0.99843		.01		-7.1487	20		Averaged
Di-n-butylphthalate	1.3174	1.34204		.01		1.87035	20		Averaged
Fluoranthene	1.2799	1.26939		.6		-0.82116	20		Averaged
Pyrene	1.278	1.30166		.6		1.85133	20		Averaged
Butylbenzylphthalate	0.5924	0.64308		.01		8.55503	20		Averaged
Methoxychlor	0.7072	0.90015		.01		27.28365	20	*	Averaged
bis(2-Ethylhexyl)phthalate	0.8822	0.94323		.01		6.91793	20		Averaged
Benzo(a)anthracene	1.2178	1.24701		.8		2.39859	20		Averaged
Chrysene	1.1196	1.16653		.7		4.19168	20		Averaged
Di-n-octylphthalate	1.524	1.64637		.01		8.02953	20		Averaged

Continuing Calibration Summary

Instrument ID: MSD1.I

Injection Date: 03-APR-24 14:50

Data File: S040324\SD0302.D

Init. Cal. Date(s) 25-MAR-24 11:23 15-MAR-24 23:28

Lab Sample ID WBN240304-04.24

Method: S040324\MSD1_8270C_8270D_032524.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Benzo(b)fluoranthene	1.159	1.14263		.7		-1.41242	20		Averaged
Benzo(k)fluoranthene	1.0943	1.11877		.7		2.23613	20		Averaged
Benzo(a)pyrene	1.0877	1.08353		.7		-0.38338	20		Averaged
Indeno(1,2,3-cd)pyrene	1.0825	1.0656		.5		-1.5612	20		Averaged
Dibenzo(a,h)anthracene	1.0039	0.99882		.4		-0.50603	20		Averaged
Benzo(ghi)perylene	1.0117	0.97356		.5		-3.76989	20		Averaged

LL
04/04/2024

Data Path : D:\MSDCHEM\1\Data\S040324\
Data File : s1D0302.D
Acq On : 03 Apr 2024 14:50
Operator : LL2
InstName : MSD1
Sample : |WBN240304-04.24|CCV|1|SVM|1|M-4
Misc : MIX[A]
ALS Vial : 2 Sample Multiplier: 1

RAB
04/04/2024

Quant Time: Apr 04 07:44:17 2024
Quant Method : D:\MSDCHEM\1\Data\S040324\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.297	4.297	1.000	123865	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.709	5.709	1.000	435111	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.431	7.431	1.000	228542	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.736	8.736	1.000	466677	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.234	11.234	1.000	480231	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.593	13.593	1.000	547219	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.297	4.297	1.000	123865	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.709	5.709	1.000	435111	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.431	7.431	1.000	228542	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.736	8.736	1.000	466677	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.234	11.234	1.000	480231	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.593	13.593	1.000	547219	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.709	5.709	1.000	435111	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.736	8.736	1.000	466677	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.234	11.234	1.000	480231	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.709	5.709	1.000	435111	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.431	7.431	1.000	228542	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.736	8.736	1.000	466677	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.234	11.234	1.000	480231	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.709	5.709	1.000	435111	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.593	13.593	1.000	547219	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.976	2.976	0.693	159674	37.97	ng/uL	0.00
8) Phenol-d5	99	3.858	3.858	0.898	204818	37.19	ng/uL	0.00
23) Nitrobenzene-d5	82	4.906	4.906	0.859	205970	42.75	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.795	6.795	0.914	345362	40.29	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.126	8.126	1.094	54467	40.57	ng/uL	0.00
79) p-Terphenyl-d14	244	10.073	10.073	1.153	473398	41.49	ng/uL	0.00
Target Compounds								QValue
2) 2-Ethoxyethanol	59	1.756	1.756	0.409	104590	35.45	ng/uL	96
3) N-Methyl-N-nitrosometh...	74	1.949	1.949	0.454	112091	39.32	ng/uL	95
4) Pyridine	79	1.991	1.991	0.463	168218	39.04	ng/uL	99
6) p-Benzoquinone	54	3.457	3.457	0.805	133703	40.84	ng/uL	97
7) Aniline	93	3.938	3.938	0.917	234074	35.71	ng/uL	95
9) Phenol	94	3.874	3.874	0.902	207681	38.76	ng/uL	97
10) bis(2-Chloroethyl) ether	93	3.997	3.997	0.930	168694	37.80	ng/uL	98
11) 2-Chlorophenol	128	4.067	4.067	0.946	163139	38.23	ng/uL	98
12) n-Decane	57	4.099	4.099	0.954	229800	37.74	ng/uL	98
13) 1,3-Dichlorobenzene	146	4.238	4.238	0.986	186147	38.77	ng/uL	97
14) 1,4-Dichlorobenzene	146	4.313	4.313	1.004	177350	37.55	ng/uL	97
15) 1,2-Dichlorobenzene	146	4.479	4.479	1.042	170771	36.75	ng/uL	97
16) bis(2-Chloro-1-methyle...	45	4.575	4.575	1.065	279914	35.51	ng/uL	95
17) Benzyl alcohol	108	4.425	4.425	1.030	109354	37.51	ng/uL	97
18) o-Cresol	107	4.537	4.537	1.056	130215	38.44	ng/uL	97
19) m,p-Cresols	108	4.709	4.709	1.096	161439	38.74	ng/uL	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040324\
Data File : s1D0302.D
Acq On : 03 Apr 2024 14:50
Operator : LL2
InstName : MSD1
Sample : |WBN240304-04.24|CCV|1|SVM|1|M-4
Misc : MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 07:44:17 2024
Quant Method : D:\MSDCHEM\1\Data\S040324\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
20) N-Nitrosodipropylamine	70	4.725	4.725	1.100	138562	38.48	ng/uL 90
21) Hexachloroethane	117	4.858	4.858	1.131	77503	37.40	ng/uL 86
24) Nitrobenzene	77	4.928	4.928	0.863	202126	40.89	ng/uL 98
25) Isophorone	82	5.195	5.195	0.910	365195	40.55	ng/uL 100
26) 2-Nitrophenol	139	5.286	5.286	0.926	77067	45.37	ng/uL 98
27) 2,4-Dimethylphenol	122	5.318	5.318	0.932	97832	34.83	ng/uL 97
28) bis(2-Chloroethoxy)met...	93	5.431	5.431	0.951	225308	40.94	ng/uL 99
29) 2,4-Dichlorophenol	162	5.548	5.548	0.972	142567	39.44	ng/uL 98
30) Benzoic acid	105	5.393	5.393	0.945	114115	43.20	ng/uL 97
31) 1,2,4-Trichlorobenzene	180	5.645	5.645	0.989	154603	38.63	ng/uL 97
32) alpha-Terpineol	59	5.735	5.735	1.005	169120	39.10	ng/uL 97
33) Naphthalene	128	5.730	5.730	1.004	425270	39.82	ng/uL 99
34) 4-Chloroaniline	127	5.778	5.778	1.012	178233	38.52	ng/uL 99
35) Hexachlorobutadiene	225	5.859	5.859	1.026	95554	37.12	ng/uL 98
36) 4-Chloro-3-methylphenol	107	6.270	6.270	1.098	153495	40.48	ng/uL 98
37) 2-Methylnaphthalene	142	6.441	6.441	1.128	290493	37.48	ng/uL 99
38) 1-Methylnaphthalene	142	6.538	6.538	1.145	272397	38.94	ng/uL 99
40) Hexachlorocyclopentadiene	237	6.591	6.591	0.887	91948	39.14	ng/uL 97
41) 2,3-Dichloroaniline	161	6.714	6.714	0.904	163253	39.29	ng/uL 95
42) 2,4,6-Trichlorophenol	196	6.709	6.709	0.903	114066	41.50	ng/uL 94
43) 2,4,5-Trichlorophenol	196	6.746	6.746	0.908	115678	42.61	ng/uL 98
45) 2-Chloronaphthalene	162	6.912	6.912	0.930	295552	40.25	ng/uL 97
46) o-Nitroaniline	65	7.003	7.003	0.942	113798	43.62	ng/uL 95
47) 1,4-Dinitrobenzene	168	7.131	7.131	0.960	43656	49.79	ng/uL 86
48) m-Nitroaniline	138	7.383	7.383	0.994	80849	42.33	ng/uL 90
49) Dimethylphthalate	163	7.169	7.169	0.965	353317	41.56	ng/uL 99
50) m-Dinitrobenzene	168	7.201	7.201	0.969	45656	47.58	ng/uL 88
51) 2,6-Dinitrotoluene	165	7.228	7.228	0.973	73835	43.96	ng/uL 99
52) 2,4-Dinitrotoluene	165	7.591	7.591	1.022	103013	46.75	ng/uL 98
53) Acenaphthylene	152	7.303	7.303	0.983	443648	41.15	ng/uL 99
54) Acenaphthene	153	7.458	7.458	1.004	284851	38.72	ng/uL 95
55) 2,4-Dinitrophenol	184	7.474	7.474	1.006	40801	56.43	ng/uL 83
56) Dibenzofuran	168	7.613	7.613	1.024	390435	40.61	ng/uL 98
57) 2,3,4,6-Tetrachlorophenol	232	7.714	7.714	1.038	97700	42.20	ng/uL 99
58) Diethylphthalate	149	7.800	7.800	1.050	366221	39.85	ng/uL 98
59) 4-Nitrophenol	109	7.522	7.522	1.012	64999	45.68	ng/uL 92
60) Fluorene	166	7.918	7.918	1.065	327046	40.40	ng/uL 98
61) 4-Chlorophenylphenylether	204	7.912	7.912	1.065	165544	40.08	ng/uL 98
62) p-Nitroaniline	138	7.923	7.923	1.066	80170	43.83	ng/uL 93
65) 2-Methyl-4,6-dinitroph...	198	7.950	7.950	0.910	57340	53.37	ng/uL 88
66) Diphenylamine	169	8.014	8.014	0.917	299776	41.23	ng/uL 98
67) 1,2-Diphenylhydrazine	77	8.051	8.051	0.922	396759	41.11	ng/uL 99
68) 4-Bromophenylphenylether	248	8.340	8.340	0.955	115201	41.56	ng/uL 97
69) Hexachlorobenzene	284	8.394	8.394	0.961	116285	39.99	ng/uL 96
70) Pentachlorophenol	266	8.560	8.560	0.980	78590	41.15	ng/uL 99
71) n-Octadecane	57	8.602	8.602	0.985	312447	39.73	ng/uL 98
72) Dinoseb	211	8.704	8.704	0.996	87876	52.81	ng/uL 98
73) Phenanthrene	178	8.752	8.752	1.002	479452	40.35	ng/uL 99
74) Anthracene	178	8.800	8.800	1.007	501309	40.96	ng/uL 99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040324\
Data File : s1D0302.D
Acq On : 03 Apr 2024 14:50
Operator : LL2
InstName : MSD1
Sample : |WBN240304-04.24|CCV|1|SVM|1|M-4
Misc : MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 07:44:17 2024
Quant Method : D:\MSDCHEM\1\Data\S040324\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

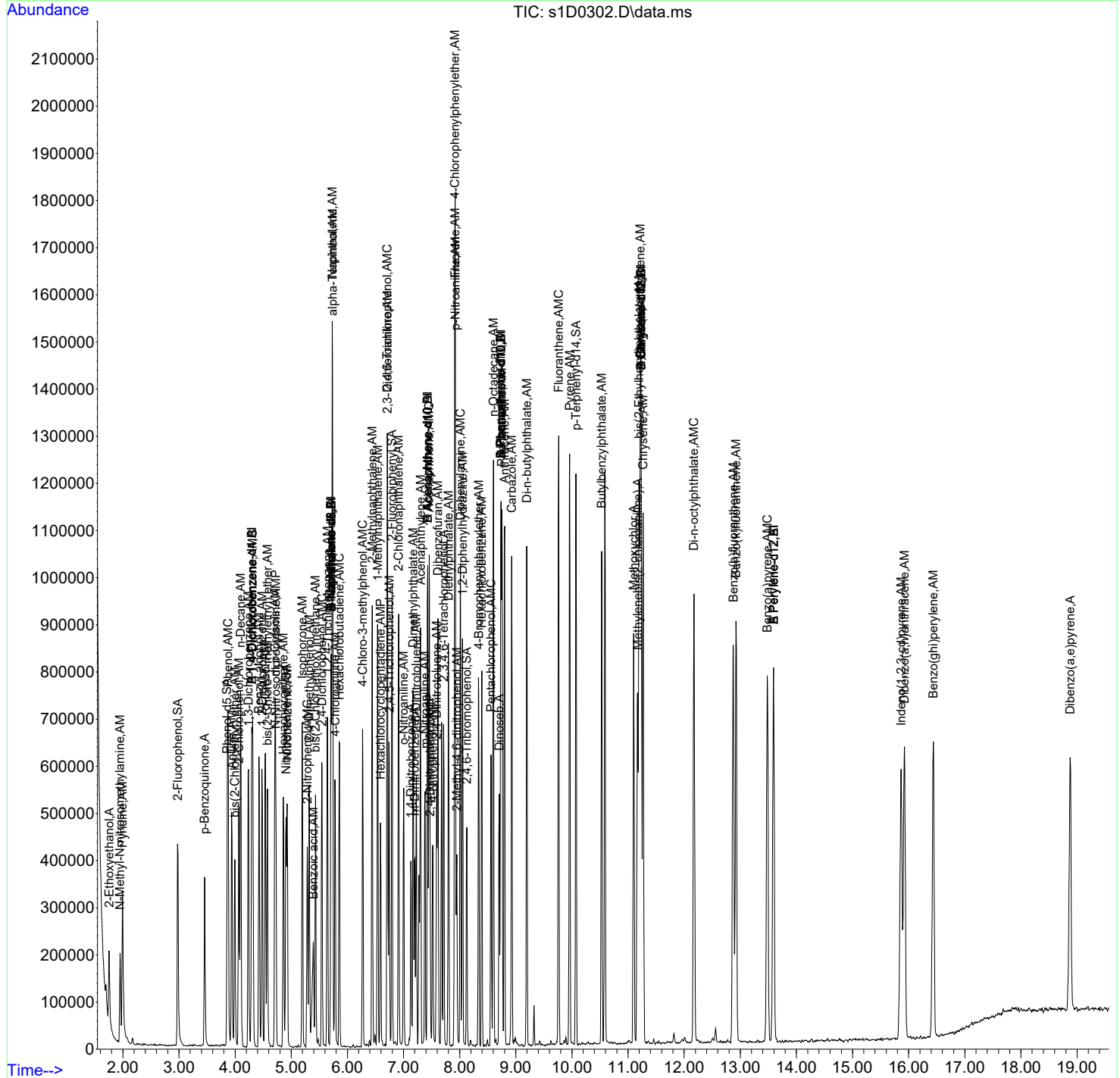
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
75) Carbazole	167	8.929	8.929	1.022	465944	37.14	ng/uL 99
76) Di-n-butylphthalate	149	9.196	9.196	1.053	626297	40.75	ng/uL 99
77) Fluoranthene	202	9.763	9.763	1.118	592393	39.67	ng/uL 99
78) Pyrene	202	9.961	9.961	1.140	607453	40.74	ng/uL 98
81) Butylbenzylphthalate	149	10.528	10.528	0.937	308825	43.42	ng/uL 98
82) bis(2-Ethylhexyl)phtha...	149	11.196	11.196	0.997	452969	42.77	ng/uL 93
83) Benzo(a)anthracene	228	11.218	11.218	0.999	598855	40.96	ng/uL 99
84) Chrysene	228	11.266	11.266	1.003	560202	41.68	ng/uL 99
85) Methoxychlor	227	11.100	11.100	0.988	432279	50.91	ng/uL 99
86) Methylenebis(2-chloroa...	231	11.170	11.170	0.994	130990	41.84	ng/uL 99
87) Di-n-octylphthalate	149	12.175	12.175	1.084	790638	43.21	ng/uL 99
89) Benzo(b)fluoranthene	252	12.876	12.876	0.947	625269	39.43	ng/uL 99
90) Benzo(k)fluoranthene	252	12.924	12.924	0.951	612211	40.90	ng/uL 98
91) Benzo(a)pyrene	252	13.480	13.480	0.992	592926	39.85	ng/uL 98
92) Indeno(1,2,3-cd)pyrene	276	15.866	15.866	1.167	583115	39.38	ng/uL 95
93) Dibenzo(a,h)anthracene	278	15.925	15.925	1.172	546573	39.80	ng/uL 98
94) Benzo(ghi)perylene	276	16.438	16.438	1.209	532752	38.49	ng/uL 100
95) Dibenzo(a,e)pyrene	302	18.877	18.877	1.389	440676	37.67	ng/uL 98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

ALS Vial : 2 Sample Multiplier: 1

Integrator: RTE



Continuing Calibration Summary

Instrument ID: MSD1.I
Data File: S040324\SD0303.D
Lab Sample ID WBN240201-54.10
Quant Type ISTD

Client SDG: 660771
Injection Date: 03-APR-24 15:16
Init. Cal. Date(s) 25-MAR-24 11:23 - 15-MAR-24 23:28
Method: S040324\MSD1_8270C_8270D_032524.M
Method Update: 26-MAR-24 10:15

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Methyl methacrylate	0.2082	0.21934		.01		5.35062	20		Averaged
1,4-Dioxane	0.5449	0.54125		.01		-0.66985	20		Averaged
Ethyl methacrylate	1.2698	1.32386		.01		4.25736	20		Averaged
2-Picoline	1.5603	1.66742		.01		6.86535	20		Averaged
N-Nitrosomethylethylamine	0.5773	0.58269		.01		0.93366	20		Averaged
Methyl methanesulfonate	0.9269	0.99765		.01		7.63297	20		Averaged
N-Nitrosodiethylamine	0.5854	0.59495		.01		1.63136	20		Averaged
Ethyl Methanesulfonate	1.2678	1.30277		.01		2.75832	20		Averaged
Pentachloroethane	0.5852	0.64052		.01		9.45318	20		Averaged
N-Nitrosopyrrolidine	0.6411	0.70674		.01		10.23865	20		Averaged
Acetophenone	2.0234	2.24945		.01		11.17179	20		Averaged
N-Nitrosomorpholine	0.8596	0.88691		.01		3.17706	20		Averaged
o-Toluidine	2.0372	2.08246		.01		2.22168	20		Averaged
N-Nitrosopiperidine	0.1764	0.18257		.01		3.49773	20		Averaged
a,a-Dimethylphenethylamine	1.1553	1.09067		.01		-5.59422	20		Averaged
2,6-Dichlorophenol	0.3027	0.30839		.01		1.87975	20		Averaged
Hexachloropropene	0.2414	0.27904		.01		15.59238	20		Averaged
N-Nitrosodi-n-butylamine	0.2342	0.25205		.01		7.62169	20		Averaged
Safrole	0.2735	0.28621		.01		4.64717	20		Averaged
1,2,4,5-Tetrachlorobenzene	0.7097	0.72703		.01		2.44188	20		Averaged
Isosafrole	0.561	0.57444		.01		2.39572	20		Averaged
1,4-Naphthoquinone	0.533	0.56788		.01		6.54409	20		Averaged
Pentachlorobenzene	0.5969	0.63047		.01		5.62406	20		Averaged
1-Naphthylamine	1.2491	1.32186		.01		5.82499	20		Averaged
2-Naphthylamine	1.2587	1.27202		.01		1.05823	20		Averaged
5-Nitro-o-toluidine	0.3354	0.41456		.01		23.60167	20	*	Averaged
Tributylphosphate	1.9146	2.12677		.01		11.08169	20		Averaged
1,3,5-Trinitrobenzene	0.1567	0.22834		.01		45.71793	20	*	Averaged
Diallate	0.2367	0.2373		.01		0.25349	20		Averaged
Phenacetin	0.3903	0.43117		.01		10.47143	20		Averaged
4-Aminobiphenyl	0.831	0.91033		.01		9.54633	20		Averaged
Pentachloronitrobenzene	0.0962	0.11095		.01		15.33264	20		Averaged
Pronamide	0.3693	0.38802		.01		5.06905	20		Averaged
4-Nitroquinoline-1-oxide	0.0377	0.03391		.01		-10.05305	20		Averaged
Methapyrilene	0.7137	0.7798		.01		9.26159	20		Averaged
Isodrin	0.1438	0.15435		.01		7.33658	20		Averaged
Aramite	0.0502	0.05025		.01		0.0996	20		Averaged

Continuing Calibration Summary

Instrument ID: MSD1.I

Injection Date: 03-APR-24 15:16

Data File: S040324\SD0303.D

Init. Cal. Date(s) 25-MAR-24 11:23 15-MAR-24 23:28

Lab Sample ID WBN240201-54.10

Method: S040324\MSD1_8270C_8270D_032524.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
p-(Dimethylamino)azobenzene	0.3108	0.32105		.01		3.29794	20		Averaged
Chlorobenzilate	0.3036	0.3366		.01		10.86957	20		Averaged
3,3'-Dimethylbenzidine	0.8074	0.78536		.01		-2.72975	20		Averaged
Kepone	0.1105	0.10408		.01		-5.80995	20		Averaged
2-Acetylaminofluorene	0.5144	0.56013		.01		8.88997	20		Averaged
3,3'-Dichlorobenzidine	0.4859	0.48733		.01		0.2943	20		Averaged
7,12Dimethylbenz(a)anthracene	0.4786	0.49852		.01		4.16214	20		Averaged
3-Methylcholanthrene	0.1195	0.13269		.01		11.03766	20		Averaged

LL
04/04/2024

Data Path : D:\MSDCHEM\1\Data\S040324\
Data File : s1D0303.D
Acq On : 03 Apr 2024 15:16
Operator : LL2
InstName : MSD1
Sample : |WBN240201-54.10|CCV|1|SVM|1|APX-4
Misc : MIX[B,J]
ALS Vial : 3 Sample Multiplier: 1

RAB
04/04/2024

Quant Time: Apr 04 07:45:23 2024
Quant Method : D:\MSDCHEM\1\Data\S040324\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.297	4.297	1.000	109659	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.704	5.709	1.000	398537	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.426	7.431	1.000	219109	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.731	8.736	1.000	436567	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.229	11.234	1.000	494929	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.587	13.593	1.000	548865	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.297	4.297	1.000	109659	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.704	5.709	1.000	403172	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.426	7.431	1.000	219109	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.731	8.736	1.000	436567	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.229	11.234	1.000	494929	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.587	13.593	1.000	548865	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.704	5.709	1.000	403172	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.731	8.736	1.000	436567	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.229	11.234	1.000	494929	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.704	5.709	1.000	403172	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.426	7.431	1.000	219109	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.731	8.736	1.000	436567	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.229	11.234	1.000	494929	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.704	5.709	1.000	403172	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.587	13.593	1.000	548865	40.00	ng/uL	0.00

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.976	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.858	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.906	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.795	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.126	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.073	0.000	0	0.00	ng/uL	

Target Compounds								QValue
97) 1,4-Dioxane	88	1.762	1.772	0.410	59353	39.73	ng/uL	100
98) Methyl methacrylate	100	1.756	1.762	0.409	24053	42.14	ng/uL#	78
99) Ethyl methacrylate	69	2.254	2.259	0.524	145173	41.70	ng/uL	96
100) 2-Picoline	93	2.521	2.526	0.587	182848	42.75	ng/uL	100
101) N-Nitrosomethylethylamine	88	2.591	2.596	0.603	63897	40.37	ng/uL	94
102) Methyl methanesulfonate	80	2.837	2.842	0.660	109401	43.06	ng/uL	91
103) N-Nitrosodiethylamine	102	3.206	3.211	0.746	65242	40.65	ng/uL	94
104) 2-Butoxyethanol	57	3.259	3.265	0.759	204487	39.74	ng/uL	99
105) Ethyl methanesulfonate	79	3.473	3.479	0.808	142860	41.10	ng/uL	100
106) Benzaldehyde	77	3.837	3.842	0.893	149586	42.75	ng/uL	97
107) Pentachloroethane	167	3.997	4.008	0.930	70239	43.78	ng/uL	98
108) N-Nitrosopyrrolidine	100	4.703	4.703	1.095	77500	44.10	ng/uL	90
109) Acetophenone	105	4.730	4.735	1.101	246672	44.47	ng/uL	96
110) N-Nitrosomorpholine	56	4.746	4.752	1.105	97258	41.27	ng/uL	94
111) o-Toluidine	106	4.768	4.773	1.110	228361	40.89	ng/uL	99
113) N-Nitrosopiperidine	114	5.099	5.105	0.894	73609	41.40	ng/uL	98

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040324\
Data File : s1D0303.D
Acq On : 03 Apr 2024 15:16
Operator : LL2
InstName : MSD1
Sample : |WBN240201-54.10|CCV|1|SVM|1|APX-4
Misc : MIX[B,J]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 07:45:23 2024
Quant Method : D:\MSDCHEM\1\Data\S040324\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

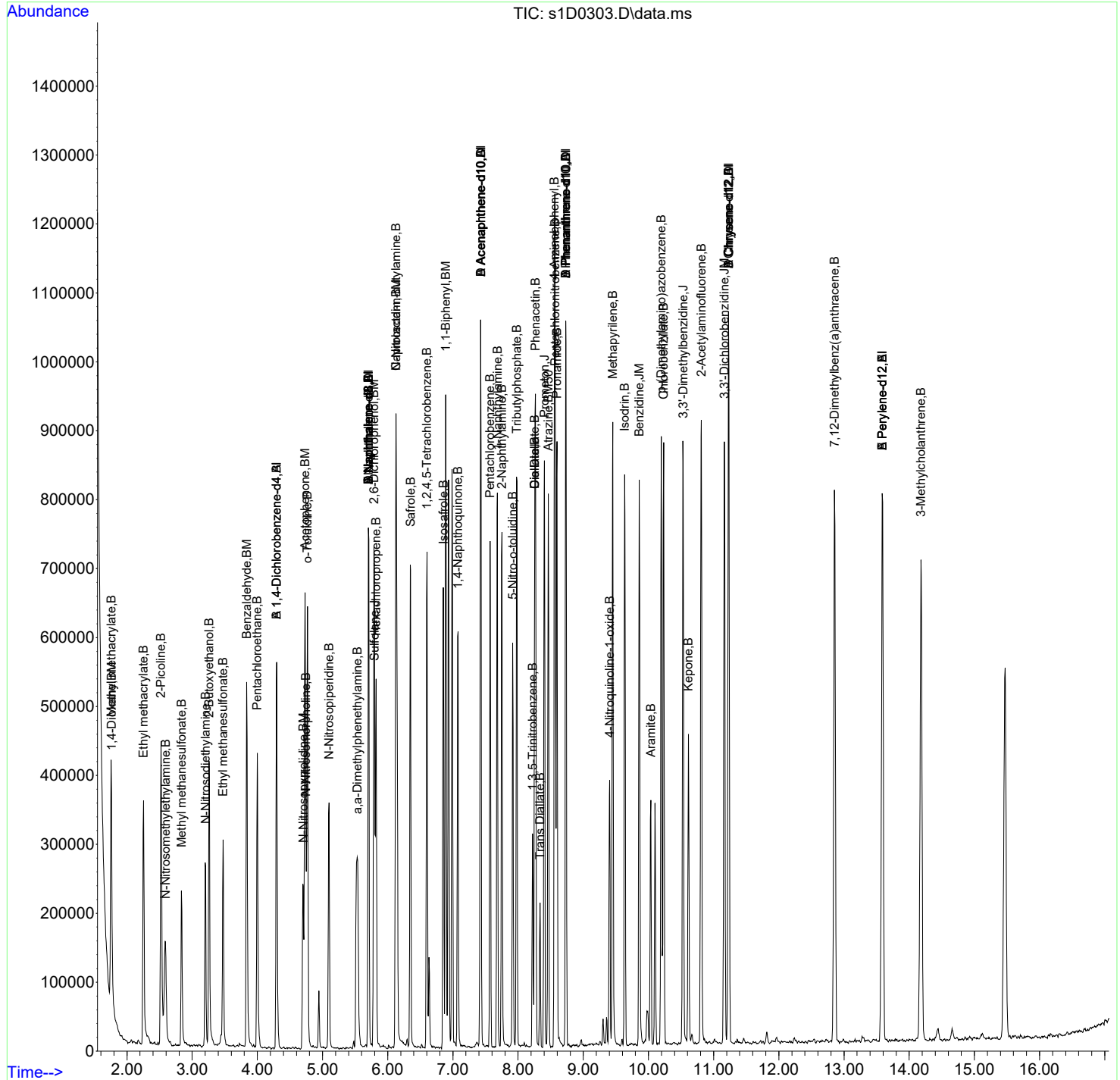
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
114) a,a-Dimethylphenethyla...	58	5.532	5.538	0.970	439729	37.76	ng/uL 100
115) 2,6-Dichlorophenol	162	5.789	5.794	1.015	124336	40.76	ng/uL 92
116) Hexachloropropene	213	5.821	5.827	1.021	112503	46.23	ng/uL 95
117) Caprolactam	113	6.126	6.121	1.074	37542	41.90	ng/uL 92
118) N-Nitrosodi-n-butylamine	57	6.126	6.131	1.074	101620	43.05	ng/uL 94
119) Safrole	162	6.351	6.356	1.113	115391	41.86	ng/uL 98
121) 1,2,4,5-Tetrachloroben...	216	6.602	6.607	0.889	159299	40.97	ng/uL 92
122) 1,1-Biphenyl	154	6.891	6.896	0.928	333947	42.17	ng/uL 99
123) Isosafrole	162	6.854	6.859	0.923	125864	40.96	ng/uL 99
124) 1,4-Naphthoquinone	158	7.078	7.083	0.953	124427	42.61	ng/uL 98
125) Pentachlorobenzene	250	7.570	7.576	1.019	138142	42.25	ng/uL 96
126) 1-Naphthylamine	143	7.683	7.688	1.035	289632	42.33	ng/uL 100
127) 2-Naphthylamine	143	7.752	7.757	1.044	278711	40.42	ng/uL 99
128) 5-Nitro-o-toluidine	152	7.918	7.923	1.066	90833	49.43	ng/uL 85
129) Tributylphosphate	99	7.977	7.982	1.074	465995	44.43	ng/uL 100
131) 1,3,5-Trinitrobenzene	75	8.223	8.228	0.942	99686	58.30	ng/uL 97
132) Phenacetin	108	8.266	8.271	0.947	188233	44.19	ng/uL 99
133) Diallate	86	8.255	8.260	0.945	103599	40.11	ng/uL 92
134) Cis Diallate	86	8.255	8.260	0.945	103599	34.09	ng/uL 92
135) Trans Diallate	86	8.335	8.340	0.955	37580	5.89	ng/uL 96
136) Atrazine	200	8.463	8.469	0.969	103962	43.11	ng/uL 100
137) 4-Aminobiphenyl	169	8.560	8.565	0.980	397422	43.82	ng/uL 97
138) Pentachloronitrobenzene	237	8.570	8.576	0.982	48436	46.12	ng/uL 98
139) Pronamide	173	8.597	8.603	0.985	169396	42.03	ng/uL 96
140) 4-Nitroquinoline-1-oxide	128	9.405	9.405	1.077	14806	36.03	ng/uL 86
141) Methapyrilene	58	9.453	9.458	1.083	340437	43.70	ng/uL 91
142) Isodrin	193	9.635	9.646	1.104	67382	42.95	ng/uL 94
144) Aramite	185	10.036	10.041	0.894	24872	40.03	ng/uL 92
145) Kepone	272	10.614	10.624	0.945	51511	37.66	ng/uL 92
146) p-(Dimethylamino)azobe...	120	10.196	10.207	0.908	158898	41.32	ng/uL 99
147) Chlorobenzilate	251	10.234	10.239	0.911	166593	44.34	ng/uL 98
148) 2-Acetylaminofluorene	181	10.812	10.817	0.963	277225	43.56	ng/uL 99
150) 7,12-Dimethylbenz(a)an...	256	12.855	12.871	0.946	273618	41.67	ng/uL 98
151) 3-Methylcholanthrene	269	14.181	14.197	1.044	72828	44.40	ng/uL 90
153) Sulfolane	56	5.800	5.800	1.017	70665	42.88	ng/uL 99
155) Prometon	210	8.405	8.405	0.963	93866	42.89	ng/uL 97
156) Benzydine	184	9.859	9.865	1.129	376809	41.39	ng/uL 99
158) 3,3'-Dimethylbenzidine	212	10.533	10.539	0.938	388697	38.91	ng/uL 97
159) 3,3'-Dichlorobenzidine	252	11.165	11.175	0.994	241195	40.12	ng/uL 98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040324\
Data File : s1D0303.D
Acq On : 03 Apr 2024 15:16
Operator : LL2
InstName : MSD1
Sample : |WBN240201-54.10|CCV|1|SVM|1|APX-4
Misc : MIX[B,J]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 07:45:23 2024
Quant Method : D:\MSDCHEM\1\Data\S040324\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Instrument ID: MSD1.I
Data File: S040324\SD0304.D
Lab Sample ID WBN240227-25.6
Quant Type ISTD

Client SDG: 660771
Injection Date: 03-APR-24 15:38
Init. Cal. Date(s) 25-MAR-24 11:23 - 15-MAR-24 23:28
Method: S040324\MSD1_8270C_8270D_032524.M
Method Update: 26-MAR-24 10:15

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Triethylphosphorothioate	0.1915	0.19385		.01		1.22715	20		Averaged
Thionazin	0.2714	0.26963		.01		-0.65217	20		Averaged
Sulfotepp	0.0869	0.0869		.01		0	20		Averaged
Phorate	0.5582	0.55694		.01		-0.22573	20		Averaged
Dimethoate	0.3568	0.35672		.01		-0.02242	20		Averaged
Disulfoton	0.4765	0.46216		.01		-3.00944	20		Averaged
Methyl parathion	0.2287	0.28018		.01		22.50984	20	*	Averaged
Parathion	40	49.3	40			23.25	20	*	Linear
Famphur	0.5284	0.59588		.01		12.77063	20		Averaged

LL
04/04/2024

Data Path : D:\MSDCHEM\1\Data\S040324\
Data File : s1D0304.D
Acq On : 03 Apr 2024 15:38
Operator : LL2
InstName : MSD1
Sample : |WBN240227-25.6|CCV|1|SVM|1|P-4
Misc : MIX[D]
ALS Vial : 4 Sample Multiplier: 1

RAB
04/04/2024

Quant Time: Apr 04 07:46:15 2024
Quant Method : D:\MSDCHEM\1\Data\S040324\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

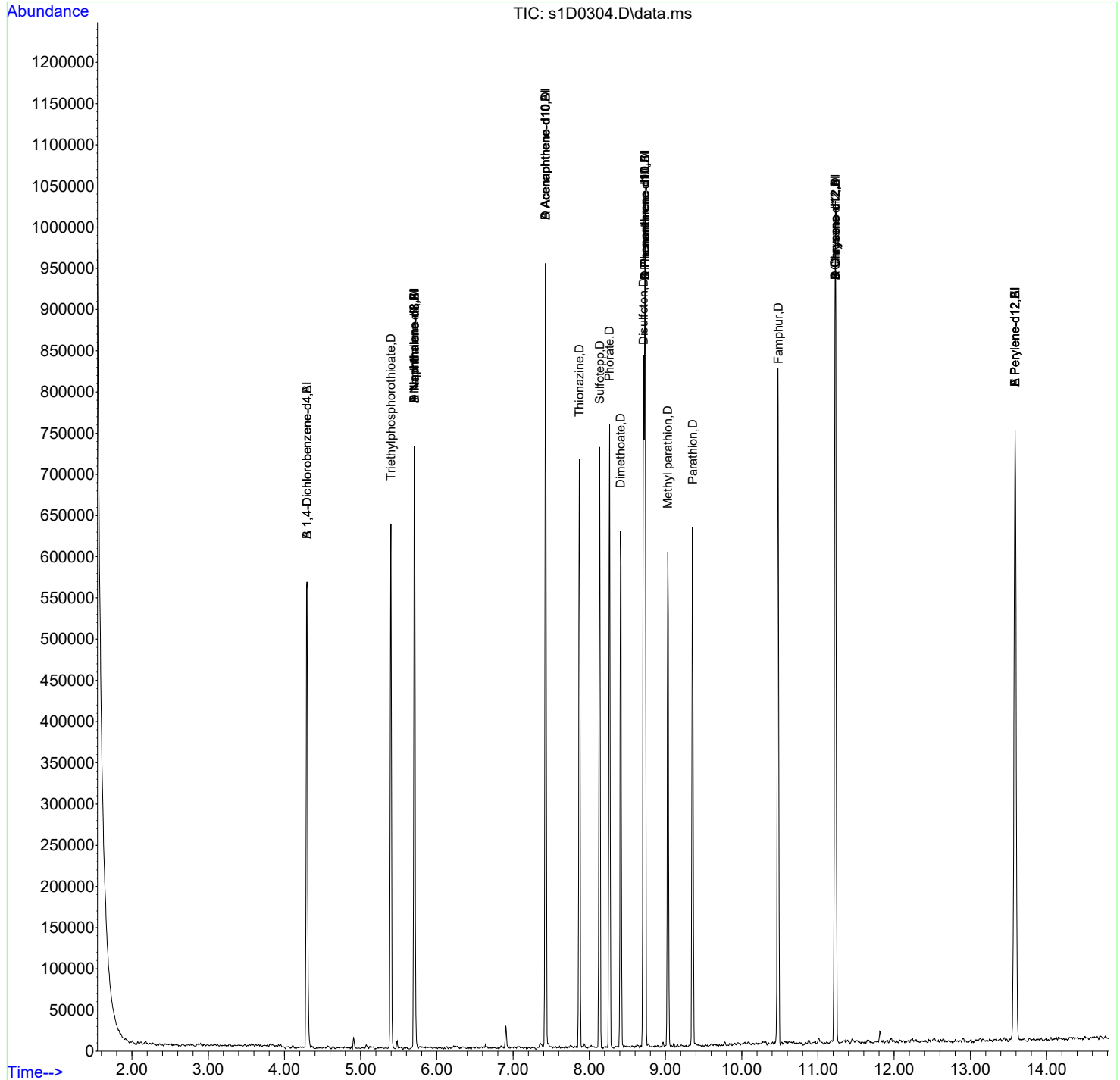
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.297	4.297	1.000	110606	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.703	5.704	1.000	387640	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.426	7.426	1.000	206851	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.731	8.731	1.000	417714	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.229	11.229	1.000	478348	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.587	13.587	1.000	515558	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.297	4.297	1.000	110606	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.703	5.704	1.000	392228	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.426	7.426	1.000	206851	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.731	8.731	1.000	417714	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.229	11.229	1.000	478348	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.587	13.587	1.000	515558	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.703	5.704	1.000	392228	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.731	8.731	1.000	417714	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.229	11.229	1.000	478348	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.703	5.704	1.000	392228	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.426	7.426	1.000	206851	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.731	8.731	1.000	417714	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.229	11.229	1.000	478348	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.703	5.704	1.000	392228	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.587	13.587	1.000	515558	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.976	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.858	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.906	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.795	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.126	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.073	0.000	0	0.00	ng/uL	
Target Compounds								QValue
161) Triethylphosphorothioate	198	5.399	5.404	0.947	76034	40.48	ng/uL	95
163) Thionazine	107	7.870	7.875	1.060	55773	39.74	ng/uL	95
165) Sulfotepp	322	8.137	8.142	0.932	36300	39.99	ng/uL	91
166) Phorate	75	8.265	8.271	0.947	232641	39.91	ng/uL	95
167) Dimethoate	87	8.410	8.415	0.963	149009	40.00	ng/uL	95
168) Disulfoton	88	8.709	8.720	0.998	193050	38.79	ng/uL	100
169) Methyl parathion	109	9.030	9.041	1.034	117035	49.00	ng/uL	95
170) Parathion	291	9.357	9.362	1.072	25227	49.30	ng/uL#	71
172) Famphur	218	10.480	10.485	0.933	285038	45.11	ng/uL	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040324\
Data File : s1D0304.D
Acq On : 03 Apr 2024 15:38
Operator : LL2
InstName : MSD1
Sample : |WBN240227-25.6|CCV|1|SVM|1|P-4
Misc : MIX[D]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 07:46:15 2024
Quant Method : D:\MSDCHEM\1\Data\S040324\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Instrument ID: MSD1.I
Data File: S040324\SD0305.D
Lab Sample ID WBN240212-33.4
Quant Type ISTD

Client SDG: 660771
Injection Date: 03-APR-24 15:58
Init. Cal. Date(s) 25-MAR-24 11:23 - 15-MAR-24 23:28
Method: S040324\MSD1_8270C_8270D_032524.M
Method Update: 26-MAR-24 10:15

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
p-Phenylenediamine	0.364	0.3617		.01		-0.63187	20		Averaged
Hexachlorophene	700	711.6	700			1.65714	20		Linear

LL
04/04/2024

Data Path : D:\MSDCHEM\1\Data\S040324\
Data File : s1D0305.D
Acq On : 03 Apr 2024 15:58
Operator : LL2
InstName : MSD1
Sample : |WBN240212-33.4|CCV|1|SVM|1|H-4
Misc : MIX[E]
ALS Vial : 5 Sample Multiplier: 1

RAB
04/04/2024

Quant Time: Apr 04 07:46:51 2024
Quant Method : D:\MSDCHEM\1\Data\S040324\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

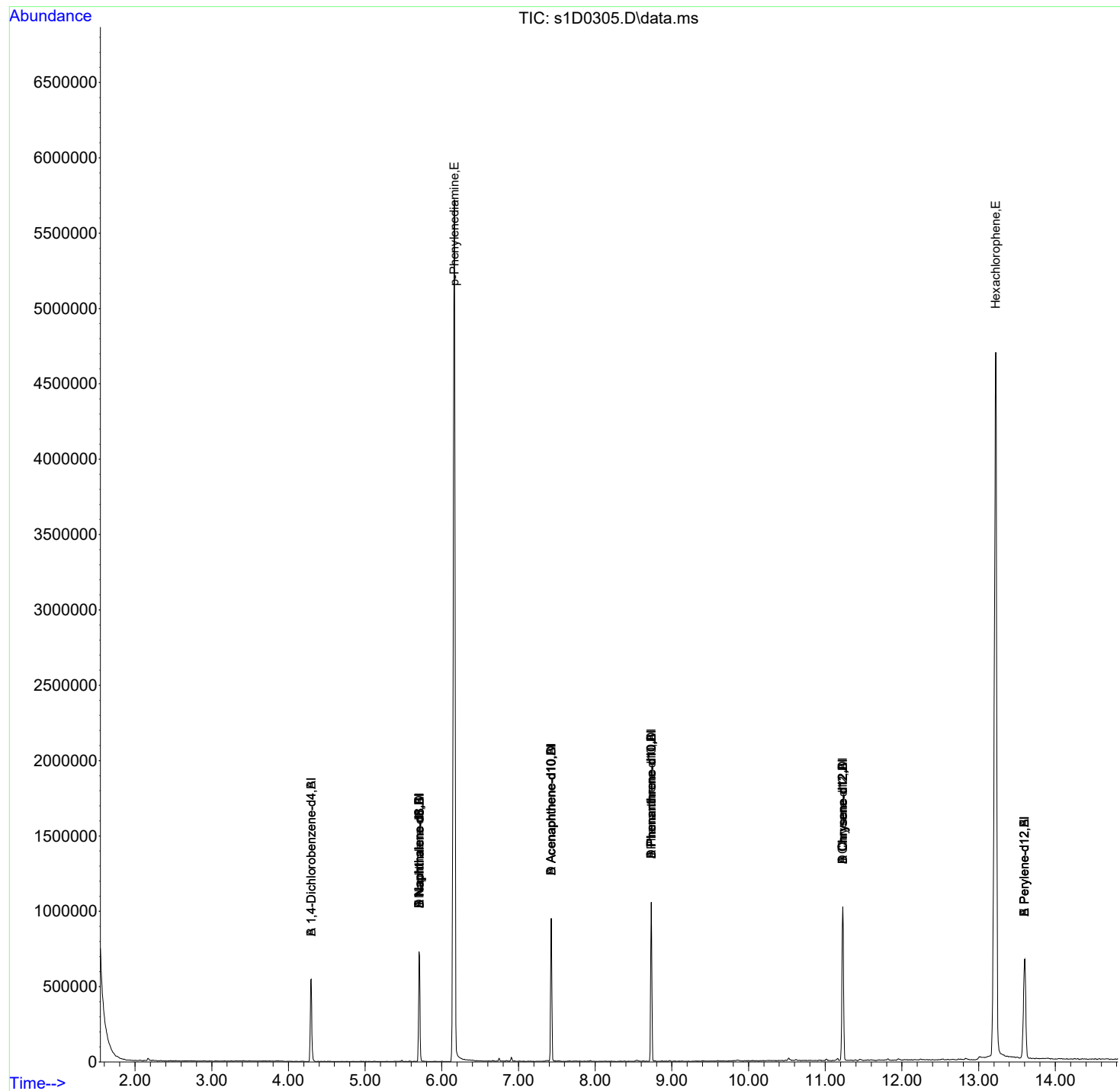
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.297	4.297	1.000	107717	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.704	5.704	1.000	381415	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.426	7.426	1.000	208185	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.731	8.731	1.000	433935	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.229	11.229	1.000	480490	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.598	13.598	1.000	476272	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	4.297	4.297	1.000	107717	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.704	5.704	1.000	387017	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.426	7.426	1.000	208185	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.731	8.731	1.000	433935	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.229	11.229	1.000	480490	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.598	13.598	1.000	476272	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.704	5.704	1.000	387017	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.731	8.731	1.000	433935	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.229	11.229	1.000	480490	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.704	5.704	1.000	387017	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.426	7.426	1.000	208185	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.731	8.731	1.000	433935	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.229	11.229	1.000	480490	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.704	5.704	1.000	387017	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.598	13.598	1.000	476272	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.976	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.858	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.906	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.795	0.000	0	0.00	ng/uL	
63) 2,4,6-Tribromophenol	330	0.000	8.126	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	10.073	0.000	0	0.00	ng/uL	
Target Compounds								QValue
174) p-Phenylenediamine	108	6.164	6.164	1.081	2449694	695.62	ng/uL	99
176) Hexachlorophene	196	13.224	13.224	0.972	886259	711.60	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040324\
Data File : s1D0305.D
Acq On : 03 Apr 2024 15:58
Operator : LL2
InstName : MSD1
Sample : |WBN240212-33.4|CCV|1|SVM|1|H-4
Misc : MIX[E]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 07:46:51 2024
Quant Method : D:\MSDCHEM\1\Data\S040324\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE



Quality Control Data

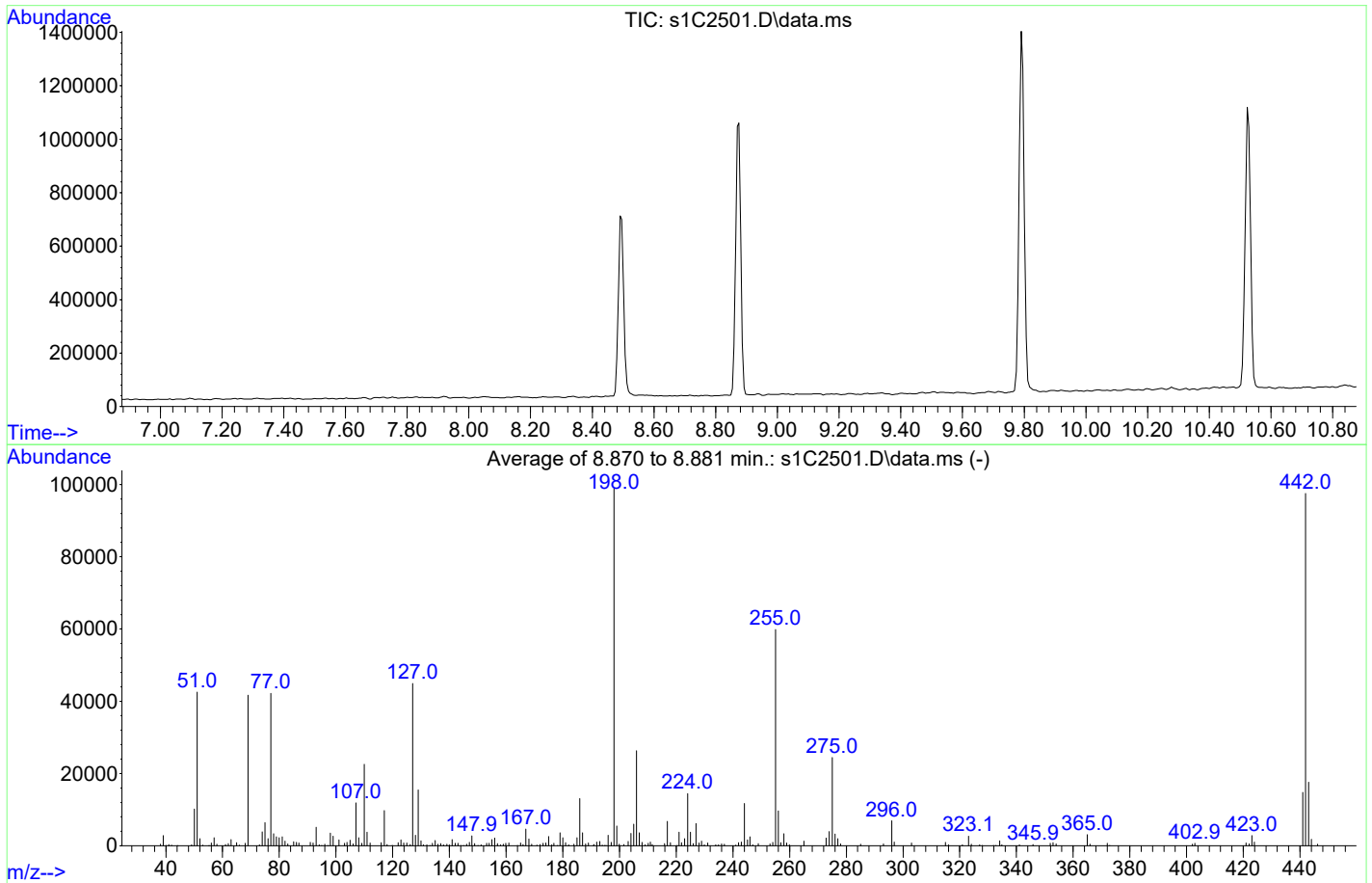
LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2501.D
Acq On : 25 Mar 2024 11:05
Operator : LL2
Sample : |WBN240308-98|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

JCB
03/26/2024

Integration File: rteint.p

Method : D:\MSDCHEM\1\Data\S032524ical\BNABrk_Down8270E.m
Title : dftpp / endrin / ddt SubList :
Last Update : Sat Mar 23 09:42:24 2019



AutoFind: Scans 1342, 1343, 1344; Background Corrected with Scan 1336

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	1.6	656	PASS
69	198	0.00	100	42.1	41640	PASS
70	69	0.00	2	0.0	0	PASS
197	198	0.00	2	1.0	962	PASS
198	198	0.01	100	100.0	98896	PASS
199	198	5	9	5.6	5511	PASS
365	198	1	100	3.1	3068	PASS
441	443	0.01	150	83.8	14775	PASS
442	198	0.01	100	98.6	97536	PASS
443	442	15	24	18.1	17628	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2501.D
Acq On : 25 Mar 2024 11:05
Operator : LL2
InstName : MSD1
Sample : |WBN240308-98|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 11:08:12 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\BNABrk_Down8270E.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Sat Mar 23 09:42:24 2019
Response via : Initial Calibration
Integrator: RTE

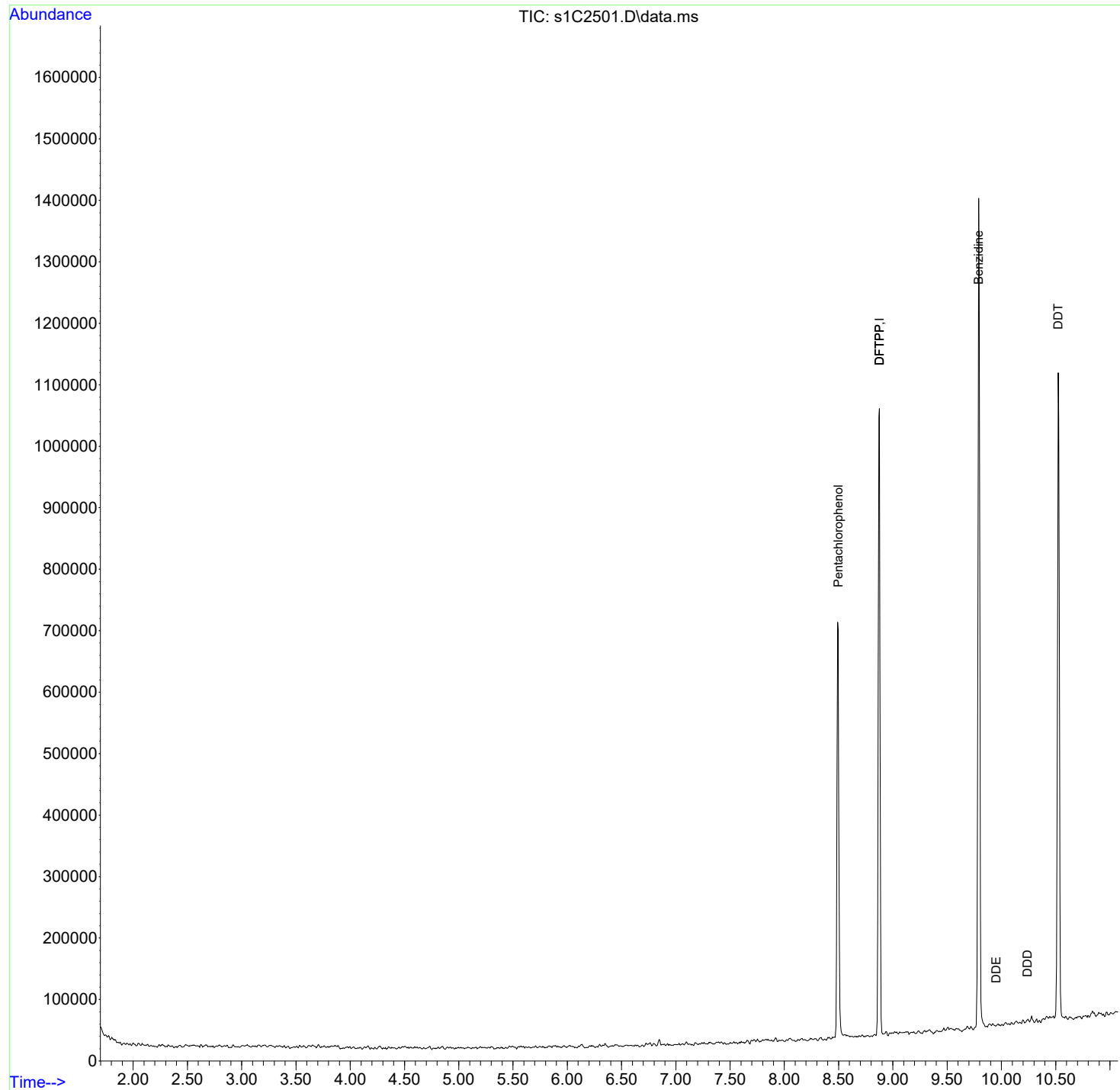
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) DFTPP	TIC	8.875	8.875	1.000	1177314	5.00	ug/l	# 0.00
Target Compounds								
2) DFTPP	TIC	8.875	8.875	1.000	1177314	5.00	ug/ml#	1
3) Pentachlorophenol	266	8.496	8.496	0.957	99241	4.58	ug/l	99
4) Benzidine	184	9.790	9.790	1.103	604066	9.66	ug/l	99
5) DDE	246	9.951	9.948	1.121	487	3.51	ug/l #	100
6) DDD	235	10.239	10.252	1.154	641	2.29	ug/l	32
7) DDT	235	10.523	10.523	1.186	227477	5.13	ug/l	99

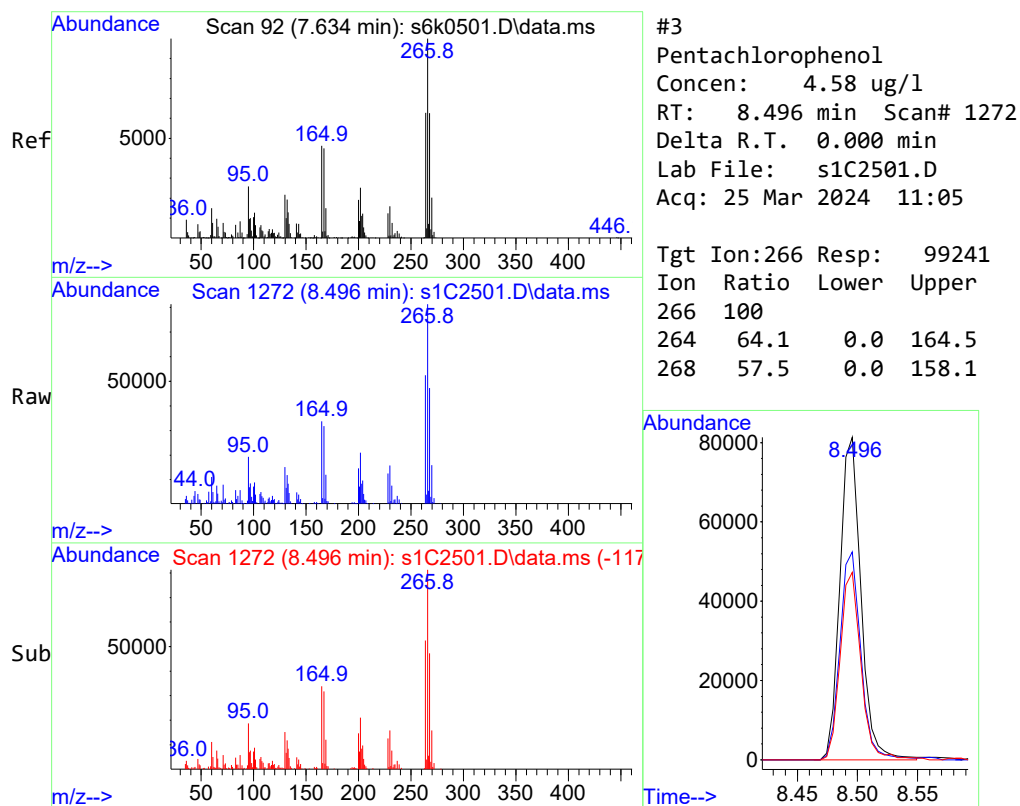
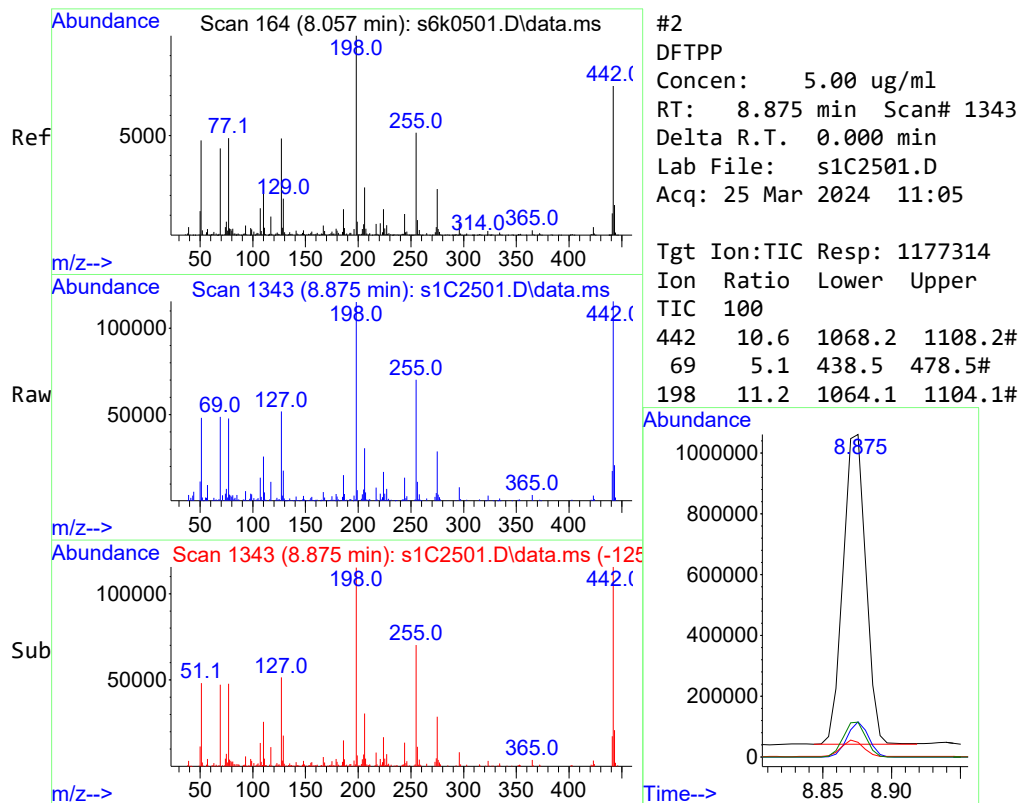
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

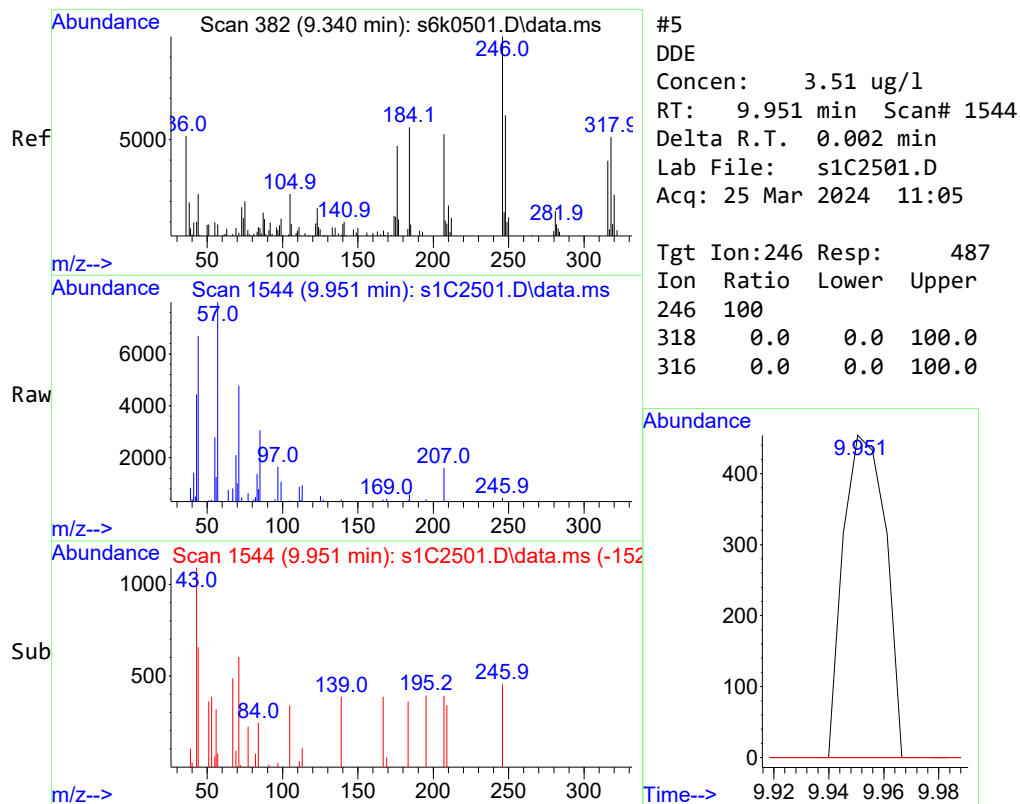
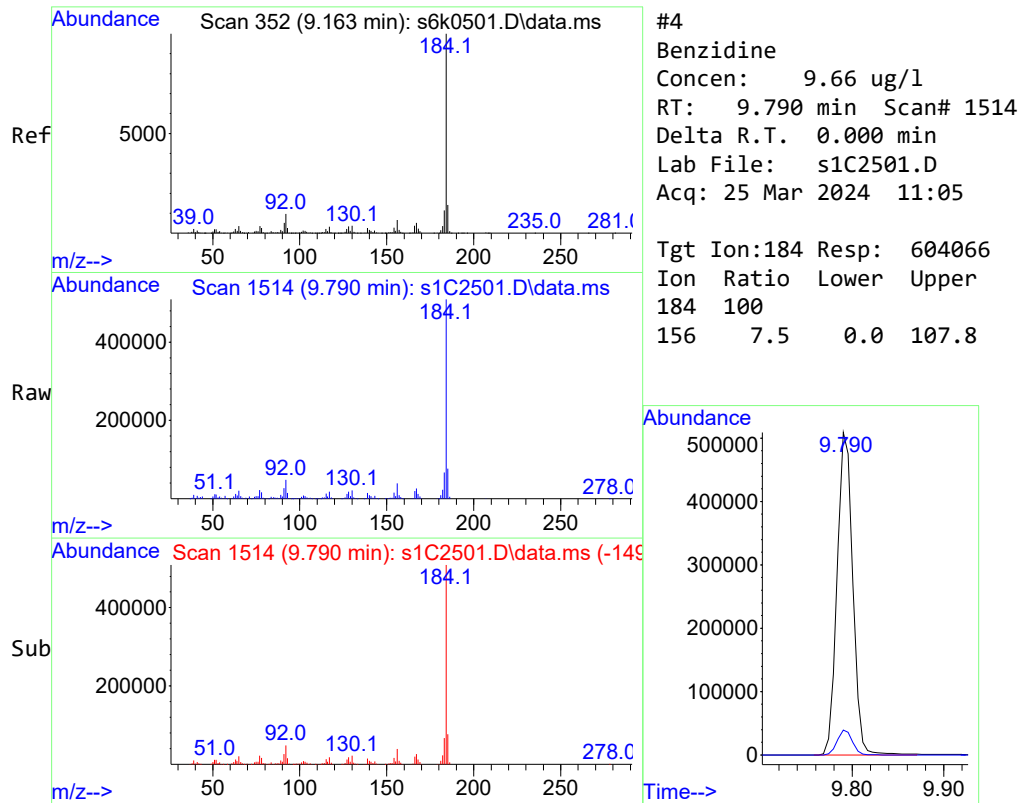
Quantitation Report
GEL Laboratories, LLC

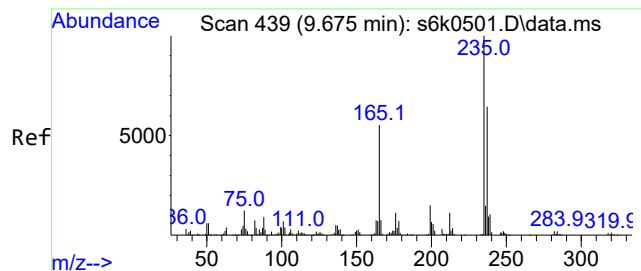
Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2501.D
Acq On : 25 Mar 2024 11:05
Operator : LL2
InstName : MSD1
Sample : |WBN240308-98|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 26 11:08:12 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\BNABrk_Down8270E.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Sat Mar 23 09:42:24 2019
Response via : Initial Calibration
Integrator: RTE

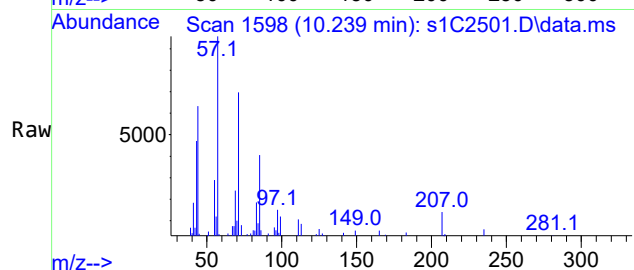




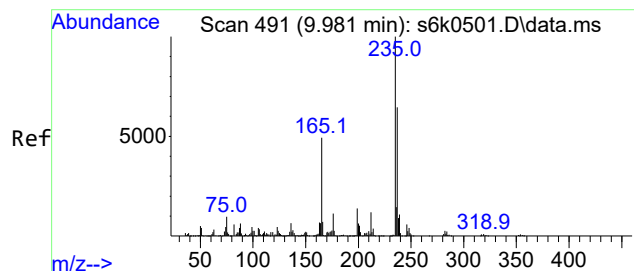
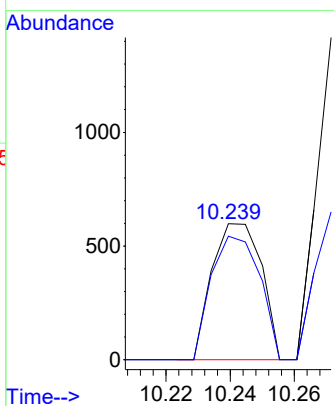
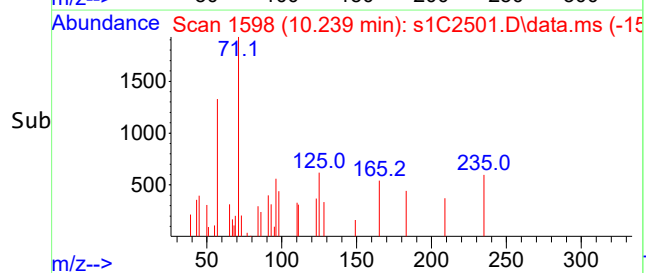




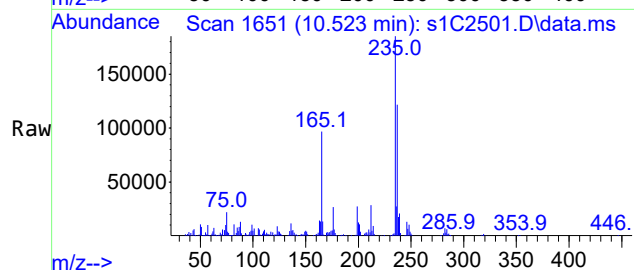
#6
DDD
Concen: 2.29 ug/l
RT: 10.239 min Scan# 1598
Delta R.T. -0.012 min
Lab File: s1C2501.D
Acq: 25 Mar 2024 11:05



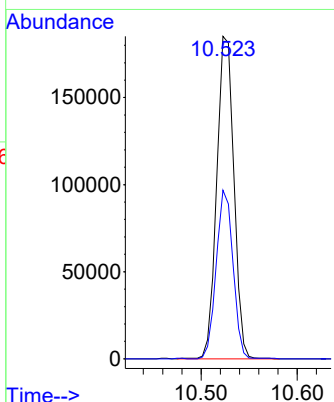
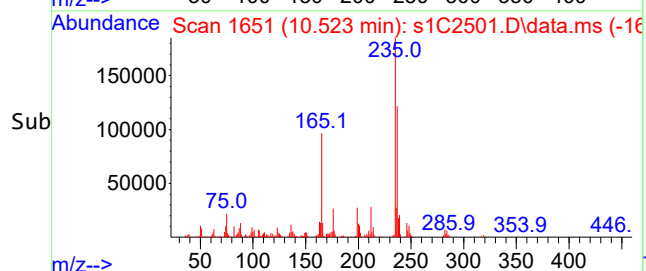
Tgt Ion:235 Resp: 641
Ion Ratio Lower Upper
235 100
165 89.2 0.0 145.0



#7
DDT
Concen: 5.13 ug/l
RT: 10.523 min Scan# 1651
Delta R.T. 0.000 min
Lab File: s1C2501.D
Acq: 25 Mar 2024 11:05



Tgt Ion:235 Resp: 227477
Ion Ratio Lower Upper
235 100
165 51.2 0.0 152.2



8270 Breakdown Report

Data File : D:\MSDCHEM\1\Data\S032524ical\s1C2501.D Vial: 1
Acq On : 25 Mar 2024 11:05 Operator: LL2
Sample : |WBN240308-98|DFTPP|1|SVM|1|DFTPP Inst : MSD1
Misc : Multiplr: 1.00
IntFile : rteint.p

LL
03/26/2024

JCB
03/26/2024

Compounds	Area/%Breakdown	8270C	8270D
DDE	487		
DDD	641		
DDT	227477		
Breakdown	0.49%	Pass(<20)	Pass(<20)

Compounds	Tailing Factor	8270C	8270D
Benzidine	1.29	Pass(<3)	Pass(<2)
Pentachlorophenol	0.87	Pass(<5)	Pass(<2)

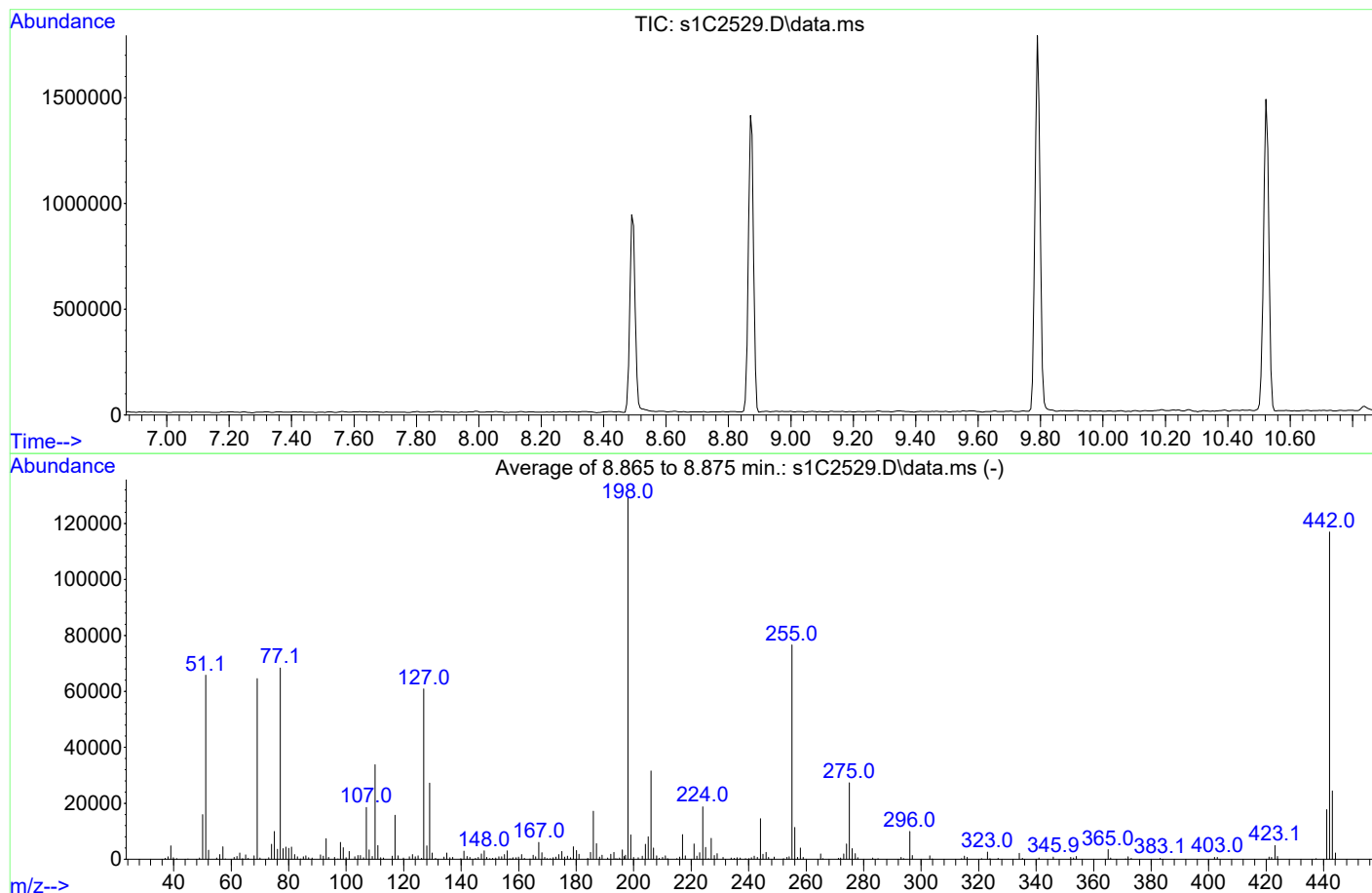
LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2529.D
Acq On : 25 Mar 2024 21:33
Operator : LL2
Sample : |WBN240308-98|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

JCB
03/26/2024

Integration File: rteint.p

Method : D:\MSDCHEM\1\Data\S032524ical\BNABrk_Down8270E.m
Title : dftpp / endrin / ddt SubList :
Last Update : Sat Mar 23 09:42:24 2019



AutoFind: Scans 1341, 1342, 1343; Background Corrected with Scan 1335

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	1.9	1238	PASS
69	198	0.00	100	50.0	64600	PASS
70	69	0.00	2	0.7	434	PASS
197	198	0.00	2	1.2	1509	PASS
198	198	0.01	100	100.0	129139	PASS
199	198	5	9	6.7	8676	PASS
365	198	1	100	2.7	3433	PASS
441	443	0.01	150	72.7	17726	PASS
442	198	0.01	100	90.6	116979	PASS
443	442	15	24	20.9	24395	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

LL
03/26/2024

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2529.D
Acq On : 25 Mar 2024 21:33
Operator : LL2
InstName : MSD1
Sample : |WBN240308-98|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

JCB
03/26/2024

Quant Time: Mar 26 11:09:12 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\BNABrk_Down8270E.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Sat Mar 23 09:42:24 2019
Response via : Initial Calibration
Integrator: RTE

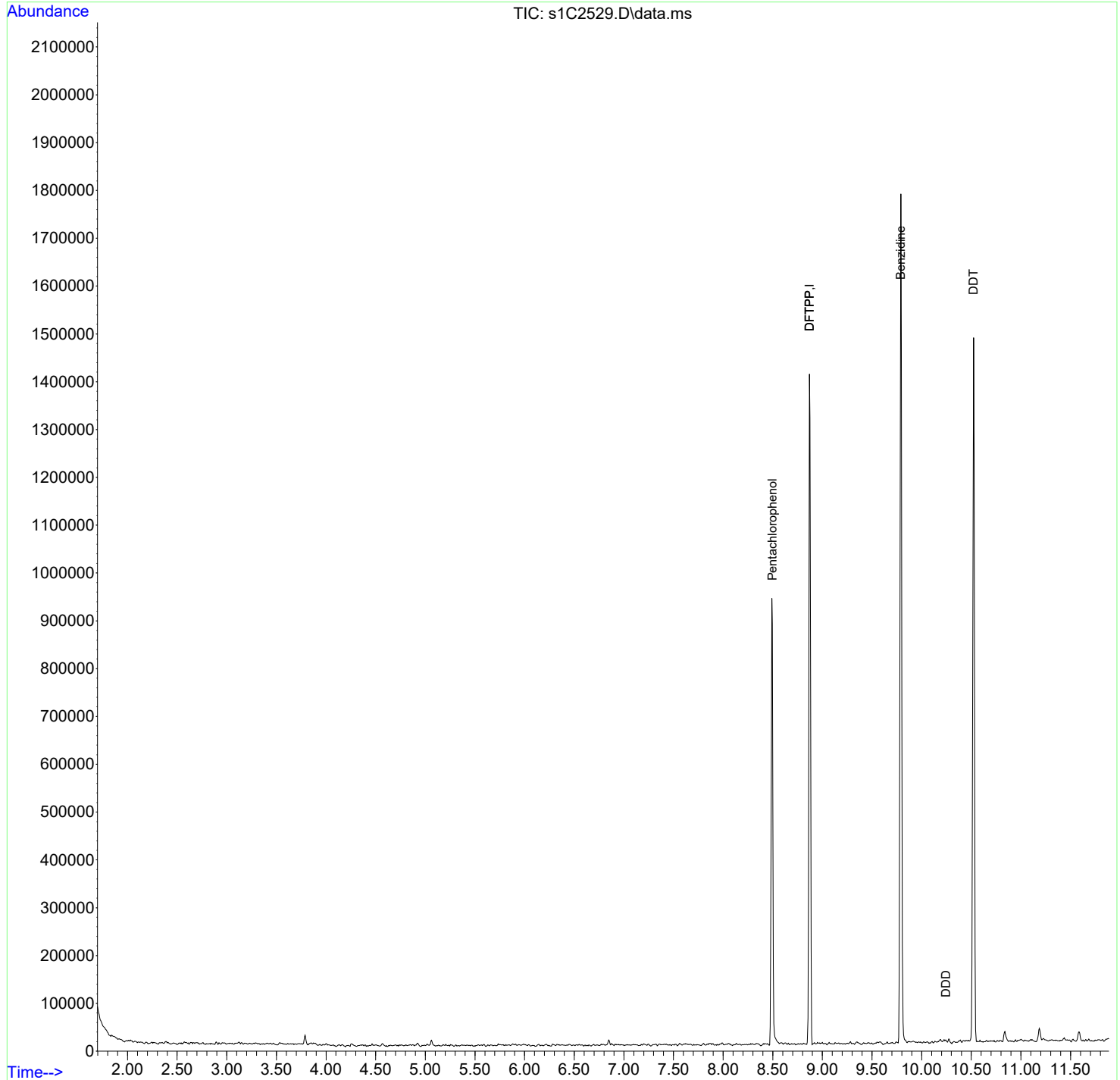
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) DFTPP	TIC	8.870	8.875	1.000	1576914	5.00	ug/l	# 0.00
Target Compounds								
2) DFTPP	TIC	8.870	8.875	1.000	1576914	5.00	ug/ml#	1
3) Pentachlorophenol	266	8.496	8.496	0.958	124241	4.28	ug/l	99
4) Benzidine	184	9.790	9.790	1.104	737377	8.80	ug/l	99
6) DDD	235	10.245	10.252	1.155	1894	5.05	ug/l	53
7) DDT	235	10.523	10.523	1.186	298506	5.03	ug/l	100

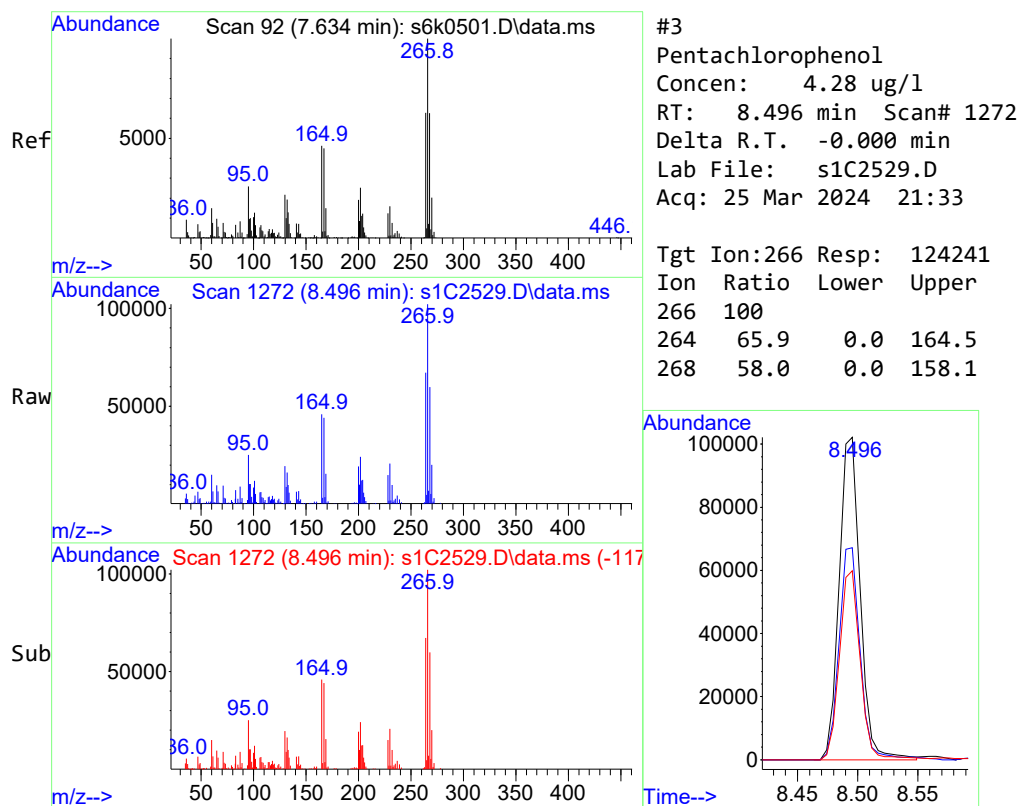
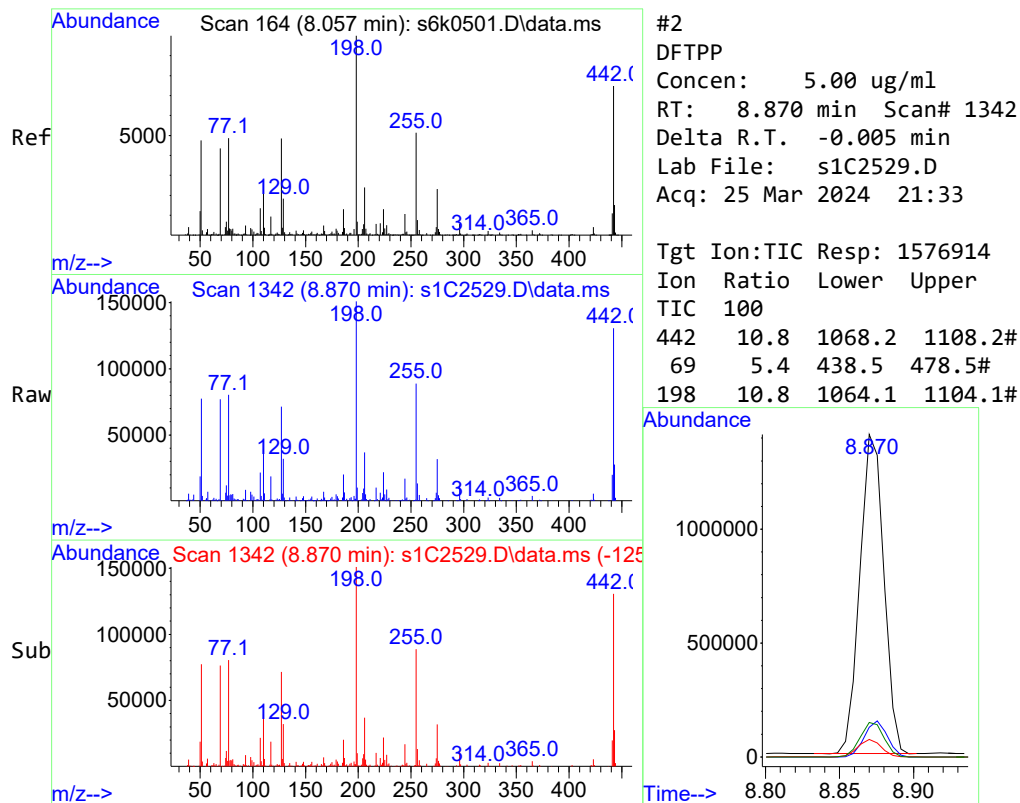
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

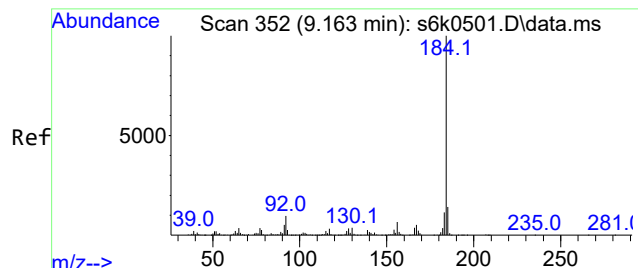
Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S032524ical\
Data File : s1C2529.D
Acq On : 25 Mar 2024 21:33
Operator : LL2
InstName : MSD1
Sample : |WBN240308-98|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 26 11:09:12 2024
Quant Method : D:\MSDCHEM\1\Data\S032524ical\BNABrk_Down8270E.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Sat Mar 23 09:42:24 2019
Response via : Initial Calibration
Integrator: RTE

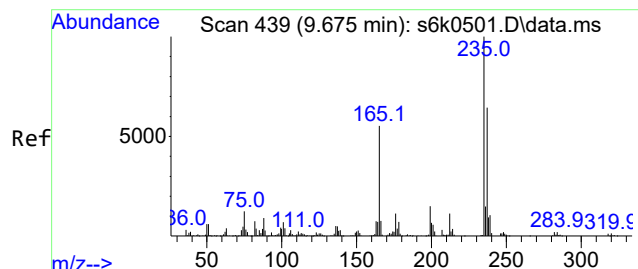
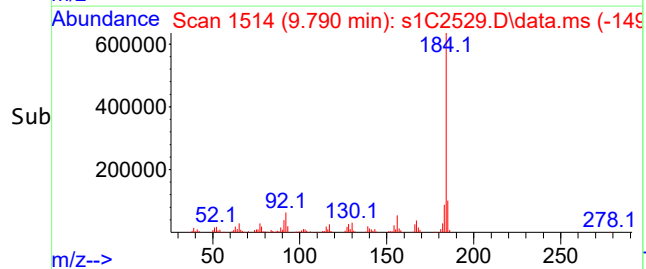
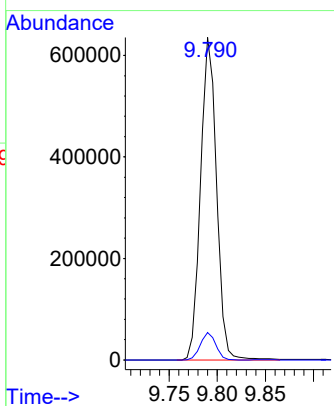
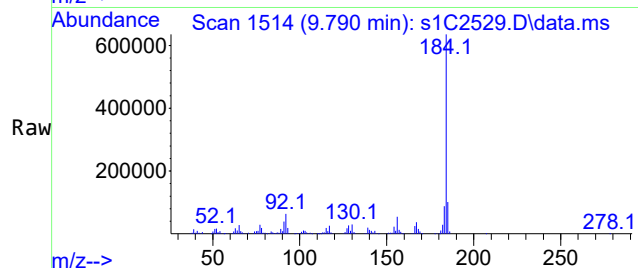






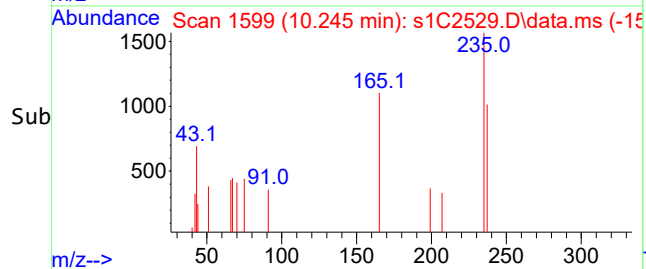
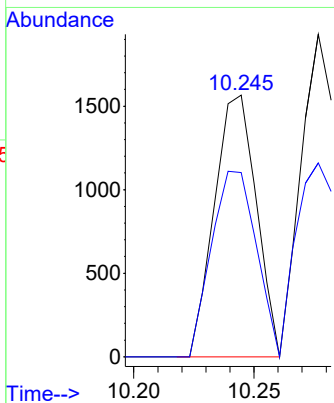
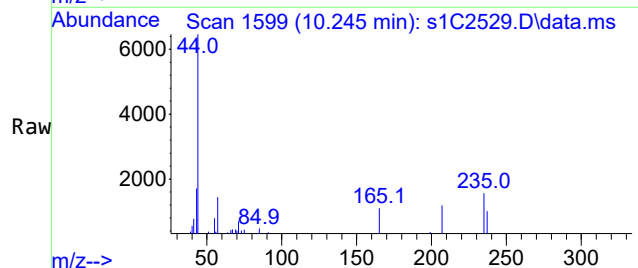
#4
Benzidine
Concen: 8.80 ug/l
RT: 9.790 min Scan# 1514
Delta R.T. -0.000 min
Lab File: s1C2529.D
Acq: 25 Mar 2024 21:33

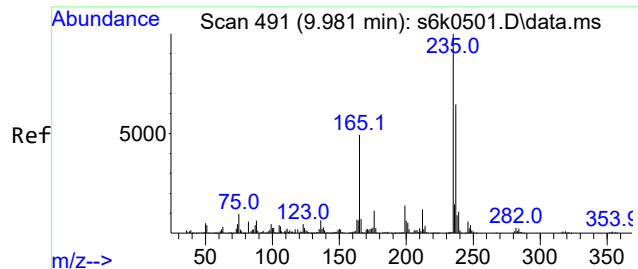
Tgt Ion:184 Resp: 737377
Ion Ratio Lower Upper
184 100
156 8.1 0.0 107.8



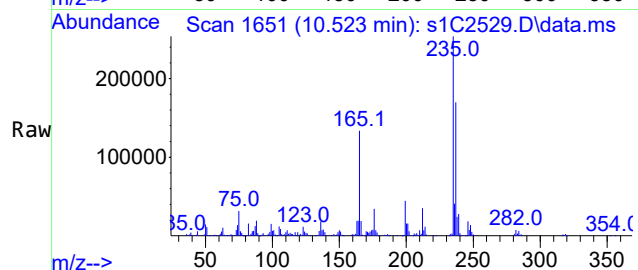
#6
DDD
Concen: 5.05 ug/l
RT: 10.245 min Scan# 1599
Delta R.T. -0.007 min
Lab File: s1C2529.D
Acq: 25 Mar 2024 21:33

Tgt Ion:235 Resp: 1894
Ion Ratio Lower Upper
235 100
165 75.9 0.0 145.0

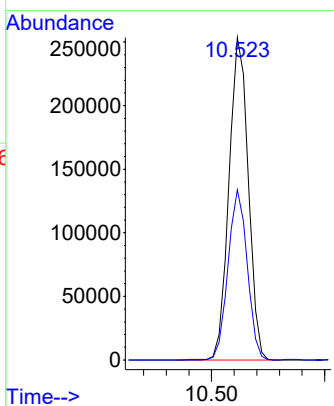
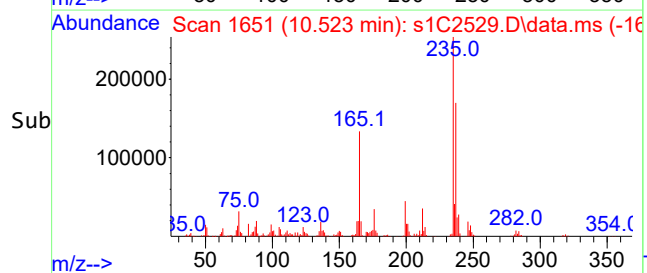




#7
DDT
Concen: 5.03 ug/l
RT: 10.523 min Scan# 1651
Delta R.T. -0.000 min
Lab File: s1C2529.D
Acq: 25 Mar 2024 21:33



Tgt Ion: 235 Resp: 298506
Ion Ratio Lower Upper
235 100
165 52.4 0.0 152.2



8270 Breakdown Report

Data File : D:\MSDCHEM\1\Data\S032524ical\s1C2529.D Vial: 1
Acq On : 25 Mar 2024 21:33 Operator: LL2
Sample : |WBN240308-98|DFTPP|1|SVM|1|DFTPP Inst : MSD1
Misc : Multiplr: 1.00
IntFile : rteint.p

LL
03/26/2024

JCB
03/26/2024

Compounds	Area/%Breakdown	8270C	8270D
DDE	0		
DDD	1894		
DDT	298506		
Breakdown	0.63%	Pass(<20)	Pass(<20)

Compounds	Tailing Factor	8270C	8270D
Benzidine	1.16	Pass(<3)	Pass(<2)
Pentachlorophenol	0.79	Pass(<5)	Pass(<2)

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Matrix:	SOIL
Lab Sample ID:	1205690502		
Client Sample:	QC for batch 2589781	Client:	PERM001
Client ID:	MB for batch 2589781	Method:	SW846 3541/8270E
Batch ID:	2589785	Inst:	MSD1.I
Run Date:	04/02/2024 13:53	Analyst:	LL2
Prep Date:	04/02/2024 07:52	Aliquot:	30.55 g
Data File:	S040224\1D0212.D	Column:	Description: DB-5ms
		Project:	PERM00224
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	1 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	327	ug/kg	98.2	327
110-86-1	Pyridine	U	327	ug/kg	98.2	327
62-53-3	Aniline	U	327	ug/kg	98.2	327
108-95-2	Phenol	U	327	ug/kg	98.2	327
111-44-4	bis(2-Chloroethyl) ether	U	327	ug/kg	98.2	327
95-57-8	2-Chlorophenol	U	327	ug/kg	98.2	327
541-73-1	1,3-Dichlorobenzene	U	327	ug/kg	98.2	327
106-46-7	1,4-Dichlorobenzene	U	327	ug/kg	98.2	327
95-50-1	1,2-Dichlorobenzene	U	327	ug/kg	98.2	327
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	327	ug/kg	98.2	327
100-51-6	Benzyl alcohol	U	327	ug/kg	98.2	327
95-48-7	o-Cresol	U	327	ug/kg	98.2	327
65794-96-9	m,p-Cresols	U	327	ug/kg	98.2	327
621-64-7	N-Nitrosodipropylamine	U	327	ug/kg	98.2	327
67-72-1	Hexachloroethane	U	327	ug/kg	98.2	327
98-95-3	Nitrobenzene	U	327	ug/kg	98.2	327
78-59-1	Isophorone	U	327	ug/kg	98.2	327
88-75-5	2-Nitrophenol	U	327	ug/kg	98.2	327
105-67-9	2,4-Dimethylphenol	U	327	ug/kg	98.2	327
111-91-1	bis(2-Chloroethoxy)methane	U	327	ug/kg	98.2	327
120-83-2	2,4-Dichlorophenol	U	327	ug/kg	98.2	327
65-85-0	Benzoic acid	U	655	ug/kg	164	655
106-47-8	4-Chloroaniline	U	327	ug/kg	98.2	327
87-68-3	Hexachlorobutadiene	U	327	ug/kg	98.2	327
59-50-7	4-Chloro-3-methylphenol	U	327	ug/kg	131	327
91-57-6	2-Methylnaphthalene	U	32.7	ug/kg	9.82	32.7
91-20-3	Naphthalene	U	32.7	ug/kg	9.82	32.7
90-12-0	1-Methylnaphthalene	U	32.7	ug/kg	9.82	32.7
77-47-4	Hexachlorocyclopentadiene	U	327	ug/kg	98.2	327
88-06-2	2,4,6-Trichlorophenol	U	327	ug/kg	98.2	327
95-95-4	2,4,5-Trichlorophenol	U	327	ug/kg	98.2	327
91-58-7	2-Chloronaphthalene	U	32.7	ug/kg	9.82	32.7
88-74-4	o-Nitroaniline	U	327	ug/kg	108	327
99-09-2	m-Nitroaniline	U	327	ug/kg	98.2	327
131-11-3	Dimethylphthalate	U	32.7	ug/kg	9.82	32.7
99-65-0	m-Dinitrobenzene	U	327	ug/kg	98.2	327
606-20-2	2,6-Dinitrotoluene	U	327	ug/kg	98.2	327
121-14-2	2,4-Dinitrotoluene	U	327	ug/kg	98.2	327

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Matrix:	SOIL
Lab Sample ID:	1205690502		
Client Sample:	QC for batch 2589781	Client:	PERM001
Client ID:	MB for batch 2589781	Method:	SW846 3541/8270E
Batch ID:	2589785	Inst:	MSD1.I
Run Date:	04/02/2024 13:53	Analyst:	LL2
Prep Date:	04/02/2024 07:52	Aliquot:	30.55 g
Data File:	S040224\1D0212.D	Column:	Description: DB-5ms
		Project:	PERM00224
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	1 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	32.7	ug/kg	9.82	32.7
83-32-9	Acenaphthene	U	32.7	ug/kg	9.82	32.7
51-28-5	2,4-Dinitrophenol	U	655	ug/kg	98.2	655
132-64-9	Dibenzofuran	U	327	ug/kg	98.2	327
58-90-2	2,3,4,6-Tetrachlorophenol	U	327	ug/kg	98.2	327
84-66-2	Diethylphthalate	U	32.7	ug/kg	9.82	32.7
100-02-7	4-Nitrophenol	U	327	ug/kg	98.2	327
86-73-7	Fluorene	U	32.7	ug/kg	9.82	32.7
7005-72-3	4-Chlorophenylphenylether	U	327	ug/kg	98.2	327
100-01-6	p-Nitroaniline	U	327	ug/kg	98.2	327
534-52-1	2-Methyl-4,6-dinitrophenol	U	327	ug/kg	98.2	327
122-39-4	Diphenylamine	U	327	ug/kg	98.2	327
122-66-7	1,2-Diphenylhydrazine	U	327	ug/kg	98.2	327
101-55-3	4-Bromophenylphenylether	U	327	ug/kg	98.2	327
118-74-1	Hexachlorobenzene	U	327	ug/kg	98.2	327
87-86-5	Pentachlorophenol	U	327	ug/kg	98.2	327
88-85-7	Dinoseb	U	327	ug/kg	98.2	327
85-01-8	Phenanthrene	U	32.7	ug/kg	9.82	32.7
120-12-7	Anthracene	U	32.7	ug/kg	9.82	32.7
86-74-8	Carbazole	U	32.7	ug/kg	9.82	32.7
84-74-2	Di-n-butylphthalate	U	32.7	ug/kg	9.82	32.7
206-44-0	Fluoranthene	U	32.7	ug/kg	9.82	32.7
129-00-0	Pyrene	U	32.7	ug/kg	9.82	32.7
85-68-7	Butylbenzylphthalate	U	32.7	ug/kg	9.82	32.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	32.7	ug/kg	9.82	32.7
56-55-3	Benzo(a)anthracene	U	32.7	ug/kg	9.82	32.7
218-01-9	Chrysene	U	32.7	ug/kg	9.82	32.7
72-43-5	Methoxychlor	U	327	ug/kg	98.2	327
117-84-0	Di-n-octylphthalate	U	32.7	ug/kg	9.82	32.7
205-99-2	Benzo(b)fluoranthene	U	32.7	ug/kg	9.82	32.7
207-08-9	Benzo(k)fluoranthene	U	32.7	ug/kg	9.82	32.7
50-32-8	Benzo(a)pyrene	U	32.7	ug/kg	9.82	32.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	32.7	ug/kg	9.82	32.7
53-70-3	Dibenzo(a,h)anthracene	U	32.7	ug/kg	9.82	32.7
191-24-2	Benzo(ghi)perylene	U	32.7	ug/kg	9.82	32.7
123-91-1	1,4-Dioxane	U	327	ug/kg	98.2	327
80-62-6	Methyl methacrylate	U	327	ug/kg	98.2	327
97-63-2	Ethyl methacrylate	U	327	ug/kg	98.2	327

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Matrix:	SOIL
Lab Sample ID:	1205690502		
Client Sample:	QC for batch 2589781	Client:	PERM001
Client ID:	MB for batch 2589781	Method:	SW846 3541/8270E
Batch ID:	2589785	Inst:	MSD1.I
Run Date:	04/02/2024 13:53	Analyst:	LL2
Prep Date:	04/02/2024 07:52	Aliquot:	30.55 g
Data File:	S040224\1D0212.D	Column:	Description: DB-5ms
		Project:	PERM00224
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	1 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	327	ug/kg	98.2	327
10595-95-6	N-Nitrosomethylethylamine	U	327	ug/kg	98.2	327
66-27-3	Methyl methanesulfonate	U	327	ug/kg	98.2	327
55-18-5	N-Nitrosodiethylamine	U	327	ug/kg	98.2	327
62-50-0	Ethyl Methanesulfonate	U	327	ug/kg	98.2	327
76-01-7	Pentachloroethane	U	327	ug/kg	98.2	327
930-55-2	N-Nitrosopyrrolidine	U	327	ug/kg	98.2	327
98-86-2	Acetophenone	U	327	ug/kg	98.2	327
59-89-2	N-Nitrosomorpholine	U	327	ug/kg	98.2	327
95-53-4	o-Toluidine	U	327	ug/kg	98.2	327
100-75-4	N-Nitrosopiperidine	U	327	ug/kg	98.2	327
122-09-8	a,a-Dimethylphenethylamine	U	327	ug/kg	115	327
87-65-0	2,6-Dichlorophenol	U	327	ug/kg	98.2	327
1888-71-7	Hexachloropropene	U	327	ug/kg	98.2	327
924-16-3	N-Nitrosodi-n-butylamine	U	327	ug/kg	98.2	327
94-59-7	Safrole	U	327	ug/kg	98.2	327
95-94-3	1,2,4,5-Tetrachlorobenzene	U	327	ug/kg	98.2	327
120-58-1	Isosafrole	U	327	ug/kg	98.2	327
130-15-4	1,4-Naphthoquinone	U	327	ug/kg	98.2	327
608-93-5	Pentachlorobenzene	U	327	ug/kg	98.2	327
134-32-7	1-Naphthylamine	U	327	ug/kg	98.2	327
91-59-8	2-Naphthylamine	U	327	ug/kg	98.2	327
99-55-8	5-Nitro-o-toluidine	U	327	ug/kg	98.2	327
62-44-2	Phenacetin	U	327	ug/kg	98.2	327
99-35-4	1,3,5-Trinitrobenzene	U	327	ug/kg	98.2	327
2303-16-4	Diallate	U	327	ug/kg	98.2	327
92-67-1	4-Aminobiphenyl	U	327	ug/kg	98.2	327
82-68-8	Pentachloronitrobenzene	U	327	ug/kg	98.2	327
23950-58-5	Pronamide	U	327	ug/kg	98.2	327
56-57-5	4-Nitroquinoline-1-oxide	U	327	ug/kg	98.2	327
91-80-5	Methapyrilene	U	327	ug/kg	98.2	327
465-73-6	Isodrin	U	327	ug/kg	65.5	327
140-57-8	Aramite	U	327	ug/kg	98.2	327
143-50-0	Kepone	U	327	ug/kg	98.2	327
60-11-7	p-(Dimethylamino)azobenzene	U	327	ug/kg	98.2	327
510-15-6	Chlorobenzilate	U	327	ug/kg	98.2	327
119-93-7	3,3'-Dimethylbenzidine	U	327	ug/kg	98.2	327
53-96-3	2-Acetylaminofluorene	U	327	ug/kg	98.2	327

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 1205690502

Client Sample: QC for batch 2589781

Client ID: MB for batch 2589781

Batch ID: 2589785

Run Date: 04/02/2024 13:53

Prep Date: 04/02/2024 07:52

Data File: S040224\s1D0212.D

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 30.55 g

Column: Description: DB-5ms

Matrix: SOIL

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	327	ug/kg	98.2	327
57-97-6	7,12-Dimethylbenz(a)anthracene	U	327	ug/kg	98.2	327
56-49-5	3-Methylcholanthrene	U	327	ug/kg	98.2	327
126-68-1	Triethylphosphorothioate	U	327	ug/kg	98.2	327
297-97-2	Thionazin	U	327	ug/kg	98.2	327
126-73-8	Tributylphosphate	U	327	ug/kg	98.2	327
3689-24-5	Sulfotepp	U	327	ug/kg	98.2	327
298-02-2	Phorate	U	327	ug/kg	98.2	327
60-51-5	Dimethoate	U	327	ug/kg	98.2	327
298-04-4	Disulfoton	U	327	ug/kg	98.2	327
298-00-0	Methyl parathion	U	327	ug/kg	98.2	327
56-38-2	Parathion	U	327	ug/kg	98.2	327
52-85-7	Famphur	U	327	ug/kg	98.2	327
106-50-3	p-Phenylenediamine	U	16400	ug/kg	3270	16400
70-30-4	Hexachlorophene	U	16400	ug/kg	3800	16400
120-82-1	1,2,4-Trichlorobenzene	U	327	ug/kg	98.2	327

LL
04/03/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0212.D
Acq On : 02 Apr 2024 13:53
Operator : LL2
InstName : MSD1
Sample : |1205690502|2589785|1|SVM|1|MB|||
Misc : |MSD827E4_S|SOIL|QC A|mix[a,b,j,d,e]||
ALS Vial : 9 Sample Multiplier: 1

RB
04/04/2024

Quant Time: Apr 03 07:57:15 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	109839	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	399479	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	216186	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.742	8.741	1.000	443715	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.239	11.245	1.000	465964	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.609	13.625	1.000	471693	40.00	ng/uL	-0.02
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	109839	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	404950	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	216186	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.742	8.741	1.000	443715	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.239	11.245	1.000	465964	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.609	13.625	1.000	471693	40.00	ng/uL	-0.02
152) J Naphthalene-d8	136	5.714	5.714	1.000	404950	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.742	8.741	1.000	443715	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.239	11.245	1.000	465964	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	404950	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	216186	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.742	8.741	1.000	443715	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.239	11.245	1.000	465964	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	404950	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.609	13.625	1.000	471693	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.992	2.986	0.695	225730	60.53	ng/uL	0.00
8) Phenol-d5	99	3.869	3.874	0.899	316073	64.72	ng/uL	0.00
23) Nitrobenzene-d5	82	4.912	4.917	0.860	151883	34.34	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.800	6.805	0.914	273462	33.73	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.137	8.137	1.094	87318	68.75	ng/uL	0.00
79) p-Terphenyl-d14	244	10.079	10.084	1.153	412919	38.06	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	30 - 108	61%
8) Phenol-d5	100.000	29 - 116	65%
23) Nitrobenzene-d5	50.000	28 - 110	69%
44) 2-Fluorobiphenyl	50.000	26 - 118	67%
63) 2,4,6-Tribromophenol	100.000	26 - 128	69%
79) p-Terphenyl-d14	50.000	26 - 130	76%

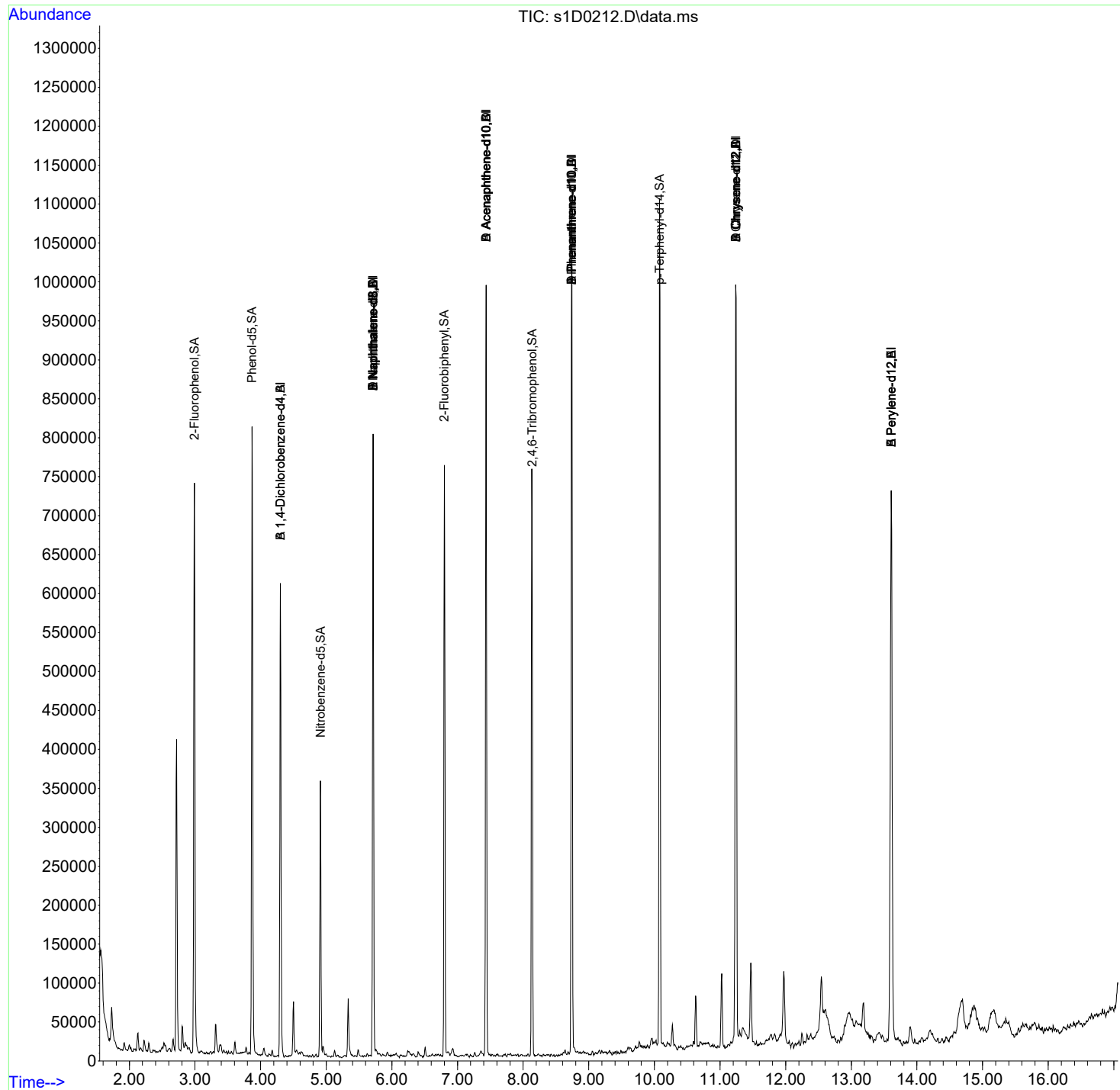
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
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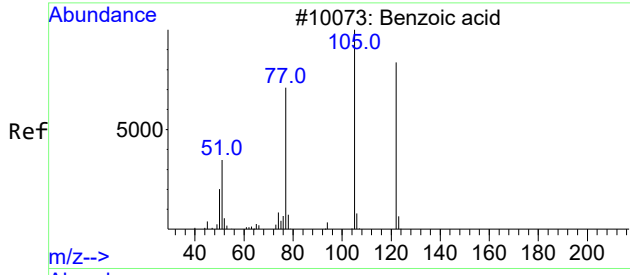
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0212.D
Acq On : 02 Apr 2024 13:53
Operator : LL2
InstName : MSD1
Sample : |1205690502|2589785|1|SVM|1|MB|||
Misc : |MSD827E4_S|SOIL|QC A|mix[a,b,j,d,e]||
ALS Vial : 9 Sample Multiplier: 1

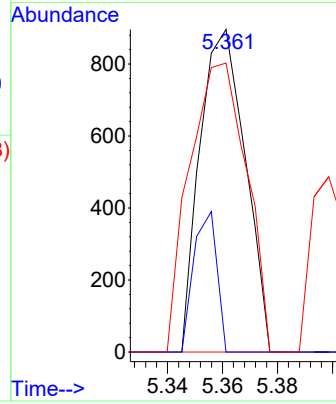
Quant Time: Apr 03 07:57:15 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE





#30 BEFORE analyst DELETION
Benzoic acid
Concen: 8.16 ng/uL
RT: 5.361 min Scan# 714
Delta R.T. -0.048 min
Lab File: s1D0212.D
Acq: 02 Apr 2024 13:53

Tgt Ion:105 Resp: 1028
Ion Ratio Lower Upper
105 100
122 0.0 36.8 96.8#
77 112.5 51.7 111.7#



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Matrix:	SOIL
Lab Sample ID:	1205690503		
Client Sample:	QC for batch 2589781	Client:	PERM001
Client ID:	LCS for batch 2589781	Method:	SW846 3541/8270E
Batch ID:	2589785	Inst:	MSD1.I
Run Date:	04/02/2024 14:16	Analyst:	LL2
Prep Date:	04/02/2024 07:52	Aliquot:	30.4 g
Data File:	S040224\1D0213.D	Column:	Description: DB-5ms
		Project:	PERM00224
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	1 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1040	ug/kg	98.7	329
110-86-1	Pyridine		845	ug/kg	98.7	329
62-53-3	Aniline		941	ug/kg	98.7	329
108-95-2	Phenol		1180	ug/kg	98.7	329
111-44-4	bis(2-Chloroethyl) ether		1120	ug/kg	98.7	329
95-57-8	2-Chlorophenol		1120	ug/kg	98.7	329
541-73-1	1,3-Dichlorobenzene		988	ug/kg	98.7	329
106-46-7	1,4-Dichlorobenzene		997	ug/kg	98.7	329
95-50-1	1,2-Dichlorobenzene		1000	ug/kg	98.7	329
108-60-1	bis(2-Chloro-1-methylethyl)ether		1060	ug/kg	98.7	329
100-51-6	Benzyl alcohol		1150	ug/kg	98.7	329
95-48-7	o-Cresol		1120	ug/kg	98.7	329
65794-96-9	m,p-Cresols		1130	ug/kg	98.7	329
621-64-7	N-Nitrosodipropylamine		1100	ug/kg	98.7	329
67-72-1	Hexachloroethane		1010	ug/kg	98.7	329
98-95-3	Nitrobenzene		1140	ug/kg	98.7	329
78-59-1	Isophorone		1100	ug/kg	98.7	329
88-75-5	2-Nitrophenol		1230	ug/kg	98.7	329
105-67-9	2,4-Dimethylphenol		731	ug/kg	98.7	329
111-91-1	bis(2-Chloroethoxy)methane		1190	ug/kg	98.7	329
120-83-2	2,4-Dichlorophenol		1170	ug/kg	98.7	329
65-85-0	Benzoic acid		1050	ug/kg	164	658
106-47-8	4-Chloroaniline		988	ug/kg	98.7	329
87-68-3	Hexachlorobutadiene		1080	ug/kg	98.7	329
59-50-7	4-Chloro-3-methylphenol		1250	ug/kg	132	329
91-57-6	2-Methylnaphthalene		1070	ug/kg	9.87	32.9
91-20-3	Naphthalene		1120	ug/kg	9.87	32.9
90-12-0	1-Methylnaphthalene		1100	ug/kg	9.87	32.9
77-47-4	Hexachlorocyclopentadiene		615	ug/kg	98.7	329
88-06-2	2,4,6-Trichlorophenol		1180	ug/kg	98.7	329
95-95-4	2,4,5-Trichlorophenol		1280	ug/kg	98.7	329
91-58-7	2-Chloronaphthalene		1080	ug/kg	9.87	32.9
88-74-4	o-Nitroaniline		1280	ug/kg	109	329
99-09-2	m-Nitroaniline		1090	ug/kg	98.7	329
131-11-3	Dimethylphthalate		1280	ug/kg	9.87	32.9
99-65-0	m-Dinitrobenzene	U	329	ug/kg	98.7	329
606-20-2	2,6-Dinitrotoluene		1320	ug/kg	98.7	329
121-14-2	2,4-Dinitrotoluene		1330	ug/kg	98.7	329

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Matrix:	SOIL
Lab Sample ID:	1205690503		
Client Sample:	QC for batch 2589781	Client:	PERM001
Client ID:	LCS for batch 2589781	Method:	SW846 3541/8270E
Batch ID:	2589785	Inst:	MSD1.I
Run Date:	04/02/2024 14:16	Analyst:	LL2
Prep Date:	04/02/2024 07:52	Aliquot:	30.4 g
Data File:	S040224\1D0213.D	Column:	Description: DB-5ms
		Project:	PERM00224
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	1 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene		1100	ug/kg	9.87	32.9
83-32-9	Acenaphthene		1140	ug/kg	9.87	32.9
51-28-5	2,4-Dinitrophenol		864	ug/kg	98.7	658
132-64-9	Dibenzofuran		1170	ug/kg	98.7	329
58-90-2	2,3,4,6-Tetrachlorophenol		1190	ug/kg	98.7	329
84-66-2	Diethylphthalate		1240	ug/kg	9.87	32.9
100-02-7	4-Nitrophenol		1330	ug/kg	98.7	329
86-73-7	Fluorene		1170	ug/kg	9.87	32.9
7005-72-3	4-Chlorophenylphenylether		1260	ug/kg	98.7	329
100-01-6	p-Nitroaniline		1340	ug/kg	98.7	329
534-52-1	2-Methyl-4,6-dinitrophenol		1050	ug/kg	98.7	329
122-39-4	Diphenylamine		1210	ug/kg	98.7	329
122-66-7	1,2-Diphenylhydrazine		1190	ug/kg	98.7	329
101-55-3	4-Bromophenylphenylether		1200	ug/kg	98.7	329
118-74-1	Hexachlorobenzene		1180	ug/kg	98.7	329
87-86-5	Pentachlorophenol		1130	ug/kg	98.7	329
88-85-7	Dinoseb	U	329	ug/kg	98.7	329
85-01-8	Phenanthrene		1210	ug/kg	9.87	32.9
120-12-7	Anthracene		1180	ug/kg	9.87	32.9
86-74-8	Carbazole		1110	ug/kg	9.87	32.9
84-74-2	Di-n-butylphthalate		1240	ug/kg	9.87	32.9
206-44-0	Fluoranthene		1190	ug/kg	9.87	32.9
129-00-0	Pyrene		1230	ug/kg	9.87	32.9
85-68-7	Butylbenzylphthalate		1350	ug/kg	9.87	32.9
117-81-7	bis(2-Ethylhexyl)phthalate		1330	ug/kg	9.87	32.9
56-55-3	Benzo(a)anthracene		1240	ug/kg	9.87	32.9
218-01-9	Chrysene		1250	ug/kg	9.87	32.9
72-43-5	Methoxychlor	U	329	ug/kg	98.7	329
117-84-0	Di-n-octylphthalate		1270	ug/kg	9.87	32.9
205-99-2	Benzo(b)fluoranthene		1340	ug/kg	9.87	32.9
207-08-9	Benzo(k)fluoranthene		1260	ug/kg	9.87	32.9
50-32-8	Benzo(a)pyrene		1220	ug/kg	9.87	32.9
193-39-5	Indeno(1,2,3-cd)pyrene		1190	ug/kg	9.87	32.9
53-70-3	Dibenzo(a,h)anthracene		1180	ug/kg	9.87	32.9
191-24-2	Benzo(ghi)perylene		1260	ug/kg	9.87	32.9
123-91-1	1,4-Dioxane		621	ug/kg	98.7	329
80-62-6	Methyl methacrylate	U	329	ug/kg	98.7	329
97-63-2	Ethyl methacrylate	U	329	ug/kg	98.7	329

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 1205690503

Client Sample: QC for batch 2589781

Client ID: LCS for batch 2589781

Batch ID: 2589785

Run Date: 04/02/2024 14:16

Prep Date: 04/02/2024 07:52

Data File: S040224\1D0213.D

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 30.4 g

Column: Description: DB-5ms

Matrix: SOIL

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	329	ug/kg	98.7	329
10595-95-6	N-Nitrosomethylethylamine	U	329	ug/kg	98.7	329
66-27-3	Methyl methanesulfonate	U	329	ug/kg	98.7	329
55-18-5	N-Nitrosodiethylamine	U	329	ug/kg	98.7	329
62-50-0	Ethyl Methanesulfonate	U	329	ug/kg	98.7	329
76-01-7	Pentachloroethane	U	329	ug/kg	98.7	329
930-55-2	N-Nitrosopyrrolidine		1090	ug/kg	98.7	329
98-86-2	Acetophenone		1090	ug/kg	98.7	329
59-89-2	N-Nitrosomorpholine	J	141	ug/kg	98.7	329
95-53-4	o-Toluidine	U	329	ug/kg	98.7	329
100-75-4	N-Nitrosopiperidine	U	329	ug/kg	98.7	329
122-09-8	a,a-Dimethylphenethylamine	U	329	ug/kg	115	329
87-65-0	2,6-Dichlorophenol		1190	ug/kg	98.7	329
1888-71-7	Hexachloropropene	U	329	ug/kg	98.7	329
924-16-3	N-Nitrosodi-n-butylamine	J	125	ug/kg	98.7	329
94-59-7	Safrole	U	329	ug/kg	98.7	329
95-94-3	1,2,4,5-Tetrachlorobenzene		1110	ug/kg	98.7	329
120-58-1	Isosafrole		2480	ug/kg	98.7	329
130-15-4	1,4-Naphthoquinone	U	329	ug/kg	98.7	329
608-93-5	Pentachlorobenzene	U	329	ug/kg	98.7	329
134-32-7	1-Naphthylamine	U	329	ug/kg	98.7	329
91-59-8	2-Naphthylamine	U	329	ug/kg	98.7	329
99-55-8	5-Nitro-o-toluidine	U	329	ug/kg	98.7	329
62-44-2	Phenacetin	U	329	ug/kg	98.7	329
99-35-4	1,3,5-Trinitrobenzene	U	329	ug/kg	98.7	329
2303-16-4	Diallate	U	329	ug/kg	98.7	329
92-67-1	4-Aminobiphenyl	U	329	ug/kg	98.7	329
82-68-8	Pentachloronitrobenzene	U	329	ug/kg	98.7	329
23950-58-5	Pronamide	U	329	ug/kg	98.7	329
56-57-5	4-Nitroquinoline-1-oxide	U	329	ug/kg	98.7	329
91-80-5	Methapyrilene	U	329	ug/kg	98.7	329
465-73-6	Isodrin	U	329	ug/kg	65.8	329
140-57-8	Aramite	U	329	ug/kg	98.7	329
143-50-0	Kepone	U	329	ug/kg	98.7	329
60-11-7	p-(Dimethylamino)azobenzene	U	329	ug/kg	98.7	329
510-15-6	Chlorobenzilate	U	329	ug/kg	98.7	329
119-93-7	3,3'-Dimethylbenzidine	U	329	ug/kg	98.7	329
53-96-3	2-Acetylaminofluorene	U	329	ug/kg	98.7	329

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660771

Lab Sample ID: 1205690503

Client Sample: QC for batch 2589781

Client ID: LCS for batch 2589781

Batch ID: 2589785

Run Date: 04/02/2024 14:16

Prep Date: 04/02/2024 07:52

Data File: S040224\s1D0213.D

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD1.I

Analyst: LL2

Aliquot: 30.4 g

Column: Description: DB-5ms

Matrix: SOIL

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine		1040	ug/kg	98.7	329
57-97-6	7,12-Dimethylbenz(a)anthracene	U	329	ug/kg	98.7	329
56-49-5	3-Methylcholanthrene	U	329	ug/kg	98.7	329
126-68-1	Triethylphosphorothioate	U	329	ug/kg	98.7	329
297-97-2	Thionazin	U	329	ug/kg	98.7	329
126-73-8	Tributylphosphate		1300	ug/kg	98.7	329
3689-24-5	Sulfotepp	U	329	ug/kg	98.7	329
298-02-2	Phorate	U	329	ug/kg	98.7	329
60-51-5	Dimethoate	U	329	ug/kg	98.7	329
298-04-4	Disulfoton	J	253	ug/kg	98.7	329
298-00-0	Methyl parathion	U	329	ug/kg	98.7	329
56-38-2	Parathion	U	329	ug/kg	98.7	329
52-85-7	Famphur	U	329	ug/kg	98.7	329
106-50-3	p-Phenylenediamine	U	16400	ug/kg	3290	16400
70-30-4	Hexachlorophene	U	16400	ug/kg	3820	16400
120-82-1	1,2,4-Trichlorobenzene		1080	ug/kg	98.7	329

LL
04/03/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0213.D
Acq On : 02 Apr 2024 14:16
Operator : LL2
InstName : MSD1
Sample : |1205690503|2589785|1|SVM|1|LCS|||
Misc : |MSD827E4_S|SOIL|QC A|mix[a,b,j,d,e]||
ALS Vial : 10 Sample Multiplier: 1

RB
04/04/2024

Quant Time: Apr 03 07:57:45 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	122984	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	457798	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	251490	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.742	8.741	1.000	515981	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.245	11.245	1.000	516673	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.614	13.625	1.000	543011	40.00	ng/uL	-0.01
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	122984	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	457798	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	251490	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.742	8.741	1.000	515981	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.245	11.245	1.000	516673	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.614	13.625	1.000	543011	40.00	ng/uL	-0.01
152) J Naphthalene-d8	136	5.714	5.714	1.000	457798	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.742	8.741	1.000	515981	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.245	11.245	1.000	516673	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	457798	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	251490	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.742	8.741	1.000	515981	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.245	11.245	1.000	516673	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	457798	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.614	13.625	1.000	543011	40.00	ng/uL	-0.01

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.992	2.986	0.695	238086	57.02	ng/uL	0.00
8) Phenol-d5	99	3.874	3.874	0.901	331450	60.62	ng/uL	0.00
23) Nitrobenzene-d5	82	4.912	4.917	0.860	153732	30.33	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.800	6.805	0.914	279224	29.60	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.137	8.137	1.094	87238	59.05	ng/uL	0.00
79) p-Terphenyl-d14	244	10.079	10.084	1.153	424886	33.68	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	30 - 108	57%
8) Phenol-d5	100.000	29 - 116	61%
23) Nitrobenzene-d5	50.000	28 - 110	61%
44) 2-Fluorobiphenyl	50.000	26 - 118	59%
63) 2,4,6-Tribromophenol	100.000	26 - 128	59%
79) p-Terphenyl-d14	50.000	26 - 130	67%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
3) N-Methyl-N-nitrosometh...	74	1.949	1.960	0.453	89599	31.66	ng/uL	97
4) Pyridine	79	1.992	2.002	0.463	109879	25.68	ng/uL	99
7) Aniline	93	3.944	3.949	0.917	186255	28.62	ng/uL	98
9) Phenol	94	3.885	3.885	0.903	190689	35.84	ng/uL	97
10) bis(2-Chloroethyl) ether	93	4.003	4.003	0.930	150664	34.01	ng/uL	96
11) 2-Chlorophenol	128	4.072	4.078	0.947	144014	33.99	ng/uL	97
12) n-Decane	57	4.104	4.104	0.954	142519	23.58	ng/uL	97
13) 1,3-Dichlorobenzene	146	4.243	4.243	0.986	143247	30.05	ng/uL	96
14) 1,4-Dichlorobenzene	146	4.324	4.324	1.005	142092	30.30	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0213.D
Acq On : 02 Apr 2024 14:16
Operator : LL2
InstName : MSD1
Sample : |1205690503|2589785|1|SVM|1|LCS|||
Misc : |MSD827E4_S|SOIL|QC A|mix[a,b,j,d,e]||
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 03 07:57:45 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
15) 1,2-Dichlorobenzene	146	4.484	4.489	1.042	140453	30.44	ng/uL 98
16) bis(2-Chloro-1-methyle...	45	4.586	4.580	1.066	252854	32.31	ng/uL 98
17) Benzyl alcohol	108	4.436	4.436	1.031	101087	34.92	ng/uL 96
18) o-Cresol	107	4.548	4.548	1.057	114988	34.19	ng/uL 96
19) m,p-Cresols	108	4.714	4.719	1.096	142330	34.40	ng/uL 88
20) N-Nitrosodipropylamine	70	4.730	4.736	1.099	119132	33.32	ng/uL# 54
21) Hexachloroethane	117	4.864	4.869	1.131	63078	30.66	ng/uL 90
24) Nitrobenzene	77	4.933	4.939	0.863	180701	34.75	ng/uL 98
25) Isophorone	82	5.201	5.206	0.910	317793	33.54	ng/uL 100
26) 2-Nitrophenol	139	5.292	5.297	0.926	66778	37.36	ng/uL 97
27) 2,4-Dimethylphenol	122	5.329	5.329	0.933	65714	22.23	ng/uL 95
28) bis(2-Chloroethoxy)met...	93	5.441	5.442	0.952	208828	36.07	ng/uL 99
29) 2,4-Dichlorophenol	162	5.554	5.554	0.972	135326	35.58	ng/uL 97
30) Benzoic acid	105	5.399	5.409	0.945	81356	31.79	ng/uL 95
31) 1,2,4-Trichlorobenzene	180	5.650	5.650	0.989	137689	32.70	ng/uL 100
32) alpha-Terpineol	59	5.741	5.741	1.005	151734	33.34	ng/uL 99
33) Naphthalene	128	5.736	5.741	1.004	382432	34.04	ng/uL 99
34) 4-Chloroaniline	127	5.789	5.789	1.013	146152	30.02	ng/uL 93
35) Hexachlorobutadiene	225	5.864	5.864	1.026	89132	32.91	ng/uL 99
36) 4-Chloro-3-methylphenol	107	6.287	6.281	1.100	151168	37.89	ng/uL 99
37) 2-Methylnaphthalene	142	6.447	6.447	1.128	264834	32.48	ng/uL 97
38) 1-Methylnaphthalene	142	6.543	6.549	1.145	246880	33.54	ng/uL 96
40) Hexachlorocyclopentadiene	237	6.597	6.602	0.887	48320	18.69	ng/uL 97
41) 2,3-Dichloroaniline	161	6.720	6.720	0.904	156960	34.33	ng/uL 97
42) 2,4,6-Trichlorophenol	196	6.720	6.720	0.904	108329	35.81	ng/uL 98
43) 2,4,5-Trichlorophenol	196	6.757	6.752	0.909	116039	38.84	ng/uL 99
45) 2-Chloronaphthalene	162	6.923	6.923	0.931	266542	32.98	ng/uL 95
46) o-Nitroaniline	65	7.009	7.014	0.942	111580	38.86	ng/uL 95
48) m-Nitroaniline	138	7.388	7.394	0.994	69768	33.19	ng/uL 90
49) Dimethylphthalate	163	7.174	7.180	0.965	365103	39.03	ng/uL 99
51) 2,6-Dinitrotoluene	165	7.233	7.239	0.973	74152	40.12	ng/uL 99
52) 2,4-Dinitrotoluene	165	7.597	7.602	1.022	98185	40.49	ng/uL 92
53) Acenaphthylene	152	7.308	7.308	0.983	396475	33.42	ng/uL 100
54) Acenaphthene	153	7.463	7.469	1.004	280583	34.66	ng/uL 100
55) 2,4-Dinitrophenol	184	7.485	7.485	1.006	15419	26.28	ng/uL 92
56) Dibenzofuran	168	7.618	7.624	1.024	376298	35.57	ng/uL 98
57) 2,3,4,6-Tetrachlorophenol	232	7.725	7.725	1.039	92475	36.30	ng/uL 99
58) Diethylphthalate	149	7.811	7.811	1.050	380261	37.61	ng/uL 99
59) 4-Nitrophenol	109	7.533	7.533	1.013	63364	40.47	ng/uL 99
60) Fluorene	166	7.929	7.929	1.066	316957	35.58	ng/uL 99
61) 4-Chlorophenylphenylether	204	7.918	7.918	1.065	173561	38.18	ng/uL 96
62) p-Nitroaniline	138	7.934	7.934	1.067	82243	40.86	ng/uL 90
65) 2-Methyl-4,6-dinitroph...	198	7.955	7.961	0.910	34739	31.89	ng/uL 96
66) Diphenylamine	169	8.019	8.020	0.917	296143	36.84	ng/uL 100
67) 1,2-Diphenylhydrazine	77	8.057	8.062	0.922	385211	36.10	ng/uL 99
68) 4-Bromophenylphenylether	248	8.346	8.346	0.955	111549	36.39	ng/uL 94
69) Hexachlorobenzene	284	8.405	8.405	0.961	115705	35.99	ng/uL 97
70) Pentachlorophenol	266	8.570	8.570	0.980	72360	34.26	ng/uL 96
71) n-Octadecane	57	8.608	8.608	0.985	300029	34.51	ng/uL 99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0213.D
Acq On : 02 Apr 2024 14:16
Operator : LL2
InstName : MSD1
Sample : |1205690503|2589785|1|SVM|1|LCS|||
Misc : |MSD827E4_S|SOIL|QC A|mix[a,b,j,d,e]||
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 03 07:57:45 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
73) Phenanthrene	178	8.763	8.763	1.002	484311	36.86	ng/uL 99
74) Anthracene	178	8.806	8.806	1.007	483354	35.72	ng/uL 100
75) Carbazole	167	8.934	8.940	1.022	468751	33.79	ng/uL 99
76) Di-n-butylphthalate	149	9.201	9.207	1.053	640774	37.71	ng/uL 99
77) Fluoranthene	202	9.768	9.774	1.117	596142	36.11	ng/uL 99
78) Pyrene	202	9.966	9.972	1.140	615533	37.34	ng/uL 98
81) Butylbenzylphthalate	149	10.539	10.544	0.937	315174	41.19	ng/uL 100
82) bis(2-Ethylhexyl)phtha...	149	11.207	11.213	0.997	459810	40.35	ng/uL 100
83) Benzo(a)anthracene	228	11.229	11.234	0.999	592959	37.70	ng/uL 99
84) Chrysene	228	11.282	11.282	1.003	549755	38.02	ng/uL 99
87) Di-n-octylphthalate	149	12.186	12.192	1.084	759142	38.56	ng/uL 97
89) Benzo(b)fluoranthene	252	12.892	12.898	0.947	640601	40.71	ng/uL 98
90) Benzo(k)fluoranthene	252	12.940	12.951	0.950	567078	38.17	ng/uL 98
91) Benzo(a)pyrene	252	13.502	13.507	0.992	545410	36.94	ng/uL 98
92) Indeno(1,2,3-cd)pyrene	276	15.893	15.898	1.167	531462	36.17	ng/uL 95
93) Dibenzo(a,h)anthracene	278	15.951	15.962	1.172	490432	35.99	ng/uL 99
94) Benzo(ghi)perylene	276	16.465	16.470	1.209	527794	38.43	ng/uL 96
97) 1,4-Dioxane	88	1.762	1.767	0.409	31616	18.87	ng/uL 99
106) Benzaldehyde	77	3.842	3.847	0.893	36124	9.21	ng/uL 95
108) N-Nitrosopyrrolidine	100	4.709	4.709	1.094	65497	33.23	ng/uL 95
109) Acetophenone	105	4.735	4.741	1.101	205907	33.10	ng/uL 94
110) N-Nitrosomorpholine	56	4.730	4.757	1.099	11323	4.28	ng/uL# 56
115) 2,6-Dichlorophenol	162	5.800	5.800	1.015	125673	36.28	ng/uL 99
117) Caprolactam	113	6.147	6.137	1.076	38160	37.51	ng/uL# 77
118) N-Nitrosodi-n-butylamine	57	6.142	6.137	1.075	10200	3.81	ng/uL# 1
121) 1,2,4,5-Tetrachloroben...	216	6.607	6.613	0.889	150663	33.76	ng/uL 94
122) 1,1-Biphenyl	154	6.896	6.902	0.927	335224	36.88	ng/uL 95
123) Isosafrole	162	6.923	6.864	0.931	266019	75.42	ng/uL# 25
129) Tributylphosphate	99	7.987	7.987	1.074	475329	39.49	ng/uL 98
136) Atrazine	200	8.474	8.474	0.969	113590	39.85	ng/uL 99
153) Sulfolane	56	5.810	5.810	1.017	70261	37.55	ng/uL 100
155) Prometon	210	8.410	8.415	0.962	101042	39.07	ng/uL 93
156) Benzidine	184	9.865	9.870	1.128	335971	31.22	ng/uL 99
159) 3,3'-Dichlorobenzidine	252	11.175	11.180	0.994	197959	31.54	ng/uL 99
168) Disulfoton	88	8.763	8.720	1.002	47191	7.68	ng/uL# 20

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 08:15	Matrix:	SOIL
Lab Sample ID:	1205690504	Date Received:	03/30/2024 09:30	%Moisture:	14.5
Client Sample:	QC for batch 2589781	Client:	PERM001	Project:	PERM00224
Client ID:	Y403780-01MS	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 15:01	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	30.11 g	Final Volume:	1 mL
Data File:	S040224\1D0215.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		748	ug/kg	117	388
110-86-1	Pyridine		669	ug/kg	117	388
62-53-3	Aniline		682	ug/kg	117	388
108-95-2	Phenol		907	ug/kg	117	388
111-44-4	bis(2-Chloroethyl) ether		793	ug/kg	117	388
95-57-8	2-Chlorophenol		837	ug/kg	117	388
541-73-1	1,3-Dichlorobenzene		658	ug/kg	117	388
106-46-7	1,4-Dichlorobenzene		650	ug/kg	117	388
95-50-1	1,2-Dichlorobenzene		698	ug/kg	117	388
108-60-1	bis(2-Chloro-1-methylethyl)ether		793	ug/kg	117	388
100-51-6	Benzyl alcohol		889	ug/kg	117	388
95-48-7	o-Cresol		901	ug/kg	117	388
65794-96-9	m,p-Cresols		900	ug/kg	117	388
621-64-7	N-Nitrosodipropylamine		823	ug/kg	117	388
67-72-1	Hexachloroethane		607	ug/kg	117	388
98-95-3	Nitrobenzene		856	ug/kg	117	388
78-59-1	Isophorone		872	ug/kg	117	388
88-75-5	2-Nitrophenol		1010	ug/kg	117	388
105-67-9	2,4-Dimethylphenol		622	ug/kg	117	388
111-91-1	bis(2-Chloroethoxy)methane		861	ug/kg	117	388
120-83-2	2,4-Dichlorophenol		938	ug/kg	117	388
65-85-0	Benzoic acid		1640	ug/kg	194	777
106-47-8	4-Chloroaniline		827	ug/kg	117	388
87-68-3	Hexachlorobutadiene		740	ug/kg	117	388
59-50-7	4-Chloro-3-methylphenol		1020	ug/kg	155	388
91-57-6	2-Methylnaphthalene		855	ug/kg	11.7	38.8
91-20-3	Naphthalene		843	ug/kg	11.7	38.8
90-12-0	1-Methylnaphthalene		918	ug/kg	11.7	38.8
77-47-4	Hexachlorocyclopentadiene	J	367	ug/kg	117	388
88-06-2	2,4,6-Trichlorophenol		960	ug/kg	117	388
95-95-4	2,4,5-Trichlorophenol		1090	ug/kg	117	388
91-58-7	2-Chloronaphthalene		918	ug/kg	11.7	38.8
88-74-4	o-Nitroaniline		1070	ug/kg	128	388
99-09-2	m-Nitroaniline		963	ug/kg	117	388
131-11-3	Dimethylphthalate		1080	ug/kg	11.7	38.8
99-65-0	m-Dinitrobenzene	U	388	ug/kg	117	388
606-20-2	2,6-Dinitrotoluene		1070	ug/kg	117	388
121-14-2	2,4-Dinitrotoluene		1150	ug/kg	117	388

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 08:15	Matrix:	SOIL
Lab Sample ID:	1205690504	Date Received:	03/30/2024 09:30	%Moisture:	14.5
Client Sample:	QC for batch 2589781	Client:	PERM001	Project:	PERM00224
Client ID:	Y403780-01MS	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 15:01	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	30.11 g	Final Volume:	1 mL
Data File:	S040224\1D0215.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene		910	ug/kg	11.7	38.8
83-32-9	Acenaphthene		943	ug/kg	11.7	38.8
51-28-5	2,4-Dinitrophenol		1250	ug/kg	117	777
132-64-9	Dibenzofuran		1020	ug/kg	117	388
58-90-2	2,3,4,6-Tetrachlorophenol		1040	ug/kg	117	388
84-66-2	Diethylphthalate		1070	ug/kg	11.7	38.8
100-02-7	4-Nitrophenol		1160	ug/kg	117	388
86-73-7	Fluorene		994	ug/kg	11.7	38.8
7005-72-3	4-Chlorophenylphenylether		1050	ug/kg	117	388
100-01-6	p-Nitroaniline		1130	ug/kg	117	388
534-52-1	2-Methyl-4,6-dinitrophenol		1180	ug/kg	117	388
122-39-4	Diphenylamine		1050	ug/kg	117	388
122-66-7	1,2-Diphenylhydrazine		1060	ug/kg	117	388
101-55-3	4-Bromophenylphenylether		1010	ug/kg	117	388
118-74-1	Hexachlorobenzene		1130	ug/kg	117	388
87-86-5	Pentachlorophenol		1150	ug/kg	117	388
88-85-7	Dinoseb	U	388	ug/kg	117	388
85-01-8	Phenanthrene		1110	ug/kg	11.7	38.8
120-12-7	Anthracene		1050	ug/kg	11.7	38.8
86-74-8	Carbazole		1030	ug/kg	11.7	38.8
84-74-2	Di-n-butylphthalate		1140	ug/kg	11.7	38.8
206-44-0	Fluoranthene		1100	ug/kg	11.7	38.8
129-00-0	Pyrene		1120	ug/kg	11.7	38.8
85-68-7	Butylbenzylphthalate		1210	ug/kg	11.7	38.8
117-81-7	bis(2-Ethylhexyl)phthalate		1190	ug/kg	11.7	38.8
56-55-3	Benzo(a)anthracene		1110	ug/kg	11.7	38.8
218-01-9	Chrysene		1140	ug/kg	11.7	38.8
72-43-5	Methoxychlor	U	388	ug/kg	117	388
117-84-0	Di-n-octylphthalate		1150	ug/kg	11.7	38.8
205-99-2	Benzo(b)fluoranthene		1130	ug/kg	11.7	38.8
207-08-9	Benzo(k)fluoranthene		1110	ug/kg	11.7	38.8
50-32-8	Benzo(a)pyrene		1030	ug/kg	11.7	38.8
193-39-5	Indeno(1,2,3-cd)pyrene		1000	ug/kg	11.7	38.8
53-70-3	Dibenzo(a,h)anthracene		1020	ug/kg	11.7	38.8
191-24-2	Benzo(ghi)perylene		1080	ug/kg	11.7	38.8
123-91-1	1,4-Dioxane		401	ug/kg	117	388
80-62-6	Methyl methacrylate	U	388	ug/kg	117	388
97-63-2	Ethyl methacrylate	U	388	ug/kg	117	388

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 08:15	Matrix:	SOIL
Lab Sample ID:	1205690504	Date Received:	03/30/2024 09:30	%Moisture:	14.5
Client Sample:	QC for batch 2589781	Client:	PERM001	Project:	PERM00224
Client ID:	Y403780-01MS	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 15:01	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	30.11 g	Final Volume:	1 mL
Data File:	S040224\1D0215.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	388	ug/kg	117	388
10595-95-6	N-Nitrosomethylethylamine	U	388	ug/kg	117	388
66-27-3	Methyl methanesulfonate	U	388	ug/kg	117	388
55-18-5	N-Nitrosodiethylamine	U	388	ug/kg	117	388
62-50-0	Ethyl Methanesulfonate	U	388	ug/kg	117	388
76-01-7	Pentachloroethane	U	388	ug/kg	117	388
930-55-2	N-Nitrosopyrrolidine		816	ug/kg	117	388
98-86-2	Acetophenone		854	ug/kg	117	388
59-89-2	N-Nitrosomorpholine	J	117	ug/kg	117	388
95-53-4	o-Toluidine	U	388	ug/kg	117	388
100-75-4	N-Nitrosopiperidine	U	388	ug/kg	117	388
122-09-8	a,a-Dimethylphenethylamine	U	388	ug/kg	136	388
87-65-0	2,6-Dichlorophenol		877	ug/kg	117	388
1888-71-7	Hexachloropropene	U	388	ug/kg	117	388
924-16-3	N-Nitrosodi-n-butylamine	U	388	ug/kg	117	388
94-59-7	Safrole	U	388	ug/kg	117	388
95-94-3	1,2,4,5-Tetrachlorobenzene		924	ug/kg	117	388
120-58-1	Isosafrole		2100	ug/kg	117	388
130-15-4	1,4-Naphthoquinone	U	388	ug/kg	117	388
608-93-5	Pentachlorobenzene	U	388	ug/kg	117	388
134-32-7	1-Naphthylamine	U	388	ug/kg	117	388
91-59-8	2-Naphthylamine	U	388	ug/kg	117	388
99-55-8	5-Nitro-o-toluidine	U	388	ug/kg	117	388
62-44-2	Phenacetin	U	388	ug/kg	117	388
99-35-4	1,3,5-Trinitrobenzene	U	388	ug/kg	117	388
2303-16-4	Diallate	U	388	ug/kg	117	388
92-67-1	4-Aminobiphenyl	U	388	ug/kg	117	388
82-68-8	Pentachloronitrobenzene	U	388	ug/kg	117	388
23950-58-5	Pronamide	U	388	ug/kg	117	388
56-57-5	4-Nitroquinoline-1-oxide	U	388	ug/kg	117	388
91-80-5	Methapyrilene	U	388	ug/kg	117	388
465-73-6	Isodrin	U	388	ug/kg	77.7	388
140-57-8	Aramite	U	388	ug/kg	117	388
143-50-0	Kepone	U	388	ug/kg	117	388
60-11-7	p-(Dimethylamino)azobenzene	U	388	ug/kg	117	388
510-15-6	Chlorobenzilate	U	388	ug/kg	117	388
119-93-7	3,3'-Dimethylbenzidine	U	388	ug/kg	117	388
53-96-3	2-Acetylaminofluorene	U	388	ug/kg	117	388

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 08:15	Matrix:	SOIL
Lab Sample ID:	1205690504	Date Received:	03/30/2024 09:30	%Moisture:	14.5
Client Sample:	QC for batch 2589781	Client:	PERM001	Project:	PERM00224
Client ID:	Y403780-01MS	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 15:01	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	30.11 g	Final Volume:	1 mL
Data File:	S040224\s1D0215.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine		918	ug/kg	117	388
57-97-6	7,12-Dimethylbenz(a)anthracene	U	388	ug/kg	117	388
56-49-5	3-Methylcholanthrene	U	388	ug/kg	117	388
126-68-1	Triethylphosphorothioate	U	388	ug/kg	117	388
297-97-2	Thionazin	U	388	ug/kg	117	388
126-73-8	Tributylphosphate		1120	ug/kg	117	388
3689-24-5	Sulfotepp	U	388	ug/kg	117	388
298-02-2	Phorate	U	388	ug/kg	117	388
60-51-5	Dimethoate	U	388	ug/kg	117	388
298-04-4	Disulfoton	J	228	ug/kg	117	388
298-00-0	Methyl parathion	U	388	ug/kg	117	388
56-38-2	Parathion	U	388	ug/kg	117	388
52-85-7	Famphur	U	388	ug/kg	117	388
106-50-3	p-Phenylenediamine	U	19400	ug/kg	3880	19400
70-30-4	Hexachlorophene	U	19400	ug/kg	4510	19400
120-82-1	1,2,4-Trichlorobenzene		770	ug/kg	117	388

LL
04/03/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0215.D
Acq On : 02 Apr 2024 15:01
Operator : LL2
InstName : MSD1
Sample : |1205690504|2589785|1|SVM|1|MS|||
Misc : |MSD827E4_S|SOIL|QC A|mix[a,b,j,d,e]||
ALS Vial : 12 Sample Multiplier: 1

RB
04/04/2024

Quant Time: Apr 03 07:59:09 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	121140	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	454083	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	249555	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.742	8.741	1.000	494500	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.245	11.245	1.000	509496	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.614	13.625	1.000	535747	40.00	ng/uL	-0.01
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	121140	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	477110	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	249555	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.742	8.741	1.000	494500	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.245	11.245	1.000	509496	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.614	13.625	1.000	535747	40.00	ng/uL	-0.01
152) J Naphthalene-d8	136	5.714	5.714	1.000	477110	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.742	8.741	1.000	494500	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.245	11.245	1.000	509496	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	477110	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	249555	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.742	8.741	1.000	494500	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.245	11.245	1.000	509496	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	477110	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.614	13.625	1.000	535747	40.00	ng/uL	-0.01

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.992	2.986	0.695	147013	35.74	ng/uL	0.00
8) Phenol-d5	99	3.874	3.874	0.901	219306	40.72	ng/uL	0.00
23) Nitrobenzene-d5	82	4.912	4.917	0.860	94617	18.82	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.800	6.805	0.914	181980	19.44	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.137	8.137	1.094	69212	47.21	ng/uL	0.00
79) p-Terphenyl-d14	244	10.079	10.084	1.153	314609	26.02	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	30 - 108	36%
8) Phenol-d5	100.000	29 - 116	41%
23) Nitrobenzene-d5	50.000	28 - 110	38%
44) 2-Fluorobiphenyl	50.000	26 - 118	39%
63) 2,4,6-Tribromophenol	100.000	26 - 128	47%
79) p-Terphenyl-d14	50.000	26 - 130	52%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
3) N-Methyl-N-nitrosometh...	74	1.949	1.960	0.453	53728	19.27	ng/uL	99
4) Pyridine	79	1.997	2.002	0.464	72550	17.22	ng/uL	97
7) Aniline	93	3.944	3.949	0.917	112532	17.55	ng/uL	98
9) Phenol	94	3.885	3.885	0.903	122358	23.35	ng/uL	92
10) bis(2-Chloroethyl) ether	93	4.003	4.003	0.930	89092	20.41	ng/uL	98
11) 2-Chlorophenol	128	4.072	4.078	0.947	89872	21.54	ng/uL	98
12) n-Decane	57	4.104	4.104	0.954	48931	8.22	ng/uL	93
13) 1,3-Dichlorobenzene	146	4.243	4.243	0.986	79597	16.95	ng/uL	97
14) 1,4-Dichlorobenzene	146	4.324	4.324	1.005	77285	16.73	ng/uL	95

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0215.D
Acq On : 02 Apr 2024 15:01
Operator : LL2
InstName : MSD1
Sample : |1205690504|2589785|1|SVM|1|MS|||
Misc : |MSD827E4_S|SOIL|QC A|mix[a,b,j,d,e]||
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 03 07:59:09 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
15) 1,2-Dichlorobenzene	146	4.489	4.489	1.044	81676	17.97	ng/uL	95
16) bis(2-Chloro-1-methyle...	45	4.586	4.580	1.066	157425	20.42	ng/uL	98
17) Benzyl alcohol	108	4.436	4.436	1.031	65303	22.90	ng/uL	92
18) o-Cresol	107	4.548	4.548	1.057	76900	23.21	ng/uL	97
19) m,p-Cresols	108	4.714	4.719	1.096	94408	23.16	ng/uL	87
20) N-Nitrosodipropylamine	70	4.730	4.736	1.099	74667	21.20	ng/uL#	49
21) Hexachloroethane	117	4.869	4.869	1.132	31680	15.63	ng/uL	77
24) Nitrobenzene	77	4.933	4.939	0.863	113670	22.04	ng/uL	98
25) Isophorone	82	5.201	5.206	0.910	211108	22.46	ng/uL	98
26) 2-Nitrophenol	139	5.292	5.297	0.926	45950	25.92	ng/uL	95
27) 2,4-Dimethylphenol	122	5.329	5.329	0.933	46955	16.02	ng/uL	94
28) bis(2-Chloroethoxy)met...	93	5.441	5.442	0.952	127388	22.18	ng/uL	97
29) 2,4-Dichlorophenol	162	5.554	5.554	0.972	91126	24.16	ng/uL	97
30) Benzoic acid	105	5.404	5.409	0.946	115549	42.15	ng/uL	98
31) 1,2,4-Trichlorobenzene	180	5.650	5.650	0.989	82815	19.83	ng/uL	97
32) alpha-Terpineol	59	5.741	5.741	1.005	101893	22.57	ng/uL	97
33) Naphthalene	128	5.736	5.741	1.004	241931	21.71	ng/uL	99
34) 4-Chloroaniline	127	5.789	5.789	1.013	102759	21.28	ng/uL	92
35) Hexachlorobutadiene	225	5.864	5.864	1.026	51144	19.04	ng/uL	98
36) 4-Chloro-3-methylphenol	107	6.286	6.281	1.100	104337	26.36	ng/uL	99
37) 2-Methylnaphthalene	142	6.447	6.447	1.128	178050	22.02	ng/uL	99
38) 1-Methylnaphthalene	142	6.543	6.549	1.145	172496	23.63	ng/uL	97
40) Hexachlorocyclopentadiene	237	6.597	6.602	0.887	24212	9.44	ng/uL	92
41) 2,3-Dichloroaniline	161	6.720	6.720	0.904	111741	24.63	ng/uL	96
42) 2,4,6-Trichlorophenol	196	6.720	6.720	0.904	74174	24.71	ng/uL	91
43) 2,4,5-Trichlorophenol	196	6.752	6.752	0.908	83305	28.10	ng/uL	99
45) 2-Chloronaphthalene	162	6.918	6.923	0.930	189569	23.64	ng/uL	95
46) o-Nitroaniline	65	7.009	7.014	0.942	78367	27.51	ng/uL	95
48) m-Nitroaniline	138	7.388	7.394	0.994	51702	24.79	ng/uL	91
49) Dimethylphthalate	163	7.174	7.180	0.965	258443	27.84	ng/uL	99
51) 2,6-Dinitrotoluene	165	7.233	7.239	0.973	50525	27.55	ng/uL	99
52) 2,4-Dinitrotoluene	165	7.597	7.602	1.022	71481	29.71	ng/uL	95
53) Acenaphthylene	152	7.308	7.308	0.983	275792	23.43	ng/uL	97
54) Acenaphthene	153	7.463	7.469	1.004	194984	24.27	ng/uL	99
55) 2,4-Dinitrophenol	184	7.485	7.485	1.006	21144	32.30	ng/uL	99
56) Dibenzofuran	168	7.618	7.624	1.024	276891	26.37	ng/uL	99
57) 2,3,4,6-Tetrachlorophenol	232	7.725	7.725	1.039	67890	26.86	ng/uL	97
58) Diethylphthalate	149	7.805	7.811	1.050	277305	27.64	ng/uL	98
59) 4-Nitrophenol	109	7.533	7.533	1.013	46598	29.99	ng/uL	96
60) Fluorene	166	7.923	7.929	1.065	226312	25.60	ng/uL	99
61) 4-Chlorophenylphenylether	204	7.918	7.918	1.065	121674	26.98	ng/uL	97
62) p-Nitroaniline	138	7.934	7.934	1.067	58336	29.21	ng/uL	95
65) 2-Methyl-4,6-dinitroph...	198	7.955	7.961	0.910	31517	30.50	ng/uL	98
66) Diphenylamine	169	8.019	8.020	0.917	208873	27.11	ng/uL	99
67) 1,2-Diphenylhydrazine	77	8.057	8.062	0.922	279162	27.30	ng/uL	99
68) 4-Bromophenylphenylether	248	8.346	8.346	0.955	76391	26.01	ng/uL	88
69) Hexachlorobenzene	284	8.405	8.405	0.961	89347	28.99	ng/uL	98
70) Pentachlorophenol	266	8.570	8.570	0.980	59963	29.63	ng/uL	98
71) n-Octadecane	57	8.608	8.608	0.985	222539	26.71	ng/uL	98

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0215.D
Acq On : 02 Apr 2024 15:01
Operator : LL2
InstName : MSD1
Sample : |1205690504|2589785|1|SVM|1|MS|||
Misc : |MSD827E4_S|SOIL|QC A|mix[a,b,j,d,e]||
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 03 07:59:09 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

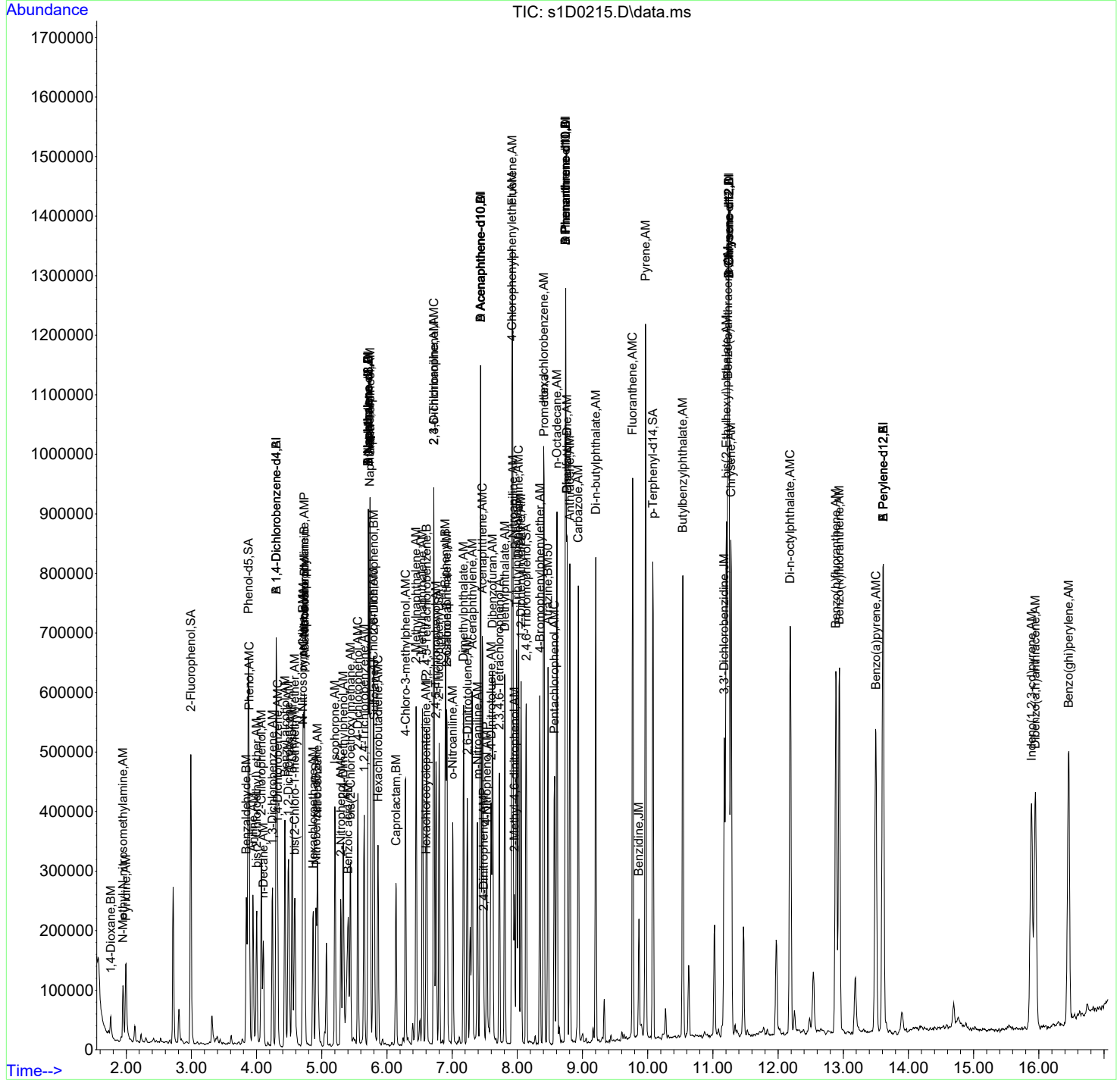
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
73) Phenanthrene	178	8.763	8.763	1.002	359864	28.58	ng/uL 98
74) Anthracene	178	8.806	8.806	1.007	349074	26.92	ng/uL 99
75) Carbazole	167	8.934	8.940	1.022	352438	26.51	ng/uL 100
76) Di-n-butylphthalate	149	9.201	9.207	1.053	478740	29.40	ng/uL 100
77) Fluoranthene	202	9.768	9.774	1.117	448101	28.32	ng/uL 97
78) Pyrene	202	9.966	9.972	1.140	457386	28.95	ng/uL 97
81) Butylbenzylphthalate	149	10.539	10.544	0.937	235007	31.14	ng/uL 95
82) bis(2-Ethylhexyl)phtha...	149	11.207	11.213	0.997	343598	30.58	ng/uL 100
83) Benzo(a)anthracene	228	11.229	11.234	0.999	441417	28.46	ng/uL 99
84) Chrysene	228	11.277	11.282	1.003	418296	29.33	ng/uL 97
87) Di-n-octylphthalate	149	12.186	12.192	1.084	572468	29.49	ng/uL 100
89) Benzo(b)fluoranthene	252	12.887	12.898	0.947	450427	29.02	ng/uL 99
90) Benzo(k)fluoranthene	252	12.940	12.951	0.950	418791	28.57	ng/uL 97
91) Benzo(a)pyrene	252	13.502	13.507	0.992	384646	26.40	ng/uL 98
92) Indeno(1,2,3-cd)pyrene	276	15.887	15.898	1.167	373212	25.74	ng/uL 94
93) Dibenzo(a,h)anthracene	278	15.946	15.962	1.171	352990	26.25	ng/uL 99
94) Benzo(ghi)perylene	276	16.460	16.470	1.209	376806	27.81	ng/uL 99
97) 1,4-Dioxane	88	1.762	1.767	0.409	17048	10.33	ng/uL 74
106) Benzaldehyde	77	3.842	3.847	0.893	67140	17.37	ng/uL 96
108) N-Nitrosopyrrolidine	100	4.709	4.709	1.094	40777	21.00	ng/uL 85
109) Acetophenone	105	4.735	4.741	1.101	134813	22.00	ng/uL 98
110) N-Nitrosomorpholine	56	4.730	4.757	1.099	7860	3.02	ng/uL# 56
115) 2,6-Dichlorophenol	162	5.800	5.800	1.015	81469	22.57	ng/uL 95
117) Caprolactam	113	6.142	6.137	1.075	26023	24.54	ng/uL# 82
121) 1,2,4,5-Tetrachloroben...	216	6.607	6.613	0.889	105342	23.79	ng/uL 100
122) 1,1-Biphenyl	154	6.896	6.902	0.927	236998	26.27	ng/uL 97
123) Isosafrole	162	6.918	6.864	0.930	189104	54.03	ng/uL# 25
129) Tributylphosphate	99	7.987	7.987	1.074	343926	28.79	ng/uL 99
136) Atrazine	200	8.469	8.474	0.969	86221	31.57	ng/uL 98
153) Sulfolane	56	5.805	5.810	1.016	47717	24.47	ng/uL 95
155) Prometon	210	8.410	8.415	0.962	67715	27.32	ng/uL 98
156) Benzidine	184	9.865	9.870	1.128	88604	8.59	ng/uL 98
159) 3,3'-Dichlorobenzidine	252	11.175	11.180	0.994	146311	23.64	ng/uL 99
168) Disulfoton	88	8.763	8.720	1.002	34659	5.88	ng/uL# 29

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDCHEM\1\Data\S040224\  
Data File : s1D0215.D  
Acq On    : 02 Apr 2024 15:01  
Operator  : LL2  
InstName  : MSD1  
Sample    : |1205690504|2589785|1|SVM|1|MS||  
Misc      : |MSD827E4_S|SOIL|QC A|mix[a,b,j,d,e]||  
ALS Vial  : 12 Sample Multiplier: 1
```

Quant Time: Apr 03 07:59:09 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 08:15	Matrix:	SOIL
Lab Sample ID:	1205690505	Date Received:	03/30/2024 09:30	%Moisture:	14.5
Client Sample:	QC for batch 2589781	Client:	PERM001	Project:	PERM00224
Client ID:	Y403780-01MSD	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 15:23	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	30.47 g	Final Volume:	1 mL
Data File:	S040224\1D0216.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		893	ug/kg	115	384
110-86-1	Pyridine		735	ug/kg	115	384
62-53-3	Aniline		810	ug/kg	115	384
108-95-2	Phenol		1070	ug/kg	115	384
111-44-4	bis(2-Chloroethyl) ether		921	ug/kg	115	384
95-57-8	2-Chlorophenol		1010	ug/kg	115	384
541-73-1	1,3-Dichlorobenzene		769	ug/kg	115	384
106-46-7	1,4-Dichlorobenzene		734	ug/kg	115	384
95-50-1	1,2-Dichlorobenzene		770	ug/kg	115	384
108-60-1	bis(2-Chloro-1-methylethyl)ether		857	ug/kg	115	384
100-51-6	Benzyl alcohol		1030	ug/kg	115	384
95-48-7	o-Cresol		1020	ug/kg	115	384
65794-96-9	m,p-Cresols		1040	ug/kg	115	384
621-64-7	N-Nitrosodipropylamine		972	ug/kg	115	384
67-72-1	Hexachloroethane		701	ug/kg	115	384
98-95-3	Nitrobenzene		980	ug/kg	115	384
78-59-1	Isophorone		1000	ug/kg	115	384
88-75-5	2-Nitrophenol		1090	ug/kg	115	384
105-67-9	2,4-Dimethylphenol		684	ug/kg	115	384
111-91-1	bis(2-Chloroethoxy)methane		1040	ug/kg	115	384
120-83-2	2,4-Dichlorophenol		1090	ug/kg	115	384
65-85-0	Benzoic acid		1240	ug/kg	192	768
106-47-8	4-Chloroaniline		974	ug/kg	115	384
87-68-3	Hexachlorobutadiene		806	ug/kg	115	384
59-50-7	4-Chloro-3-methylphenol		1240	ug/kg	154	384
91-57-6	2-Methylnaphthalene		936	ug/kg	11.5	38.4
91-20-3	Naphthalene		932	ug/kg	11.5	38.4
90-12-0	1-Methylnaphthalene		1030	ug/kg	11.5	38.4
77-47-4	Hexachlorocyclopentadiene		407	ug/kg	115	384
88-06-2	2,4,6-Trichlorophenol		1230	ug/kg	115	384
95-95-4	2,4,5-Trichlorophenol		1320	ug/kg	115	384
91-58-7	2-Chloronaphthalene		1000	ug/kg	11.5	38.4
88-74-4	o-Nitroaniline		1300	ug/kg	127	384
99-09-2	m-Nitroaniline		1250	ug/kg	115	384
131-11-3	Dimethylphthalate		1260	ug/kg	11.5	38.4
99-65-0	m-Dinitrobenzene	U	384	ug/kg	115	384
606-20-2	2,6-Dinitrotoluene		1230	ug/kg	115	384
121-14-2	2,4-Dinitrotoluene		1410	ug/kg	115	384

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 08:15	Matrix:	SOIL
Lab Sample ID:	1205690505	Date Received:	03/30/2024 09:30	%Moisture:	14.5
Client Sample:	QC for batch 2589781	Client:	PERM001	Project:	PERM00224
Client ID:	Y403780-01MSD	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 15:23	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	30.47 g	Final Volume:	1 mL
Data File:	S040224\1D0216.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene		1050	ug/kg	11.5	38.4
83-32-9	Acenaphthene		1090	ug/kg	11.5	38.4
51-28-5	2,4-Dinitrophenol		1070	ug/kg	115	768
132-64-9	Dibenzofuran		1180	ug/kg	115	384
58-90-2	2,3,4,6-Tetrachlorophenol		1190	ug/kg	115	384
84-66-2	Diethylphthalate		1280	ug/kg	11.5	38.4
100-02-7	4-Nitrophenol		1380	ug/kg	115	384
86-73-7	Fluorene		1170	ug/kg	11.5	38.4
7005-72-3	4-Chlorophenylphenylether		1270	ug/kg	115	384
100-01-6	p-Nitroaniline		1280	ug/kg	115	384
534-52-1	2-Methyl-4,6-dinitrophenol		1260	ug/kg	115	384
122-39-4	Diphenylamine		1240	ug/kg	115	384
122-66-7	1,2-Diphenylhydrazine		1210	ug/kg	115	384
101-55-3	4-Bromophenylphenylether		1200	ug/kg	115	384
118-74-1	Hexachlorobenzene		1200	ug/kg	115	384
87-86-5	Pentachlorophenol		1250	ug/kg	115	384
88-85-7	Dinoseb	U	384	ug/kg	115	384
85-01-8	Phenanthrene		1270	ug/kg	11.5	38.4
120-12-7	Anthracene		1250	ug/kg	11.5	38.4
86-74-8	Carbazole		1210	ug/kg	11.5	38.4
84-74-2	Di-n-butylphthalate		1310	ug/kg	11.5	38.4
206-44-0	Fluoranthene		1260	ug/kg	11.5	38.4
129-00-0	Pyrene		1320	ug/kg	11.5	38.4
85-68-7	Butylbenzylphthalate		1360	ug/kg	11.5	38.4
117-81-7	bis(2-Ethylhexyl)phthalate		1330	ug/kg	11.5	38.4
56-55-3	Benzo(a)anthracene		1270	ug/kg	11.5	38.4
218-01-9	Chrysene		1320	ug/kg	11.5	38.4
72-43-5	Methoxychlor	U	384	ug/kg	115	384
117-84-0	Di-n-octylphthalate		1300	ug/kg	11.5	38.4
205-99-2	Benzo(b)fluoranthene		1310	ug/kg	11.5	38.4
207-08-9	Benzo(k)fluoranthene		1210	ug/kg	11.5	38.4
50-32-8	Benzo(a)pyrene		1220	ug/kg	11.5	38.4
193-39-5	Indeno(1,2,3-cd)pyrene		1190	ug/kg	11.5	38.4
53-70-3	Dibenzo(a,h)anthracene		1180	ug/kg	11.5	38.4
191-24-2	Benzo(ghi)perylene		1250	ug/kg	11.5	38.4
123-91-1	1,4-Dioxane		462	ug/kg	115	384
80-62-6	Methyl methacrylate	U	384	ug/kg	115	384
97-63-2	Ethyl methacrylate	U	384	ug/kg	115	384

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 08:15	Matrix:	SOIL
Lab Sample ID:	1205690505	Date Received:	03/30/2024 09:30	%Moisture:	14.5
Client Sample:	QC for batch 2589781	Client:	PERM001	Project:	PERM00224
Client ID:	Y403780-01MSD	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 15:23	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	30.47 g	Final Volume:	1 mL
Data File:	S040224\1D0216.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	384	ug/kg	115	384
10595-95-6	N-Nitrosomethylethylamine	U	384	ug/kg	115	384
66-27-3	Methyl methanesulfonate	U	384	ug/kg	115	384
55-18-5	N-Nitrosodiethylamine	U	384	ug/kg	115	384
62-50-0	Ethyl Methanesulfonate	U	384	ug/kg	115	384
76-01-7	Pentachloroethane	U	384	ug/kg	115	384
930-55-2	N-Nitrosopyrrolidine		945	ug/kg	115	384
98-86-2	Acetophenone		984	ug/kg	115	384
59-89-2	N-Nitrosomorpholine	U	384	ug/kg	115	384
95-53-4	o-Toluidine	U	384	ug/kg	115	384
100-75-4	N-Nitrosopiperidine	U	384	ug/kg	115	384
122-09-8	a,a-Dimethylphenethylamine	U	384	ug/kg	134	384
87-65-0	2,6-Dichlorophenol		1020	ug/kg	115	384
1888-71-7	Hexachloropropene	U	384	ug/kg	115	384
924-16-3	N-Nitrosodi-n-butylamine	U	384	ug/kg	115	384
94-59-7	Safrole	U	384	ug/kg	115	384
95-94-3	1,2,4,5-Tetrachlorobenzene		1040	ug/kg	115	384
120-58-1	Isosafrole		2280	ug/kg	115	384
130-15-4	1,4-Naphthoquinone	U	384	ug/kg	115	384
608-93-5	Pentachlorobenzene	U	384	ug/kg	115	384
134-32-7	1-Naphthylamine	U	384	ug/kg	115	384
91-59-8	2-Naphthylamine	U	384	ug/kg	115	384
99-55-8	5-Nitro-o-toluidine	U	384	ug/kg	115	384
62-44-2	Phenacetin	U	384	ug/kg	115	384
99-35-4	1,3,5-Trinitrobenzene	U	384	ug/kg	115	384
2303-16-4	Diallate	U	384	ug/kg	115	384
92-67-1	4-Aminobiphenyl	U	384	ug/kg	115	384
82-68-8	Pentachloronitrobenzene	U	384	ug/kg	115	384
23950-58-5	Pronamide	U	384	ug/kg	115	384
56-57-5	4-Nitroquinoline-1-oxide	U	384	ug/kg	115	384
91-80-5	Methapyrilene	U	384	ug/kg	115	384
465-73-6	Isodrin	U	384	ug/kg	76.8	384
140-57-8	Aramite	U	384	ug/kg	115	384
143-50-0	Kepone	U	384	ug/kg	115	384
60-11-7	p-(Dimethylamino)azobenzene	U	384	ug/kg	115	384
510-15-6	Chlorobenzilate	U	384	ug/kg	115	384
119-93-7	3,3'-Dimethylbenzidine	U	384	ug/kg	115	384
53-96-3	2-Acetylaminofluorene	U	384	ug/kg	115	384

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660771	Date Collected:	03/28/2024 08:15	Matrix:	SOIL
Lab Sample ID:	1205690505	Date Received:	03/30/2024 09:30	%Moisture:	14.5
Client Sample:	QC for batch 2589781	Client:	PERM001	Project:	PERM00224
Client ID:	Y403780-01MSD	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2589785	Inst:	MSD1.I	Dilution:	1
Run Date:	04/02/2024 15:23	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/02/2024 07:52	Aliquot:	30.47 g	Final Volume:	1 mL
Data File:	S040224\s1D0216.D	Column:	Description: DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine		1150	ug/kg	115	384
57-97-6	7,12-Dimethylbenz(a)anthracene	U	384	ug/kg	115	384
56-49-5	3-Methylcholanthrene	U	384	ug/kg	115	384
126-68-1	Triethylphosphorothioate	U	384	ug/kg	115	384
297-97-2	Thionazin	U	384	ug/kg	115	384
126-73-8	Tributylphosphate		1330	ug/kg	115	384
3689-24-5	Sulfotepp	U	384	ug/kg	115	384
298-02-2	Phorate	U	384	ug/kg	115	384
60-51-5	Dimethoate	U	384	ug/kg	115	384
298-04-4	Disulfoton	J	262	ug/kg	115	384
298-00-0	Methyl parathion	U	384	ug/kg	115	384
56-38-2	Parathion	U	384	ug/kg	115	384
52-85-7	Famphur	U	384	ug/kg	115	384
106-50-3	p-Phenylenediamine	U	19200	ug/kg	3840	19200
70-30-4	Hexachlorophene	U	19200	ug/kg	4450	19200
120-82-1	1,2,4-Trichlorobenzene		881	ug/kg	115	384

04/03/2024

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0216.D
Acq On : 02 Apr 2024 15:23
Operator : LL2
InstName : MSD1
Sample : |1205690505|2589785|1|SVM|1|MSD|||
Misc : |MSD827E4_S|SOIL|QC A|mix[a,b,j,d,e]||
ALS Vial : 13 Sample Multiplier: 1

04/04/2024

Quant Time: Apr 03 07:59:33 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	115138	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.714	5.714	1.000	429926	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.436	7.436	1.000	232121	40.00	ng/uL	0.00
64) A Phenanthrene-d10	188	8.742	8.741	1.000	473443	40.00	ng/uL	0.00
80) A Chrysene-d12	240	11.245	11.245	1.000	492313	40.00	ng/uL	0.00
88) A Perylene-d12	264	13.614	13.625	1.000	550168	40.00	ng/uL	-0.01
96) B 1,4-Dichlorobenzene-d4	152	4.302	4.302	1.000	115138	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.714	5.714	1.000	451819	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.436	7.436	1.000	232121	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.742	8.741	1.000	473443	40.00	ng/uL	0.00
143) B Chrysene-d12	240	11.245	11.245	1.000	492313	40.00	ng/uL	0.00
149) B Perylene-d12	264	13.614	13.625	1.000	550168	40.00	ng/uL	-0.01
152) J Naphthalene-d8	136	5.714	5.714	1.000	451819	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.742	8.741	1.000	473443	40.00	ng/uL	0.00
157) J Chrysene-d12	240	11.245	11.245	1.000	492313	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.714	5.714	1.000	451819	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.436	7.436	1.000	232121	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.742	8.741	1.000	473443	40.00	ng/uL	0.00
171) D Chrysene-d12	240	11.245	11.245	1.000	492313	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.714	5.714	1.000	451819	40.00	ng/uL	0.00
175) E Perylene-d12	264	13.614	13.625	1.000	550168	40.00	ng/uL	-0.01

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.992	2.986	0.695	164345	42.04	ng/uL	0.00
8) Phenol-d5	99	3.874	3.874	0.901	236809	46.26	ng/uL	0.00
23) Nitrobenzene-d5	82	4.912	4.917	0.860	97935	20.57	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.800	6.805	0.914	184956	21.24	ng/uL	0.00
63) 2,4,6-Tribromophenol	330	8.137	8.137	1.094	72898	53.46	ng/uL	0.00
79) p-Terphenyl-d14	244	10.079	10.084	1.153	332560	28.73	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	30 - 108	42%
8) Phenol-d5	100.000	29 - 116	46%
23) Nitrobenzene-d5	50.000	28 - 110	41%
44) 2-Fluorobiphenyl	50.000	26 - 118	42%
63) 2,4,6-Tribromophenol	100.000	26 - 128	53%
79) p-Terphenyl-d14	50.000	26 - 130	57%

Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
3) N-Methyl-N-nitrosometh...	74	1.949	1.960	0.453	61638	23.26	ng/uL	93
4) Pyridine	79	1.997	2.002	0.464	76665	19.14	ng/uL	96
7) Aniline	93	3.944	3.949	0.917	128552	21.10	ng/uL	94
9) Phenol	94	3.885	3.885	0.903	138660	27.84	ng/uL	95
10) bis(2-Chloroethyl) ether	93	4.003	4.003	0.930	99498	23.99	ng/uL	96
11) 2-Chlorophenol	128	4.072	4.078	0.947	104817	26.43	ng/uL	96
12) n-Decane	57	4.104	4.104	0.954	55779	9.86	ng/uL	97
13) 1,3-Dichlorobenzene	146	4.243	4.243	0.986	89389	20.03	ng/uL	95
14) 1,4-Dichlorobenzene	146	4.318	4.324	1.004	83977	19.13	ng/uL	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0216.D
Acq On : 02 Apr 2024 15:23
Operator : LL2
InstName : MSD1
Sample : |1205690505|2589785|1|SVM|1|MSD|||
Misc : |MSD827E4_S|SOIL|QC A|mix[a,b,j,d,e]||
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 03 07:59:33 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
15) 1,2-Dichlorobenzene	146	4.484	4.489	1.042	86669	20.07	ng/uL	98
16) bis(2-Chloro-1-methyle...	45	4.586	4.580	1.066	163552	22.32	ng/uL	94
17) Benzyl alcohol	108	4.436	4.436	1.031	72783	26.86	ng/uL	95
18) o-Cresol	107	4.548	4.548	1.057	83873	26.64	ng/uL	97
19) m,p-Cresols	108	4.714	4.719	1.096	104959	27.09	ng/uL	89
20) N-Nitrosodipropylamine	70	4.730	4.736	1.099	84806	25.33	ng/uL#	51
21) Hexachloroethane	117	4.864	4.869	1.131	35194	18.27	ng/uL	93
24) Nitrobenzene	77	4.933	4.939	0.863	124698	25.53	ng/uL	97
25) Isophorone	82	5.201	5.206	0.910	231777	26.05	ng/uL	99
26) 2-Nitrophenol	139	5.292	5.297	0.926	47620	28.37	ng/uL	97
27) 2,4-Dimethylphenol	122	5.329	5.329	0.933	49492	17.83	ng/uL	88
28) bis(2-Chloroethoxy)met...	93	5.441	5.442	0.952	146651	26.97	ng/uL	99
29) 2,4-Dichlorophenol	162	5.554	5.554	0.972	101418	28.40	ng/uL	97
30) Benzoic acid	105	5.393	5.409	0.944	77729	32.21	ng/uL	88
31) 1,2,4-Trichlorobenzene	180	5.650	5.650	0.989	90776	22.96	ng/uL	98
32) alpha-Terpineol	59	5.741	5.741	1.005	112400	26.30	ng/uL	99
33) Naphthalene	128	5.736	5.741	1.004	256187	24.28	ng/uL	99
34) 4-Chloroaniline	127	5.789	5.789	1.013	116102	25.39	ng/uL	96
35) Hexachlorobutadiene	225	5.864	5.864	1.026	53429	21.01	ng/uL	95
36) 4-Chloro-3-methylphenol	107	6.287	6.281	1.100	121283	32.37	ng/uL	97
37) 2-Methylnaphthalene	142	6.447	6.447	1.128	186702	24.38	ng/uL	97
38) 1-Methylnaphthalene	142	6.543	6.549	1.145	184664	26.72	ng/uL	98
40) Hexachlorocyclopentadiene	237	6.597	6.602	0.887	25278	10.60	ng/uL	98
41) 2,3-Dichloroaniline	161	6.720	6.720	0.904	121618	28.82	ng/uL	97
42) 2,4,6-Trichlorophenol	196	6.720	6.720	0.904	89223	31.96	ng/uL	92
43) 2,4,5-Trichlorophenol	196	6.757	6.752	0.909	95084	34.48	ng/uL	97
45) 2-Chloronaphthalene	162	6.923	6.923	0.931	194733	26.11	ng/uL	92
46) o-Nitroaniline	65	7.009	7.014	0.942	89552	33.79	ng/uL	93
48) m-Nitroaniline	138	7.388	7.394	0.994	63089	32.52	ng/uL	89
49) Dimethylphthalate	163	7.174	7.180	0.965	283669	32.86	ng/uL	98
51) 2,6-Dinitrotoluene	165	7.233	7.239	0.973	54680	32.05	ng/uL	91
52) 2,4-Dinitrotoluene	165	7.597	7.602	1.022	82312	36.78	ng/uL	94
53) Acenaphthylene	152	7.308	7.308	0.983	298487	27.26	ng/uL	99
54) Acenaphthene	153	7.463	7.469	1.004	212410	28.43	ng/uL	100
55) 2,4-Dinitrophenol	184	7.479	7.485	1.006	15765	27.98	ng/uL	99
56) Dibenzofuran	168	7.618	7.624	1.024	299756	30.70	ng/uL	99
57) 2,3,4,6-Tetrachlorophenol	232	7.725	7.725	1.039	73122	31.10	ng/uL	95
58) Diethylphthalate	149	7.806	7.811	1.050	310358	33.25	ng/uL	98
59) 4-Nitrophenol	109	7.533	7.533	1.013	51852	35.88	ng/uL	99
60) Fluorene	166	7.923	7.929	1.065	249679	30.37	ng/uL	99
61) 4-Chlorophenylphenylether	204	7.918	7.918	1.065	139060	33.15	ng/uL	93
62) p-Nitroaniline	138	7.934	7.934	1.067	61864	33.30	ng/uL	98
65) 2-Methyl-4,6-dinitroph...	198	7.955	7.961	0.910	33093	32.89	ng/uL	92
66) Diphenylamine	169	8.019	8.020	0.917	237646	32.22	ng/uL	100
67) 1,2-Diphenylhydrazine	77	8.057	8.062	0.922	307532	31.41	ng/uL	98
68) 4-Bromophenylphenylether	248	8.346	8.346	0.955	87755	31.20	ng/uL	92
69) Hexachlorobenzene	284	8.405	8.405	0.961	92460	31.34	ng/uL	98
70) Pentachlorophenol	266	8.570	8.570	0.980	63003	32.51	ng/uL	99
71) n-Octadecane	57	8.608	8.608	0.985	230422	28.88	ng/uL	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDCHEM\1\Data\S040224\
Data File : s1D0216.D
Acq On : 02 Apr 2024 15:23
Operator : LL2
InstName : MSD1
Sample : |1205690505|2589785|1|SVM|1|MSD|||
Misc : |MSD827E4_S|SOIL|QC A|mix[a,b,j,d,e]||
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 03 07:59:33 2024
Quant Method : D:\MSDCHEM\1\Data\S040224\MSD1_8270C_8270D_032524.M
Quant Title : BNA01 SubList :
QLast Update : Tue Mar 26 10:15:58 2024
Response via : Initial Calibration
Integrator: RTE

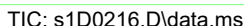
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
73) Phenanthrene	178	8.763	8.763	1.002	399353	33.13	ng/uL 99
74) Anthracene	178	8.806	8.806	1.007	403497	32.50	ng/uL 99
75) Carbazole	167	8.934	8.940	1.022	402654	31.64	ng/uL 99
76) Di-n-butylphthalate	149	9.201	9.207	1.053	531836	34.11	ng/uL 99
77) Fluoranthene	202	9.768	9.774	1.117	498596	32.91	ng/uL 97
78) Pyrene	202	9.966	9.972	1.140	521275	34.46	ng/uL 97
81) Butylbenzylphthalate	149	10.539	10.544	0.937	259180	35.55	ng/uL 98
82) bis(2-Ethylhexyl)phtha...	149	11.207	11.213	0.997	376720	34.69	ng/uL 98
83) Benzo(a)anthracene	228	11.229	11.234	0.999	494664	33.00	ng/uL 99
84) Chrysene	228	11.277	11.282	1.003	473242	34.34	ng/uL 100
87) Di-n-octylphthalate	149	12.186	12.192	1.084	636763	33.95	ng/uL 99
89) Benzo(b)fluoranthene	252	12.892	12.898	0.947	543129	34.07	ng/uL 98
90) Benzo(k)fluoranthene	252	12.940	12.951	0.950	475679	31.60	ng/uL 99
91) Benzo(a)pyrene	252	13.502	13.507	0.992	475624	31.79	ng/uL 96
92) Indeno(1,2,3-cd)pyrene	276	15.893	15.898	1.167	463179	31.11	ng/uL 95
93) Dibenzo(a,h)anthracene	278	15.951	15.962	1.172	425176	30.79	ng/uL 98
94) Benzo(ghi)perylene	276	16.460	16.470	1.209	452487	32.52	ng/uL 99
97) 1,4-Dioxane	88	1.762	1.767	0.409	18906	12.05	ng/uL 87
106) Benzaldehyde	77	3.842	3.847	0.893	69703	18.97	ng/uL 92
108) N-Nitrosopyrrolidine	100	4.709	4.709	1.094	45404	24.61	ng/uL 82
109) Acetophenone	105	4.735	4.741	1.101	149411	25.65	ng/uL 100
115) 2,6-Dichlorophenol	162	5.800	5.800	1.015	90451	26.46	ng/uL 98
117) Caprolactam	113	6.142	6.137	1.075	27284	27.17	ng/uL# 73
121) 1,2,4,5-Tetrachloroben...	216	6.607	6.613	0.889	111355	27.04	ng/uL 97
122) 1,1-Biphenyl	154	6.896	6.902	0.927	260505	31.05	ng/uL 96
123) Isosafrole	162	6.923	6.864	0.931	193285	59.38	ng/uL# 25
129) Tributylphosphate	99	7.987	7.987	1.074	385058	34.66	ng/uL 100
136) Atrazine	200	8.469	8.474	0.969	95917	36.68	ng/uL 97
153) Sulfolane	56	5.805	5.810	1.016	51454	27.86	ng/uL 99
155) Prometon	210	8.410	8.415	0.962	80888	34.08	ng/uL 94
156) Benzidine	184	9.865	9.870	1.128	162721	16.48	ng/uL 99
159) 3,3'-Dichlorobenzidine	252	11.175	11.180	0.994	178642	29.87	ng/uL 96
168) Disulfoton	88	8.763	8.720	1.002	38470	6.82	ng/uL# 20

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

ALS Vial : 13 Sample Multiplier: 1

Integrator: RTE



Miscellaneous

Prep Logbook

Automated Soxhlet Extraction

Batch ID: 2589781
Analyst: Jacob Stewart
Method: SW846 3541

Verified by: _____

Lab SOP: GL-OA-E-066 REV# 9
Instrument: Semi-Volatiles Manual

Sample ID	Prep Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1205690502 MB	02-APR-2024 07:52:00	30.55	1	0.03273
1205690503 LCS	02-APR-2024 07:52:00	30.4	1	0.03289
660751001	02-APR-2024 07:52:00	30.19	1	0.03312
1205690504 MS (660751001)	02-APR-2024 07:52:00	30.11	1	0.03321
1205690505 MSD (660751001)	02-APR-2024 07:52:00	30.47	1	0.03282
660751002	02-APR-2024 07:52:00	30.7	1	0.03257
660771001	02-APR-2024 07:52:00	10.85	1	0.09217
660771002	02-APR-2024 07:52:00	10.35	1	0.09662
660771003	02-APR-2024 07:52:00	10.09	1	0.09911
660771004	02-APR-2024 07:52:00	10.88	1	0.09191
660771005	02-APR-2024 07:52:00	10.24	1	0.09766
660771006	02-APR-2024 07:52:00	10.74	1	0.09311
660771007	02-APR-2024 07:52:00	10.52	1	0.09506
660771008	02-APR-2024 07:52:00	10.35	1	0.09662
660771009	02-APR-2024 07:52:00	10.79	1	0.09268
660771010	02-APR-2024 07:52:00	10.88	1	0.09191
660771011	02-APR-2024 07:52:00	10.87	1	0.092
660771012	02-APR-2024 07:52:00	10.9	1	0.09174
660771013	02-APR-2024 07:52:00	10.29	1	0.09718
660771014	02-APR-2024 07:52:00	10.22	1	0.09785
660771015	02-APR-2024 07:52:00	10.91	1	0.09166
660771016	02-APR-2024 07:52:00	10.2	1	0.09804
660771017	02-APR-2024 07:52:00	10.59	1	0.09443
660771018	02-APR-2024 07:52:00	10.55	1	0.09479

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1205690503	BENZIDINE/Atrazine LCS	WE240102-49	1	mL	Balance #: OPBAL-845
LCS	1205690503	BNALCS Prom/Sulf w/o Benzidine/Atrazine 50ppm	WE240308-42	1	mL	Soxtherm Unit: 11A, 7A, 8A, 9A
MS	1205690504	BENZIDINE/Atrazine LCS	WE240102-49	1	mL	Logbook Reviewer: DS
MS	1205690504	BNALCS Prom/Sulf w/o Benzidine/Atrazine 50ppm	WE240308-42	1	mL	Final Solvent: Methylene Chloride
MSD	1205690505	BENZIDINE/Atrazine LCS	WE240102-49	1	mL	Start Time: 08:05
MSD	1205690505	BNALCS Prom/Sulf w/o Benzidine/Atrazine 50ppm	WE240308-42	1	mL	End Time: 09:08
SURR	All	BNA for all Surrogate	UE230912-15	1	mL	Verified by: DS

Prep Logbook

Batch ID: 2589781

Verified by: _____

Analyst: Jacob Stewart

Lab SOP: GL-OA-E-066 REV# 9

Method: SW846 3541

Instrument: Semi-Volatiles Manual

Sample ID	Prep Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)	
REGNT All	Methylene Chloride		4211387	60	mL
REGNT All	Sand pure 40-100 mesh		4226226-A	30	g
REGNT All	Acetone		4318865-B4	60	mL

ORGANIC RUN LOG - INSTRUMENT ID#MSD1

GEL ORGANIC RUN LOG

03/26/2024

DATE: 25-Mar-24

METHOD: See Data

OPERATOR: LL2

Sequence Number: S032524IC

03/26/2024

Internal Std ID: UBN240111-01.1

Calibration Information:

Initial Calibration Dates: See Calibration History

Initial Calibration Std ID's: See Associated Data and Run Log

GEL SOP: GL-OA-E-009

Solvent Reference ID: 3942960

Analysis		Data File	Lab Sample ID	Client	Batch #	Dil.	AS	Analyst	Comments
Date	Time					Factor	Slot #		
03/25/2024	11:05	s1C2501.D	WBN240308-98	DFTPP	DFTPP	1	1	LL2	
03/25/2024	11:23	s1C2502.D	WBN240312-01.1	M-1	ICAL	1	2	LL2	
03/25/2024	11:48	s1C2503.D	WBN240312-02.1	M-2	ICAL	1	3	LL2	
03/25/2024	12:13	s1C2504.D	WBN240312-03.1	M-3	ICAL	1	4	LL2	
03/25/2024	12:38	s1C2505.D	WBN240312-04.1	M-4	ICAL	1	5	LL2	
03/25/2024	13:04	s1C2506.D	WBN240312-05	M-5	ICAL	1	6	LL2	
03/25/2024	13:29	s1C2507.D	WBN240312-06	M-6	ICAL	1	7	LL2	
03/25/2024	13:54	s1C2508.D	WBN240312-07	M-7	ICAL	1	8	LL2	
03/25/2024	14:19	s1C2509.D	WBN240312-08	M-8	ICAL	1	9	LL2	
03/25/2024	14:44	s1C2510.D	WBN240312-43	M-ICV	ICV	1	10	LL2	
03/25/2024	15:10	s1C2511.D	WBN240201-51.1	APX-2	ICAL	1	11	LL2	
03/25/2024	15:32	s1C2512.D	WBN240201-52	APX-3	ICAL	1	12	LL2	
03/25/2024	15:54	s1C2513.D	WBN240201-53	APX-9	ICAL	1	13	LL2	
03/25/2024	16:17	s1C2514.D	WBN240201-54.1	APX-4	ICAL	1	14	LL2	
03/25/2024	16:39	s1C2515.D	WBN240201-55	APX-5	ICAL	1	15	LL2	
03/25/2024	17:02	s1C2516.D	WBN240201-56	APX-10	ICAL	1	16	LL2	
03/25/2024	17:24	s1C2517.D	WBN240201-57	APX-6	ICAL	1	17	LL2	
03/25/2024	17:47	s1C2518.D	WBN240201-58	APX-7	ICAL	1	18	LL2	
03/25/2024	18:09	s1C2519.D	WBN240201-59	APX-8	ICAL	1	19	LL2	
03/25/2024	18:32	s1C2520.D	WBN240221-20	APX-ICV	ICV	1	20	LL2	
03/25/2024	18:54	s1C2521.D	WBN240227-27.1	P-2	ICAL	1	21	LL2	
03/25/2024	19:14	s1C2522.D	WBN240227-26	P-3	ICAL	1	22	LL2	
03/25/2024	19:34	s1C2523.D	WBN240227-25.1	P-4	ICAL	1	23	LL2	
03/25/2024	19:54	s1C2524.D	WBN240227-24	P-5	ICAL	1	24	LL2	
03/25/2024	20:14	s1C2525.D	WBN240227-23	P-6	ICAL	1	25	LL2	
03/25/2024	20:34	s1C2526.D	WBN240227-22	P-7	ICAL	1	26	LL2	
03/25/2024	20:53	s1C2527.D	WBN240227-21	P-8	ICAL	1	27	LL2	
03/25/2024	21:13	s1C2528.D	WBN240228-26	P-ICV	ICV	1	28	LL2	
03/25/2024	21:33	s1C2529.D	WBN240308-98	DFTPP	DFTPP	1	1	LL2	
03/25/2024	21:50	s1C2530.D	WBN240313-31.1	H-2	ICAL	1	29	LL2	
03/25/2024	22:09	s1C2531.D	WBN240313-32	H-3	ICAL	1	30	LL2	
03/25/2024	22:29	s1C2532.D	WBN240313-33	H-4	ICAL	1	31	LL2	
03/25/2024	22:49	s1C2533.D	WBN240313-34	H-5	ICAL	1	32	LL2	
03/25/2024	23:09	s1C2534.D	WBN240313-35	H-6	ICAL	1	33	LL2	
03/25/2024	23:28	s1C2535.D	WBN240313-37	H-7	ICAL	1	34	LL2	
03/25/2024	23:48	s1C2536.D	WBN240228-38	H-ICV	ICV	1	35	LL2	

ORGANIC RUN LOG - INSTRUMENT ID#MSD1

GEL ORGANIC RUN LOG

04/03/2024

DATE: 2-Apr-24

METHOD: See Data

OPERATOR: LL2

Sequence Number: S040224

04/04/2024

Internal Std ID: UBN240111-01.1

Calibration Information:

Initial Calibration Dates: See Calibration History

Initial Calibration Std ID's: See Associated Data and Run Log

GEL SOP: GL-OA-E-009

Solvent Reference ID: 3942960

Analysis		Data File	Lab Sample ID	Client	Batch #	Dil.	AS	Analyst	Comments
Date	Time					Factor	Slot #		
04/02/2024	05:58	rinse01.D	WBN240304-04.3	M-4	CCV	1	2	LL2	
04/02/2024	09:29	rinse02.D	WBN240304-04.3	M-4	CCV	1	2	LL2	
04/02/2024	09:54	s1D0201.D	WBN240308-98	DFTPP	DFTPP	1	1	LL2	
04/02/2024	10:10	s1D0202.D	WBN240304-04.24	M-4	CCV	1	2	LL2	
04/02/2024	10:35	s1D0203.D	WBN240201-54.10	APX-4	CCV	1	3	LL2	
04/02/2024	10:58	s1D0204.D	WBN240227-25.6	P-4	CCV	1	4	LL2	
04/02/2024	11:18	s1D0205.D	WBN240212-33.4	H-4	CCV	1	5	LL2	
04/02/2024	11:37	s1D0206.D	WBN240329-51.2	APX-2	CCV	1	100	LL2	
04/02/2024	12:00	s1D0207.D	660228001	TNSL	2589265	100	6	LL2	
04/02/2024	12:24	s1D0208.D	instrument blank			1	99	LL2	
04/02/2024	12:46	s1D0209.D	660228001	TNSL	2589265	200	7	LL2	
04/02/2024	13:08	s1D0210.D	instrument blank			1	99	LL2	
04/02/2024	13:31	s1D0211.D	660228001	TNSL	2589265	400	8	LL2	
04/02/2024	13:53	s1D0212.D	1205690502	MB	2589785	1	9	LL2	
04/02/2024	14:16	s1D0213.D	1205690503	LCS	2589785	1	10	LL2	
04/02/2024	14:38	s1D0214.D	660751001	OLAB	2589785	1	11	LL2	
04/02/2024	15:01	s1D0215.D	1205690504	MS	2589785	1	12	LL2	
04/02/2024	15:23	s1D0216.D	1205690505	MSD	2589785	1	13	LL2	
04/02/2024	15:45	s1D0217.D	660751002	OLAB	2589785	1	14	LL2	
04/02/2024	16:08	s1D0218.D	660771001	PERM	2589785	1	15	LL2	
04/02/2024	16:30	s1D0219.D	660771002	PERM	2589785	1	16	LL2	
04/02/2024	16:52	s1D0220.D	660771003	PERM	2589785	1	17	LL2	
04/02/2024	17:15	s1D0221.D	660771004	PERM	2589785	1	18	LL2	
04/02/2024	17:37	s1D0222.D	660771005	PERM	2589785	1	19	LL2	
04/02/2024	18:00	s1D0223.D	660771006	PERM	2589785	1	20	LL2	
04/02/2024	18:22	s1D0224.D	660771007	PERM	2589785	1	21	LL2	
04/02/2024	18:45	s1D0225.D	660771008	PERM	2589785	1	22	LL2	
04/02/2024	19:07	s1D0226.D	660771009	PERM	2589785	1	23	LL2	
04/02/2024	19:30	s1D0227.D	660771010	PERM	2589785	1	24	LL2	
04/02/2024	19:52	s1D0228.D	660771011	PERM	2589785	1	25	LL2	
04/02/2024	20:15	s1D0229.D	660771012	PERM	2589785	1	26	LL2	
04/02/2024	20:37	s1D0230.D	660771013	PERM	2589785	1	27	LL2	
04/02/2024	20:59	s1D0231.D	660771014	PERM	2589785	1	28	LL2	
04/02/2024	21:22	s1D0232.D	660771015	PERM	2589785	1	29	LL2	
04/02/2024	21:44	s1D0233.D	660771016	PERM	2589785	1	30	LL2	
04/02/2024	22:07	s1D0234.D	660771017	PERM	2589785	1	31	LL2	RR- out of tune window
04/02/2024	22:29	s1D0235.D	660771018	PERM	2589785	1	32	LL2	RR- out of tune window

GEL ORGANIC RUN LOG

DATE: 3-Apr-24METHOD: See DataOPERATOR: LL2Sequence Number: S040324Internal Std ID: UBN240111-01.1Solvent Reference ID: 3942960

Calibration Information:

Initial Calibration Dates: See Calibration History

Initial Calibration Std ID's: See Associated Data and Run Log

GEL SOP: GL-OA-E-009

Analysis		Data File	Lab Sample ID	Client	Batch #	Dil.	AS	Analyst	Comments
Date	Time					Factor	Slot #		
04/03/2024	05:23	rinse01.D	WBN240304-04.3	M-4	CCV	1	2	LL2	
04/03/2024	10:06	rinse02.D	WBN240304-04.3	M-4	CCV	1	2	LL2	
04/03/2024	14:34	s1D0301.D	WBN240308-98	DFTPP	DFTPP	1	1	LL2	
04/03/2024	14:50	s1D0302.D	WBN240304-04.24	M-4	CCV	1	2	LL2	
04/03/2024	15:16	s1D0303.D	WBN240201-54.10	APX-4	CCV	1	3	LL2	
04/03/2024	15:38	s1D0304.D	WBN240227-25.6	P-4	CCV	1	4	LL2	
04/03/2024	15:58	s1D0305.D	WBN240212-33.4	H-4	CCV	1	5	LL2	
04/03/2024	16:18	s1D0306.D	660771017	PERM	2589785	1	6	LL2	
04/03/2024	16:41	s1D0307.D	660771018	PERM	2589785	1	7	LL2	
04/03/2024	17:03	s1D0308.D	1205691082	MB	2590097	1	8	LL2	
04/03/2024	17:26	s1D0309.D	1205691083	LCS	2590097	1	9	LL2	
04/03/2024	17:48	s1D0310.D	660208018	GEEL	2590097	1	10	LL2	
04/03/2024	18:11	s1D0311.D	660544001	FRNP	2590097	1	11	LL2	
04/03/2024	18:33	s1D0312.D	1205691084	MS	2590097	1	12	LL2	
04/03/2024	18:55	s1D0313.D	1205691085	MSD	2590097	1	13	LL2	
04/03/2024	19:18	s1D0314.D	660544002	FRNP	2590097	1	14	LL2	
04/03/2024	19:40	s1D0315.D	660546001	UCOR	2590097	1	15	LL2	
04/03/2024	20:03	s1D0316.D	1205691086	MS	2590097	1	16	LL2	
04/03/2024	20:26	s1D0317.D	1205691087	MSD	2590097	1	17	LL2	
04/03/2024	20:48	s1D0318.D	660546002	UCOR	2590097	1	18	LL2	
04/03/2024	21:11	s1D0319.D	660564001	PERM	2590097	1	19	LL2	
04/03/2024	21:33	s1D0320.D	660564002	PERM	2590097	1	20	LL2	
04/03/2024	21:55	s1D0321.D	660564003	PERM	2590097	1	21	LL2	
04/03/2024	22:18	s1D0322.D	660564004	PERM	2590097	1	22	LL2	
04/03/2024	22:40	s1D0323.D	660568001	PERM	2590097	1	23	LL2	
04/03/2024	23:03	s1D0324.D	660568002	PERM	2590097	1	24	LL2	
04/03/2024	23:25	s1D0325.D	660568003	PERM	2590097	1	25	LL2	RR @ 5x - overrange hit
04/03/2024	23:48	s1D0326.D	660568004	PERM	2590097	1	26	LL2	RR neat for possilbe carryover and @ 5x - overrange hit

Metals Analysis

Case Narrative

Metals
Technical Case Narrative
Perma-Fix of Florida
SDG #: 660771

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7471B

Analytical Procedure: GL-MA-E-010 REV# 40

Analytical Batch: 2589726

Preparation Method: SW846 7471B Prep

Preparation Procedure: GL-MA-E-010 REV# 40

Preparation Batch: 2589725

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
660771001	12045.B1.Top Front.EPA
660771002	12045.B1.Middle Front.EPA
660771003	12045.B1.Bottom Front.EPA
660771004	12044.B1.Top Back.EPA
660771005	12044.B1.Middle Back.EPA
660771006	12044.B1.Bottom Back.EPA
660771007	12038.B2.Top Front.EPA
660771008	12038.B2.Middle Front.EPA
660771009	12038.B2.Bottom Front.EPA
660771010	12043.B2.Top Back.EPA
660771011	12043.B2.Middle Back.EPA
660771012	12043.B2.Bottom Back.EPA
660771013	12041.B3.Top Front.EPA
660771014	12041.B3.Middle Front.EPA
660771015	12041.B3.Bottom Front.EPA
660771016	12042.B3.Top Front.EPA
660771017	12042.B3.Middle Back.EPA
660771018	12042.B3.Bottom Back.EPA
1205690433	Method Blank (MB)CVAA
1205690434	Laboratory Control Sample (LCS)
1205690437	660771001(12045.B1.Top Front.EPAL) Serial Dilution (SD)
1205690435	660771001(12045.B1.Top Front.EPAD) Sample Duplicate (DUP)
1205690436	660771001(12045.B1.Top Front.EPAS) Matrix Spike (MS)
1205690438	660771001(12045.B1.Top Front.EPAPS) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Matrix Spike (MS/MSD) Recovery Statement

The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analyte. The post spike recovery was within the required control limits. This verifies the absence of a matrix interference in the post-spike digested sample. The recovery may be attributed to possible sample matrix interference and/or non-homogeneity.

Sample	Analyte	Value
1205690436 (12045.B1.Top Front.EPAMS)	Mercury	172* (80%-120%)

Duplicate Relative Percent Difference (RPD) Statement

The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required reporting limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. Not all the applicable analyte RPD values were within the acceptance criteria.

Sample	Analyte	Value
1205690435 (12045.B1.Top Front.EPADUP)	Mercury	68.6* (0%-20%)

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 660771002 (12045.B1.Middle Front.EPA) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	660771
	002
Mercury	2X

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report for

PERM001 Perma-Fix of Florida

Client SDG: 660771 GEL Work Order: 660771

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N Metals--The Matrix spike sample recovery is not within specified control limits
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: 

Name: Alan Stanley

Date: 02 APR 2024

Title: Analyst II/Team Leader

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660771

METHOD TYPE: SW846

SAMPLE ID: 660771001

CLIENT ID: 12045.B1.Top Front.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 30-MAR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	106	ug/kg		N*	AV	7.28	1	HG6	040224S1-1

*Analytical Methods:

AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660771

METHOD TYPE: SW846

SAMPLE ID: 660771002

CLIENT ID: 12045.B1.Middle Front.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 30-MAR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	1160	ug/kg		N*	AV	14.4	2	HG6	040224S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660771

METHOD TYPE: SW846

SAMPLE ID: 660771003

CLIENT ID: 12045.B1.Bottom Front.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 30-MAR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	174	ug/kg		N*	AV	6.93	1	HG6	040224S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660771

METHOD TYPE: SW846

SAMPLE ID: 660771004

CLIENT ID: 12044.B1.Top Back.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 30-MAR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	395	ug/kg		N*	AV	7.26	1	HG6	040224S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660771

METHOD TYPE: SW846

SAMPLE ID: 660771005

CLIENT ID: 12044.B1.Middle Back.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 30-MAR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	95.5	ug/kg		N*	AV	7.10	1	HG6	040224S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660771

METHOD TYPE: SW846

SAMPLE ID: 660771006

CLIENT ID: 12044.B1.Bottom Back.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 30-MAR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	107	ug/kg		N*	AV	7.79	1	HG6	040224S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660771

METHOD TYPE: SW846

SAMPLE ID: 660771007

CLIENT ID: 12038.B2.Top Front.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 30-MAR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	130	ug/kg		N*	AV	7.18	1	HG6	040224S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660771

METHOD TYPE: SW846

SAMPLE ID: 660771008

CLIENT ID: 12038.B2.Middle Front.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 30-MAR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	397	ug/kg		N*	AV	7.08	1	HG6	040224S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660771

METHOD TYPE: SW846

SAMPLE ID: 660771009

CLIENT ID: 12038.B2.Bottom Front.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 30-MAR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	405	ug/kg		N*	AV	7.10	1	HG6	040224S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660771

METHOD TYPE: SW846

SAMPLE ID: 660771010

CLIENT ID: 12043.B2.Top Back.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 30-MAR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	174	ug/kg		N*	AV	7.64	1	HG6	040224S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660771

METHOD TYPE: SW846

SAMPLE ID: 660771011

CLIENT ID: 12043.B2.Middle Back.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 30-MAR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	124	ug/kg		N*	AV	6.88	1	HG6	040224S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660771

METHOD TYPE: SW846

SAMPLE ID: 660771012

CLIENT ID: 12043.B2.Bottom Back.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 30-MAR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	160	ug/kg		N*	AV	6.98	1	HG6	040224S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660771

METHOD TYPE: SW846

SAMPLE ID: 660771013

CLIENT ID: 12041.B3.Top Front.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 30-MAR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	302	ug/kg		N*	AV	7.03	1	HG6	040224S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660771

METHOD TYPE: SW846

SAMPLE ID: 660771014

CLIENT ID: 12041.B3.Middle Front.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 30-MAR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	264	ug/kg		N*	AV	7.36	1	HG6	040224S1-1

*Analytical Methods:

AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660771

METHOD TYPE: SW846

SAMPLE ID: 660771015

CLIENT ID: 12041.B3.Bottom Front.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 30-MAR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	200	ug/kg		N*	AV	6.91	1	HG6	040224S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660771

METHOD TYPE: SW846

SAMPLE ID: 660771016

CLIENT ID: 12042.B3.Top Front.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 30-MAR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	706	ug/kg		N*	AV	7.10	1	HG6	040224S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660771

METHOD TYPE: SW846

SAMPLE ID: 660771017

CLIENT ID: 12042.B3.Middle Back.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 30-MAR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	74.4	ug/kg		N*	AV	7.53	1	HG6	040224S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660771

METHOD TYPE: SW846

SAMPLE ID: 660771018

CLIENT ID: 12042.B3.Bottom Back.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 30-MAR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	157	ug/kg		N*	AV	7.50	1	HG6	040224S1-1

*Analytical Methods:
AV SW846 7471B

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 660771

Contract: PERM00224

Lab Code: GEL

Instrument ID: HG6

<i>Sample ID</i>	<i>Analyte</i>	<i>Result</i>	<i>Units</i>	<i>True Value</i>	<i>Units</i>	<i>% Recovery</i>	<i>Acceptance Window (%R)</i>	<i>M*</i>	<i>Analysis Date/Time</i>	<i>Run Number</i>
ICV01	Mercury	5.03	ug/L	5	ug/L	100.5	90.0 - 110.0	AV	02-APR-24 09:28	040224S1-1
CCV01	Mercury	5.06	ug/L	5	ug/L	101.2	80.0 - 120.0	AV	02-APR-24 09:33	040224S1-1
CCV02	Mercury	5.28	ug/L	5	ug/L	105.5	80.0 - 120.0	AV	02-APR-24 10:20	040224S1-1
CCV03	Mercury	5.4	ug/L	5	ug/L	108.1	80.0 - 120.0	AV	02-APR-24 10:41	040224S1-1
CCV04	Mercury	5.91	ug/L	5	ug/L	118.1	80.0 - 120.0	AV	02-APR-24 11:01	040224S1-1
CCV05	Mercury	5.62	ug/L	5	ug/L	112.5	80.0 - 120.0	AV	02-APR-24 11:22	040224S1-1

***Analytical Methods:**

AV SW846 7471B

METALS
-2b-
CRDL Standard for ICP & ICPMS

SDG No: 660771

Contract: PERM00224

Lab Code: GEL

Instrument ID: HG6

<i>Sample ID</i>	<i>Analyte</i>	<i>Result</i>	<i>Units</i>	<i>True Value</i>	<i>Units</i>	<i>% Recovery</i>	<i>Advisory Limits (%R)</i>	<i>M*</i>	<i>Analysis Date/Time</i>	<i>Run Number</i>
CRDL01	Mercury	.198	ug/L	.2	ug/L	99	70.0 - 130.0	AV	02-APR-24 09:31	040224S1-1

***Analytical Methods:**

AV

SW846 7471B

SW846

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 660771

Contract: PERM00224

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
ICB01	Mercury	0.067	+/-2	U	0.067	0.2	SOL	AV	02-APR-24 09:30	040224S1-1
CCB01	Mercury	0.067	+/-2	U	0.067	0.2	SOL	AV	02-APR-24 09:35	040224S1-1
CCB02	Mercury	0.067	+/-2	U	0.067	0.2	SOL	AV	02-APR-24 10:22	040224S1-1
CCB03	Mercury	0.067	+/-2	U	0.067	0.2	SOL	AV	02-APR-24 10:42	040224S1-1
CCB04	Mercury	0.067	+/-2	U	0.067	0.2	SOL	AV	02-APR-24 11:03	040224S1-1
CCB05	Mercury	0.067	+/-2	U	0.067	0.2	SOL	AV	02-APR-24 11:24	040224S1-1

*Analytical Methods:

AV **SW846 7471B**

SW846

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 660771
Contract: PERM00224
Matrix: Misc Solid

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Acceptance Window</u>	<u>Conc Qual</u>	<u>M*</u>	<u>MDL</u>	<u>RDL</u>
1205690433	Mercury	8.01	ug/kg	+/-23.9	U	AV	8.01	23.9

*Analytical Methods:
AV SW846 7471B

METALS									
-5a-									
Matrix Spike Summary									
SDG NO.	660771	Client ID:	12045.B1.Top Front.EPAS						
Contract:	PERM00224	Level:	Low						
Matrix:	MISC SOLID	% Solids:							
Sample ID:	660771001	Spike ID:	1205690436						

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M*
Mercury	ug/kg	80-120	471		106		213	172	N	AV

*Analytical Methods:
AV SW846 7471B

METALS

-5a-

Spike Summary

SDG NO. 660771 Client ID: 12045.B1.Top Front.EPAPS

Contract: PERM00224 Level: Low

Matrix: MISC SOLID % Solids:

Sample ID: 660771001 Spike ID: 1205690438

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M*
Mercury	ug/L	80-120	3.07		0.975		2.00	105		AV

*Analytical Methods:
AV SW846 7471B

Metals
-6-
Duplicate Sample Summary

SDG No.: 660771**Lab Code:** GEL**Contract:** PERM00224**Client ID:** 12045.B1.Top Front.EPAD**Matrix:** MISC SOLID**Level:** Low**Sample ID:** 660771001**Duplicate ID:** 1205690435**Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Mercury	ug/kg	+/-21.7	106		217		68.6	*	AV

***Analytical Methods:**

AV SW846 7471B

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 660771
Contract: PERM00224
Aqueous LCS Source:

Solid LCS Source: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M*</u>
1205690434	Mercury	ug/kg	227	249		109	80-120	AV

*Analytical Methods:
AV SW846 7471B

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 660771 Client ID: 12045.B1.Top Front.EPAL

Contract: PERM00224

Matrix: SOLID Level: Low

Sample ID: 660771001 Serial Dilution ID: 1205690437

<u>Analyte</u>	<u>Initial Value ug/L</u>	<u>C</u>	<u>Serial Value ug/L</u>	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M*</u>
Mercury	.975		.865	B	11.282			AV

*Analytical Methods:

AV SW846 7471B

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 660771

Method Type AV

Contract: PERM00224

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 2589725							
1205690433	MB for batch 2589725	MB	m	01-APR-24	.251g	30mL	
1205690434	LCS for batch 2589725	LCS	m	01-APR-24	.264g	30mL	
1205690436	12045.B1.Top Front.EPAS	MS	m	01-APR-24	.282g	30mL	
1205690435	12045.B1.Top Front.EPAD	DUP	m	01-APR-24	.277g	30mL	
660771001	12045.B1.Top Front.EPA	SAMPLE	m	01-APR-24	.276g	30mL	
660771002	12045.B1.Middle Front.EPA	SAMPLE	m	01-APR-24	.28g	30mL	
660771003	12045.B1.Bottom Front.EPA	SAMPLE	m	01-APR-24	.29g	30mL	
660771004	12044.B1.Top Back.EPA	SAMPLE	m	01-APR-24	.277g	30mL	
660771005	12044.B1.Middle Back.EPA	SAMPLE	m	01-APR-24	.283g	30mL	
660771006	12044.B1.Bottom Back.EPA	SAMPLE	m	01-APR-24	.258g	30mL	
660771007	12038.B2.Top Front.EPA	SAMPLE	m	01-APR-24	.28g	30mL	
660771008	12038.B2.Middle Front.EPA	SAMPLE	m	01-APR-24	.284g	30mL	
660771009	12038.B2.Bottom Front.EPA	SAMPLE	m	01-APR-24	.283g	30mL	
660771010	12043.B2.Top Back.EPA	SAMPLE	m	01-APR-24	.263g	30mL	
660771011	12043.B2.Middle Back.EPA	SAMPLE	m	01-APR-24	.292g	30mL	
660771012	12043.B2.Bottom Back.EPA	SAMPLE	m	01-APR-24	.288g	30mL	
660771013	12041.B3.Top Front.EPA	SAMPLE	m	01-APR-24	.286g	30mL	
660771014	12041.B3.Middle Front.EPA	SAMPLE	m	01-APR-24	.273g	30mL	
660771015	12041.B3.Bottom Front.EPA	SAMPLE	m	01-APR-24	.291g	30mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 660771

Method Type: AV

Contract: PERM00224

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
660771016	12042.B3.Top Front.EPA	SAMPLE	m	01-APR-24	.283g	30mL	
660771017	12042.B3.Middle Back.EPA	SAMPLE	m	01-APR-24	.267g	30mL	
660771018	12042.B3.Bottom Back.EPA	SAMPLE	m	01-APR-24	.268g	30mL	

SW846

**Metals
-14-
Analysis Run Log**

Contract: PERM00224**Lab Code :** GEL**Inst Name:** HG6**Start Date:** 02-APR-24**End Date:** 02-APR-24**Client Sdg:** 660771**Instrument Type:**AV**Data File:** 040224S1-1

Samp ID	D/F	Run Time	Hg
S0.0	1	09:18:00	X
S0.2	1	09:19:00	X
S0.5	1	09:21:00	X
S2.0	1	09:23:00	X
S5.0	1	09:25:00	X
S10.0	1	09:26:00	X
ICV01	1	09:28:00	X
ICB01	1	09:30:00	X
CRDL01	1	09:31:00	X
CCV01	1	09:33:00	X
CCB01	1	09:35:00	X
ZZZZZ	1	09:36:00	
ZZZZZ	1	09:38:00	
CCV	1	09:40:00	X
CCB	1	09:42:00	X
ZZZZZ	1	09:43:00	
ZZZZZ	1	09:45:00	
ZZZZZ	1	09:47:00	
ZZZZZ	5	09:48:00	
ZZZZZ	1	09:50:00	
ZZZZZ	1	09:52:00	
ZZZZZ	1	09:53:00	
ZZZZZ	1	09:55:00	
ZZZZZ	1	09:57:00	
ZZZZZ	1	09:58:00	
CCV	1	10:00:00	X
CCB	1	10:02:00	X
ZZZZZ	1	10:04:00	
ZZZZZ	1	10:05:00	
ZZZZZ	1	10:07:00	
ZZZZZ	1	10:09:00	
ZZZZZ	1	10:10:00	
ZZZZZ	1	10:12:00	
ZZZZZ	1	10:14:00	
ZZZZZ	1	10:15:00	
ZZZZZ	1	10:17:00	
ZZZZZ	1	10:19:00	
CCV02	1	10:20:00	X
CCB02	1	10:22:00	X
ZZZZZ	1	10:24:00	
ZZZZZ	1	10:26:00	

**Metals
-14-
Analysis Run Log**

Contract: PERM00224**Lab Code :** GEL**Inst Name:** HG6**Start Date:** 02-APR-24**End Date:** 02-APR-24**Client Sdg:** 660771**Instrument Type:**AV**Data File:** 040224S1-1

Samp ID	D/F	Run Time	Hg
1205690433	1	10:27:00	X
1205690434	1	10:29:00	X
660771001	1	10:31:00	X
1205690435	1	10:32:00	X
1205690436	1	10:34:00	X
1205690437	5	10:36:00	X
1205690438	1	10:37:00	X
ZZZZZ	1	10:39:00	
CCV03	1	10:41:00	X
CCB03	1	10:42:00	X
660771003	1	10:44:00	X
660771004	1	10:46:00	X
660771005	1	10:48:00	X
660771006	1	10:49:00	X
660771007	1	10:51:00	X
660771008	1	10:53:00	X
660771009	1	10:54:00	X
660771010	1	10:56:00	X
660771011	1	10:58:00	X
660771012	1	10:59:00	X
CCV04	1	11:01:00	X
CCB04	1	11:03:00	X
ZZZZZ	10	11:06:00	
ZZZZZ	10	11:07:00	
ZZZZZ	10	11:09:00	
660771002	2	11:11:00	X
660771013	1	11:12:00	X
660771014	1	11:14:00	X
660771015	1	11:16:00	X
660771016	1	11:17:00	X
660771017	1	11:19:00	X
660771018	1	11:21:00	X
CCV05	1	11:22:00	X
CCB05	1	11:24:00	X

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 660771

Contract: PERM00224

Lab Code: GEL

MDL

Hg Effective Date: 01-DEC-19

Instrument(s):

HG6

Verified on:

10-JAN-2024

		<i>Wavelength (nm)</i>	<i>MDL ug/L</i>	<i>RDL ug/L</i>
MERCURY	<i>Analyte</i>			
SOLID	Mercury	253.7	0.067	0.2

Raw Data

=====
Analysis BegunLogged In Analyst: hg6
Spectrometer: FIMS-100, P/N B050-9550Technique: AA FIMS-MHS
Autosampler: S10Sample Information File: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Sample Information\
040224.SIFX

Batch ID:

Results Data Set: 040224S1

Results Library: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Results\Results.mdb

=====
Sequence No.: 1

Autosampler Location: 1

Sample ID: Calib Blank

Date Collected: 4/2/2024 09:16:58

Analyst: JP2

Data Type: Original

Replicate Data: Calib Blank

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1		[0.00]	0.0001	-0.0001	0.0001	09:17:47	Yes
2		[0.00]	0.0001	0.0003	0.0001	09:18:17	Yes

Mean: [0.00] 0.0001

SD: 0.0000 0.0000

%RSD: 0.00% 28.60%

Auto-zero performed.

=====
Sequence No.: 2

Autosampler Location: 2

Sample ID: S0.2

Date Collected: 4/2/2024 09:18:38

Analyst: JP2

Data Type: Original

Replicate Data: S0.2

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1		[0.2]	0.0016	0.0073	0.0017	09:19:28	Yes
2		[0.2]	0.0016	0.0071	0.0017	09:19:59	Yes

Mean: [0.2] 0.0016

SD: 0.000 0.0000

%RSD: 0.00% 0.05%

Standard number 1 applied. [0.2]

Correlation Coef.: 1.000000 Slope: 0.00784 Intercept: 0.00000

=====
Sequence No.: 3

Autosampler Location: 3

Sample ID: S0.5

Date Collected: 4/2/2024 09:20:19

Analyst: JP2

Data Type: Original

Replicate Data: S0.5

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1		[0.5]	0.0042	0.0187	0.0043	09:21:09	Yes
2		[0.5]	0.0042	0.0196	0.0043	09:21:39	Yes

Mean: [0.5] 0.0042

SD: 0.000 0.0000

%RSD: 0.00% 0.36%

Standard number 2 applied. [0.5]

Correlation Coef.: 0.999635 Slope: 0.00836 Intercept: -0.00004

=====
Sequence No.: 4

Autosampler Location: 4

Sample ID: S2.0

Date Collected: 4/2/2024 09:22:00

Analyst: JP2

Data Type: Original

Replicate Data: S2.0

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
------	------------	---------	---------	------	------	------	------

#	µg/L	µg/L	Signal	Area	Height		Stored
1		[2.0]	0.0166	0.0781	0.0167	09:22:51	Yes
2		[2.0]	0.0167	0.0783	0.0168	09:23:21	Yes
Mean:		[2.0]	0.0167				
SD:		0.000	0.0000				
%RSD:		0.00%	0.30%				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999981 Slope: 0.00836 Intercept: -0.00004

Sequence No.: 5 Autosampler Location: 5
Sample ID: S5.0 Date Collected: 4/2/2024 09:23:43
Analyst: JP2 Data Type: Original

Replicate Data: S5.0 Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1		[5.0]	0.0415	0.1949	0.0416	09:24:34	Yes
2		[5.0]	0.0415	0.1950	0.0416	09:25:04	Yes
Mean:		[5.0]	0.0415				
SD:		0.000	0.0001				
%RSD:		0.00%	0.13%				

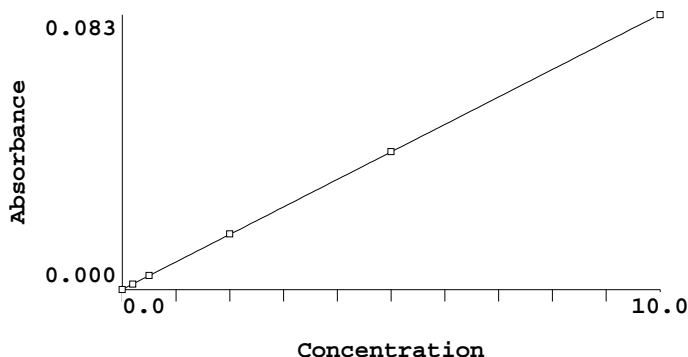
Standard number 4 applied. [5.0]
Correlation Coef.: 0.999994 Slope: 0.00831 Intercept: -0.00001

Sequence No.: 6 Autosampler Location: 6
Sample ID: S10.0 Date Collected: 4/2/2024 09:25:26
Analyst: JP2 Data Type: Original

Replicate Data: S10.0 Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1		[10.0]	0.0826	0.3911	0.0827	09:26:15	Yes
2		[10.0]	0.0829	0.3899	0.0830	09:26:45	Yes
Mean:		[10.0]	0.0828				
SD:		0.000	0.0002				
%RSD:		0.00%	0.20%				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999997 Slope: 0.00828 Intercept: 0.00002



Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. µg/L	Calculated Conc. µg/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.003	0.00	28.60
S0.2	0.0016	0.2	0.187	0.00	0.05
S0.5	0.0042	0.5	0.501	0.00	0.36
S2.0	0.0167	2.0	2.012	0.00	0.30
S5.0	0.0415	5.0	5.010	0.00	0.13
S10.0	0.0828	10.0	9.993	0.00	0.20

Correlation Coef.: 0.999997 Slope: 0.00828 Intercept: 0.00002

Sequence No.: 7
Sample ID: ICV
Analyst: JP2

Autosampler Location: 9
Date Collected: 4/2/2024 09:27:05
Data Type: Original

Replicate Data: ICV

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	5.070	5.070	0.0420	0.1966	0.0421	09:27:56	Yes
2	4.982	4.982	0.0413	0.1951	0.0414	09:28:26	Yes
Mean:	5.026	5.026	0.0416				
SD:	0.0624	0.0624	0.0005				
%RSD:	1.24%	1.24%	1.24%				

QC value within limits for Hg 253.7 Recovery = 100.52%
All analyte(s) passed QC.

Sequence No.: 8
Sample ID: ICB
Analyst: JP2

Autosampler Location: 10
Date Collected: 4/2/2024 09:28:47
Data Type: Original

Replicate Data: ICB

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	-0.009	-0.009	-0.0001	-0.0004	0.0000	09:29:38	Yes
2	-0.008	-0.008	-0.0000	-0.0006	0.0001	09:30:09	Yes
Mean:	-0.009	-0.009	-0.0001				
SD:	0.0009	0.0009	0.0000				
%RSD:	9.81%	9.81%	13.77%				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9
Sample ID: CRDL
Analyst: JP2

Autosampler Location: 11
Date Collected: 4/2/2024 09:30:30
Data Type: Original

Replicate Data: CRDL

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.192	0.192	0.0016	0.0071	0.0017	09:31:21	Yes
2	0.204	0.204	0.0017	0.0081	0.0018	09:31:51	Yes
Mean:	0.198	0.198	0.0017				
SD:	0.0081	0.0081	0.0001				
%RSD:	4.12%	4.12%	4.07%				

QC value within limits for Hg 253.7 Recovery = 98.94%
All analyte(s) passed QC.

Sequence No.: 10
Sample ID: CCV
Analyst: JP2

Autosampler Location: 7
Date Collected: 4/2/2024 09:32:12
Data Type: Original

Replicate Data: CCV

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	5.066	5.066	0.0420	0.2005	0.0421	09:33:02	Yes
2	5.056	5.056	0.0419	0.1996	0.0420	09:33:32	Yes
Mean:	5.061	5.061	0.0419				
SD:	0.0074	0.0074	0.0001				
%RSD:	0.15%	0.15%	0.15%				

QC value within limits for Hg 253.7 Recovery = 101.22%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB

Autosampler Location: 8
Date Collected: 4/2/2024 09:33:53

Analyst: JP2

Data Type: Original

Replicate Data: CCB

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	-0.0000	-0.0000	0.0001	09:34:43	Yes
2	-0.007	-0.007	-0.0000	-0.0003	0.0001	09:35:14	Yes
Mean:	-0.005	-0.005	-0.0000				
SD:	0.0026	0.0026	0.0000				
%RSD:	49.45%	49.45%	93.35%				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12

Autosampler Location: 12

Sample ID: 1205690427|2589721|1

Date Collected: 4/2/2024 09:35:35

Analyst: JP2

Data Type: Original

Replicate Data: 1205690427|2589721|1

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	-0.0000	-0.0000	0.0001	09:36:26	Yes
2	-0.009	-0.009	-0.0001	-0.0005	0.0000	09:36:57	Yes
Mean:	-0.007	-0.007	-0.0000				
SD:	0.0039	0.0039	0.0000				
%RSD:	60.26%	60.26%	97.56%				

Sequence No.: 13

Autosampler Location: 13

Sample ID: 1205690428|2589721|1

Date Collected: 4/2/2024 09:37:19

Analyst: JP2

Data Type: Original

Replicate Data: 1205690428|2589721|1

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.097	2.097	0.0174	0.0821	0.0175	09:38:10	Yes
2	2.114	2.114	0.0175	0.0824	0.0176	09:38:40	Yes
Mean:	2.105	2.105	0.0175				
SD:	0.0117	0.0117	0.0001				
%RSD:	0.56%	0.56%	0.56%				

Sequence No.: 14

Autosampler Location: 7

Sample ID: CCV

Date Collected: 4/2/2024 09:39:02

Analyst: JP2

Data Type: Original

Replicate Data: CCV

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.166	5.166	0.0428	0.2050	0.0429	09:39:52	Yes
2	4.923	4.923	0.0408	0.1845	0.0409	09:40:22	Yes
Mean:	5.045	5.045	0.0418				
SD:	0.1714	0.1714	0.0014				
%RSD:	3.40%	3.40%	3.40%				

QC value within limits for Hg 253.7 Recovery = 100.89%
All analyte(s) passed QC.

Sequence No.: 15

Autosampler Location: 8

Sample ID: CCB

Date Collected: 4/2/2024 09:40:43

Analyst: JP2

Data Type: Original

Replicate Data: CCB

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	-0.0000	-0.0001	0.0001	09:41:33	Yes

SD: 0.0257 0.0257 0.0002
%RSD: 0.78% 0.78% 0.78%

Sequence No.: 34

Sample ID: 660770013|2589721|1

Analyst: JP2

Autosampler Location: 30

Date Collected: 4/2/2024 10:12:54

Data Type: Original

Replicate Data: 660770013|2589721|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	1.367	1.367	0.0113	0.0491	0.0114	10:13:43	Yes
2	1.365	1.365	0.0113	0.0506	0.0114	10:14:13	Yes
Mean:	1.366	1.366	0.0113				
SD:	0.0010	0.0010	0.0000				
%RSD:	0.07%	0.07%	0.07%				

Sequence No.: 35

Sample ID: 660770014|2589721|1

Analyst: JP2

Autosampler Location: 31

Date Collected: 4/2/2024 10:14:35

Data Type: Original

Replicate Data: 660770014|2589721|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	2.096	2.096	0.0174	0.0775	0.0175	10:15:25	Yes
2	2.084	2.084	0.0173	0.0759	0.0174	10:15:55	Yes
Mean:	2.090	2.090	0.0173				
SD:	0.0078	0.0078	0.0001				
%RSD:	0.37%	0.37%	0.37%				

Sequence No.: 36

Sample ID: 660770015|2589721|1

Analyst: JP2

Autosampler Location: 32

Date Collected: 4/2/2024 10:16:16

Data Type: Original

Replicate Data: 660770015|2589721|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	3.225	3.225	0.0267	0.1190	0.0268	10:17:06	Yes
2	3.209	3.209	0.0266	0.1176	0.0267	10:17:36	Yes
Mean:	3.217	3.217	0.0267				
SD:	0.0116	0.0116	0.0001				
%RSD:	0.36%	0.36%	0.36%				

Sequence No.: 37

Sample ID: 660770016|2589721|1

Analyst: JP2

Autosampler Location: 33

Date Collected: 4/2/2024 10:17:57

Data Type: Original

Replicate Data: 660770016|2589721|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	14.83	14.83	0.1228	0.5362	0.1229	10:18:47	Yes
Sample concentration is greater than that of the highest standard.							
2	14.85	14.85	0.1230	0.5468	0.1231	10:19:17	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	14.84	14.84	0.1229				
SD:	0.016	0.016	0.0001				
%RSD:	0.11%	0.11%	0.11%				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 38

Sample ID: CCV

Analyst: JP2

Autosampler Location: 7

Date Collected: 4/2/2024 10:19:38

Data Type: Original

Replicate Data: CCV

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlnkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	5.237	5.237	0.0434	0.1931	0.0435	10:20:27	Yes
2	5.317	5.317	0.0440	0.1943	0.0441	10:20:58	Yes
Mean:	5.277	5.277	0.0437				
SD:	0.0561	0.0561	0.0005				
%RSD:	1.06%	1.06%	1.06%				

QC value within limits for Hg 253.7 Recovery = 105.54%
All analyte(s) passed QC.

Sequence No.: 39

Autosampler Location: 8

Sample ID: CCB

Date Collected: 4/2/2024 10:21:18

Analyst: JP2

Data Type: Original

Replicate Data: CCB

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlnkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.001	0.001	0.0000	0.0004	0.0001	10:22:08	Yes
2	0.004	0.004	0.0001	0.0005	0.0002	10:22:38	Yes
Mean:	0.003	0.003	0.0000				
SD:	0.0020	0.0020	0.0000				
%RSD:	71.85%	71.85%	37.68%				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 40

Autosampler Location: 34

Sample ID: 660770017|2589721|1

Date Collected: 4/2/2024 10:22:59

Analyst: JP2

Data Type: Original

Replicate Data: 660770017|2589721|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlnkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	3.695	3.695	0.0306	0.1351	0.0307	10:23:50	Yes
2	3.697	3.697	0.0306	0.1360	0.0307	10:24:20	Yes
Mean:	3.696	3.696	0.0306				
SD:	0.0017	0.0017	0.0000				
%RSD:	0.05%	0.05%	0.05%				

Sequence No.: 41

Autosampler Location: 35

Sample ID: 660770018|2589721|1

Date Collected: 4/2/2024 10:24:41

Analyst: JP2

Data Type: Original

Replicate Data: 660770018|2589721|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlnkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.985	0.985	0.0082	0.0362	0.0083	10:25:32	Yes
2	0.985	0.985	0.0082	0.0362	0.0083	10:26:02	Yes
Mean:	0.985	0.985	0.0082				
SD:	0.0000	0.0000	0.0000				
%RSD:	0.00%	0.00%	0.00%				

Sequence No.: 42

Autosampler Location: 36

Sample ID: 1205690433|2589726|1

Date Collected: 4/2/2024 10:26:23

Analyst: JP2

Data Type: Original

Replicate Data: 1205690433|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlnkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.027	0.027	0.0002	0.0017	0.0003	10:27:14	Yes
2	0.021	0.021	0.0002	0.0007	0.0003	10:27:44	Yes
Mean:	0.024	0.024	0.0002				

SD: 0.0036 0.0036 0.0000
%RSD: 15.04% 15.04% 13.62%

Sequence No.: 43

Sample ID: 1205690434|2589726|1

Analyst: JP2

Autosampler Location: 37

Date Collected: 4/2/2024 10:28:06

Data Type: Original

Replicate Data: 1205690434|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	2.177	2.177	0.0180	0.0803	0.0181	10:28:57	Yes
2	2.199	2.199	0.0182	0.0798	0.0183	10:29:28	Yes
Mean:	2.188	2.188	0.0181				
SD:	0.0154	0.0154	0.0001				
%RSD:	0.70%	0.70%	0.70%				

Sequence No.: 44

Sample ID: 660771001|2589726|1

Analyst: JP2

Autosampler Location: 38

Date Collected: 4/2/2024 10:29:49

Data Type: Original

Replicate Data: 660771001|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.975	0.975	0.0081	0.0340	0.0082	10:30:39	Yes
2	0.976	0.976	0.0081	0.0361	0.0082	10:31:10	Yes
Mean:	0.975	0.975	0.0081				
SD:	0.0006	0.0006	0.0000				
%RSD:	0.06%	0.06%	0.06%				

Sequence No.: 45

Sample ID: 1205690435|2589726|1

Analyst: JP2

Autosampler Location: 39

Date Collected: 4/2/2024 10:31:30

Data Type: Original

Replicate Data: 1205690435|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	1.962	1.962	0.0163	0.0667	0.0164	10:32:20	Yes
2	2.039	2.039	0.0169	0.0733	0.0170	10:32:51	Yes
Mean:	2.001	2.001	0.0166				
SD:	0.0544	0.0544	0.0005				
%RSD:	2.72%	2.72%	2.71%				

Sequence No.: 46

Sample ID: 1205690436|2589726|1

Analyst: JP2

Autosampler Location: 40

Date Collected: 4/2/2024 10:33:11

Data Type: Original

Replicate Data: 1205690436|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	4.423	4.423	0.0366	0.1586	0.0367	10:34:01	Yes
2	4.430	4.430	0.0367	0.1625	0.0368	10:34:32	Yes
Mean:	4.427	4.427	0.0367				
SD:	0.0051	0.0051	0.0000				
%RSD:	0.12%	0.12%	0.12%				

Sequence No.: 47

Sample ID: 1205690437|2589726|5

Analyst: JP2

Autosampler Location: 41

Date Collected: 4/2/2024 10:34:53

Data Type: Original

Replicate Data: 1205690437|2589726|5

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
------	------------	---------	---------	------	------	------	------

#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.172	0.172	0.0014	0.0067	0.0015	10:35:43	Yes
2	0.174	0.174	0.0015	0.0067	0.0016	10:36:13	Yes
Mean:	0.173	0.173	0.0015				
SD:	0.0010	0.0010	0.0000				
%RSD:	0.59%	0.59%	0.58%				

Sequence No.: 48

Sample ID: 1205690438|2589726|1

Analyst: JP2

Autosampler Location: 42

Date Collected: 4/2/2024 10:36:34

Data Type: Original

Replicate Data: 1205690438|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	3.084	3.084	0.0256	0.1128	0.0257	10:37:24	Yes
2	3.046	3.046	0.0252	0.1111	0.0253	10:37:54	Yes
Mean:	3.065	3.065	0.0254				
SD:	0.0268	0.0268	0.0002				
%RSD:	0.88%	0.88%	0.87%				

Sequence No.: 49

Sample ID: 660771002|2589726|1

Analyst: JP2

Autosampler Location: 43

Date Collected: 4/2/2024 10:38:15

Data Type: Original

Replicate Data: 660771002|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	10.85	10.85	0.0899	0.3963	0.0900	10:39:05	Yes
2	10.80	10.80	0.0894	0.4025	0.0895	10:39:36	Yes
Mean:	10.83	10.83	0.0897				
SD:	0.039	0.039	0.0003				
%RSD:	0.36%	0.36%	0.36%				

Sequence No.: 50

Sample ID: CCV

Analyst: JP2

Autosampler Location: 7

Date Collected: 4/2/2024 10:39:56

Data Type: Original

Replicate Data: CCV

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	5.390	5.390	0.0446	0.2006	0.0447	10:40:46	Yes
2	5.417	5.417	0.0449	0.1998	0.0450	10:41:17	Yes
Mean:	5.403	5.403	0.0448				
SD:	0.0192	0.0192	0.0002				
%RSD:	0.36%	0.36%	0.36%				

QC value within limits for Hg 253.7 Recovery = 108.07%

All analyte(s) passed QC.

Sequence No.: 51

Sample ID: CCB

Analyst: JP2

Autosampler Location: 8

Date Collected: 4/2/2024 10:41:37

Data Type: Original

Replicate Data: CCB

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.007	0.007	0.0001	0.0009	0.0002	10:42:28	Yes
2	0.009	0.009	0.0001	0.0011	0.0002	10:42:58	Yes
Mean:	0.008	0.008	0.0001				
SD:	0.0019	0.0019	0.0000				
%RSD:	24.08%	24.08%	18.35%				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 52

Autosampler Location: 44

Sample ID: 660771003|2589726|1

Date Collected: 4/2/2024 10:43:19

Analyst: JP2

Data Type: Original

Replicate Data: 660771003|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlncCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	1.669	1.669	0.0138	0.0617	0.0139	10:44:10	Yes
2	1.689	1.689	0.0140	0.0629	0.0141	10:44:40	Yes
Mean:	1.679	1.679	0.0139				
SD:	0.0146	0.0146	0.0001				
%RSD:	0.87%	0.87%	0.87%				

Sequence No.: 53

Autosampler Location: 45

Sample ID: 660771004|2589726|1

Date Collected: 4/2/2024 10:45:01

Analyst: JP2

Data Type: Original

Replicate Data: 660771004|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlncCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	3.647	3.647	0.0302	0.1352	0.0303	10:45:51	Yes
2	3.642	3.642	0.0302	0.1353	0.0303	10:46:21	Yes
Mean:	3.645	3.645	0.0302				
SD:	0.0035	0.0035	0.0000				
%RSD:	0.10%	0.10%	0.10%				

Sequence No.: 54

Autosampler Location: 46

Sample ID: 660771005|2589726|1

Date Collected: 4/2/2024 10:46:42

Analyst: JP2

Data Type: Original

Replicate Data: 660771005|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlncCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.901	0.901	0.0075	0.0331	0.0076	10:47:33	Yes
2	0.902	0.902	0.0075	0.0326	0.0076	10:48:03	Yes
Mean:	0.901	0.901	0.0075				
SD:	0.0010	0.0010	0.0000				
%RSD:	0.11%	0.11%	0.11%				

Sequence No.: 55

Autosampler Location: 47

Sample ID: 660771006|2589726|1

Date Collected: 4/2/2024 10:48:25

Analyst: JP2

Data Type: Original

Replicate Data: 660771006|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlncCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.933	0.933	0.0077	0.0342	0.0078	10:49:16	Yes
2	0.913	0.913	0.0076	0.0333	0.0077	10:49:47	Yes
Mean:	0.923	0.923	0.0077				
SD:	0.0136	0.0136	0.0001				
%RSD:	1.48%	1.48%	1.47%				

Sequence No.: 56

Autosampler Location: 48

Sample ID: 660771007|2589726|1

Date Collected: 4/2/2024 10:50:08

Analyst: JP2

Data Type: Original

Replicate Data: 660771007|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlncCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	1.213	1.213	0.0101	0.0446	0.0102	10:50:59	Yes
2	1.220	1.220	0.0101	0.0447	0.0102	10:51:29	Yes

Mean: 1.217 1.217 0.0101
SD: 0.0049 0.0049 0.0000
%RSD: 0.40% 0.40% 0.40%

Sequence No.: 57

Autosampler Location: 49

Sample ID: 660771008|2589726|1

Date Collected: 4/2/2024 10:51:51

Analyst: JP2

Data Type: Original

Replicate Data: 660771008|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	3.730	3.730	0.0309	0.1369	0.0310	10:52:42	Yes
2	3.782	3.782	0.0313	0.1386	0.0314	10:53:12	Yes
Mean:	3.756	3.756	0.0311				
SD:	0.0368	0.0368	0.0003				
%RSD:	0.98%	0.98%	0.98%				

Sequence No.: 58

Autosampler Location: 50

Sample ID: 660771009|2589726|1

Date Collected: 4/2/2024 10:53:34

Analyst: JP2

Data Type: Original

Replicate Data: 660771009|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	3.820	3.820	0.0316	0.1392	0.0318	10:54:24	Yes
2	3.826	3.826	0.0317	0.1398	0.0318	10:54:54	Yes
Mean:	3.823	3.823	0.0317				
SD:	0.0040	0.0040	0.0000				
%RSD:	0.11%	0.11%	0.11%				

Sequence No.: 59

Autosampler Location: 51

Sample ID: 660771010|2589726|1

Date Collected: 4/2/2024 10:55:15

Analyst: JP2

Data Type: Original

Replicate Data: 660771010|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	1.515	1.515	0.0126	0.0555	0.0127	10:56:05	Yes
2	1.530	1.530	0.0127	0.0555	0.0128	10:56:35	Yes
Mean:	1.522	1.522	0.0126				
SD:	0.0101	0.0101	0.0001				
%RSD:	0.66%	0.66%	0.66%				

Sequence No.: 60

Autosampler Location: 52

Sample ID: 660771011|2589726|1

Date Collected: 4/2/2024 10:56:56

Analyst: JP2

Data Type: Original

Replicate Data: 660771011|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	1.208	1.208	0.0100	0.0439	0.0101	10:57:46	Yes
2	1.213	1.213	0.0101	0.0436	0.0102	10:58:17	Yes
Mean:	1.210	1.210	0.0100				
SD:	0.0039	0.0039	0.0000				
%RSD:	0.32%	0.32%	0.32%				

Sequence No.: 61

Autosampler Location: 53

Sample ID: 660771012|2589726|1

Date Collected: 4/2/2024 10:58:37

Analyst: JP2

Data Type: Original

Replicate Data: 660771012|2589726|1

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StndConc µg/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.529	1.529	0.0127	0.0558	0.0128	10:59:28	Yes
2	1.547	1.547	0.0128	0.0557	0.0129	10:59:59	Yes
Mean:	1.538	1.538	0.0128				
SD:	0.0127	0.0127	0.0001				
%RSD:	0.82%	0.82%	0.82%				

Sequence No.: 62

Autosampler Location: 7

Sample ID: CCV

Date Collected: 4/2/2024 11:00:20

Analyst: JP2

Data Type: Original

Replicate Data: CCV

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StndConc µg/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.869	5.869	0.0486	0.2128	0.0487	11:01:10	Yes
2	5.942	5.942	0.0492	0.2149	0.0493	11:01:41	Yes
Mean:	5.905	5.905	0.0489				
SD:	0.0512	0.0512	0.0004				
%RSD:	0.87%	0.87%	0.87%				

QC value within limits for Hg 253.7 Recovery = 118.11%
All analyte(s) passed QC.

Sequence No.: 63

Autosampler Location: 8

Sample ID: CCB

Date Collected: 4/2/2024 11:02:01

Analyst: JP2

Data Type: Original

Replicate Data: CCB

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StndConc µg/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0001	0.0003	0.0002	11:02:51	Yes
2	0.007	0.007	0.0001	0.0002	0.0002	11:03:21	Yes
Mean:	0.006	0.006	0.0001				
SD:	0.0016	0.0016	0.0000				
%RSD:	25.83%	25.83%	18.51%				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.
User canceled analysis.

=====
Analysis BegunLogged In Analyst: hg6
Spectrometer: FIMS-100, P/N B050-9550Technique: AA FIMS-MHS
Autosampler: S10Sample Information File: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Sample Information\
040224.SIFX

Batch ID:

Results Data Set: 040224S1

Results Library: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Results\Results.mdb

=====
Method Loaded

Method Name: SOIL*

Method Last Saved: 4/2/2024 09:18:20

Method Description: 7471A - Hg6

Sequence No.: 1

Autosampler Location: 19

Sample ID: 660770002|2589721|10

Date Collected: 4/2/2024 11:04:39

Analyst: JP2

Data Type: Original

Replicate Data: 660770002|2589721|10

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	1.467	1.467	0.0122	0.0525	0.0123	11:05:29	Yes
2	1.478	1.478	0.0123	0.0523	0.0124	11:06:00	Yes
Mean:	1.473	1.473	0.0122				
SD:	0.0078	0.0078	0.0001				
%RSD:	0.53%	0.53%	0.53%				

Sequence No.: 2

Autosampler Location: 24

Sample ID: 660770007|2589721|10

Date Collected: 4/2/2024 11:06:20

Analyst: JP2

Data Type: Original

Replicate Data: 660770007|2589721|10

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	1.718	1.718	0.0142	0.0618	0.0143	11:07:11	Yes
2	1.736	1.736	0.0144	0.0625	0.0145	11:07:42	Yes
Mean:	1.727	1.727	0.0143				
SD:	0.0123	0.0123	0.0001				
%RSD:	0.71%	0.71%	0.71%				

Sequence No.: 3

Autosampler Location: 33

Sample ID: 660770016|2589721|10

Date Collected: 4/2/2024 11:08:04

Analyst: JP2

Data Type: Original

Replicate Data: 660770016|2589721|10

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	1.492	1.492	0.0124	0.0535	0.0125	11:08:54	Yes
2	1.514	1.514	0.0126	0.0540	0.0127	11:09:24	Yes
Mean:	1.503	1.503	0.0125				
SD:	0.0160	0.0160	0.0001				
%RSD:	1.07%	1.07%	1.07%				

Sequence No.: 4

Autosampler Location: 43

Sample ID: 660771002|2589726|2

Date Collected: 4/2/2024 11:09:45

Analyst: JP2

Data Type: Original

Replicate Data: 660771002|2589726|2

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
------	------------	---------	---------	------	------	------	------

#	µg/L	µg/L	Signal	Area	Height		Stored
1	5.436	5.436	0.0450	0.1954	0.0451	11:10:35	Yes
2	5.432	5.432	0.0450	0.1958	0.0451	11:11:06	Yes
Mean:	5.434	5.434	0.0450				
SD:	0.0031	0.0031	0.0000				
%RSD:	0.06%	0.06%	0.06%				

Sequence No.: 5

Sample ID: 660771013|2589726|1

Analyst: JP2

Autosampler Location: 54

Date Collected: 4/2/2024 11:11:27

Data Type: Original

Replicate Data: 660771013|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	2.851	2.851	0.0236	0.1024	0.0237	11:12:17	Yes
2	2.899	2.899	0.0240	0.1028	0.0241	11:12:47	Yes
Mean:	2.875	2.875	0.0238				
SD:	0.0338	0.0338	0.0003				
%RSD:	1.18%	1.18%	1.17%				

Sequence No.: 6

Sample ID: 660771014|2589726|1

Analyst: JP2

Autosampler Location: 55

Date Collected: 4/2/2024 11:13:08

Data Type: Original

Replicate Data: 660771014|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	2.404	2.404	0.0199	0.0861	0.0200	11:13:58	Yes
2	2.403	2.403	0.0199	0.0866	0.0200	11:14:29	Yes
Mean:	2.403	2.403	0.0199				
SD:	0.0010	0.0010	0.0000				
%RSD:	0.04%	0.04%	0.04%				

Sequence No.: 7

Sample ID: 660771015|2589726|1

Analyst: JP2

Autosampler Location: 56

Date Collected: 4/2/2024 11:14:50

Data Type: Original

Replicate Data: 660771015|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	1.946	1.946	0.0161	0.0689	0.0162	11:15:40	Yes
2	1.938	1.938	0.0161	0.0691	0.0162	11:16:11	Yes
Mean:	1.942	1.942	0.0161				
SD:	0.0055	0.0055	0.0000				
%RSD:	0.29%	0.29%	0.28%				

Sequence No.: 8

Sample ID: 660771016|2589726|1

Analyst: JP2

Autosampler Location: 57

Date Collected: 4/2/2024 11:16:32

Data Type: Original

Replicate Data: 660771016|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	6.709	6.709	0.0556	0.2391	0.0557	11:17:22	Yes
2	6.603	6.603	0.0547	0.2364	0.0548	11:17:52	Yes
Mean:	6.656	6.656	0.0551				
SD:	0.0747	0.0747	0.0006				
%RSD:	1.12%	1.12%	1.12%				

Sequence No.: 9

Sample ID: 660771017|2589726|1

Analyst: JP2

Autosampler Location: 58

Date Collected: 4/2/2024 11:18:13

Data Type: Original

Replicate Data: 660771017|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.663	0.663	0.0055	0.0242	0.0056	11:19:04	Yes
2	0.661	0.661	0.0055	0.0232	0.0056	11:19:34	Yes
Mean:	0.662	0.662	0.0055				
SD:	0.0014	0.0014	0.0000				
%RSD:	0.22%	0.22%	0.22%				

Sequence No.: 10

Autosampler Location: 59

Sample ID: 660771018|2589726|1

Date Collected: 4/2/2024 11:19:55

Analyst: JP2

Data Type: Original

Replicate Data: 660771018|2589726|1

Analyte: Hg 253.7

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	1.406	1.406	0.0117	0.0507	0.0118	11:20:46	Yes
2	1.398	1.398	0.0116	0.0502	0.0117	11:21:16	Yes
Mean:	1.402	1.402	0.0116				
SD:	0.0058	0.0058	0.0000				
%RSD:	0.41%	0.41%	0.41%				

Sequence No.: 11

Autosampler Location: 7

Sample ID: CCV

Date Collected: 4/2/2024 11:21:38

Analyst: JP2

Data Type: Original

Replicate Data: CCV

Analyte: Hg 253.7

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	5.600	5.600	0.0464	0.2000	0.0465	11:22:28	Yes
2	5.647	5.647	0.0468	0.2009	0.0469	11:22:59	Yes
Mean:	5.624	5.624	0.0466				
SD:	0.0333	0.0333	0.0003				
%RSD:	0.59%	0.59%	0.59%				

QC value within limits for Hg 253.7 Recovery = 112.47%
All analyte(s) passed QC.

Sequence No.: 12

Autosampler Location: 8

Sample ID: CCB

Date Collected: 4/2/2024 11:23:19

Analyst: JP2

Data Type: Original

Replicate Data: CCB

Analyte: Hg 253.7

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.016	0.016	0.0002	0.0010	0.0003	11:24:09	Yes
2	0.015	0.015	0.0001	0.0009	0.0002	11:24:39	Yes
Mean:	0.016	0.016	0.0001				
SD:	0.0004	0.0004	0.0000				
%RSD:	2.31%	2.31%	1.99%				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Miscellaneous

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID:	2589725	Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
Analyst:	Jeanne Myburgh	LCS	1205690434	MHGSOILMSSPIKE	WHG240401-14	.3	mL
Method:	SW846 7471B Prep	MS	1205690436	MHGSOILMSSPIKE	WHG240401-14	.3	mL
Lab SOP:	GL-MA-E-010 REV# 40						
Instrument:	BAL-835						

Sample ID	Prep Date	Matrix	Initial Weight (g)	Final Volume (mL)	Hot Block Stop Date (date)	Prep Factor (mL/g)
1205690433 MB	01-APR-2024 13:32:57	Misc Solid	0.251	30	04/01/24 15:30	119.52191
1205690434 LCS	01-APR-2024 13:32:57	Misc Solid	0.264	30	04/01/24 15:30	113.63636
660771001	01-APR-2024 13:32:57	Misc Solid	0.276	30	04/01/24 15:30	108.69565
1205690437 SDILT (660771001)	01-APR-2024 13:32:57	Misc Solid	0.276	30	04/01/24 15:30	108.69565
1205690435 DUP (660771001)	01-APR-2024 13:32:57	Misc Solid	0.277	30	04/01/24 15:30	108.30325
1205690436 MS (660771001)	01-APR-2024 13:32:57	Misc Solid	0.282	30	04/01/24 15:30	106.38298
660771002	01-APR-2024 13:32:57	Misc Solid	0.28	30	04/01/24 15:30	107.14286
660771003	01-APR-2024 13:32:57	Misc Solid	0.29	30	04/01/24 15:30	103.44828
660771004	01-APR-2024 13:32:57	Misc Solid	0.277	30	04/01/24 15:30	108.30325
660771005	01-APR-2024 13:32:57	Misc Solid	0.283	30	04/01/24 15:30	106.00707
660771006	01-APR-2024 13:32:57	Misc Solid	0.258	30	04/01/24 15:30	116.27907
660771007	01-APR-2024 13:32:57	Misc Solid	0.28	30	04/01/24 15:30	107.14286
660771008	01-APR-2024 13:32:57	Misc Solid	0.284	30	04/01/24 15:30	105.6338
660771009	01-APR-2024 13:32:57	Misc Solid	0.283	30	04/01/24 15:30	106.00707
660771010	01-APR-2024 13:32:57	Misc Solid	0.263	30	04/01/24 15:30	114.06844
660771011	01-APR-2024 13:32:57	Misc Solid	0.292	30	04/01/24 15:30	102.73973
660771012	01-APR-2024 13:32:57	Misc Solid	0.288	30	04/01/24 15:30	104.16667
660771013	01-APR-2024 13:32:57	Misc Solid	0.286	30	04/01/24 15:30	104.8951
660771014	01-APR-2024 13:32:57	Misc Solid	0.273	30	04/01/24 15:30	109.89011
660771015	01-APR-2024 13:32:57	Misc Solid	0.291	30	04/01/24 15:30	103.09278
660771016	01-APR-2024 13:32:57	Misc Solid	0.283	30	04/01/24 15:30	106.00707
660771017	01-APR-2024 13:32:57	Misc Solid	0.267	30	04/01/24 15:30	112.35955
660771018	01-APR-2024 13:32:57	Misc Solid	0.268	30	04/01/24 15:30	111.9403

Reagent/Solvent Lot ID	Description	Amount	Comments:
WHG240401	50% Aqua Regia	5 mL	Block Temperature (92-98C): 93 C
4324927	5% KMnO4 solution	7.5 mL	Temperature within limits (Y/N)? : y
4326654-C	Hg reducing agent	3 mL	Thermometer ID: 119015
240319	Teflon chips for MB/LCS metals Solids	.25 g	Hot Block ID: 7
UHG4218178-01	Mercury Source Standard #1 1,000 mg/L	50 uL	Lot number: MP3971
UHG4055839-02	Mercury Source Standard #2 1,000 mg/L	50 uL	Prep Date2: 01-APR-2024 15:00 MP HOT BLOCKS Jeanne Myburgh
IHG240401-01	Mercury Intermediate 1st Source 200 ug/L	250 mL	
IHG240401-02	Mercury Intermediate 2nd Source 200 ug/L	250 mL	
WHG240401-07	Mercury Working Standard 1st Source CAL S	30 uL	
WHG240401-08	0.2/CRA Mercury Working Standard 1st Source CAL S	75 uL	
	0.5		

Prep Logbook

Sample ID	Prep Date	Matrix	Initial Weight (g)	Final Volume (mL)	Hot Block Stop Date (date)	Prep Factor (mL/g)
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Reagent/Solvent Lot ID	Description	Amount	Comments:
WHG240401-11	Mercury Working 1st Source CAL S 10.0	1.5 mL	
WHG240401-09	Mercury Working 1st Source CAL S 2.0	300 uL	
WHG240401-10	Mercury Working 1st Source CAL S 5.0/CCV	750 uL	
WHG240401-12	Mercury Working 2nd Source S 5.0/ICV	750 uL	

Standard Logbook

Serial ID: UHG4055839-02 **Open/Reference Date:** 08-NOV-23 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 08-NOV-23 **Catalog Number :** HP1000033-1-100
Type: Source Material **Expires:** 08-NOV-24 **Lot Number :** 2324111-100EE
Employee: Jessica Palumbo **Solvent :** 10% HNO3
Supplier: HPS
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG4218178-01 **Open/Reference Date:** 01-FEB-24 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 01-FEB-24 **Catalog Number :** G34-060080-02-01
Type: Source Material **Expires:** 01-FEB-25 **Lot Number :** U2-HG737574
Employee: Jeanne Myburgh **Solvent :** 5% HNO3
Supplier: Inorganic Venture
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: IHG240329-01 **Open/Reference Date:** 29-MAR-24 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 29-MAR-24 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 05-APR-24 **Solvent :** 5mL HNO3 + TypeI H2O
Employee: Savanna Deppish
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG4218178-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG240329-02 **Open/Reference Date:** 29-MAR-24 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 29-MAR-24 **Solvent :** 2% HNO3-1734294
Type: Intermediate **Expires:** 05-APR-24
Employee: Savanna Deppish
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG4055839-02	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: IHG240401-01 **Open/Reference Date:** 01-APR-24 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 01-APR-24 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 03-APR-24 **Solvent :** 5mL HNO3 + TypeI H2O
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG4218178-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG240401-02 **Open/Reference Date:** 01-APR-24 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 01-APR-24 **Solvent :** 2% HNO3-1734294
Type: Intermediate **Expires:** 03-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG4055839-02	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG240401-08 **Open/Reference Date:** 01-APR-24 **Pipet Id :** Hg1289245
Name: MHGWORKCALSO.5 **Received:** 01-APR-24 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 03-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG240329-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG240401-09 **Open/Reference Date:** 01-APR-24 **Pipet Id :** Hg1289245
Name: MHGWORKCALSO.2 **Received:** 01-APR-24 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 03-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG240329-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Standard Logbook

Serial ID: WHG240401-10 **Open/Reference Date:** 01-APR-24 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 01-APR-24 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 03-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG240329-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG240401-11 **Open/Reference Date:** 01-APR-24 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 01-APR-24 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 03-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG240329-01	Mercury	200 ug/L	1500 uL	30 mL	10 ug/L

Serial ID: WHG240401-12 **Open/Reference Date:** 01-APR-24 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 01-APR-24 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 03-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG240329-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG240401-14 **Open/Reference Date:** 01-APR-24 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 01-APR-24 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 03-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG4218178-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: 240319 **Open/Reference Date:** 19-MAR-24 **Lot Number :** 31452228
Name: I-Boiling chips **Received:** 19-MAR-24
Type: Reagent/Solvent **Expires:** 19-MAR-26
Employee: Savanna Deppish
Supplier: Chemware
Description: Teflon chips for MB/LCS metals Solids
Comments: None

Serial ID: 3867945-A **Open/Reference Date:** 17-FEB-23 **Lot Number :** 224778
Name: B-NaCl-MER **Received:** 17-FEB-23
Type: Reagent/Solvent **Expires:** 17-FEB-25
Employee: Jessica Palumbo
Supplier: Fisher Scientific
Description: Sodium Chloride
Comments: None

Serial ID: 4047155-A **Open/Reference Date:** 23-OCT-23 **Lot Number :** 23H0456968
Name: B-NH2OH.HCl-MER **Received:** 23-OCT-23
Type: Reagent/Solvent **Expires:** 16-JUL-24
Employee: Jessica Palumbo
Supplier: VWR
Description: Hydroxylamine Hydrochloride
Comments: None

Serial ID: 4324468-A **Open/Reference Date:** 27-MAR-24 **Lot Number :** 2023082438
Name: B-HCl-MER **Received:** 27-MAR-24
Type: Reagent/Solvent **Expires:** 27-MAR-25
Employee: Jeanne Myburgh
Supplier: VWR
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 4324927 **Open/Reference Date:** 28-MAR-24 **Balance Id :** BAL-835
Name: B-KMnO4-MER **Received:** 28-MAR-24
Type: Reagent/Solvent **Expires:** 28-MAR-25
Employee: Jeanne Myburgh
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Standard Logbook

Serial ID: 4326654-C **Open/Reference Date:** 01-APR-24 **Balance Id :** BAL-423
Name: B-NaCl.NH2OH.HCl-MER **Received:** 01-APR-24
Type: Reagent/Solvent **Expires:** 16-JUL-24
Employee: Jessica Palumbo
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
3867945-A	B-NaCl-MER	NA	420 g	3500 mL	12 PERCENT
4047155-A	B-NH2OH.HCl-MER	N/A	420 g	3500 mL	12 PERCENT

Serial ID: WHG240401 **Open/Reference Date:** 01-APR-24 **Instrument Id :** METALMAN
Name: B-Aqua Regia-MER **Received:** 01-APR-24 **Solvent :** DI H2O
Type: Reagent/Solvent **Expires:** 02-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: 50% Aqua Regia
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
4324468-A	B-HCl-MER	36.5-38%	75 mL	200 mL	50 PERCENT

April 09, 2024

Sophia Barbour
Perma-Fix
1940 N.W. 67th Place
Gainesville, Florida 32653

Re: VTD TSCA TEST 2024 2024VTD_POST_TEST_4-PFF
Work Order: 660974

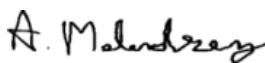
Dear Sophia Barbour:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on April 02, 2024. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4422.

Sincerely,



Adrian Melendrez for
Jacob Crook
Project Manager

Purchase Order: 718586
Chain of Custody: 2024VTD_POST_TEST_4-
Enclosures



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Case Narrative

**Receipt Narrative
for
Perma-Fix of Florida
SDG: 660974**

April 09, 2024

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample receipt: The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on April 02, 2024 for analysis. The samples were delivered with proper chain of custody documentation and signatures. The samples were screened according to GEL Standard Operating Procedure. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C). Samples were received within the specified holding time. There are no additional comments concerning sample receipt.

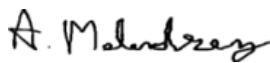
Sample Identification: The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
660974001	12039.B4.Top Front.PFF
660974002	12039.B4.Middle Front.PFF
660974003	12039.B4.Bottom Front.PFF
660974004	12040.B4.Top Back.PFF
660974005	12040.B4.Middle Back.PFF
660974006	12040.B4.Bottom Back.PFF

Case Narrative:

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC/MS Semivolatile, GC/MS Volatile and Metals.



Adrian Melendrez for
Jacob Crook
Project Manager

Chain of Custody and Supporting Documentation

JC

SAMPLE RECEIPT & REVIEW FORM

Client: <u>PELM</u>		SDG/AR/COC/Work Order: <u>660974</u>	
Received By: <u>CLM</u>		Date Received: <u>4/2/24</u>	
Carrier and Tracking Number		Circle Applicable: <input checked="" type="checkbox"/> FedEx Express <input type="checkbox"/> FedEx Ground <input type="checkbox"/> UPS <input type="checkbox"/> Field Services <input type="checkbox"/> Courier <input type="checkbox"/> Other <u>811822129008 (3°)</u> <u>811822128906 (3°)</u>	
Suspected Hazard Information	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM/mR/Hr Classified as: <u>Rad 1</u> Rad 2 Rad 3	
D) Did the client designate samples are hazardous?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil <u>RCRA</u> Asbestos Beryllium Other: _____	
Sample Receipt Criteria		Yes	NA
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments (Use Continuation Form if needed): <u>10.) on the sample COC states 14:20.</u>			

PM (or PMA) review: Initials _____ Date _____ Page _____ of _____

GL-CHL-SR-001 Rev 7

Laboratory Certifications

List of current GEL Certifications as of 09 April 2024

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122024-05
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235
Utah NELAP	SC000122024-39
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Volatile Analysis

Case Narrative

**GC/MS Volatile
Technical Case Narrative
Perma-Fix of Florida
SDG #: 660974**

Product: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Analytical Method: SW846 8260D

Analytical Procedure: GL-OA-E-038 REV# 29

Analytical Batch: 2591977

Preparation Method: SW846 5035

Preparation Procedure: GL-OA-E-039 REV# 13

Preparation Batch: 2591975

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
660974001	12039.B4.Top Front.PFF
660974002	12039.B4.Middle Front.PFF
660974003	12039.B4.Bottom Front.PFF
660974004	12040.B4.Top Back.PFF
660974005	12040.B4.Middle Back.PFF
660974006	12040.B4.Bottom Back.PFF
1205694058	Laboratory Control Sample (LCS)
1205694059	Method Blank (MB)
1205694060	High Blank (HB)
1205694061	660968001(12039.B4.Top Front.EPA) Post Spike (PS)
1205694062	660968001(12039.B4.Top Front.EPA) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

Continuing Calibration Verification Requirements

All Calibration Verification Standards (CCV) did not meet the acceptance criteria as outlined in Method 8260D for samples and the associated QC. However, the method allows for a designated number of outliers dependent on the requested analyte list. This SDG satisfied the 8260D outlier acceptance criteria. The results are reported.

Quality Control (QC) Information

Blank (MB) Statement

Target analytes were detected in the blank 1205694060 (HB) below the reporting limit. The associated data are qualified accordingly and reported.

Technical Information

Sample Dilutions/Methanol Dilutions

Samples were analyzed employing a methanol dilution extraction procedure because the sample matrices were not amenable to more concentrated analyses.

Analyte	660974					
	001	002	003	004	005	006
Several	50X	50X	50X	50X	50X	50X

Miscellaneous Information

Additional Comments

Samples were characterized as miscellaneous solids.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report for

PERM001 Perma-Fix of Florida

Client SDG: 660974 GEL Work Order: 660974

The Qualifiers in this report are defined as follows:

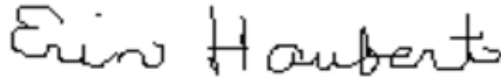
- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- B The target analyte was detected in the associated blank.
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- DL Indicates that sample is diluted.
- RA Indicates that sample is re-analyzed without re-extraction.
- RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:



Name: Erin Haubert

Date: 08 APR 2024

Title: Data Validator

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660974001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 16:09	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:37	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040424VC\CA418.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	89.3	ug/kg	29.7	89.3
74-87-3	Chloromethane	U	89.3	ug/kg	29.7	89.3
75-01-4	Vinyl chloride	U	89.3	ug/kg	29.7	89.3
74-83-9	Bromomethane	U	89.3	ug/kg	29.7	89.3
75-00-3	Chloroethane	U	89.3	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane	U	89.3	ug/kg	29.7	89.3
67-64-1	Acetone		586	ug/kg	149	446
75-35-4	1,1-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
74-88-4	Iodomethane	U	446	ug/kg	149	446
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-05-8	Acetonitrile	U	2230	ug/kg	744	2230
75-15-0	Carbon disulfide	U	446	ug/kg	149	446
75-09-2	Methylene chloride	U	446	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
108-05-4	Vinyl acetate	U	446	ug/kg	149	446
75-34-3	1,1-Dichloroethane	U	89.3	ug/kg	29.7	89.3
78-93-3	2-Butanone	JB	196	ug/kg	149	446
67-66-3	Chloroform	U	89.3	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane	U	89.3	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride	U	89.3	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane	U	89.3	ug/kg	29.7	89.3
71-43-2	Benzene	U	89.3	ug/kg	29.7	89.3
79-01-6	Trichloroethylene	U	89.3	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane	U	89.3	ug/kg	29.7	89.3
74-95-3	Dibromomethane	U	89.3	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane	U	89.3	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone	U	446	ug/kg	149	446
108-88-3	Toluene	U	89.3	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane	U	89.3	ug/kg	29.7	89.3
591-78-6	2-Hexanone	U	446	ug/kg	149	446
127-18-4	Tetrachloroethylene	U	89.3	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane	U	89.3	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane	U	89.3	ug/kg	29.7	89.3
108-90-7	Chlorobenzene	U	89.3	ug/kg	29.7	89.3
100-41-4	Ethylbenzene	U	89.3	ug/kg	29.7	89.3
100-42-5	Styrene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660974001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 16:09	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:37	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040424VC\CA418.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	89.3	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane	U	89.3	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane	U	89.3	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)	U	268	ug/kg	89.3	268
630-20-6	1,1,1,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
120-82-1	1,2,4-Trichlorobenzene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660974002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 16:37	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:38	Aliquot:	5.7 g	Final Volume:	10 mL
Data File:	data\040424VC\CA419.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	87.7	ug/kg	29.2	87.7
74-87-3	Chloromethane	U	87.7	ug/kg	29.2	87.7
75-01-4	Vinyl chloride	U	87.7	ug/kg	29.2	87.7
74-83-9	Bromomethane	U	87.7	ug/kg	29.2	87.7
75-00-3	Chloroethane	U	87.7	ug/kg	29.2	87.7
75-69-4	Trichlorofluoromethane	U	87.7	ug/kg	29.2	87.7
67-64-1	Acetone		468	ug/kg	146	439
75-35-4	1,1-Dichloroethylene	U	87.7	ug/kg	29.2	87.7
74-88-4	Iodomethane	U	439	ug/kg	146	439
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	439	ug/kg	146	439
75-05-8	Acetonitrile	U	2190	ug/kg	731	2190
75-15-0	Carbon disulfide	U	439	ug/kg	146	439
75-09-2	Methylene chloride	U	439	ug/kg	146	439
156-60-5	trans-1,2-Dichloroethylene	U	87.7	ug/kg	29.2	87.7
108-05-4	Vinyl acetate	U	439	ug/kg	146	439
75-34-3	1,1-Dichloroethane	U	87.7	ug/kg	29.2	87.7
78-93-3	2-Butanone	JB	195	ug/kg	146	439
67-66-3	Chloroform	U	87.7	ug/kg	29.2	87.7
71-55-6	1,1,1-Trichloroethane	U	87.7	ug/kg	29.2	87.7
56-23-5	Carbon tetrachloride	U	87.7	ug/kg	29.2	87.7
107-06-2	1,2-Dichloroethane	U	87.7	ug/kg	29.2	87.7
71-43-2	Benzene	U	87.7	ug/kg	29.2	87.7
79-01-6	Trichloroethylene	U	87.7	ug/kg	29.2	87.7
78-87-5	1,2-Dichloropropane	U	87.7	ug/kg	29.2	87.7
74-95-3	Dibromomethane	U	87.7	ug/kg	29.2	87.7
75-27-4	Bromodichloromethane	U	87.7	ug/kg	29.2	87.7
10061-01-5	cis-1,3-Dichloropropylene	U	87.7	ug/kg	29.2	87.7
108-10-1	4-Methyl-2-pentanone	U	439	ug/kg	146	439
108-88-3	Toluene	U	87.7	ug/kg	29.2	87.7
10061-02-6	trans-1,3-Dichloropropylene	U	87.7	ug/kg	29.2	87.7
79-00-5	1,1,2-Trichloroethane	U	87.7	ug/kg	29.2	87.7
591-78-6	2-Hexanone	U	439	ug/kg	146	439
127-18-4	Tetrachloroethylene	U	87.7	ug/kg	29.2	87.7
124-48-1	Dibromochloromethane	U	87.7	ug/kg	29.2	87.7
106-93-4	1,2-Dibromoethane	U	87.7	ug/kg	29.2	87.7
108-90-7	Chlorobenzene	U	87.7	ug/kg	29.2	87.7
100-41-4	Ethylbenzene	U	87.7	ug/kg	29.2	87.7
100-42-5	Styrene	U	87.7	ug/kg	29.2	87.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660974002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 16:37	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:38	Aliquot:	5.7 g	Final Volume:	10 mL
Data File:	data\040424VC\CA419.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	87.7	ug/kg	29.2	87.7
79-34-5	1,1,2,2-Tetrachloroethane	U	87.7	ug/kg	29.2	87.7
96-18-4	1,2,3-Trichloropropane	U	87.7	ug/kg	29.2	87.7
96-12-8	1,2-Dibromo-3-chloropropane	U	87.7	ug/kg	43.9	87.7
107-02-8	Acrolein	U	439	ug/kg	146	439
107-05-1	Allyl chloride	U	439	ug/kg	146	439
107-13-1	Acrylonitrile	U	439	ug/kg	146	439
126-99-8	2-Chloro-1,3-butadiene	U	87.7	ug/kg	29.2	87.7
107-12-0	Propionitrile	U	439	ug/kg	146	439
126-98-7	Methacrylonitrile	U	439	ug/kg	146	439
78-83-1	Isobutyl alcohol	U	4390	ug/kg	1460	4390
80-62-6	Methyl methacrylate	U	439	ug/kg	146	439
97-63-2	Ethyl methacrylate	U	439	ug/kg	146	439
76-01-7	Pentachloroethane	U	439	ug/kg	146	439
110-57-6	trans-1,4-Dichloro-2-butene	U	439	ug/kg	146	439
1330-20-7	Xylenes (total)	U	263	ug/kg	87.7	263
630-20-6	1,1,1,2-Tetrachloroethane	U	87.7	ug/kg	29.2	87.7
120-82-1	1,2,4-Trichlorobenzene	U	87.7	ug/kg	29.2	87.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660974003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 17:05	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:39	Aliquot:	5.9 g	Final Volume:	10 mL
Data File:	data\040424VC\CA420.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	84.7	ug/kg	28.2	84.7
74-87-3	Chloromethane	U	84.7	ug/kg	28.2	84.7
75-01-4	Vinyl chloride	U	84.7	ug/kg	28.2	84.7
74-83-9	Bromomethane	U	84.7	ug/kg	28.2	84.7
75-00-3	Chloroethane	U	84.7	ug/kg	28.2	84.7
75-69-4	Trichlorofluoromethane	U	84.7	ug/kg	28.2	84.7
67-64-1	Acetone	J	231	ug/kg	141	424
75-35-4	1,1-Dichloroethylene	U	84.7	ug/kg	28.2	84.7
74-88-4	Iodomethane	U	424	ug/kg	141	424
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	424	ug/kg	141	424
75-05-8	Acetonitrile	U	2120	ug/kg	706	2120
75-15-0	Carbon disulfide	U	424	ug/kg	141	424
75-09-2	Methylene chloride	U	424	ug/kg	141	424
156-60-5	trans-1,2-Dichloroethylene	U	84.7	ug/kg	28.2	84.7
108-05-4	Vinyl acetate	U	424	ug/kg	141	424
75-34-3	1,1-Dichloroethane	U	84.7	ug/kg	28.2	84.7
78-93-3	2-Butanone	JB	164	ug/kg	141	424
67-66-3	Chloroform	U	84.7	ug/kg	28.2	84.7
71-55-6	1,1,1-Trichloroethane	U	84.7	ug/kg	28.2	84.7
56-23-5	Carbon tetrachloride	U	84.7	ug/kg	28.2	84.7
107-06-2	1,2-Dichloroethane	U	84.7	ug/kg	28.2	84.7
71-43-2	Benzene	U	84.7	ug/kg	28.2	84.7
79-01-6	Trichloroethylene	U	84.7	ug/kg	28.2	84.7
78-87-5	1,2-Dichloropropane	U	84.7	ug/kg	28.2	84.7
74-95-3	Dibromomethane	U	84.7	ug/kg	28.2	84.7
75-27-4	Bromodichloromethane	U	84.7	ug/kg	28.2	84.7
10061-01-5	cis-1,3-Dichloropropylene	U	84.7	ug/kg	28.2	84.7
108-10-1	4-Methyl-2-pentanone	U	424	ug/kg	141	424
108-88-3	Toluene	U	84.7	ug/kg	28.2	84.7
10061-02-6	trans-1,3-Dichloropropylene	U	84.7	ug/kg	28.2	84.7
79-00-5	1,1,2-Trichloroethane	U	84.7	ug/kg	28.2	84.7
591-78-6	2-Hexanone	U	424	ug/kg	141	424
127-18-4	Tetrachloroethylene	U	84.7	ug/kg	28.2	84.7
124-48-1	Dibromochloromethane	U	84.7	ug/kg	28.2	84.7
106-93-4	1,2-Dibromoethane	U	84.7	ug/kg	28.2	84.7
108-90-7	Chlorobenzene	U	84.7	ug/kg	28.2	84.7
100-41-4	Ethylbenzene	U	84.7	ug/kg	28.2	84.7
100-42-5	Styrene	U	84.7	ug/kg	28.2	84.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660974003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 17:05	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:39	Aliquot:	5.9 g	Final Volume:	10 mL
Data File:	data\040424VC\CA420.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	84.7	ug/kg	28.2	84.7
79-34-5	1,1,2,2-Tetrachloroethane	U	84.7	ug/kg	28.2	84.7
96-18-4	1,2,3-Trichloropropane	U	84.7	ug/kg	28.2	84.7
96-12-8	1,2-Dibromo-3-chloropropane	U	84.7	ug/kg	42.4	84.7
107-02-8	Acrolein	U	424	ug/kg	141	424
107-05-1	Allyl chloride	U	424	ug/kg	141	424
107-13-1	Acrylonitrile	U	424	ug/kg	141	424
126-99-8	2-Chloro-1,3-butadiene	U	84.7	ug/kg	28.2	84.7
107-12-0	Propionitrile	U	424	ug/kg	141	424
126-98-7	Methacrylonitrile	U	424	ug/kg	141	424
78-83-1	Isobutyl alcohol	U	4240	ug/kg	1410	4240
80-62-6	Methyl methacrylate	U	424	ug/kg	141	424
97-63-2	Ethyl methacrylate	U	424	ug/kg	141	424
76-01-7	Pentachloroethane	U	424	ug/kg	141	424
110-57-6	trans-1,4-Dichloro-2-butene	U	424	ug/kg	141	424
1330-20-7	Xylenes (total)	U	254	ug/kg	84.7	254
630-20-6	1,1,1,2-Tetrachloroethane	U	84.7	ug/kg	28.2	84.7
120-82-1	1,2,4-Trichlorobenzene	U	84.7	ug/kg	28.2	84.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660974004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 17:32	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:40	Aliquot:	5.8 g	Final Volume:	10 mL
Data File:	data\040424VC\CA421.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	86.2	ug/kg	28.7	86.2
74-87-3	Chloromethane	U	86.2	ug/kg	28.7	86.2
75-01-4	Vinyl chloride	U	86.2	ug/kg	28.7	86.2
74-83-9	Bromomethane	U	86.2	ug/kg	28.7	86.2
75-00-3	Chloroethane	U	86.2	ug/kg	28.7	86.2
75-69-4	Trichlorofluoromethane	U	86.2	ug/kg	28.7	86.2
67-64-1	Acetone	U	431	ug/kg	144	431
75-35-4	1,1-Dichloroethylene	U	86.2	ug/kg	28.7	86.2
74-88-4	Iodomethane	U	431	ug/kg	144	431
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	431	ug/kg	144	431
75-05-8	Acetonitrile	U	2160	ug/kg	718	2160
75-15-0	Carbon disulfide	U	431	ug/kg	144	431
75-09-2	Methylene chloride	U	431	ug/kg	144	431
156-60-5	trans-1,2-Dichloroethylene	U	86.2	ug/kg	28.7	86.2
108-05-4	Vinyl acetate	U	431	ug/kg	144	431
75-34-3	1,1-Dichloroethane	U	86.2	ug/kg	28.7	86.2
78-93-3	2-Butanone	JB	159	ug/kg	144	431
67-66-3	Chloroform	U	86.2	ug/kg	28.7	86.2
71-55-6	1,1,1-Trichloroethane	U	86.2	ug/kg	28.7	86.2
56-23-5	Carbon tetrachloride	U	86.2	ug/kg	28.7	86.2
107-06-2	1,2-Dichloroethane	U	86.2	ug/kg	28.7	86.2
71-43-2	Benzene	U	86.2	ug/kg	28.7	86.2
79-01-6	Trichloroethylene	U	86.2	ug/kg	28.7	86.2
78-87-5	1,2-Dichloropropane	U	86.2	ug/kg	28.7	86.2
74-95-3	Dibromomethane	U	86.2	ug/kg	28.7	86.2
75-27-4	Bromodichloromethane	U	86.2	ug/kg	28.7	86.2
10061-01-5	cis-1,3-Dichloropropylene	U	86.2	ug/kg	28.7	86.2
108-10-1	4-Methyl-2-pentanone	U	431	ug/kg	144	431
108-88-3	Toluene	U	86.2	ug/kg	28.7	86.2
10061-02-6	trans-1,3-Dichloropropylene	U	86.2	ug/kg	28.7	86.2
79-00-5	1,1,2-Trichloroethane	U	86.2	ug/kg	28.7	86.2
591-78-6	2-Hexanone	U	431	ug/kg	144	431
127-18-4	Tetrachloroethylene	U	86.2	ug/kg	28.7	86.2
124-48-1	Dibromochloromethane	U	86.2	ug/kg	28.7	86.2
106-93-4	1,2-Dibromoethane	U	86.2	ug/kg	28.7	86.2
108-90-7	Chlorobenzene	U	86.2	ug/kg	28.7	86.2
100-41-4	Ethylbenzene	U	86.2	ug/kg	28.7	86.2
100-42-5	Styrene	U	86.2	ug/kg	28.7	86.2

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660974004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 17:32	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:40	Aliquot:	5.8 g	Final Volume:	10 mL
Data File:	data\040424VC\CA421.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	86.2	ug/kg	28.7	86.2
79-34-5	1,1,2,2-Tetrachloroethane	U	86.2	ug/kg	28.7	86.2
96-18-4	1,2,3-Trichloropropane	U	86.2	ug/kg	28.7	86.2
96-12-8	1,2-Dibromo-3-chloropropane	U	86.2	ug/kg	43.1	86.2
107-02-8	Acrolein	U	431	ug/kg	144	431
107-05-1	Allyl chloride	U	431	ug/kg	144	431
107-13-1	Acrylonitrile	U	431	ug/kg	144	431
126-99-8	2-Chloro-1,3-butadiene	U	86.2	ug/kg	28.7	86.2
107-12-0	Propionitrile	U	431	ug/kg	144	431
126-98-7	Methacrylonitrile	U	431	ug/kg	144	431
78-83-1	Isobutyl alcohol	U	4310	ug/kg	1440	4310
80-62-6	Methyl methacrylate	U	431	ug/kg	144	431
97-63-2	Ethyl methacrylate	U	431	ug/kg	144	431
76-01-7	Pentachloroethane	U	431	ug/kg	144	431
110-57-6	trans-1,4-Dichloro-2-butene	U	431	ug/kg	144	431
1330-20-7	Xylenes (total)	U	259	ug/kg	86.2	259
630-20-6	1,1,1,2-Tetrachloroethane	U	86.2	ug/kg	28.7	86.2
120-82-1	1,2,4-Trichlorobenzene	U	86.2	ug/kg	28.7	86.2

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660974005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 18:00	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:41	Aliquot:	5.8 g	Final Volume:	10 mL
Data File:	data\040424VC\CA422.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	86.2	ug/kg	28.7	86.2
74-87-3	Chloromethane	U	86.2	ug/kg	28.7	86.2
75-01-4	Vinyl chloride	U	86.2	ug/kg	28.7	86.2
74-83-9	Bromomethane	U	86.2	ug/kg	28.7	86.2
75-00-3	Chloroethane	U	86.2	ug/kg	28.7	86.2
75-69-4	Trichlorofluoromethane	U	86.2	ug/kg	28.7	86.2
67-64-1	Acetone	J	152	ug/kg	144	431
75-35-4	1,1-Dichloroethylene	U	86.2	ug/kg	28.7	86.2
74-88-4	Iodomethane	U	431	ug/kg	144	431
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	431	ug/kg	144	431
75-05-8	Acetonitrile	U	2160	ug/kg	718	2160
75-15-0	Carbon disulfide	U	431	ug/kg	144	431
75-09-2	Methylene chloride	U	431	ug/kg	144	431
156-60-5	trans-1,2-Dichloroethylene	U	86.2	ug/kg	28.7	86.2
108-05-4	Vinyl acetate	U	431	ug/kg	144	431
75-34-3	1,1-Dichloroethane	U	86.2	ug/kg	28.7	86.2
78-93-3	2-Butanone	JB	163	ug/kg	144	431
67-66-3	Chloroform	U	86.2	ug/kg	28.7	86.2
71-55-6	1,1,1-Trichloroethane	U	86.2	ug/kg	28.7	86.2
56-23-5	Carbon tetrachloride	U	86.2	ug/kg	28.7	86.2
107-06-2	1,2-Dichloroethane	U	86.2	ug/kg	28.7	86.2
71-43-2	Benzene	U	86.2	ug/kg	28.7	86.2
79-01-6	Trichloroethylene	U	86.2	ug/kg	28.7	86.2
78-87-5	1,2-Dichloropropane	U	86.2	ug/kg	28.7	86.2
74-95-3	Dibromomethane	U	86.2	ug/kg	28.7	86.2
75-27-4	Bromodichloromethane	U	86.2	ug/kg	28.7	86.2
10061-01-5	cis-1,3-Dichloropropylene	U	86.2	ug/kg	28.7	86.2
108-10-1	4-Methyl-2-pentanone	U	431	ug/kg	144	431
108-88-3	Toluene	U	86.2	ug/kg	28.7	86.2
10061-02-6	trans-1,3-Dichloropropylene	U	86.2	ug/kg	28.7	86.2
79-00-5	1,1,2-Trichloroethane	U	86.2	ug/kg	28.7	86.2
591-78-6	2-Hexanone	U	431	ug/kg	144	431
127-18-4	Tetrachloroethylene	U	86.2	ug/kg	28.7	86.2
124-48-1	Dibromochloromethane	U	86.2	ug/kg	28.7	86.2
106-93-4	1,2-Dibromoethane	U	86.2	ug/kg	28.7	86.2
108-90-7	Chlorobenzene	U	86.2	ug/kg	28.7	86.2
100-41-4	Ethylbenzene	U	86.2	ug/kg	28.7	86.2
100-42-5	Styrene	U	86.2	ug/kg	28.7	86.2

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660974005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 18:00	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:41	Aliquot:	5.8 g	Final Volume:	10 mL
Data File:	data\040424VC\CA422.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	86.2	ug/kg	28.7	86.2
79-34-5	1,1,2,2-Tetrachloroethane	U	86.2	ug/kg	28.7	86.2
96-18-4	1,2,3-Trichloropropane	U	86.2	ug/kg	28.7	86.2
96-12-8	1,2-Dibromo-3-chloropropane	U	86.2	ug/kg	43.1	86.2
107-02-8	Acrolein	U	431	ug/kg	144	431
107-05-1	Allyl chloride	U	431	ug/kg	144	431
107-13-1	Acrylonitrile	U	431	ug/kg	144	431
126-99-8	2-Chloro-1,3-butadiene	U	86.2	ug/kg	28.7	86.2
107-12-0	Propionitrile	U	431	ug/kg	144	431
126-98-7	Methacrylonitrile	U	431	ug/kg	144	431
78-83-1	Isobutyl alcohol	U	4310	ug/kg	1440	4310
80-62-6	Methyl methacrylate	U	431	ug/kg	144	431
97-63-2	Ethyl methacrylate	U	431	ug/kg	144	431
76-01-7	Pentachloroethane	U	431	ug/kg	144	431
110-57-6	trans-1,4-Dichloro-2-butene	U	431	ug/kg	144	431
1330-20-7	Xylenes (total)	U	259	ug/kg	86.2	259
630-20-6	1,1,1,2-Tetrachloroethane	U	86.2	ug/kg	28.7	86.2
120-82-1	1,2,4-Trichlorobenzene	U	86.2	ug/kg	28.7	86.2

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660974006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 18:28	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:42	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040424VC\CA423.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	90.9	ug/kg	30.3	90.9
74-87-3	Chloromethane	U	90.9	ug/kg	30.3	90.9
75-01-4	Vinyl chloride	U	90.9	ug/kg	30.3	90.9
74-83-9	Bromomethane	U	90.9	ug/kg	30.3	90.9
75-00-3	Chloroethane	U	90.9	ug/kg	30.3	90.9
75-69-4	Trichlorofluoromethane	U	90.9	ug/kg	30.3	90.9
67-64-1	Acetone	J	165	ug/kg	152	455
75-35-4	1,1-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
74-88-4	Iodomethane	U	455	ug/kg	152	455
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	455	ug/kg	152	455
75-05-8	Acetonitrile	U	2270	ug/kg	758	2270
75-15-0	Carbon disulfide	U	455	ug/kg	152	455
75-09-2	Methylene chloride	U	455	ug/kg	152	455
156-60-5	trans-1,2-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
108-05-4	Vinyl acetate	U	455	ug/kg	152	455
75-34-3	1,1-Dichloroethane	U	90.9	ug/kg	30.3	90.9
78-93-3	2-Butanone	JB	174	ug/kg	152	455
67-66-3	Chloroform	U	90.9	ug/kg	30.3	90.9
71-55-6	1,1,1-Trichloroethane	U	90.9	ug/kg	30.3	90.9
56-23-5	Carbon tetrachloride	U	90.9	ug/kg	30.3	90.9
107-06-2	1,2-Dichloroethane	U	90.9	ug/kg	30.3	90.9
71-43-2	Benzene	U	90.9	ug/kg	30.3	90.9
79-01-6	Trichloroethylene	U	90.9	ug/kg	30.3	90.9
78-87-5	1,2-Dichloropropane	U	90.9	ug/kg	30.3	90.9
74-95-3	Dibromomethane	U	90.9	ug/kg	30.3	90.9
75-27-4	Bromodichloromethane	U	90.9	ug/kg	30.3	90.9
10061-01-5	cis-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
108-10-1	4-Methyl-2-pentanone	U	455	ug/kg	152	455
108-88-3	Toluene	U	90.9	ug/kg	30.3	90.9
10061-02-6	trans-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
79-00-5	1,1,2-Trichloroethane	U	90.9	ug/kg	30.3	90.9
591-78-6	2-Hexanone	U	455	ug/kg	152	455
127-18-4	Tetrachloroethylene	U	90.9	ug/kg	30.3	90.9
124-48-1	Dibromochloromethane	U	90.9	ug/kg	30.3	90.9
106-93-4	1,2-Dibromoethane	U	90.9	ug/kg	30.3	90.9
108-90-7	Chlorobenzene	U	90.9	ug/kg	30.3	90.9
100-41-4	Ethylbenzene	U	90.9	ug/kg	30.3	90.9
100-42-5	Styrene	U	90.9	ug/kg	30.3	90.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660974006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 18:28	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:42	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040424VC\CA423.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	90.9	ug/kg	30.3	90.9
79-34-5	1,1,2,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
96-18-4	1,2,3-Trichloropropane	U	90.9	ug/kg	30.3	90.9
96-12-8	1,2-Dibromo-3-chloropropane	U	90.9	ug/kg	45.5	90.9
107-02-8	Acrolein	U	455	ug/kg	152	455
107-05-1	Allyl chloride	U	455	ug/kg	152	455
107-13-1	Acrylonitrile	U	455	ug/kg	152	455
126-99-8	2-Chloro-1,3-butadiene	U	90.9	ug/kg	30.3	90.9
107-12-0	Propionitrile	U	455	ug/kg	152	455
126-98-7	Methacrylonitrile	U	455	ug/kg	152	455
78-83-1	Isobutyl alcohol	U	4550	ug/kg	1520	4550
80-62-6	Methyl methacrylate	U	455	ug/kg	152	455
97-63-2	Ethyl methacrylate	U	455	ug/kg	152	455
76-01-7	Pentachloroethane	U	455	ug/kg	152	455
110-57-6	trans-1,4-Dichloro-2-butene	U	455	ug/kg	152	455
1330-20-7	Xylenes (total)	U	273	ug/kg	90.9	273
630-20-6	1,1,1,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
120-82-1	1,2,4-Trichlorobenzene	U	90.9	ug/kg	30.3	90.9

Quality Control Summary

Volatile
Surrogate Recovery Report

Page 1 of 1

SDG Number: 660974

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1205694058	LCS for batch 2591975	106	104	102
1205694059	MB for batch 2591975	109	108	105
1205694060	HB for batch 2591975	106	D 106	D 108
660974001	12039.B4.Top Front.PFF	112	D 108	D 106
660974002	12039.B4.Middle Front.PFF	110	D 110	D 108
660974003	12039.B4.Bottom Front.PFF	111	D 109	D 111
660974004	12040.B4.Top Back.PFF	109	D 107	D 107
660974005	12040.B4.Middle Back.PFF	109	D 107	D 107
660974006	12040.B4.Bottom Back.PFF	109	D 107	D 105
1205694061	12039.B4.Top Front.EPAPS	109	D 109	D 109
1205694062	12039.B4.Top Front.EPAPSD	109	D 108	D 109

Surrogate

Acceptance Limits

DCED4	= 1,2-Dichloroethane-d4	(77%-127%)
TOL	= Toluene-d8	(81%-120%)
BFB	= Bromofluorobenzene	(74%-128%)

* Recovery outside Acceptance Limits

Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660974

Client ID: LCS for batch 2591975

Lab Sample ID: 1205694058

Instrument: VOAC.I

Analvst: PXY1

Purge Vol: 5 mL

Sample Type: Laboratory Control Sample

Matrix: MISC SOLID

Analysis Date: 04/04/2024 11:02

Prep Batch ID:2591975

Batch ID: 2591977

Dilution: 1

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-05-8	LCS Acetonitrile	1250	0.0	1370	110	58-129
1330-20-7	LCS Xylenes (total)	150	0.0	161	107	70-121
67-64-1	LCS Acetone	250	0.0	262	105	62-136
74-88-4	LCS Iodomethane	250	0.0	267	107	67-124
75-15-0	LCS Carbon disulfide	250	0.0	320	128	64-135
108-05-4	LCS Vinyl acetate	250	0.0	267	107	63-132
78-93-3	LCS 2-Butanone	250	0.0	285	114	64-131
108-10-1	LCS 4-Methyl-2-pentanone	250	0.0	292	117	64-126
591-78-6	LCS 2-Hexanone	250	0.0	316	126	60-143
75-71-8	LCS Dichlorodifluoromethane	50.0	0.0	58.6	117	53-153
74-87-3	LCS Chloromethane	50.0	0.0	47.8	96	56-138
75-01-4	LCS Vinyl chloride	50.0	0.0	48.8	98	61-138
74-83-9	LCS Bromomethane	50.0	0.0	49.9	100	63-140
75-00-3	LCS Chloroethane	50.0	0.0	54.4	109	70-132
75-69-4	LCS Trichlorofluoromethane	50.0	0.0	55.5	111	64-133
75-35-4	LCS 1,1-Dichloroethylene	50.0	0.0	59.9	120	70-132
75-09-2	LCS Methylene chloride	50.0	0.0	52.2	104	65-118
156-60-5	LCS trans-1,2-Dichloroethylene	50.0	0.0	56.2	112	71-125
75-34-3	LCS 1,1-Dichloroethane	50.0	0.0	56.5	113	74-124
67-66-3	LCS Chloroform	50.0	0.0	54.2	108	72-122
71-55-6	LCS 1,1,1-Trichloroethane	50.0	0.0	53.9	108	67-132
56-23-5	LCS Carbon tetrachloride	50.0	0.0	56.0	112	66-134

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660974

Client ID: LCS for batch 2591975

Lab Sample ID: 1205694058

Instrument: VOAC.I

Analvst: PXY1

Purge Vol: 5 mL

Sample Type: Laboratory Control Sample

Matrix: MISC SOLID

Analysis Date: 04/04/2024 11:02

Prep Batch ID:2591975

Batch ID: 2591977

Dilution: 1

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
107-06-2	LCS 1,2-Dichloroethane	50.0	0.0	54.3	109	62-128
71-43-2	LCS Benzene	50.0	0.0	52.1	104	73-126
79-01-6	LCS Trichloroethylene	50.0	0.0	52.2	104	72-123
78-87-5	LCS 1,2-Dichloropropane	50.0	0.0	54.5	109	72-120
74-95-3	LCS Dibromomethane	50.0	0.0	52.9	106	73-119
75-27-4	LCS Bromodichloromethane	50.0	0.0	53.8	108	71-126
10061-01-5	LCS cis-1,3-Dichloropropylene	50.0	0.0	53.0	106	70-124
108-88-3	LCS Toluene	50.0	0.0	55.8	112	70-120
10061-02-6	LCS trans-1,3-Dichloropropylene	50.0	0.0	57.5	115	69-120
79-00-5	LCS 1,1,2-Trichloroethane	50.0	0.0	55.0	110	70-115
127-18-4	LCS Tetrachloroethylene	50.0	0.0	52.4	105	68-126
124-48-1	LCS Dibromochloromethane	50.0	0.0	52.4	105	69-128
106-93-4	LCS 1,2-Dibromoethane	50.0	0.0	53.8	108	73-119
108-90-7	LCS Chlorobenzene	50.0	0.0	53.2	106	74-116
100-41-4	LCS Ethylbenzene	50.0	0.0	55.5	111	67-120
100-42-5	LCS Styrene	50.0	0.0	52.6	105	70-122
75-25-2	LCS Bromoform	50.0	0.0	53.3	107	62-132
79-34-5	LCS 1,1,2,2-Tetrachloroethane	50.0	0.0	58.2	116	66-120
96-18-4	LCS 1,2,3-Trichloropropane	50.0	0.0	56.0	112	69-119
96-12-8	LCS 1,2-Dibromo-3-chloropropane	50.0	0.0	50.8	102	57-133
120-82-1	LCS 1,2,4-Trichlorobenzene	50.0	0.0	50.5	101	68-123
630-20-6	LCS 1,1,1,2-Tetrachloroethane	50.0	0.0	51.8	104	71-123

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660974

Client ID: 12039.B4.Top Front.EPAPS

Lab Sample ID: 1205694061

Instrument: VOAC.I

Analvst: PXY1

Purge Vol: 5 mL

Sample Type: Post Spike

Matrix: MISC SOLID

Analysis Date: 04/04/2024 18:56

Dilution: 50

Prep Batch ID:2591975

Batch ID: 2591977

CAS No.	Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
75-05-8	PS Acetonitrile	1250	0.000 U	1320	105	45-132
1330-20-7	PS Xylenes (total)	150	0.000 U	142	95	45-128
67-64-1	PS Acetone	250	2.10 J	248	98	37-145
78-93-3	PS 2-Butanone	250	2.38 JB	289	115	42-135
74-88-4	PS Iodomethane	250	0.000 U	252	101	44-131
75-15-0	PS Carbon disulfide	250	0.000 U	300	120	48-136
108-05-4	PS Vinyl acetate	250	0.000 U	245	98	38-133
108-10-1	PS 4-Methyl-2-pentanone	250	0.000 U	291	116	51-131
591-78-6	PS 2-Hexanone	250	0.000 U	301	120	34-142
75-71-8	PS Dichlorodifluoromethane	50.0	0.000 U	55.7	111	39-162
74-87-3	PS Chloromethane	50.0	0.000 U	45.5	91	41-150
75-01-4	PS Vinyl chloride	50.0	0.000 U	45.6	91	46-150
74-83-9	PS Bromomethane	50.0	0.000 U	59.4	119	37-166
75-00-3	PS Chloroethane	50.0	0.000 U	50.9	102	51-133
75-69-4	PS Trichlorofluoromethane	50.0	0.000 U	50.9	102	47-134
75-35-4	PS 1,1-Dichloroethylene	50.0	0.000 U	57.1	114	50-139
75-09-2	PS Methylene chloride	50.0	0.000 U	49.8	100	54-122
156-60-5	PS trans-1,2-Dichloroethylene	50.0	0.000 U	54.6	109	52-130
75-34-3	PS 1,1-Dichloroethane	50.0	0.000 U	55.7	111	59-127
67-66-3	PS Chloroform	50.0	0.000 U	53.3	107	58-125
71-55-6	PS 1,1,1-Trichloroethane	50.0	0.000 U	51.1	102	54-136
56-23-5	PS Carbon tetrachloride	50.0	0.000 U	51.7	103	46-136

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660974

Client ID: 12039.B4.Top Front.EPAPS

Lab Sample ID: 1205694061

Instrument: VOAC.I

Analvst: PXY1

Purge Vol: 5 mL

Sample Type: Post Spike

Matrix: MISC SOLID

Analysis Date: 04/04/2024 18:56

Dilution: 50

Prep Batch ID:2591975

Batch ID: 2591977

CAS No.	Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
107-06-2	PS 1,2-Dichloroethane	50.0	0.000 U	53.8	108	54-128
71-43-2	PS Benzene	50.0	0.000 U	49.6	99	57-131
79-01-6	PS Trichloroethylene	50.0	0.000 U	48.5	97	48-134
78-87-5	PS 1,2-Dichloropropane	50.0	0.000 U	52.2	104	55-122
74-95-3	PS Dibromomethane	50.0	0.000 U	50.7	101	57-122
75-27-4	PS Bromodichloromethane	50.0	0.000 U	51.3	103	52-128
10061-01-5	PS cis-1,3-Dichloropropylene	50.0	0.000 U	49.3	99	46-125
108-88-3	PS Toluene	50.0	0.000 U	52.4	105	52-124
10061-02-6	PS trans-1,3-Dichloropropylene	50.0	0.000 U	55.3	111	45-131
79-00-5	PS 1,1,2-Trichloroethane	50.0	0.000 U	53.8	108	55-127
127-18-4	PS Tetrachloroethylene	50.0	0.000 U	45.8	92	43-131
124-48-1	PS Dibromochloromethane	50.0	0.000 U	50.2	100	51-128
106-93-4	PS 1,2-Dibromoethane	50.0	0.000 U	51.8	104	53-126
108-90-7	PS Chlorobenzene	50.0	0.000 U	48.3	97	47-124
100-41-4	PS Ethylbenzene	50.0	0.000 U	48.9	98	44-124
100-42-5	PS Styrene	50.0	0.000 U	46.4	93	40-127
75-25-2	PS Bromoform	50.0	0.000 U	49.5	99	48-132
79-34-5	PS 1,1,2,2-Tetrachloroethane	50.0	0.000 U	57.6	115	48-128
96-18-4	PS 1,2,3-Trichloropropane	50.0	0.000 U	55.0	110	56-130
96-12-8	PS 1,2-Dibromo-3-chloropropane	50.0	0.000 U	47.4	95	38-138
120-82-1	PS 1,2,4-Trichlorobenzene	50.0	0.000 U	42.9	86	29-139
630-20-6	PS 1,1,1,2-Tetrachloroethane	50.0	0.000 U	49.7	99	50-126

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660974

Client ID: 12039.B4.Top Front.EPAPSD

Lab Sample ID: 1205694062

Instrument: VOAC.I

Analvst: PXY1

Purge Vol: 5 mL

Sample Type: Post Spike Duplicate

Matrix: MISC SOLID

Analysis Date: 04/04/2024 19:24

Dilution: 50

Prep Batch ID:2591975

Batch ID: 2591977

CAS No.	Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits	Acceptance RPD %	Acceptance Limits
75-05-8	PSD Acetonitrile	1250	0.000 U	1310	105	45-132	0	0-20
1330-20-7	PSD Xylenes (total)	150	0.000 U	144	96	45-128	1	0-20
67-64-1	PSD Acetone	250	2.10 J	249	99	37-145	0	0-20
78-93-3	PSD 2-Butanone	250	2.38 JB	286	113	42-135	1	0-20
74-88-4	PSD Iodomethane	250	0.000 U	254	101	44-131	0	0-20
75-15-0	PSD Carbon disulfide	250	0.000 U	300	120	48-136	0	0-20
108-05-4	PSD Vinyl acetate	250	0.000 U	244	98	38-133	0	0-20
108-10-1	PSD 4-Methyl-2-pentanone	250	0.000 U	288	115	51-131	1	0-20
591-78-6	PSD 2-Hexanone	250	0.000 U	301	120	34-142	0	0-20
75-71-8	PSD Dichlorodifluoromethane	50.0	0.000 U	55.5	111	39-162	0	0-20
74-87-3	PSD Chloromethane	50.0	0.000 U	45.1	90	41-150	1	0-20
75-01-4	PSD Vinyl chloride	50.0	0.000 U	45.4	91	46-150	1	0-20
74-83-9	PSD Bromomethane	50.0	0.000 U	58.2	116	37-166	2	0-20
75-00-3	PSD Chloroethane	50.0	0.000 U	50.3	101	51-133	1	0-20
75-69-4	PSD Trichlorofluoromethane	50.0	0.000 U	50.8	102	47-134	0	0-20
75-35-4	PSD 1,1-Dichloroethylene	50.0	0.000 U	57.1	114	50-139	0	0-20
75-09-2	PSD Methylene chloride	50.0	0.000 U	49.9	100	54-122	0	0-20
156-60-5	PSD trans-1,2-Dichloroethylene	50.0	0.000 U	54.9	110	52-130	1	0-20
75-34-3	PSD 1,1-Dichloroethane	50.0	0.000 U	55.8	112	59-127	0	0-20
67-66-3	PSD Chloroform	50.0	0.000 U	53.8	108	58-125	1	0-20
71-55-6	PSD 1,1,1-Trichloroethane	50.0	0.000 U	51.5	103	54-136	1	0-20
56-23-5	PSD Carbon tetrachloride	50.0	0.000 U	51.6	103	46-136	0	0-20

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660974

Client ID: 12039.B4.Top Front.EPAPSD

Lab Sample ID: 1205694062

Instrument: VOAC.I

Analvst: PXY1

Purge Vol: 5 mL

Sample Type: Post Spike Duplicate

Matrix: MISC SOLID

Analysis Date: 04/04/2024 19:24

Dilution: 50

Prep Batch ID:2591975

Batch ID: 2591977

CAS No.	Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
107-06-2	PSD 1,2-Dichloroethane	50.0	0.000 U	54.0	108	54-128	0	0-20
71-43-2	PSD Benzene	50.0	0.000 U	50.2	100	57-131	1	0-20
79-01-6	PSD Trichloroethylene	50.0	0.000 U	49.0	98	48-134	1	0-20
78-87-5	PSD 1,2-Dichloropropane	50.0	0.000 U	52.9	106	55-122	1	0-20
74-95-3	PSD Dibromomethane	50.0	0.000 U	50.9	102	57-122	0	0-20
75-27-4	PSD Bromodichloromethane	50.0	0.000 U	51.9	104	52-128	1	0-20
10061-01-5	PSD cis-1,3-Dichloropropylene	50.0	0.000 U	50.1	100	46-125	2	0-20
108-88-3	PSD Toluene	50.0	0.000 U	52.8	106	52-124	1	0-20
10061-02-6	PSD trans-1,3-Dichloropropylene	50.0	0.000 U	55.1	110	45-131	0	0-20
79-00-5	PSD 1,1,2-Trichloroethane	50.0	0.000 U	53.7	107	55-127	0	0-20
127-18-4	PSD Tetrachloroethylene	50.0	0.000 U	46.4	93	43-131	1	0-20
124-48-1	PSD Dibromochloromethane	50.0	0.000 U	50.3	101	51-128	0	0-20
106-93-4	PSD 1,2-Dibromoethane	50.0	0.000 U	52.1	104	53-126	0	0-20
108-90-7	PSD Chlorobenzene	50.0	0.000 U	49.1	98	47-124	2	0-20
100-41-4	PSD Ethylbenzene	50.0	0.000 U	49.7	99	44-124	2	0-20
100-42-5	PSD Styrene	50.0	0.000 U	47.7	95	40-127	3	0-20
75-25-2	PSD Bromoform	50.0	0.000 U	50.3	101	48-132	1	0-20
79-34-5	PSD 1,1,2,2-Tetrachloroethane	50.0	0.000 U	57.7	115	48-128	0	0-20
96-18-4	PSD 1,2,3-Trichloropropane	50.0	0.000 U	55.5	111	56-130	1	0-20
96-12-8	PSD 1,2-Dibromo-3-chloropropane	50.0	0.000 U	48.1	96	38-138	2	0-20
120-82-1	PSD 1,2,4-Trichlorobenzene	50.0	0.000 U	44.4	89	29-139	3	0-20
630-20-6	PSD 1,1,1,2-Tetrachloroethane	50.0	0.000 U	49.8	100	50-126	0	0-20

Method Blank Summary

Page 1 of 1

SDG Number:	660974	Client:	PERM001	Matrix:	MISC SOLID
Client ID:	MB for batch 2591975	Instrument ID:	VOAC.I	Data File:	data\040424VC\CA410P.D
Lab Sample ID:	1205694059	Prep Date:	04/04/2024 08:01	Analyzed:	04/04/24 12:26
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 2591975	1205694058	data\040424VC\CA407P.D	04/04/24	1102
02 HB for batch 2591975	1205694060	data\040424VC\CA411.D	04/04/24	1254
03 12039.B4.Top Front.PFF	660974001	data\040424VC\CA418.D	04/04/24	1609
04 12039.B4.Middle Front.PFF	660974002	data\040424VC\CA419.D	04/04/24	1637
05 12039.B4.Bottom Front.PFF	660974003	data\040424VC\CA420.D	04/04/24	1705
06 12040.B4.Top Back.PFF	660974004	data\040424VC\CA421.D	04/04/24	1732
07 12040.B4.Middle Back.PFF	660974005	data\040424VC\CA422.D	04/04/24	1800
08 12040.B4.Bottom Back.PFF	660974006	data\040424VC\CA423.D	04/04/24	1828
09 12039.B4.Top Front.EPAPS	1205694061	data\040424VC\CA424.D	04/04/24	1856
10 12039.B4.Top Front.EPAPSD	1205694062	data\040424VC\CA425.D	04/04/24	1924

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC

Client SDG: 660974

Instrument ID: VOAC.I

Injection Date/Time: 18-MAR-24 11:14

Column Description: DB-624

Lab File ID data\031824VC_ICAL\CY101.D

m/e	Ion Abundance Criteria	% Relative Abundance
95	50 - 200% of mass 174	141.6
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	1.5
174	50 - 200% of mass 95	70.6
175	5.0 - 9.0% of mass 174	8.6
176	95.0 - 105.0% of mass 174	98.3
177	5.0 - 10.0% of mass 176	6.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	WCVM240318-01	data\031824VC_ICAL\CY102.D	18-MAR-24 11:39
ICALMIX[A]	WCVM240318-02	data\031824VC_ICAL\CY103.D	18-MAR-24 12:07
ICALMIX[A]	WCVM240318-03	data\031824VC_ICAL\CY104.D	18-MAR-24 12:35
ICALMIX[A]	WCVM240318-04	data\031824VC_ICAL\CY105.D	18-MAR-24 13:03
ICALMIX[A]	WCVM240318-05	data\031824VC_ICAL\CY106.D	18-MAR-24 13:31
ICALMIX[A]	WCVM240318-06	data\031824VC_ICAL\CY107.D	18-MAR-24 13:59
ICALMIX[A]	WCVM240318-07	data\031824VC_ICAL\CY108.D	18-MAR-24 14:26
ICALMIX[A]	WCVM240318-08	data\031824VC_ICAL\CY109.D	18-MAR-24 14:54
ICALMIX[A]	WCVM240318-09	data\031824VC_ICAL\CY110.D	18-MAR-24 15:22
ICVMIX[A]01	WCVM240318-10	data\031824VC_ICAL\CY112.D	18-MAR-24 16:17
ICALMIX[B]	WCVM240318-11	data\031824VC_ICAL\CY113.D	18-MAR-24 16:45
ICALMIX[B]	WCVM240318-12	data\031824VC_ICAL\CY114.D	18-MAR-24 17:13
ICALMIX[B]	WCVM240318-13	data\031824VC_ICAL\CY115.D	18-MAR-24 17:41
ICALMIX[B]	WCVM240318-14	data\031824VC_ICAL\CY116.D	18-MAR-24 18:08
ICALMIX[B]	WCVM240318-15	data\031824VC_ICAL\CY117.D	18-MAR-24 18:36
ICALMIX[B]	WCVM240318-16	data\031824VC_ICAL\CY118.D	18-MAR-24 19:04
ICALMIX[B]	WCVM240318-17	data\031824VC_ICAL\CY119.D	18-MAR-24 19:32
ICALMIX[B]	WCVM240318-18	data\031824VC_ICAL\CY120.D	18-MAR-24 20:00
ICVMIX[B]02	WCVM240318-19	data\031824VC_ICAL\CY122.D	18-MAR-24 20:56
CCVMIX[A]01	WCVM240404-01	data\040424VC\CA407.D	04-APR-24 11:02

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC

Client SDG: 660974

Instrument ID: VOAC.I

Injection Date/Time: 18-MAR-24 11:14

Column Description: DB-624

Lab File ID data\031824VC_ICAL\CY101.D

m/e	Ion Abundance Criteria	% Relative Abundance
95	50 - 200% of mass 174	141.6
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	1.5
174	50 - 200% of mass 95	70.6
175	5.0 - 9.0% of mass 174	8.6
176	95.0 - 105.0% of mass 174	98.3
177	5.0 - 10.0% of mass 176	6.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
BLK01LCS	1205694058	data\040424VC\CA407P.D	04-APR-24 11:02
CCVMIX[B]02	WCVM240404-02	data\040424VC\CA408.D	04-APR-24 11:30
BLK01	1205694059	data\040424VC\CA410P.D	04-APR-24 12:26
HBLK01	1205694060	data\040424VC\CA411.D	04-APR-24 12:54
12039.B4.Top Front.PFF	660974001	data\040424VC\CA418.D	04-APR-24 16:09
12039.B4.Middle Front.PFF	660974002	data\040424VC\CA419.D	04-APR-24 16:37
12039.B4.Bottom Front.PFF	660974003	data\040424VC\CA420.D	04-APR-24 17:05
12040.B4.Top Back.PFF	660974004	data\040424VC\CA421.D	04-APR-24 17:32
12040.B4.Middle Back.PFF	660974005	data\040424VC\CA422.D	04-APR-24 18:00
12040.B4.Bottom Back.PFF	660974006	data\040424VC\CA423.D	04-APR-24 18:28
12039.B4.Top Front.EPAMS	1205694061	data\040424VC\CA424.D	04-APR-24 18:56
12039.B4.Top Front.EPAMSD	1205694062	data\040424VC\CA425.D	04-APR-24 19:24

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 660974

Instrument: VOAC.I

STD Analysis Time: 04-APR-24 11:02

GC Column: DB-624

Data File: data\040424VC\CA407.D

	Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
	Area	# RT #	Area	# RT #	Area	# RT #
12 Hour STD	919031	10.92	694448	14.34	362790	16.92
Upper Limit	1838062	11.42	1388896	14.84	725580	17.42
Lower Limit	459516	10.42	347224	13.84	181395	16.42
Sample ID						
BLK01LCS	919031	10.9	694448	14.3	362790	16.9
BLK01	946213	10.9	663760	14.3	337143	16.9
HBLK01	956056	10.9	698713	14.3	348445	16.9
I2039.B4.Top Front.PFF	907137	10.9	650280	14.3	337134	16.9
I2039.B4.Middle Front.PFF	944106	10.9	664504	14.3	339327	16.9
I2039.B4.Bottom Front.PFF	947165	10.9	704955	14.3	359742	16.9
I2040.B4.Top Back.PFF	964367	10.9	679701	14.3	345065	16.9
I2040.B4.Middle Back.PFF	965130	10.9	682928	14.3	342566	16.9
I2040.B4.Bottom Back.PFF	964173	10.9	681387	14.3	346291	16.9
I2039.B4.Top Front.EPAMS	947977	10.9	684649	14.3	350870	16.9
I2039.B4.Top Front.EPAMSD	946992	10.9	693459	14.3	352764	16.9

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660974001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 16:09	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:37	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040424VC\CA418.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	89.3	ug/kg	29.7	89.3
74-87-3	Chloromethane	U	89.3	ug/kg	29.7	89.3
75-01-4	Vinyl chloride	U	89.3	ug/kg	29.7	89.3
74-83-9	Bromomethane	U	89.3	ug/kg	29.7	89.3
75-00-3	Chloroethane	U	89.3	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane	U	89.3	ug/kg	29.7	89.3
67-64-1	Acetone		586	ug/kg	149	446
75-35-4	1,1-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
74-88-4	Iodomethane	U	446	ug/kg	149	446
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-05-8	Acetonitrile	U	2230	ug/kg	744	2230
75-15-0	Carbon disulfide	U	446	ug/kg	149	446
75-09-2	Methylene chloride	U	446	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
108-05-4	Vinyl acetate	U	446	ug/kg	149	446
75-34-3	1,1-Dichloroethane	U	89.3	ug/kg	29.7	89.3
78-93-3	2-Butanone	JB	196	ug/kg	149	446
67-66-3	Chloroform	U	89.3	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane	U	89.3	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride	U	89.3	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane	U	89.3	ug/kg	29.7	89.3
71-43-2	Benzene	U	89.3	ug/kg	29.7	89.3
79-01-6	Trichloroethylene	U	89.3	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane	U	89.3	ug/kg	29.7	89.3
74-95-3	Dibromomethane	U	89.3	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane	U	89.3	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone	U	446	ug/kg	149	446
108-88-3	Toluene	U	89.3	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane	U	89.3	ug/kg	29.7	89.3
591-78-6	2-Hexanone	U	446	ug/kg	149	446
127-18-4	Tetrachloroethylene	U	89.3	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane	U	89.3	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane	U	89.3	ug/kg	29.7	89.3
108-90-7	Chlorobenzene	U	89.3	ug/kg	29.7	89.3
100-41-4	Ethylbenzene	U	89.3	ug/kg	29.7	89.3
100-42-5	Styrene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660974001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 16:09	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:37	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040424VC\CA418.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	89.3	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane	U	89.3	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane	U	89.3	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)	U	268	ug/kg	89.3	268
630-20-6	1,1,1,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
120-82-1	1,2,4-Trichlorobenzene	U	89.3	ug/kg	29.7	89.3

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA418.D
Acq On : 04 Apr 2024 16:09
Operator : PXY1
InstName : VOAC
Sample : |660974001|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

MA
04/05/2024

Quant Time: Apr 05 09:42:31 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.903	10.934	1.000	907137	50.00	ug/L	-0.03
43) Chlorobenzene-d5	117	14.329	14.354	1.000	650280	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.902	16.933	1.000	337134	50.00	ug/L	-0.03
84) B Fluorobenzene	96	10.903	10.928	1.000	907137	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	117	14.329	14.348	1.000	649987	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.902	16.920	1.000	337134	50.00	ug/L	-0.02

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.519	10.543	0.965	306783	55.85	ug/L	-0.02
45) Toluene-d8	98	12.689	12.714	0.886	906591	53.96	ug/L	-0.02
63) Bromofluorobenzene	95	15.597	15.622	0.923	307583	52.95	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	112%
45) Toluene-d8	50.000	81 - 120	108%
63) Bromofluorobenzene	50.000	74 - 128	106%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether	59	6.947	6.971	0.637	118	N.D.		
9) Acetone	43	7.349	7.367	0.674	7977	6.56	ug/L	87
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.757	7.739	0.711	125	N.D.		
13) Methyl acetate	43	7.782	7.794	0.714	912	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.977	8.001	0.732	8632	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.660	8.690	0.794	11578	1.80	ug/L	85
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.501	9.525	0.871	3769	2.19	ug/L	80
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.635	10.665	0.975	1385	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA418.D
Acq On : 04 Apr 2024 16:09
Operator : PXY1
InstName : VOAC
Sample : |660974001|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 05 09:42:31 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.409	11.434	1.046	774	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.769	12.793	0.891	820	N.D.	
47) trans-1,3-Dichloroprop...	75	12.921	12.952	0.902	296	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene	164	13.409	13.439	0.936	418	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene	112	14.366	14.390	1.003	376	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.433	14.457	1.007	469	N.D.	
57) m,p-Xylenes	106	14.543	14.573	1.015	1002	N.D.	
58) o-Xylene	91	15.012	15.037	1.048	734	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.597	15.695	0.923	151	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.445	16.463	0.973	116	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene	146	16.835	16.865	0.996	300	N.D.	
76) 1,4-Dichlorobenzene	146	16.920	16.957	1.001	261	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.402	17.432	1.030	34516	3.71 ug/L	98
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	19.548	19.578	1.157	669	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.987	20.017	1.183	2086	N.D.	
83) 1,2,3-Trichlorobenzene	180	20.383	20.401	1.206	267	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA418.D
Acq On : 04 Apr 2024 16:09
Operator : PXY1
InstName : VOAC
Sample : |660974001|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 05 09:42:31 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

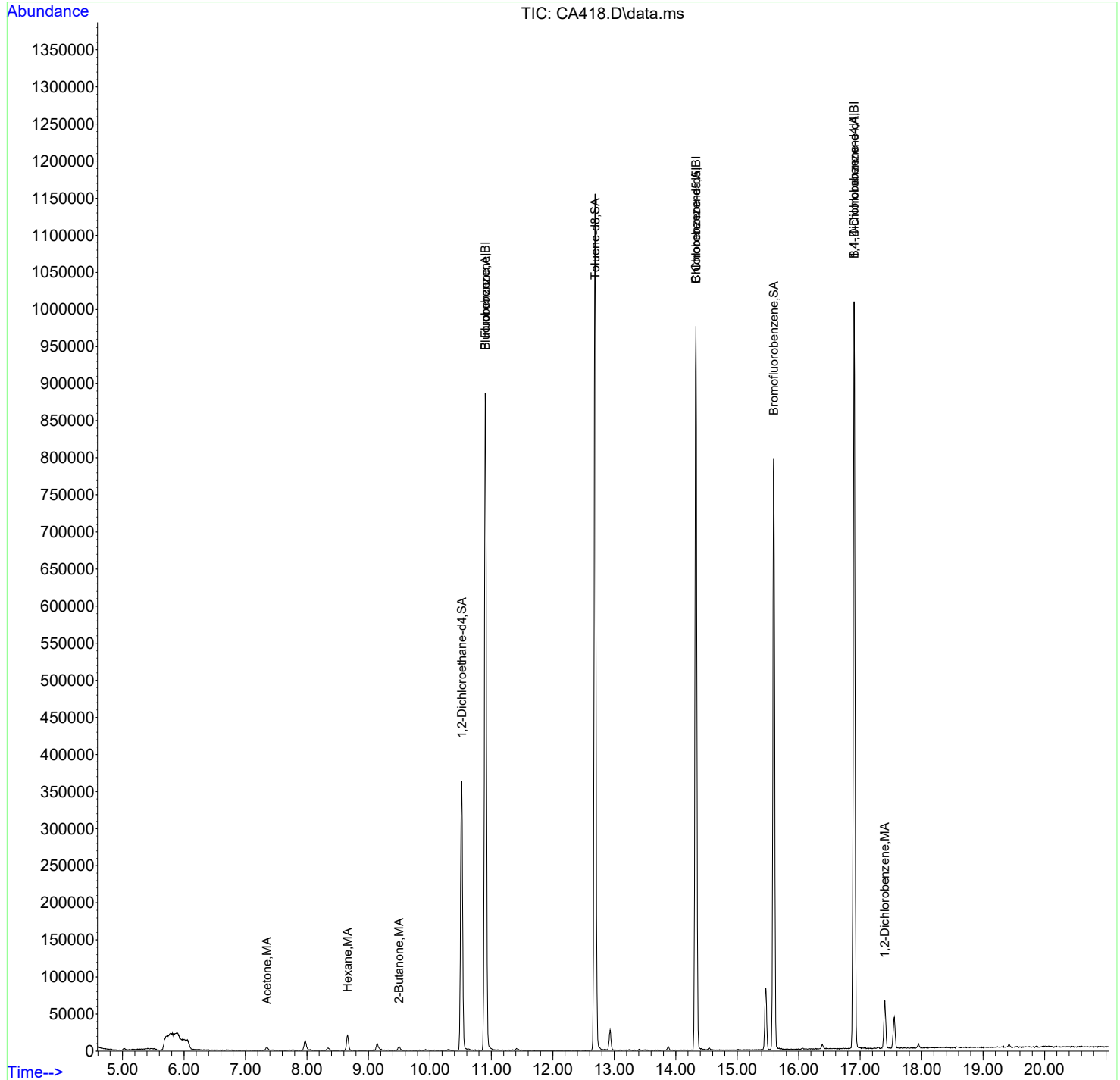
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.446	7.440	0.683	365	N.D.	
88) Allyl chloride	41	7.757	7.843	0.711	125	N.D.	
89) tert-Butyl Alcohol	59	8.056	7.983	0.739	733	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.501	9.531	0.871	3769	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.928	9.940	0.911	527	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride	91	17.061	17.073	1.009	344	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.548	17.506	1.038	2169	N.D.	

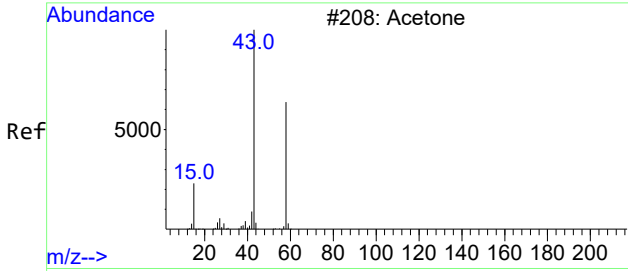
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA418.D
Acq On : 04 Apr 2024 16:09
Operator : PXY1
InstName : VOAC
Sample : |660974001|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

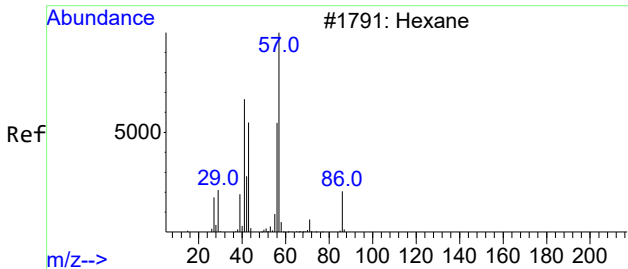
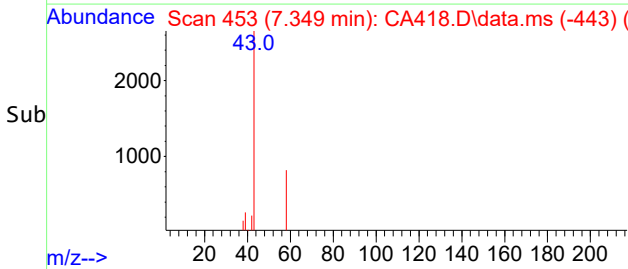
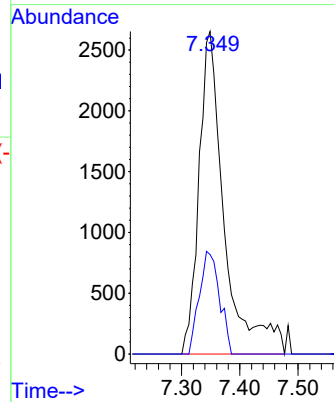
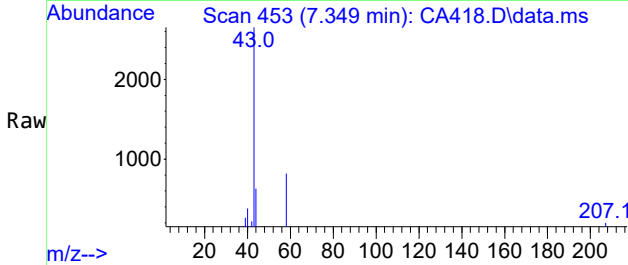
Quant Time: Apr 05 09:42:31 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





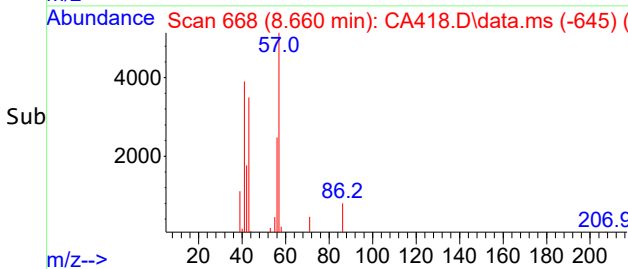
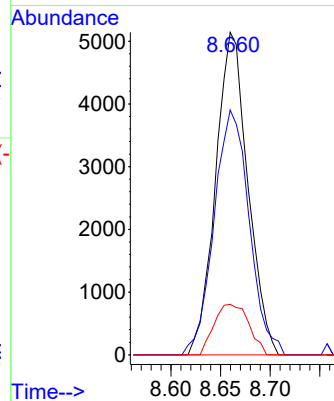
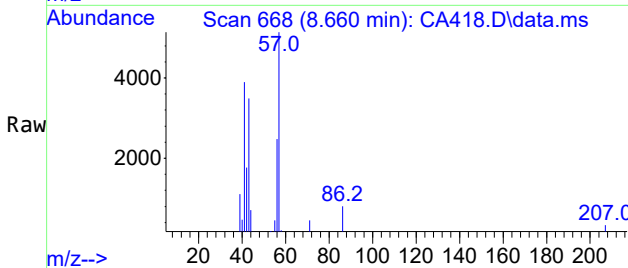
#9
Acetone
Concen: 6.56 ug/L
RT: 7.349 min Scan# 453
Delta R.T. -0.018 min
Lab File: CA418.D
Acq: 04 Apr 2024 16:09

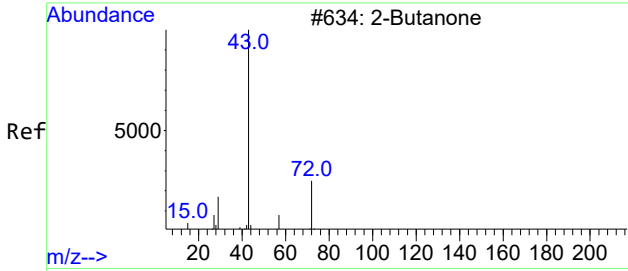
Tgt Ion: 43 Resp: 7977
Ion Ratio Lower Upper
43 100
58 25.3 2.6 62.6



#18
Hexane
Concen: 1.80 ug/L
RT: 8.660 min Scan# 668
Delta R.T. -0.030 min
Lab File: CA418.D
Acq: 04 Apr 2024 16:09

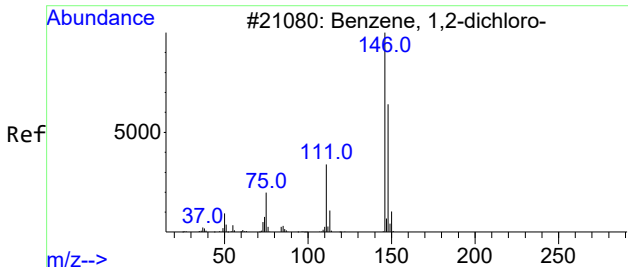
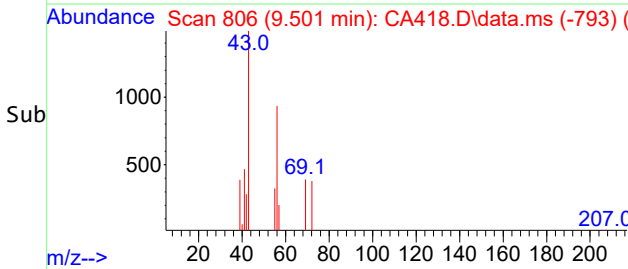
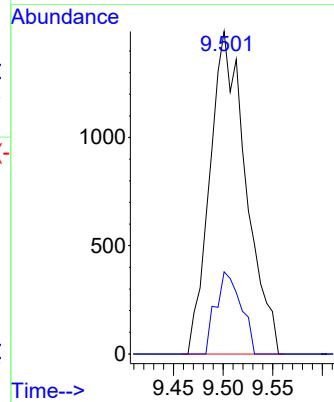
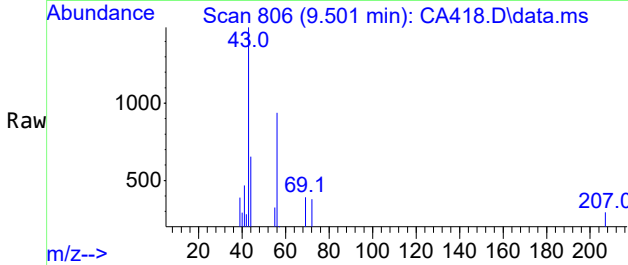
Tgt Ion: 57 Resp: 11578
Ion Ratio Lower Upper
57 100
41 82.8 49.0 89.0
86 16.8 0.0 39.5





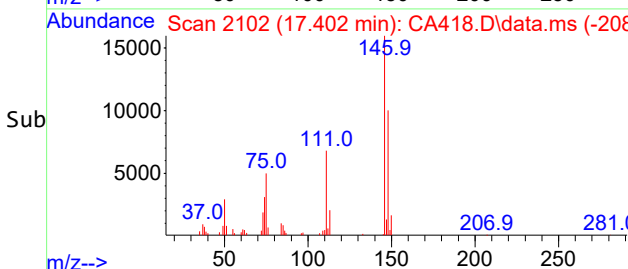
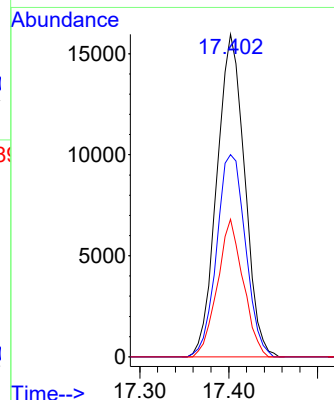
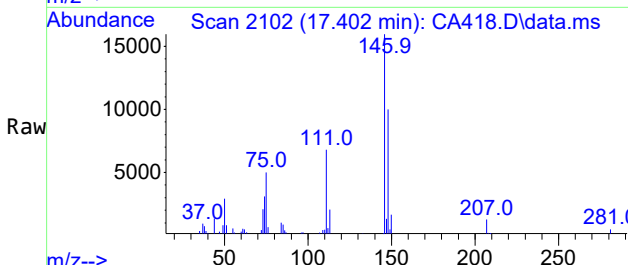
#21
2-Butanone
Concen: 2.19 ug/L
RT: 9.501 min Scan# 806
Delta R.T. -0.024 min
Lab File: CA418.D
Acq: 04 Apr 2024 16:09

Tgt Ion: 43 Resp: 3769
Ion Ratio Lower Upper
43 100
72 17.6 0.0 58.1



#78
1,2-Dichlorobenzene
Concen: 3.71 ug/L
RT: 17.402 min Scan# 2102
Delta R.T. -0.030 min
Lab File: CA418.D
Acq: 04 Apr 2024 16:09

Tgt Ion: 146 Resp: 34516
Ion Ratio Lower Upper
146 100
148 65.1 33.8 93.8
111 39.5 8.4 68.4



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660974002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 16:37	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:38	Aliquot:	5.7 g	Final Volume:	10 mL
Data File:	data\040424VC\CA419.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	87.7	ug/kg	29.2	87.7
74-87-3	Chloromethane	U	87.7	ug/kg	29.2	87.7
75-01-4	Vinyl chloride	U	87.7	ug/kg	29.2	87.7
74-83-9	Bromomethane	U	87.7	ug/kg	29.2	87.7
75-00-3	Chloroethane	U	87.7	ug/kg	29.2	87.7
75-69-4	Trichlorofluoromethane	U	87.7	ug/kg	29.2	87.7
67-64-1	Acetone		468	ug/kg	146	439
75-35-4	1,1-Dichloroethylene	U	87.7	ug/kg	29.2	87.7
74-88-4	Iodomethane	U	439	ug/kg	146	439
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	439	ug/kg	146	439
75-05-8	Acetonitrile	U	2190	ug/kg	731	2190
75-15-0	Carbon disulfide	U	439	ug/kg	146	439
75-09-2	Methylene chloride	U	439	ug/kg	146	439
156-60-5	trans-1,2-Dichloroethylene	U	87.7	ug/kg	29.2	87.7
108-05-4	Vinyl acetate	U	439	ug/kg	146	439
75-34-3	1,1-Dichloroethane	U	87.7	ug/kg	29.2	87.7
78-93-3	2-Butanone	JB	195	ug/kg	146	439
67-66-3	Chloroform	U	87.7	ug/kg	29.2	87.7
71-55-6	1,1,1-Trichloroethane	U	87.7	ug/kg	29.2	87.7
56-23-5	Carbon tetrachloride	U	87.7	ug/kg	29.2	87.7
107-06-2	1,2-Dichloroethane	U	87.7	ug/kg	29.2	87.7
71-43-2	Benzene	U	87.7	ug/kg	29.2	87.7
79-01-6	Trichloroethylene	U	87.7	ug/kg	29.2	87.7
78-87-5	1,2-Dichloropropane	U	87.7	ug/kg	29.2	87.7
74-95-3	Dibromomethane	U	87.7	ug/kg	29.2	87.7
75-27-4	Bromodichloromethane	U	87.7	ug/kg	29.2	87.7
10061-01-5	cis-1,3-Dichloropropylene	U	87.7	ug/kg	29.2	87.7
108-10-1	4-Methyl-2-pentanone	U	439	ug/kg	146	439
108-88-3	Toluene	U	87.7	ug/kg	29.2	87.7
10061-02-6	trans-1,3-Dichloropropylene	U	87.7	ug/kg	29.2	87.7
79-00-5	1,1,2-Trichloroethane	U	87.7	ug/kg	29.2	87.7
591-78-6	2-Hexanone	U	439	ug/kg	146	439
127-18-4	Tetrachloroethylene	U	87.7	ug/kg	29.2	87.7
124-48-1	Dibromochloromethane	U	87.7	ug/kg	29.2	87.7
106-93-4	1,2-Dibromoethane	U	87.7	ug/kg	29.2	87.7
108-90-7	Chlorobenzene	U	87.7	ug/kg	29.2	87.7
100-41-4	Ethylbenzene	U	87.7	ug/kg	29.2	87.7
100-42-5	Styrene	U	87.7	ug/kg	29.2	87.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660974002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 16:37	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:38	Aliquot:	5.7 g	Final Volume:	10 mL
Data File:	data\040424VC\CA419.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	87.7	ug/kg	29.2	87.7
79-34-5	1,1,2,2-Tetrachloroethane	U	87.7	ug/kg	29.2	87.7
96-18-4	1,2,3-Trichloropropane	U	87.7	ug/kg	29.2	87.7
96-12-8	1,2-Dibromo-3-chloropropane	U	87.7	ug/kg	43.9	87.7
107-02-8	Acrolein	U	439	ug/kg	146	439
107-05-1	Allyl chloride	U	439	ug/kg	146	439
107-13-1	Acrylonitrile	U	439	ug/kg	146	439
126-99-8	2-Chloro-1,3-butadiene	U	87.7	ug/kg	29.2	87.7
107-12-0	Propionitrile	U	439	ug/kg	146	439
126-98-7	Methacrylonitrile	U	439	ug/kg	146	439
78-83-1	Isobutyl alcohol	U	4390	ug/kg	1460	4390
80-62-6	Methyl methacrylate	U	439	ug/kg	146	439
97-63-2	Ethyl methacrylate	U	439	ug/kg	146	439
76-01-7	Pentachloroethane	U	439	ug/kg	146	439
110-57-6	trans-1,4-Dichloro-2-butene	U	439	ug/kg	146	439
1330-20-7	Xylenes (total)	U	263	ug/kg	87.7	263
630-20-6	1,1,1,2-Tetrachloroethane	U	87.7	ug/kg	29.2	87.7
120-82-1	1,2,4-Trichlorobenzene	U	87.7	ug/kg	29.2	87.7

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA419.D
Acq On : 04 Apr 2024 16:37
Operator : PXY1
InstName : VOAC
Sample : |660974002|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.7G/100UL N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

04/05/2024

Quant Time: Apr 05 09:43:09 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.903	10.934	1.000	944106	50.00	ug/L	-0.03
43) Chlorobenzene-d5	117	14.329	14.354	1.000	664504	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.902	16.933	1.000	339327	50.00	ug/L	-0.03
84) B Fluorobenzene	96	10.903	10.928	1.000	944106	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	117	14.329	14.348	1.000	664504	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.902	16.920	1.000	339327	50.00	ug/L	-0.02

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.513	10.543	0.964	314388	54.99	ug/L	-0.03
45) Toluene-d8	98	12.683	12.714	0.885	940494	54.78	ug/L	-0.03
63) Bromofluorobenzene	95	15.591	15.622	0.922	316874	54.20	ug/L	-0.03

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	110%
45) Toluene-d8	50.000	81 - 120	110%
63) Bromofluorobenzene	50.000	74 - 128	108%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.337	7.367	0.673	6746	5.33	ug/L	95
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.727	7.739	0.709	768	N.D.		
13) Methyl acetate	43	7.763	7.794	0.712	926	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.965	8.001	0.730	8669	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.654	8.690	0.794	5175	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.495	9.525	0.871	3970	2.22	ug/L	87
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.629	10.665	0.975	885	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA419.D
Acq On : 04 Apr 2024 16:37
Operator : PXY1
InstName : VOAC
Sample : |660974002|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.7G/100UL N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 05 09:43:09 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.409	11.434	1.046	470	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.763	12.793	0.891	833	N.D.	
47) trans-1,3-Dichloroprop...	75	12.921	12.952	0.902	407	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone	43	13.488	13.384	0.941	223	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.433	14.457	1.007	356	N.D.	
57) m,p-Xylenes	106	14.543	14.573	1.015	862	N.D.	
58) o-Xylene	91	15.012	15.037	1.048	638	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene	105	15.463	15.414	0.915	119	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.591	15.695	0.922	125	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.439	16.463	0.973	202	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.396	17.432	1.029	18815	2.01 ug/L	97
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	19.548	19.578	1.157	140	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.993	20.017	1.183	1391	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA419.D
Acq On : 04 Apr 2024 16:37
Operator : PXY1
InstName : VOAC
Sample : |660974002|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.7G/100UL N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 05 09:43:09 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

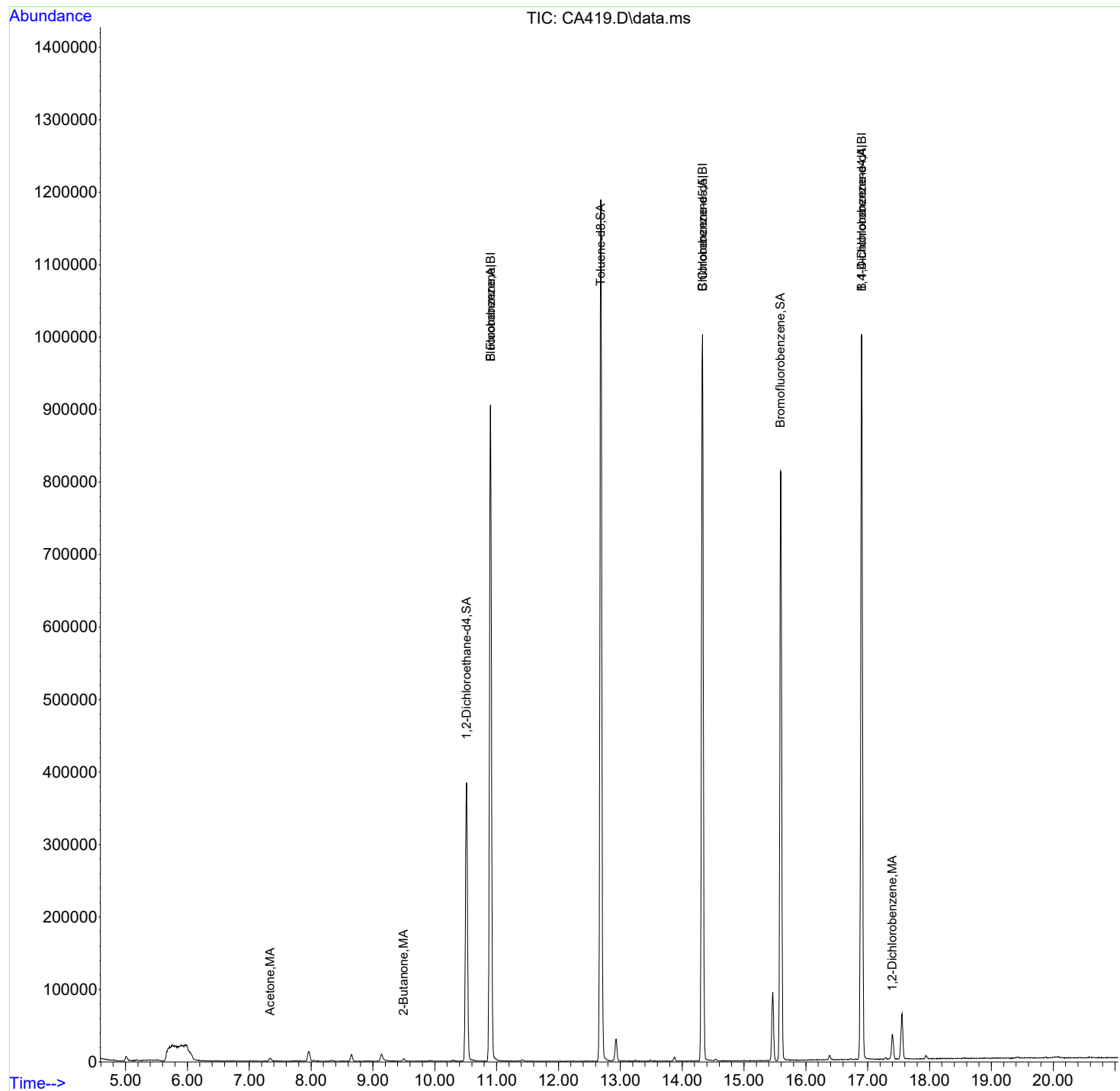
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.422	7.440	0.681	184	N.D.	
88) Allyl chloride	41	7.952	7.843	0.729	164	N.D.	
89) tert-Butyl Alcohol	59	8.056	7.983	0.739	836	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.495	9.531	0.871	3970	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.903	9.940	0.908	572	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride	91	17.048	17.073	1.009	125	N.D.	
112) bis(2-Chloroisopropyl)...		0.000	17.506	0.000	0m	N.D.	d

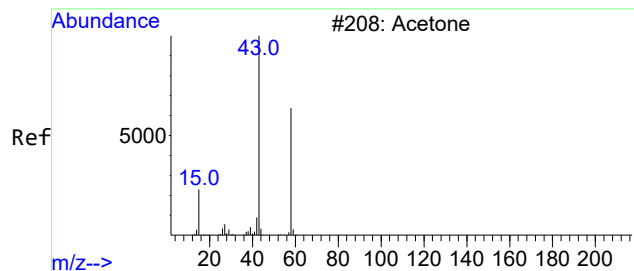
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

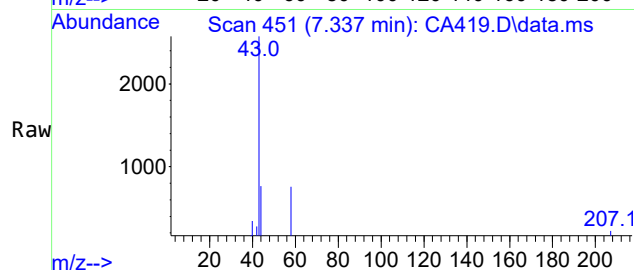
Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA419.D
Acq On : 04 Apr 2024 16:37
Operator : PXY1
InstName : VOAC
Sample : |660974002|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.7G/100UL N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 05 09:43:09 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

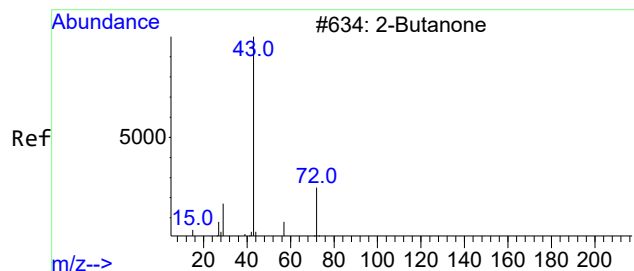
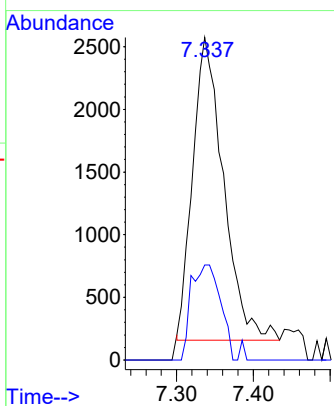
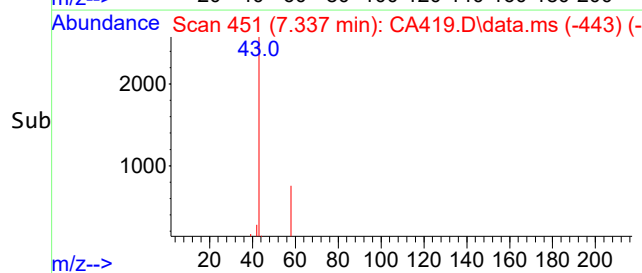




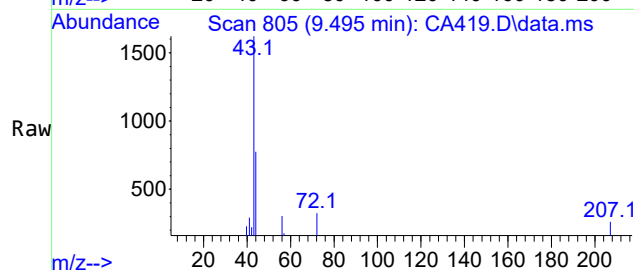
#9
Acetone
Concen: 5.33 ug/L
RT: 7.337 min Scan# 451
Delta R.T. -0.030 min
Lab File: CA419.D
Acq: 04 Apr 2024 16:37



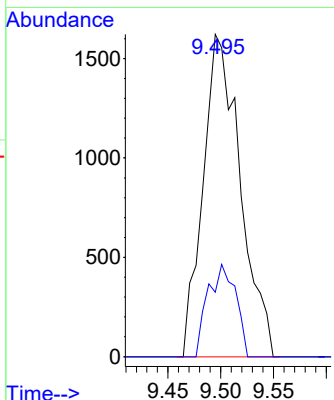
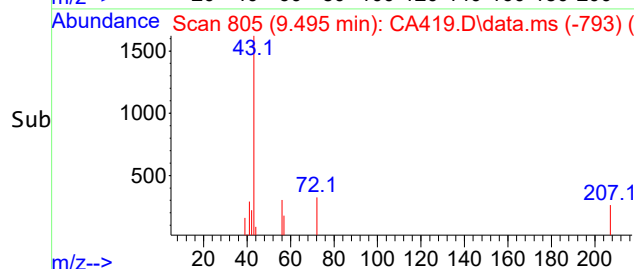
Tgt Ion: 43 Resp: 6746
Ion Ratio Lower Upper
43 100
58 29.8 2.6 62.6

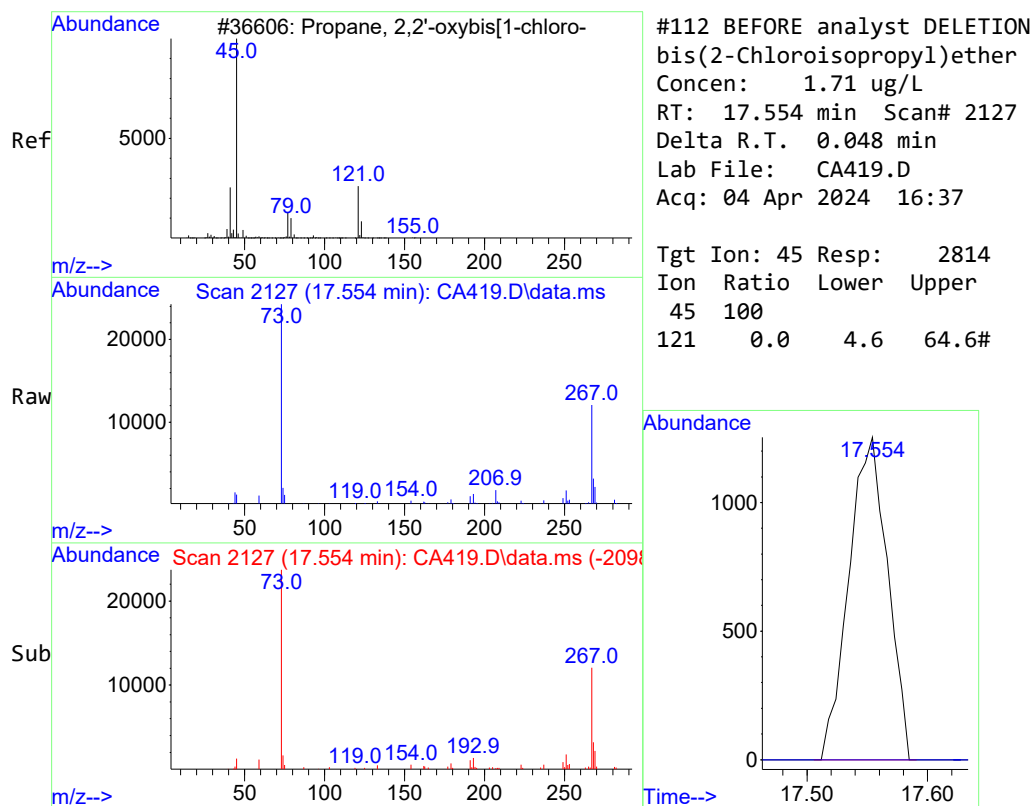
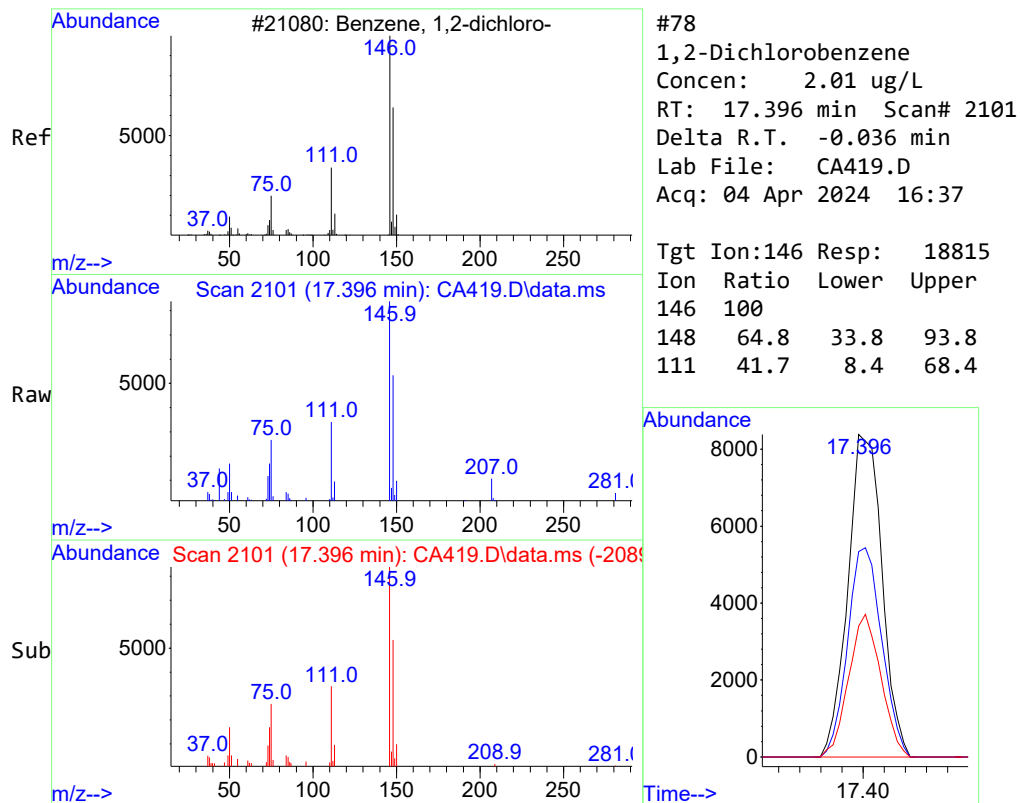


#21
2-Butanone
Concen: 2.22 ug/L
RT: 9.495 min Scan# 805
Delta R.T. -0.030 min
Lab File: CA419.D
Acq: 04 Apr 2024 16:37



Tgt Ion: 43 Resp: 3970
Ion Ratio Lower Upper
43 100
72 21.3 0.0 58.1





Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660974003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 17:05	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:39	Aliquot:	5.9 g	Final Volume:	10 mL
Data File:	data\040424VC\CA420.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	84.7	ug/kg	28.2	84.7
74-87-3	Chloromethane	U	84.7	ug/kg	28.2	84.7
75-01-4	Vinyl chloride	U	84.7	ug/kg	28.2	84.7
74-83-9	Bromomethane	U	84.7	ug/kg	28.2	84.7
75-00-3	Chloroethane	U	84.7	ug/kg	28.2	84.7
75-69-4	Trichlorofluoromethane	U	84.7	ug/kg	28.2	84.7
67-64-1	Acetone	J	231	ug/kg	141	424
75-35-4	1,1-Dichloroethylene	U	84.7	ug/kg	28.2	84.7
74-88-4	Iodomethane	U	424	ug/kg	141	424
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	424	ug/kg	141	424
75-05-8	Acetonitrile	U	2120	ug/kg	706	2120
75-15-0	Carbon disulfide	U	424	ug/kg	141	424
75-09-2	Methylene chloride	U	424	ug/kg	141	424
156-60-5	trans-1,2-Dichloroethylene	U	84.7	ug/kg	28.2	84.7
108-05-4	Vinyl acetate	U	424	ug/kg	141	424
75-34-3	1,1-Dichloroethane	U	84.7	ug/kg	28.2	84.7
78-93-3	2-Butanone	JB	164	ug/kg	141	424
67-66-3	Chloroform	U	84.7	ug/kg	28.2	84.7
71-55-6	1,1,1-Trichloroethane	U	84.7	ug/kg	28.2	84.7
56-23-5	Carbon tetrachloride	U	84.7	ug/kg	28.2	84.7
107-06-2	1,2-Dichloroethane	U	84.7	ug/kg	28.2	84.7
71-43-2	Benzene	U	84.7	ug/kg	28.2	84.7
79-01-6	Trichloroethylene	U	84.7	ug/kg	28.2	84.7
78-87-5	1,2-Dichloropropane	U	84.7	ug/kg	28.2	84.7
74-95-3	Dibromomethane	U	84.7	ug/kg	28.2	84.7
75-27-4	Bromodichloromethane	U	84.7	ug/kg	28.2	84.7
10061-01-5	cis-1,3-Dichloropropylene	U	84.7	ug/kg	28.2	84.7
108-10-1	4-Methyl-2-pentanone	U	424	ug/kg	141	424
108-88-3	Toluene	U	84.7	ug/kg	28.2	84.7
10061-02-6	trans-1,3-Dichloropropylene	U	84.7	ug/kg	28.2	84.7
79-00-5	1,1,2-Trichloroethane	U	84.7	ug/kg	28.2	84.7
591-78-6	2-Hexanone	U	424	ug/kg	141	424
127-18-4	Tetrachloroethylene	U	84.7	ug/kg	28.2	84.7
124-48-1	Dibromochloromethane	U	84.7	ug/kg	28.2	84.7
106-93-4	1,2-Dibromoethane	U	84.7	ug/kg	28.2	84.7
108-90-7	Chlorobenzene	U	84.7	ug/kg	28.2	84.7
100-41-4	Ethylbenzene	U	84.7	ug/kg	28.2	84.7
100-42-5	Styrene	U	84.7	ug/kg	28.2	84.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660974003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 17:05	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:39	Aliquot:	5.9 g	Final Volume:	10 mL
Data File:	data\040424VC\CA420.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	84.7	ug/kg	28.2	84.7
79-34-5	1,1,2,2-Tetrachloroethane	U	84.7	ug/kg	28.2	84.7
96-18-4	1,2,3-Trichloropropane	U	84.7	ug/kg	28.2	84.7
96-12-8	1,2-Dibromo-3-chloropropane	U	84.7	ug/kg	42.4	84.7
107-02-8	Acrolein	U	424	ug/kg	141	424
107-05-1	Allyl chloride	U	424	ug/kg	141	424
107-13-1	Acrylonitrile	U	424	ug/kg	141	424
126-99-8	2-Chloro-1,3-butadiene	U	84.7	ug/kg	28.2	84.7
107-12-0	Propionitrile	U	424	ug/kg	141	424
126-98-7	Methacrylonitrile	U	424	ug/kg	141	424
78-83-1	Isobutyl alcohol	U	4240	ug/kg	1410	4240
80-62-6	Methyl methacrylate	U	424	ug/kg	141	424
97-63-2	Ethyl methacrylate	U	424	ug/kg	141	424
76-01-7	Pentachloroethane	U	424	ug/kg	141	424
110-57-6	trans-1,4-Dichloro-2-butene	U	424	ug/kg	141	424
1330-20-7	Xylenes (total)	U	254	ug/kg	84.7	254
630-20-6	1,1,1,2-Tetrachloroethane	U	84.7	ug/kg	28.2	84.7
120-82-1	1,2,4-Trichlorobenzene	U	84.7	ug/kg	28.2	84.7

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA420.D
Acq On : 04 Apr 2024 17:05
Operator : PXY1
InstName : VOAC
Sample : |660974003|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.9G/100UL N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

MA
04/05/2024

Quant Time: Apr 05 09:43:40 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.903	10.934	1.000	947165	50.00	ug/L	-0.03
43) Chlorobenzene-d5	117	14.329	14.354	1.000	704955	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.902	16.933	1.000	359742	50.00	ug/L	-0.03
84) B Fluorobenzene	96	10.903	10.928	1.000	946996	50.00	ug/L	-0.03
103) B Chlorobenzene-d5	117	14.329	14.348	1.000	704742	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.902	16.920	1.000	359874	50.00	ug/L	-0.02

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.513	10.543	0.964	318937	55.61	ug/L	-0.03
45) Toluene-d8	98	12.683	12.714	0.885	989509	54.33	ug/L	-0.03
63) Bromofluorobenzene	95	15.591	15.622	0.922	344604	55.60	ug/L	-0.03

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	111%
45) Toluene-d8	50.000	81 - 120	109%
63) Bromofluorobenzene	50.000	74 - 128	111%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.343	7.367	0.673	3450	2.72	ug/L	76
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.708	7.739	0.707	209	N.D.		
13) Methyl acetate	43	7.763	7.794	0.712	933	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.964	8.001	0.730	8902	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.659	8.690	0.794	3376	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.495	9.525	0.871	3474	1.93	ug/L	82
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene		0.000	10.665	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA420.D
Acq On : 04 Apr 2024 17:05
Operator : PXY1
InstName : VOAC
Sample : |660974003|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.9G/100UL N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 05 09:43:40 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.421	11.434	1.048	648	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.768	12.793	0.891	554	N.D.	
47) trans-1,3-Dichloroprop...	75	12.927	12.952	0.902	377	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone	43	13.488	13.384	0.941	190	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.433	14.457	1.007	120	N.D.	
57) m,p-Xylenes	106	14.549	14.573	1.015	132	N.D.	
58) o-Xylene	91	15.006	15.037	1.047	131	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.597	15.695	0.923	202	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	16.463	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene	119	16.762	16.792	0.992	128	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.402	17.432	1.030	5071	0.51 ug/L	99
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.987	20.017	1.183	933	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA420.D
Acq On : 04 Apr 2024 17:05
Operator : PXY1
InstName : VOAC
Sample : |660974003|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.9G/100UL N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 05 09:43:40 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

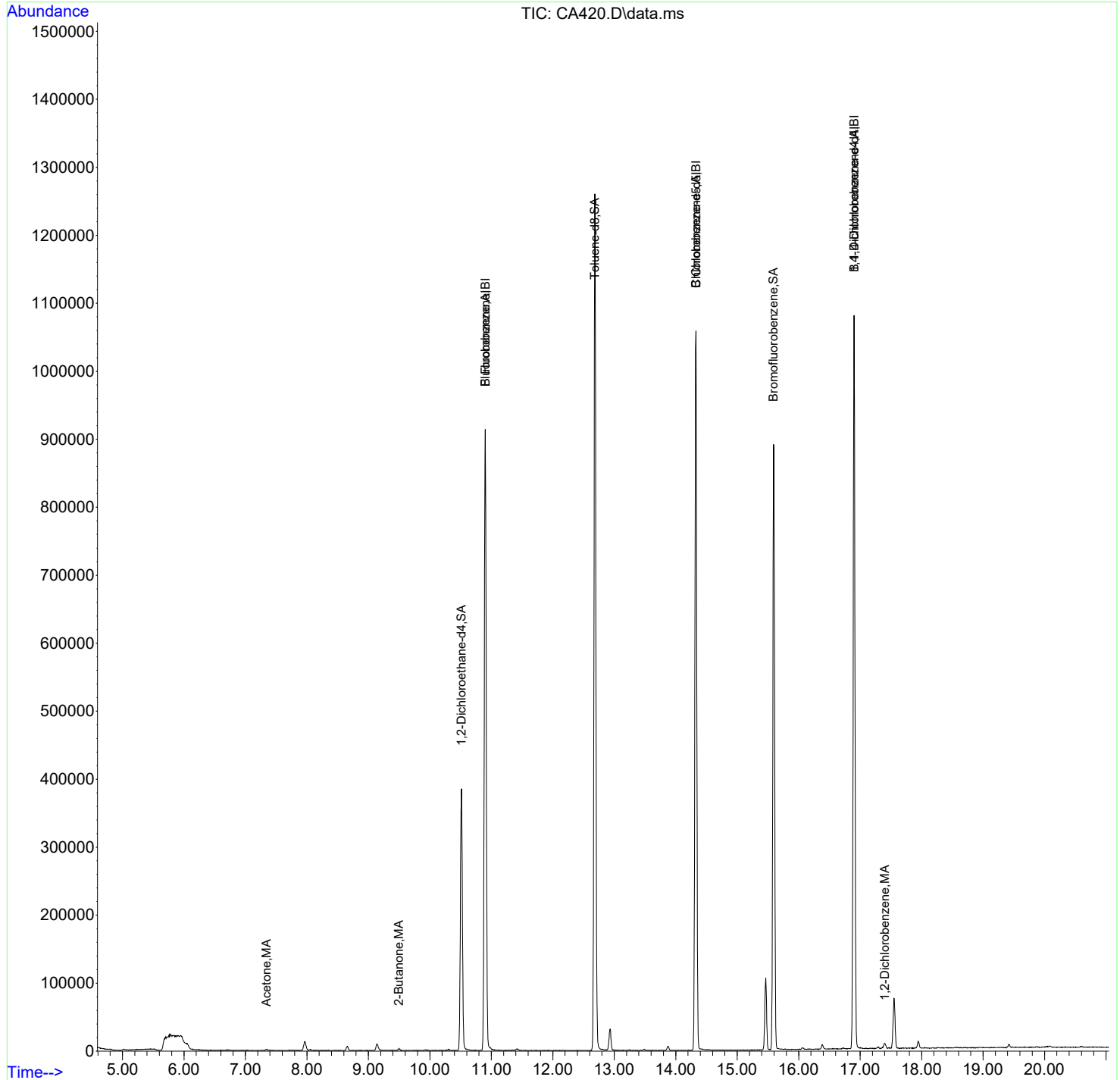
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.446	7.440	0.683	365	N.D.	
88) Allyl chloride	41	7.964	7.843	0.730	560	N.D.	
89) tert-Butyl Alcohol	59	8.050	7.983	0.738	674	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.495	9.531	0.871	3474	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.928	9.940	0.911	601	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride	91	17.048	17.073	1.009	123	N.D.	
112) bis(2-Chloroisopropyl)...		0.000	17.506	0.000	0m	N.D.	d

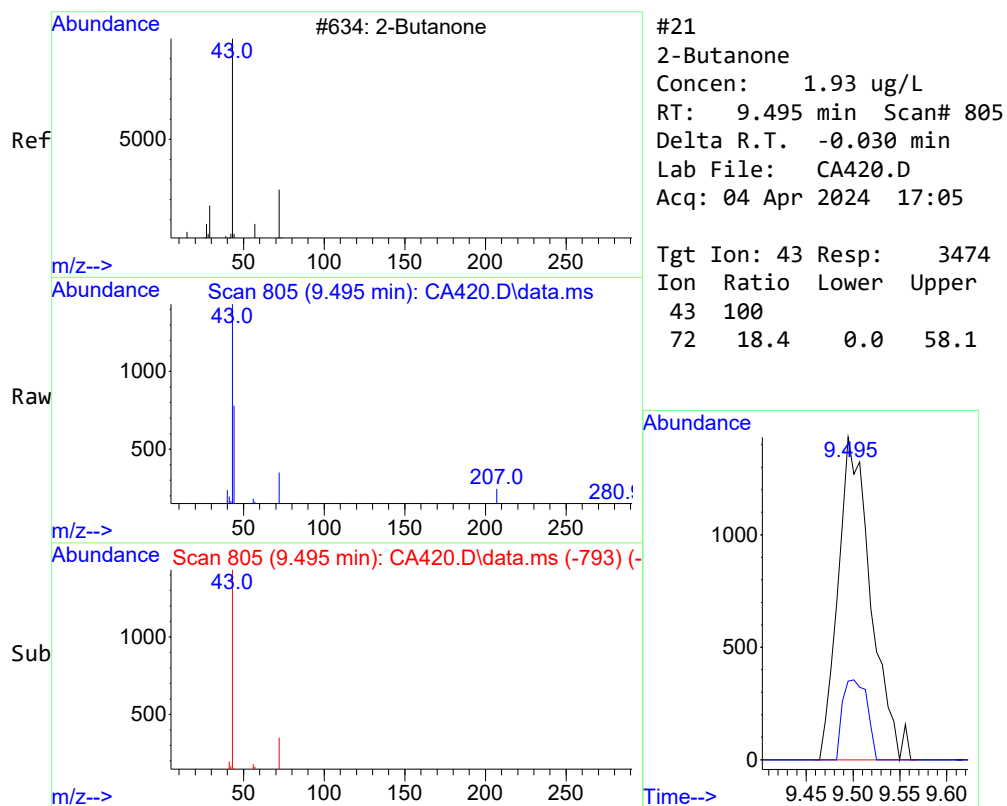
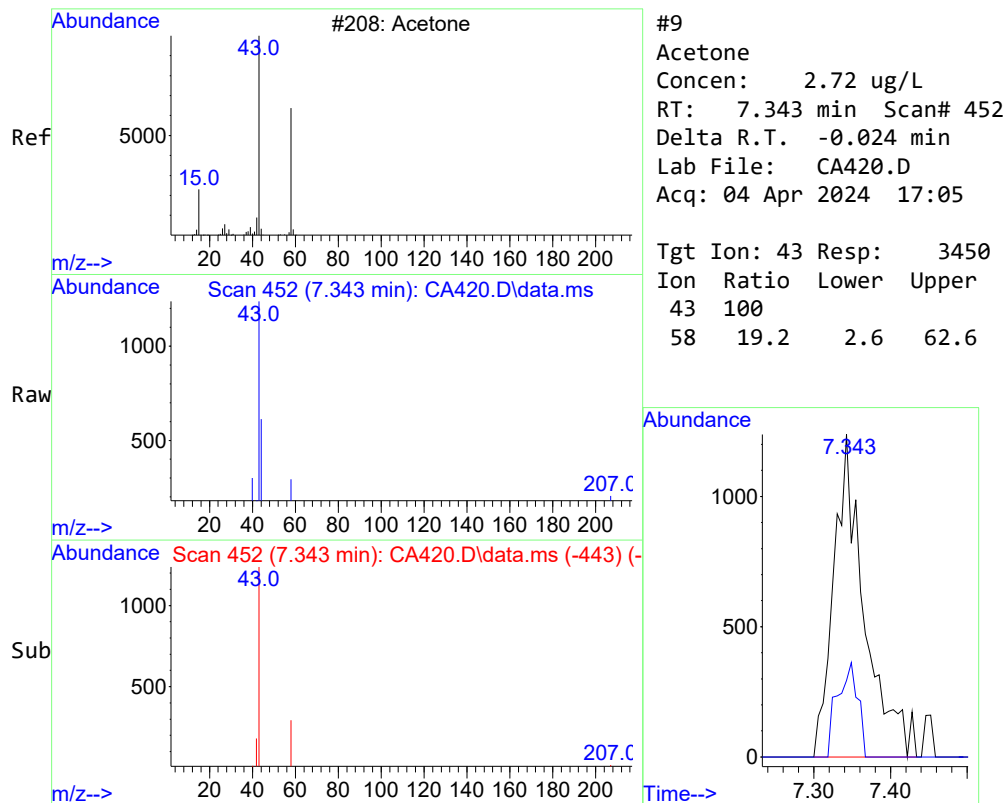
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

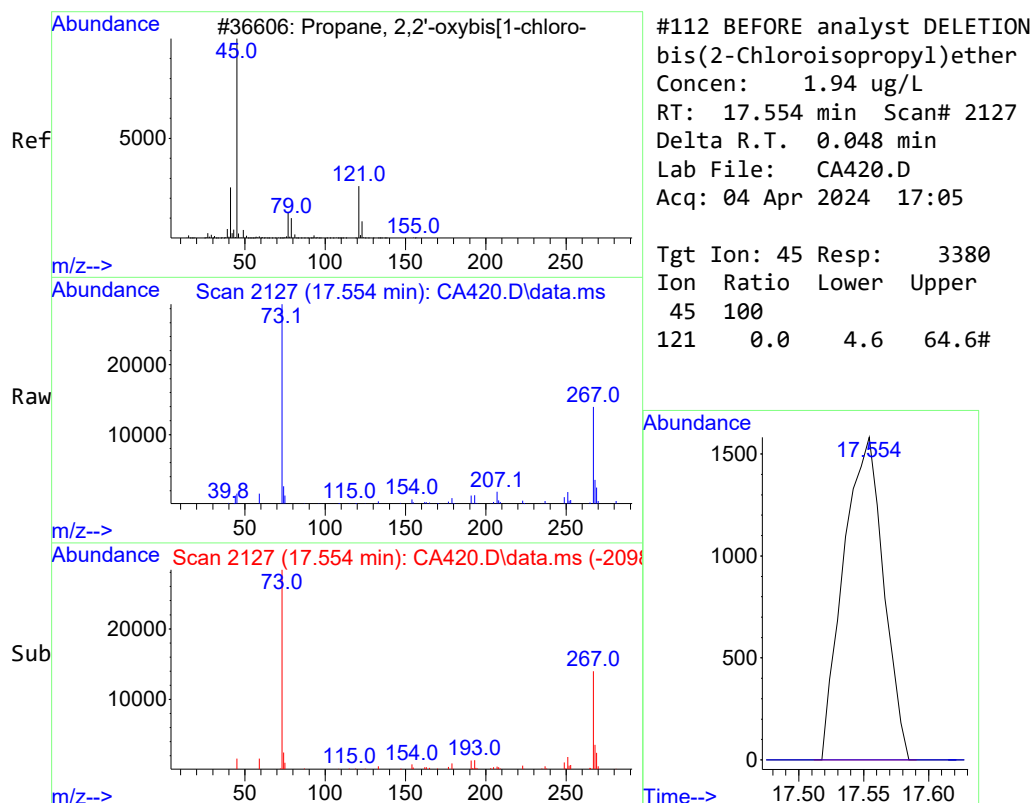
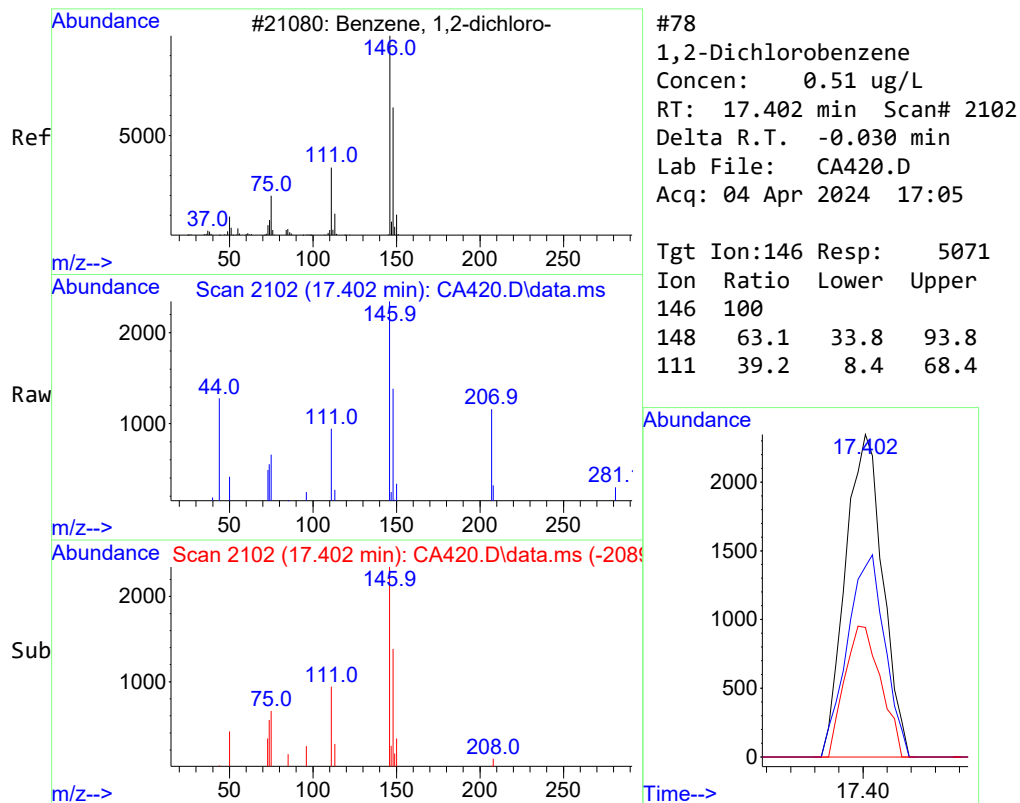
Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA420.D
Acq On : 04 Apr 2024 17:05
Operator : PXY1
InstName : VOAC
Sample : |660974003|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.9G/100UL N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 05 09:43:40 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE







Volatiles
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660974004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 17:32	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:40	Aliquot:	5.8 g	Final Volume:	10 mL
Data File:	data\040424VC\CA421.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	86.2	ug/kg	28.7	86.2
74-87-3	Chloromethane	U	86.2	ug/kg	28.7	86.2
75-01-4	Vinyl chloride	U	86.2	ug/kg	28.7	86.2
74-83-9	Bromomethane	U	86.2	ug/kg	28.7	86.2
75-00-3	Chloroethane	U	86.2	ug/kg	28.7	86.2
75-69-4	Trichlorofluoromethane	U	86.2	ug/kg	28.7	86.2
67-64-1	Acetone	U	431	ug/kg	144	431
75-35-4	1,1-Dichloroethylene	U	86.2	ug/kg	28.7	86.2
74-88-4	Iodomethane	U	431	ug/kg	144	431
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	431	ug/kg	144	431
75-05-8	Acetonitrile	U	2160	ug/kg	718	2160
75-15-0	Carbon disulfide	U	431	ug/kg	144	431
75-09-2	Methylene chloride	U	431	ug/kg	144	431
156-60-5	trans-1,2-Dichloroethylene	U	86.2	ug/kg	28.7	86.2
108-05-4	Vinyl acetate	U	431	ug/kg	144	431
75-34-3	1,1-Dichloroethane	U	86.2	ug/kg	28.7	86.2
78-93-3	2-Butanone	JB	159	ug/kg	144	431
67-66-3	Chloroform	U	86.2	ug/kg	28.7	86.2
71-55-6	1,1,1-Trichloroethane	U	86.2	ug/kg	28.7	86.2
56-23-5	Carbon tetrachloride	U	86.2	ug/kg	28.7	86.2
107-06-2	1,2-Dichloroethane	U	86.2	ug/kg	28.7	86.2
71-43-2	Benzene	U	86.2	ug/kg	28.7	86.2
79-01-6	Trichloroethylene	U	86.2	ug/kg	28.7	86.2
78-87-5	1,2-Dichloropropane	U	86.2	ug/kg	28.7	86.2
74-95-3	Dibromomethane	U	86.2	ug/kg	28.7	86.2
75-27-4	Bromodichloromethane	U	86.2	ug/kg	28.7	86.2
10061-01-5	cis-1,3-Dichloropropylene	U	86.2	ug/kg	28.7	86.2
108-10-1	4-Methyl-2-pentanone	U	431	ug/kg	144	431
108-88-3	Toluene	U	86.2	ug/kg	28.7	86.2
10061-02-6	trans-1,3-Dichloropropylene	U	86.2	ug/kg	28.7	86.2
79-00-5	1,1,2-Trichloroethane	U	86.2	ug/kg	28.7	86.2
591-78-6	2-Hexanone	U	431	ug/kg	144	431
127-18-4	Tetrachloroethylene	U	86.2	ug/kg	28.7	86.2
124-48-1	Dibromochloromethane	U	86.2	ug/kg	28.7	86.2
106-93-4	1,2-Dibromoethane	U	86.2	ug/kg	28.7	86.2
108-90-7	Chlorobenzene	U	86.2	ug/kg	28.7	86.2
100-41-4	Ethylbenzene	U	86.2	ug/kg	28.7	86.2
100-42-5	Styrene	U	86.2	ug/kg	28.7	86.2

Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660974

Lab Sample ID: 660974004

Client ID: 12040.B4.Top Back.PFF

Batch ID: 2591977

Run Date: 04/04/2024 17:32

Prep Date: 04/04/2024 08:40

Data File: data\040424VC\CA421.D

Date Collected: 03/30/2024 09:15

Date Received: 04/02/2024 08:50

Client: PERM001

Method: SW846 8260D

Inst: VOAC.I

Analyst: PXY1

Aliquot: 5.8 g

Column: DB-624

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-038

Dilution: 50

Purge Vol: 5 mL

Final Volume: 10 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	86.2	ug/kg	28.7	86.2
79-34-5	1,1,2,2-Tetrachloroethane	U	86.2	ug/kg	28.7	86.2
96-18-4	1,2,3-Trichloropropane	U	86.2	ug/kg	28.7	86.2
96-12-8	1,2-Dibromo-3-chloropropane	U	86.2	ug/kg	43.1	86.2
107-02-8	Acrolein	U	431	ug/kg	144	431
107-05-1	Allyl chloride	U	431	ug/kg	144	431
107-13-1	Acrylonitrile	U	431	ug/kg	144	431
126-99-8	2-Chloro-1,3-butadiene	U	86.2	ug/kg	28.7	86.2
107-12-0	Propionitrile	U	431	ug/kg	144	431
126-98-7	Methacrylonitrile	U	431	ug/kg	144	431
78-83-1	Isobutyl alcohol	U	4310	ug/kg	1440	4310
80-62-6	Methyl methacrylate	U	431	ug/kg	144	431
97-63-2	Ethyl methacrylate	U	431	ug/kg	144	431
76-01-7	Pentachloroethane	U	431	ug/kg	144	431
110-57-6	trans-1,4-Dichloro-2-butene	U	431	ug/kg	144	431
1330-20-7	Xylenes (total)	U	259	ug/kg	86.2	259
630-20-6	1,1,1,2-Tetrachloroethane	U	86.2	ug/kg	28.7	86.2
120-82-1	1,2,4-Trichlorobenzene	U	86.2	ug/kg	28.7	86.2

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA421.D
Acq On : 04 Apr 2024 17:32
Operator : PXY1
InstName : VOAC
Sample : |660974004|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.8G/100UL N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

MA
04/05/2024

Quant Time: Apr 05 09:44:07 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.903	10.934	1.000	964367	50.00	ug/L	-0.03
43) Chlorobenzene-d5	117	14.323	14.354	1.000	679701	50.00	ug/L	-0.03
60) 1,4-Dichlorobenzene-d4	152	16.902	16.933	1.000	345065	50.00	ug/L	-0.03
84) B Fluorobenzene	96	10.903	10.928	1.000	964015	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	117	14.323	14.348	1.000	679286	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.902	16.920	1.000	345065	50.00	ug/L	-0.02

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.513	10.543	0.964	317291	54.34	ug/L	-0.03
45) Toluene-d8	98	12.683	12.714	0.886	943399	53.72	ug/L	-0.03
63) Bromofluorobenzene	95	15.591	15.622	0.922	317656	53.43	ug/L	-0.03

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	109%
45) Toluene-d8	50.000	81 - 120	107%
63) Bromofluorobenzene	50.000	74 - 128	107%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.343	7.367	0.673	2122	N.D.		
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.684	7.739	0.705	126	N.D.		
13) Methyl acetate	43	7.763	7.794	0.712	966	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.965	8.001	0.730	8747	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.654	8.690	0.794	1894	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.495	9.525	0.871	3384	1.85	ug/L	87
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.629	10.665	0.975	210	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA421.D
Acq On : 04 Apr 2024 17:32
Operator : PXY1
InstName : VOAC
Sample : |660974004|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.8G/100UL N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 05 09:44:07 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene	67	10.714	10.793	0.983	177	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.415	11.434	1.047	632	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.763	12.793	0.891	580	N.D.	
47) trans-1,3-Dichloroprop...	75	12.921	12.952	0.902	355	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene		0.000	14.457	0.000	0	N.D.	
57) m,p-Xylenes	106	14.537	14.573	1.015	121	N.D.	
58) o-Xylene		0.000	15.037	0.000	0	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene	105	15.469	15.414	0.915	122	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.585	15.695	0.922	154	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	16.463	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.402	17.432	1.030	7572	0.79 ug/L	97
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.981	20.017	1.182	1275	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA421.D
Acq On : 04 Apr 2024 17:32
Operator : PXY1
InstName : VOAC
Sample : |660974004|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.8G/100UL N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 05 09:44:07 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

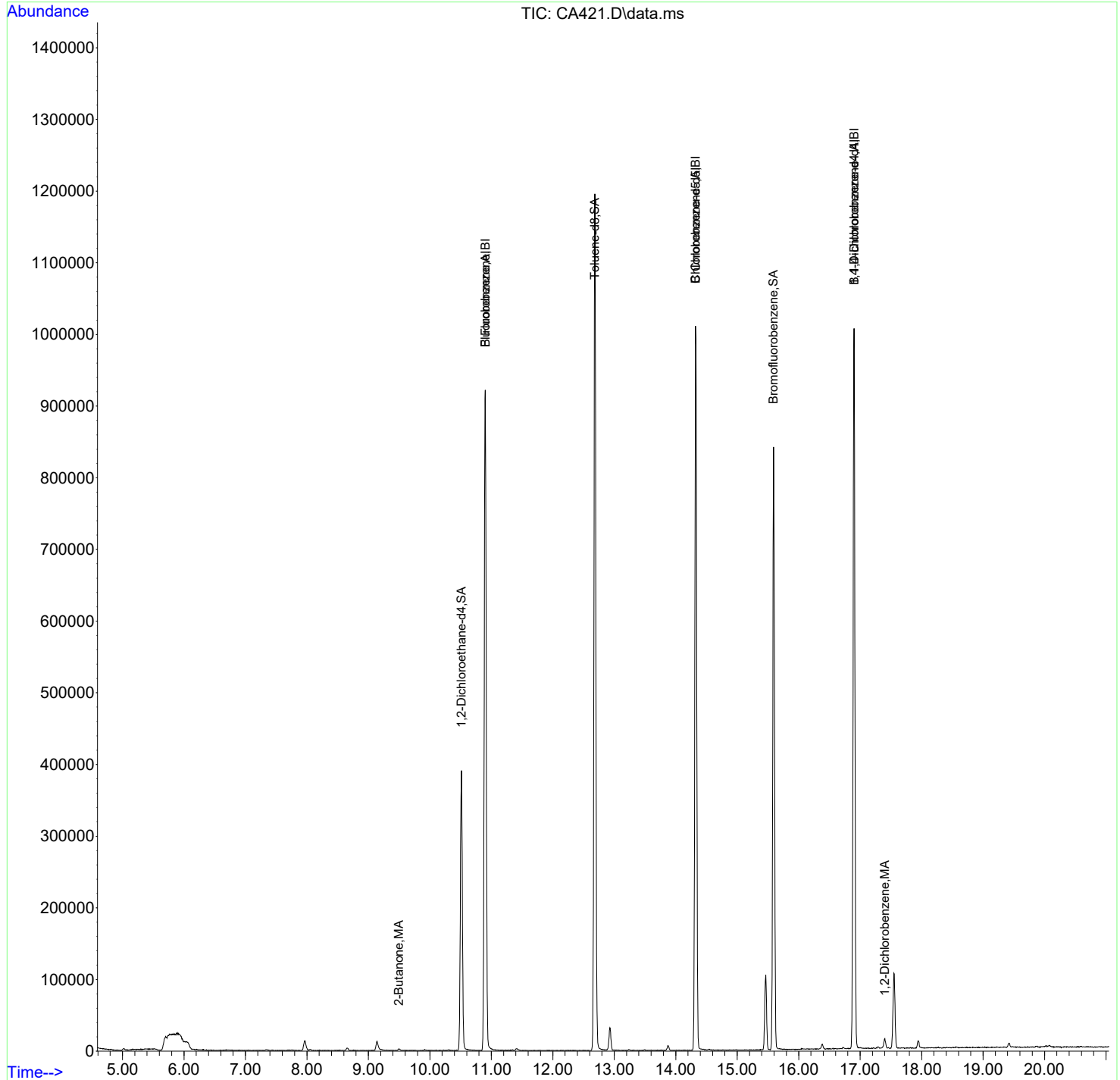
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.434	7.440	0.682	379	N.D.	
88) Allyl chloride	41	7.824	7.843	0.718	132	N.D.	
89) tert-Butyl Alcohol	59	8.050	7.983	0.738	1004	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.495	9.531	0.871	3384	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.916	9.940	0.909	583	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		0.000	17.506	0.000	0m	N.D.	d

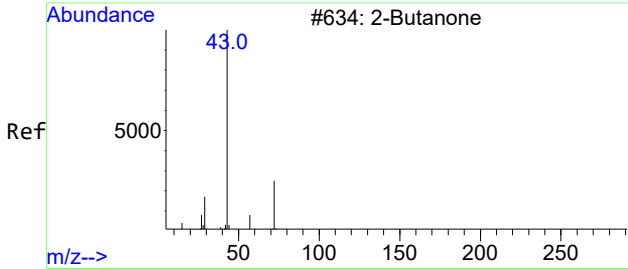
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA421.D
Acq On : 04 Apr 2024 17:32
Operator : PXY1
InstName : VOAC
Sample : |660974004|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.8G/100UL N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

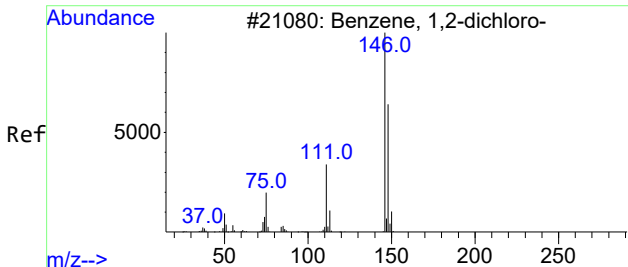
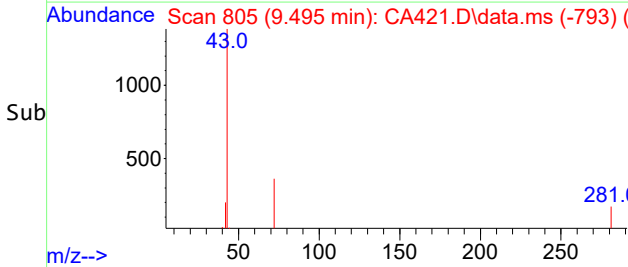
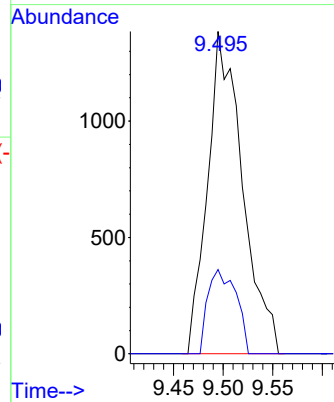
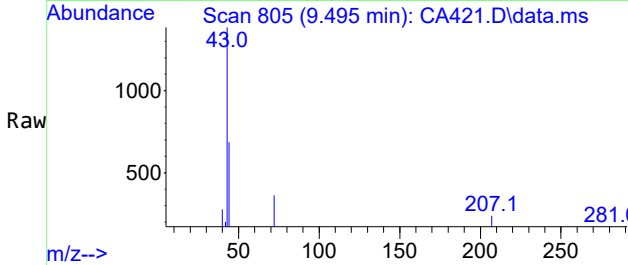
Quant Time: Apr 05 09:44:07 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





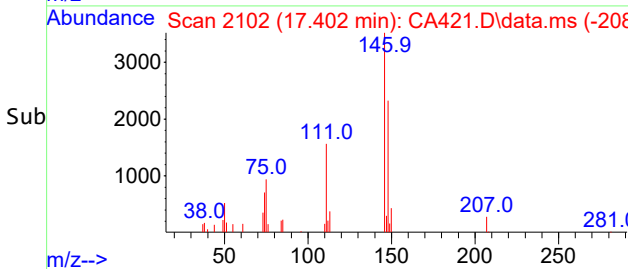
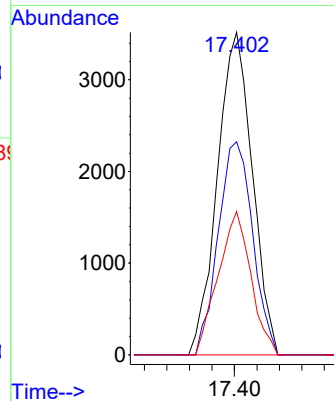
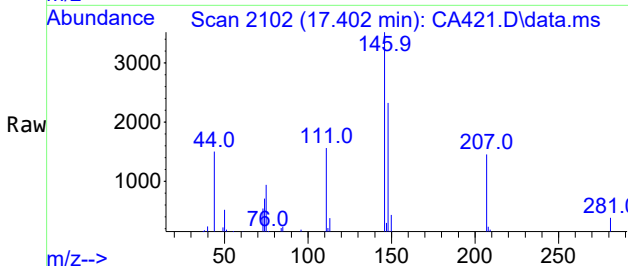
#21
2-Butanone
Concen: 1.85 ug/L
RT: 9.495 min Scan# 805
Delta R.T. -0.030 min
Lab File: CA421.D
Acq: 04 Apr 2024 17:32

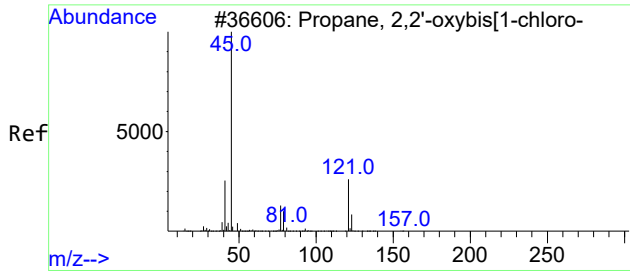
Tgt Ion: 43 Resp: 3384
Ion Ratio Lower Upper
43 100
72 21.1 0.0 58.1



#78
1,2-Dichlorobenzene
Concen: 0.79 ug/L
RT: 17.402 min Scan# 2102
Delta R.T. -0.030 min
Lab File: CA421.D
Acq: 04 Apr 2024 17:32

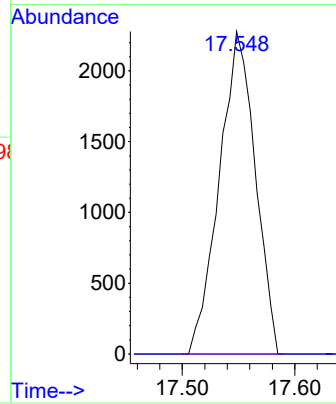
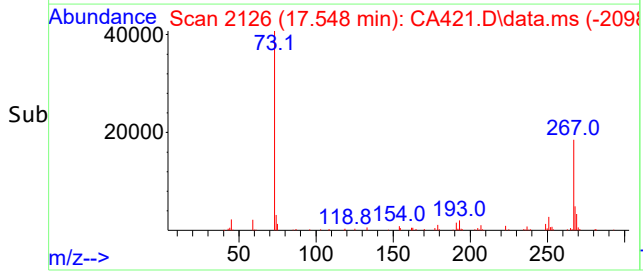
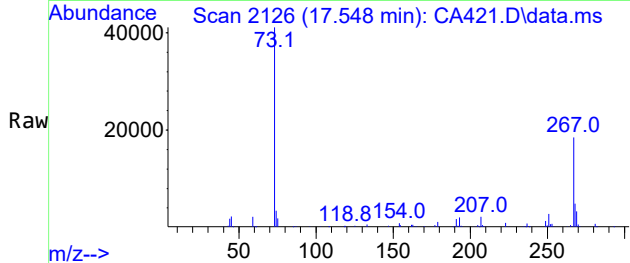
Tgt Ion: 146 Resp: 7572
Ion Ratio Lower Upper
146 100
148 65.2 33.8 93.8
111 41.6 8.4 68.4





#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 3.03 ug/L
RT: 17.548 min Scan# 2126
Delta R.T. 0.042 min
Lab File: CA421.D
Acq: 04 Apr 2024 17:32

Tgt Ion: 45 Resp: 5066
Ion Ratio Lower Upper
45 100
121 0.0 4.6 64.6#



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660974005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 18:00	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:41	Aliquot:	5.8 g	Final Volume:	10 mL
Data File:	data\040424VC\CA422.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	86.2	ug/kg	28.7	86.2
74-87-3	Chloromethane	U	86.2	ug/kg	28.7	86.2
75-01-4	Vinyl chloride	U	86.2	ug/kg	28.7	86.2
74-83-9	Bromomethane	U	86.2	ug/kg	28.7	86.2
75-00-3	Chloroethane	U	86.2	ug/kg	28.7	86.2
75-69-4	Trichlorofluoromethane	U	86.2	ug/kg	28.7	86.2
67-64-1	Acetone	J	152	ug/kg	144	431
75-35-4	1,1-Dichloroethylene	U	86.2	ug/kg	28.7	86.2
74-88-4	Iodomethane	U	431	ug/kg	144	431
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	431	ug/kg	144	431
75-05-8	Acetonitrile	U	2160	ug/kg	718	2160
75-15-0	Carbon disulfide	U	431	ug/kg	144	431
75-09-2	Methylene chloride	U	431	ug/kg	144	431
156-60-5	trans-1,2-Dichloroethylene	U	86.2	ug/kg	28.7	86.2
108-05-4	Vinyl acetate	U	431	ug/kg	144	431
75-34-3	1,1-Dichloroethane	U	86.2	ug/kg	28.7	86.2
78-93-3	2-Butanone	JB	163	ug/kg	144	431
67-66-3	Chloroform	U	86.2	ug/kg	28.7	86.2
71-55-6	1,1,1-Trichloroethane	U	86.2	ug/kg	28.7	86.2
56-23-5	Carbon tetrachloride	U	86.2	ug/kg	28.7	86.2
107-06-2	1,2-Dichloroethane	U	86.2	ug/kg	28.7	86.2
71-43-2	Benzene	U	86.2	ug/kg	28.7	86.2
79-01-6	Trichloroethylene	U	86.2	ug/kg	28.7	86.2
78-87-5	1,2-Dichloropropane	U	86.2	ug/kg	28.7	86.2
74-95-3	Dibromomethane	U	86.2	ug/kg	28.7	86.2
75-27-4	Bromodichloromethane	U	86.2	ug/kg	28.7	86.2
10061-01-5	cis-1,3-Dichloropropylene	U	86.2	ug/kg	28.7	86.2
108-10-1	4-Methyl-2-pentanone	U	431	ug/kg	144	431
108-88-3	Toluene	U	86.2	ug/kg	28.7	86.2
10061-02-6	trans-1,3-Dichloropropylene	U	86.2	ug/kg	28.7	86.2
79-00-5	1,1,2-Trichloroethane	U	86.2	ug/kg	28.7	86.2
591-78-6	2-Hexanone	U	431	ug/kg	144	431
127-18-4	Tetrachloroethylene	U	86.2	ug/kg	28.7	86.2
124-48-1	Dibromochloromethane	U	86.2	ug/kg	28.7	86.2
106-93-4	1,2-Dibromoethane	U	86.2	ug/kg	28.7	86.2
108-90-7	Chlorobenzene	U	86.2	ug/kg	28.7	86.2
100-41-4	Ethylbenzene	U	86.2	ug/kg	28.7	86.2
100-42-5	Styrene	U	86.2	ug/kg	28.7	86.2

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660974005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 18:00	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:41	Aliquot:	5.8 g	Final Volume:	10 mL
Data File:	data\040424VC\CA422.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	86.2	ug/kg	28.7	86.2
79-34-5	1,1,2,2-Tetrachloroethane	U	86.2	ug/kg	28.7	86.2
96-18-4	1,2,3-Trichloropropane	U	86.2	ug/kg	28.7	86.2
96-12-8	1,2-Dibromo-3-chloropropane	U	86.2	ug/kg	43.1	86.2
107-02-8	Acrolein	U	431	ug/kg	144	431
107-05-1	Allyl chloride	U	431	ug/kg	144	431
107-13-1	Acrylonitrile	U	431	ug/kg	144	431
126-99-8	2-Chloro-1,3-butadiene	U	86.2	ug/kg	28.7	86.2
107-12-0	Propionitrile	U	431	ug/kg	144	431
126-98-7	Methacrylonitrile	U	431	ug/kg	144	431
78-83-1	Isobutyl alcohol	U	4310	ug/kg	1440	4310
80-62-6	Methyl methacrylate	U	431	ug/kg	144	431
97-63-2	Ethyl methacrylate	U	431	ug/kg	144	431
76-01-7	Pentachloroethane	U	431	ug/kg	144	431
110-57-6	trans-1,4-Dichloro-2-butene	U	431	ug/kg	144	431
1330-20-7	Xylenes (total)	U	259	ug/kg	86.2	259
630-20-6	1,1,1,2-Tetrachloroethane	U	86.2	ug/kg	28.7	86.2
120-82-1	1,2,4-Trichlorobenzene	U	86.2	ug/kg	28.7	86.2

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA422.D
Acq On : 04 Apr 2024 18:00
Operator : PXY1
InstName : VOAC
Sample : |660974005|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.8G/100UL N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

MA

04/05/2024

Quant Time: Apr 05 09:44:37 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.897	10.934	1.000	965130	50.00	ug/L	-0.04
43) Chlorobenzene-d5	117	14.323	14.354	1.000	682928	50.00	ug/L	-0.03
60) 1,4-Dichlorobenzene-d4	152	16.902	16.933	1.000	342566	50.00	ug/L	-0.03
84) B Fluorobenzene	96	10.897	10.928	1.000	965030	50.00	ug/L	-0.03
103) B Chlorobenzene-d5	117	14.323	14.348	1.000	682928	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.902	16.920	1.000	342572	50.00	ug/L	-0.02

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.513	10.543	0.965	319533	54.68	ug/L	-0.03
45) Toluene-d8	98	12.683	12.714	0.886	947909	53.73	ug/L	-0.03
63) Bromofluorobenzene	95	15.591	15.622	0.922	316695	53.66	ug/L	-0.03

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	109%
45) Toluene-d8	50.000	81 - 120	107%
63) Bromofluorobenzene	50.000	74 - 128	107%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.337	7.367	0.673	2278	1.76	ug/L	76
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.727	7.739	0.709	597	N.D.		
13) Methyl acetate	43	7.764	7.794	0.712	1125	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.965	8.001	0.731	9177	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.660	8.690	0.795	2369	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.507	9.525	0.872	3458	1.89	ug/L	81
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.629	10.665	0.975	210	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA422.D
Acq On : 04 Apr 2024 18:00
Operator : PXY1
InstName : VOAC
Sample : |660974005|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.8G/100UL N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 05 09:44:37 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.415	11.434	1.048	544	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.763	12.793	0.891	539	N.D.	
47) trans-1,3-Dichloroprop...	75	12.921	12.952	0.902	270	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene		0.000	14.457	0.000	0	N.D.	
57) m,p-Xylenes		0.000	14.573	0.000	0	N.D.	
58) o-Xylene		0.000	15.037	0.000	0	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.591	15.695	0.922	186	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.433	16.463	0.972	127	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.396	17.432	1.029	5919	0.63 ug/L	99
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.987	20.017	1.183	1239	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA422.D
Acq On : 04 Apr 2024 18:00
Operator : PXY1
InstName : VOAC
Sample : |660974005|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.8G/100UL N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 05 09:44:37 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

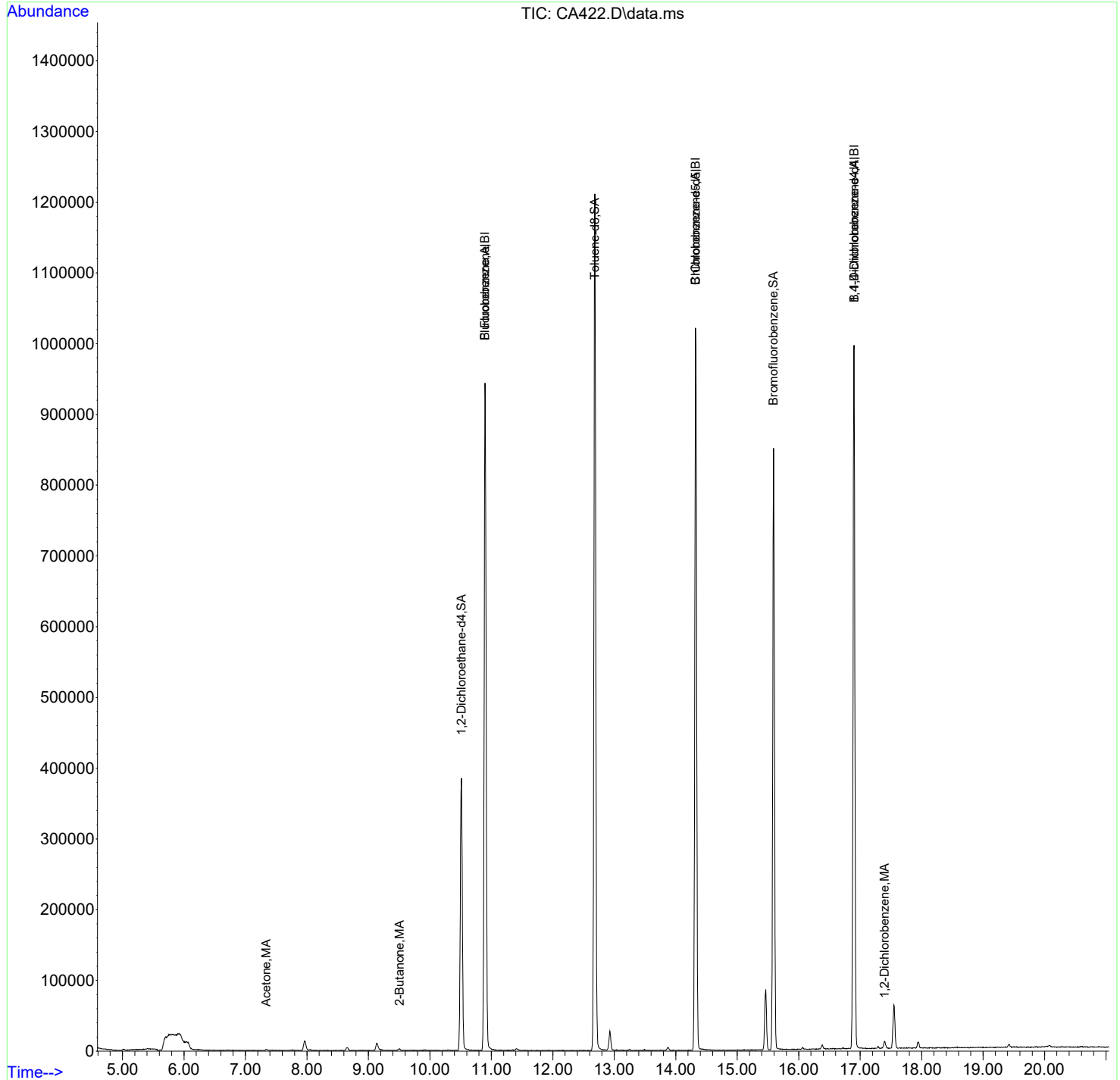
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.440	7.440	0.683	377	N.D.	
88) Allyl chloride	41	7.806	7.843	0.716	136	N.D.	
89) tert-Butyl Alcohol	59	8.056	7.983	0.739	816	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.507	9.531	0.872	3458	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.916	9.940	0.910	455	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		0.000	17.506	0.000	0m	N.D.	d

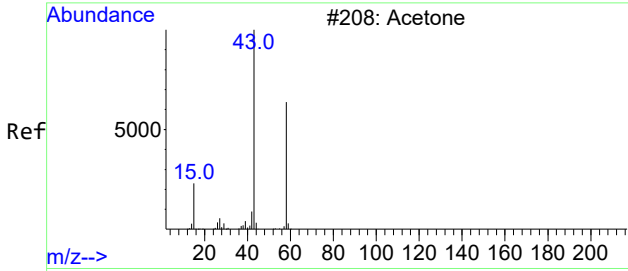
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA422.D
Acq On : 04 Apr 2024 18:00
Operator : PXY1
InstName : VOAC
Sample : |660974005|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.8G/100UL N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

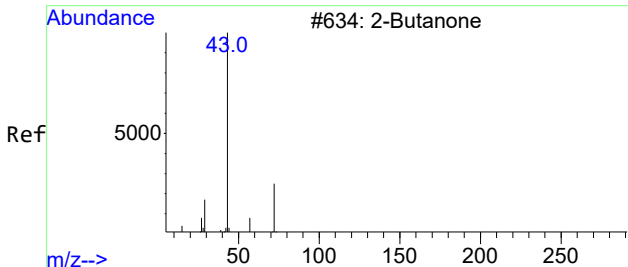
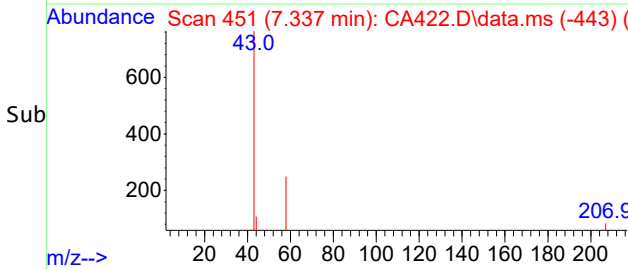
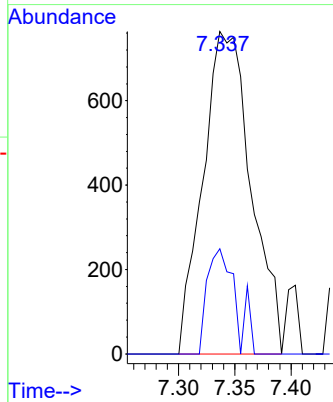
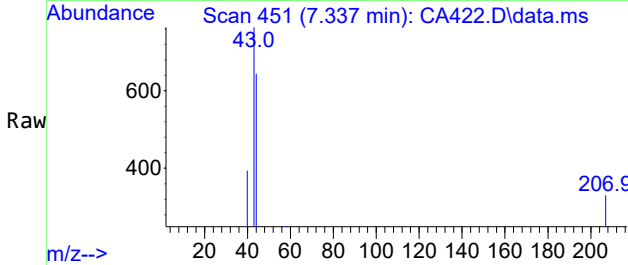
Quant Time: Apr 05 09:44:37 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





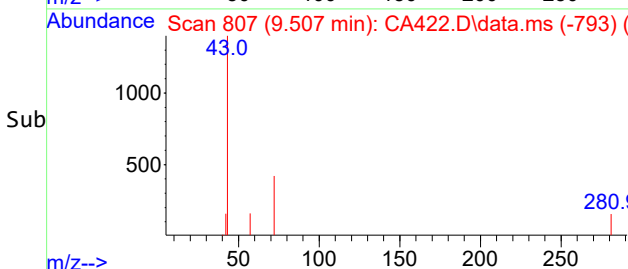
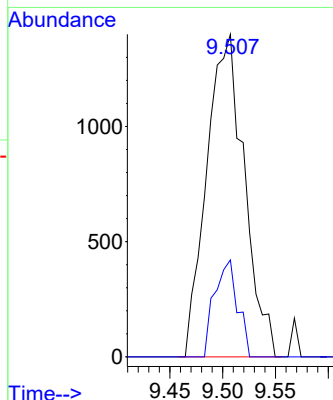
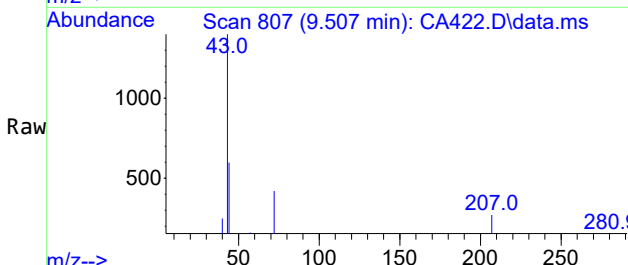
#9
Acetone
Concen: 1.76 ug/L
RT: 7.337 min Scan# 451
Delta R.T. -0.030 min
Lab File: CA422.D
Acq: 04 Apr 2024 18:00

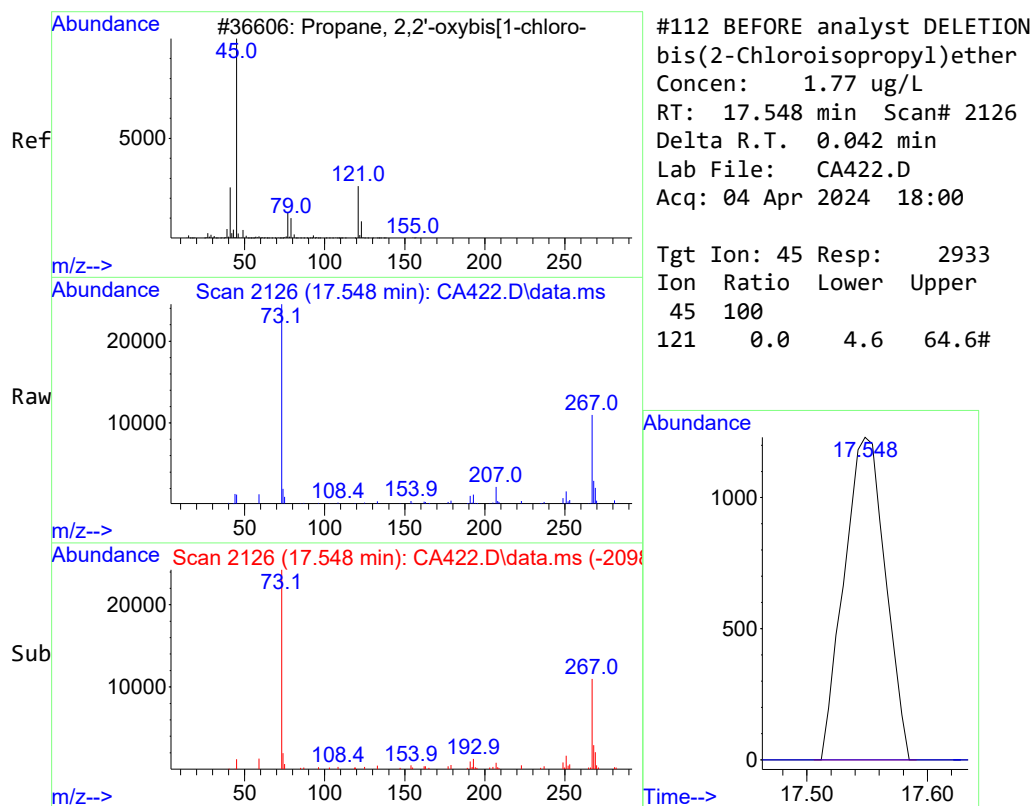
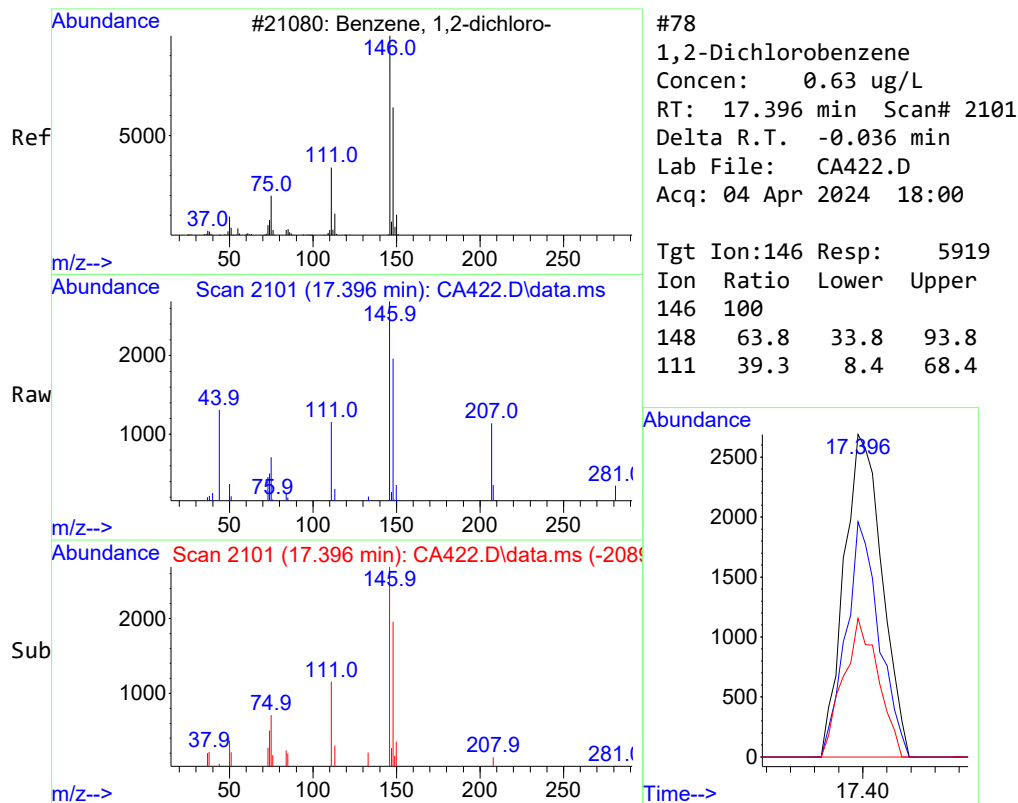
Tgt Ion: 43 Resp: 2278
Ion Ratio Lower Upper
43 100
58 19.2 2.6 62.6



#21
2-Butanone
Concen: 1.89 ug/L
RT: 9.507 min Scan# 807
Delta R.T. -0.018 min
Lab File: CA422.D
Acq: 04 Apr 2024 18:00

Tgt Ion: 43 Resp: 3458
Ion Ratio Lower Upper
43 100
72 18.3 0.0 58.1





Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660974006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 18:28	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:42	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040424VC\CA423.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	90.9	ug/kg	30.3	90.9
74-87-3	Chloromethane	U	90.9	ug/kg	30.3	90.9
75-01-4	Vinyl chloride	U	90.9	ug/kg	30.3	90.9
74-83-9	Bromomethane	U	90.9	ug/kg	30.3	90.9
75-00-3	Chloroethane	U	90.9	ug/kg	30.3	90.9
75-69-4	Trichlorofluoromethane	U	90.9	ug/kg	30.3	90.9
67-64-1	Acetone	J	165	ug/kg	152	455
75-35-4	1,1-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
74-88-4	Iodomethane	U	455	ug/kg	152	455
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	455	ug/kg	152	455
75-05-8	Acetonitrile	U	2270	ug/kg	758	2270
75-15-0	Carbon disulfide	U	455	ug/kg	152	455
75-09-2	Methylene chloride	U	455	ug/kg	152	455
156-60-5	trans-1,2-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
108-05-4	Vinyl acetate	U	455	ug/kg	152	455
75-34-3	1,1-Dichloroethane	U	90.9	ug/kg	30.3	90.9
78-93-3	2-Butanone	JB	174	ug/kg	152	455
67-66-3	Chloroform	U	90.9	ug/kg	30.3	90.9
71-55-6	1,1,1-Trichloroethane	U	90.9	ug/kg	30.3	90.9
56-23-5	Carbon tetrachloride	U	90.9	ug/kg	30.3	90.9
107-06-2	1,2-Dichloroethane	U	90.9	ug/kg	30.3	90.9
71-43-2	Benzene	U	90.9	ug/kg	30.3	90.9
79-01-6	Trichloroethylene	U	90.9	ug/kg	30.3	90.9
78-87-5	1,2-Dichloropropane	U	90.9	ug/kg	30.3	90.9
74-95-3	Dibromomethane	U	90.9	ug/kg	30.3	90.9
75-27-4	Bromodichloromethane	U	90.9	ug/kg	30.3	90.9
10061-01-5	cis-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
108-10-1	4-Methyl-2-pentanone	U	455	ug/kg	152	455
108-88-3	Toluene	U	90.9	ug/kg	30.3	90.9
10061-02-6	trans-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
79-00-5	1,1,2-Trichloroethane	U	90.9	ug/kg	30.3	90.9
591-78-6	2-Hexanone	U	455	ug/kg	152	455
127-18-4	Tetrachloroethylene	U	90.9	ug/kg	30.3	90.9
124-48-1	Dibromochloromethane	U	90.9	ug/kg	30.3	90.9
106-93-4	1,2-Dibromoethane	U	90.9	ug/kg	30.3	90.9
108-90-7	Chlorobenzene	U	90.9	ug/kg	30.3	90.9
100-41-4	Ethylbenzene	U	90.9	ug/kg	30.3	90.9
100-42-5	Styrene	U	90.9	ug/kg	30.3	90.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660974006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.PFF	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 18:28	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:42	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040424VC\CA423.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	90.9	ug/kg	30.3	90.9
79-34-5	1,1,2,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
96-18-4	1,2,3-Trichloropropane	U	90.9	ug/kg	30.3	90.9
96-12-8	1,2-Dibromo-3-chloropropane	U	90.9	ug/kg	45.5	90.9
107-02-8	Acrolein	U	455	ug/kg	152	455
107-05-1	Allyl chloride	U	455	ug/kg	152	455
107-13-1	Acrylonitrile	U	455	ug/kg	152	455
126-99-8	2-Chloro-1,3-butadiene	U	90.9	ug/kg	30.3	90.9
107-12-0	Propionitrile	U	455	ug/kg	152	455
126-98-7	Methacrylonitrile	U	455	ug/kg	152	455
78-83-1	Isobutyl alcohol	U	4550	ug/kg	1520	4550
80-62-6	Methyl methacrylate	U	455	ug/kg	152	455
97-63-2	Ethyl methacrylate	U	455	ug/kg	152	455
76-01-7	Pentachloroethane	U	455	ug/kg	152	455
110-57-6	trans-1,4-Dichloro-2-butene	U	455	ug/kg	152	455
1330-20-7	Xylenes (total)	U	273	ug/kg	90.9	273
630-20-6	1,1,1,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
120-82-1	1,2,4-Trichlorobenzene	U	90.9	ug/kg	30.3	90.9

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA423.D
Acq On : 04 Apr 2024 18:28
Operator : PXY1
InstName : VOAC
Sample : |660974006|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

MA

04/05/2024

Quant Time: Apr 05 09:45:04 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.897	10.934	1.000	964173	50.00	ug/L	-0.04
43) Chlorobenzene-d5	117	14.323	14.354	1.000	681387	50.00	ug/L	-0.03
60) 1,4-Dichlorobenzene-d4	152	16.902	16.933	1.000	346291	50.00	ug/L	-0.03
84) B Fluorobenzene	96	10.897	10.928	1.000	964034	50.00	ug/L	-0.03
103) B Chlorobenzene-d5	117	14.323	14.348	1.000	681387	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.902	16.920	1.000	346299	50.00	ug/L	-0.02

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.513	10.543	0.965	318157	54.50	ug/L	-0.03
45) Toluene-d8	98	12.683	12.714	0.886	940423	53.42	ug/L	-0.03
63) Bromofluorobenzene	95	15.591	15.622	0.922	313424	52.53	ug/L	-0.03

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	109%
45) Toluene-d8	50.000	81 - 120	107%
63) Bromofluorobenzene	50.000	74 - 128	105%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.337	7.367	0.673	2339	1.81	ug/L	79
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.959	7.739	0.730	539	N.D.		
13) Methyl acetate	43	7.763	7.794	0.712	957	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.965	8.001	0.731	9157	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.660	8.690	0.795	1849	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.501	9.525	0.872	3491	1.91	ug/L	79
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene		0.000	10.665	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA423.D
Acq On : 04 Apr 2024 18:28
Operator : PXY1
InstName : VOAC
Sample : |660974006|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 05 09:45:04 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene	67	10.891	10.793	0.999	266	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.409	11.434	1.047	566	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.756	12.793	0.891	487	N.D.	
47) trans-1,3-Dichloroprop...	75	12.927	12.952	0.903	349	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone	43	13.494	13.384	0.942	192	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene		0.000	14.457	0.000	0	N.D.	
57) m,p-Xylenes		0.000	14.573	0.000	0	N.D.	
58) o-Xylene		0.000	15.037	0.000	0	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.585	15.695	0.922	271	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.488	16.463	0.975	122	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.396	17.432	1.029	2786	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.981	20.017	1.182	957	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA423.D
Acq On : 04 Apr 2024 18:28
Operator : PXY1
InstName : VOAC
Sample : |660974006|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 05 09:45:04 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

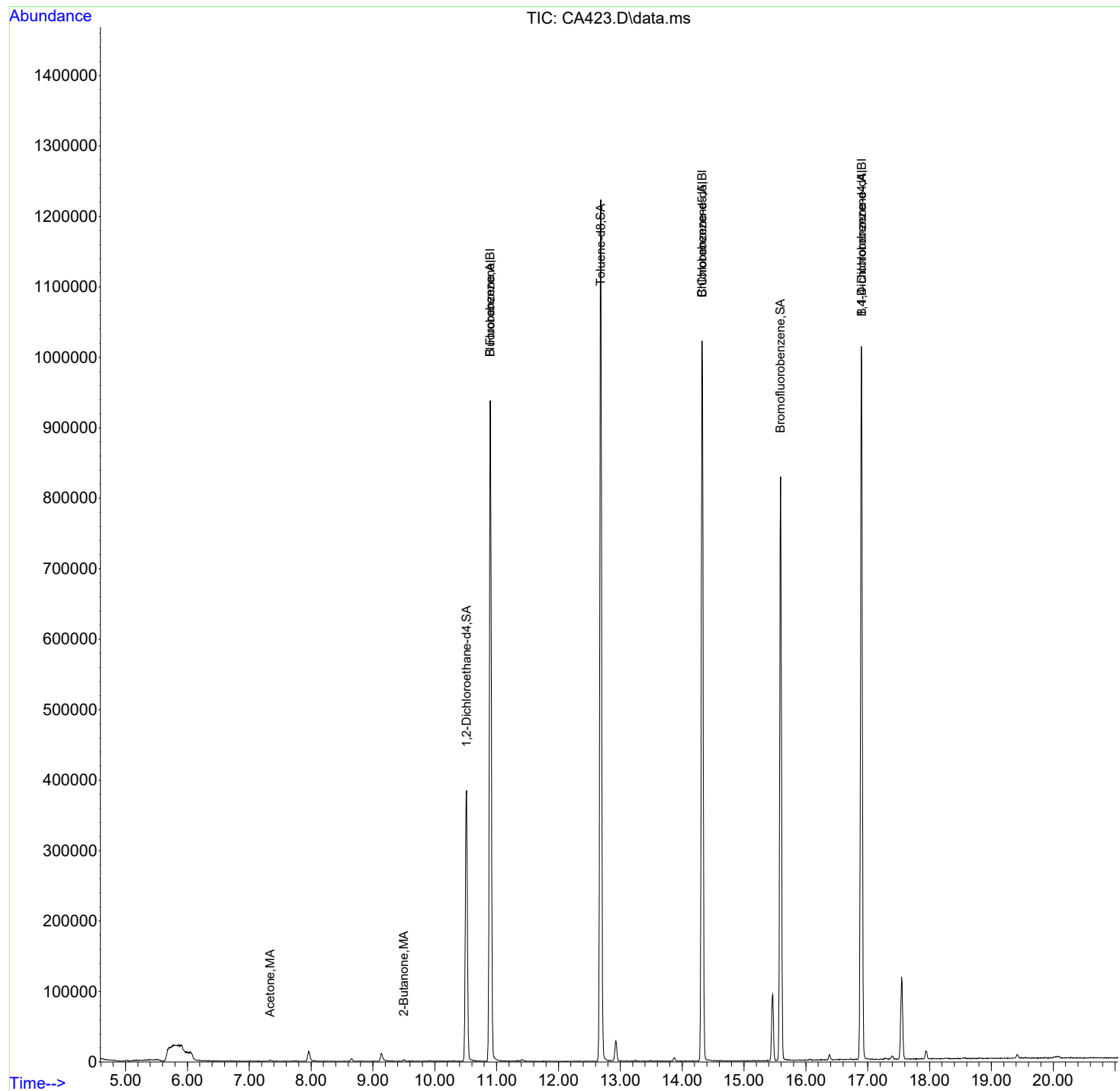
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.440	7.440	0.683	443	N.D.	
88) Allyl chloride	41	7.959	7.843	0.730	539	N.D.	
89) tert-Butyl Alcohol	59	7.965	7.983	0.731	117	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.501	9.531	0.872	3491	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.922	9.940	0.910	619	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		0.000	17.506	0.000	0m	N.D.	d

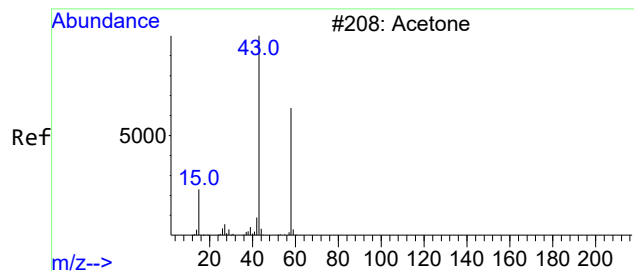
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

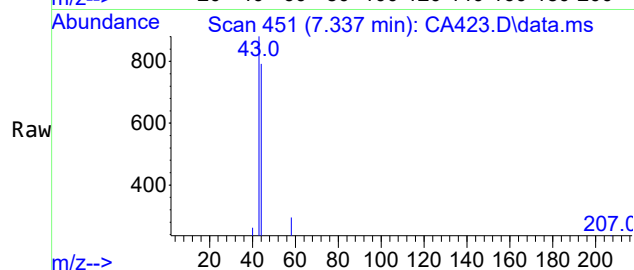
Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA423.D
Acq On : 04 Apr 2024 18:28
Operator : PXY1
InstName : VOAC
Sample : |660974006|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 05 09:45:04 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

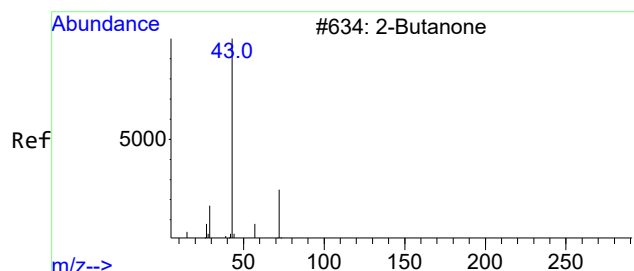
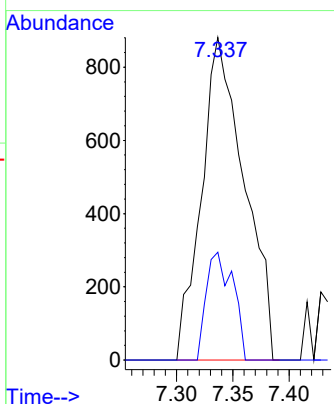
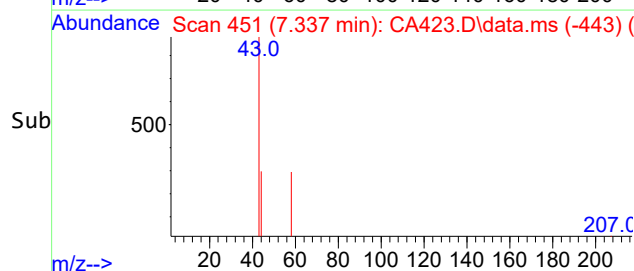




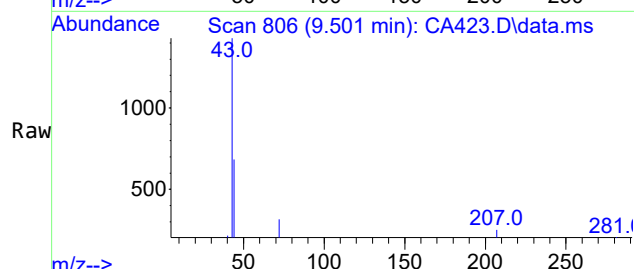
#9
Acetone
Concen: 1.81 ug/L
RT: 7.337 min Scan# 451
Delta R.T. -0.030 min
Lab File: CA423.D
Acq: 04 Apr 2024 18:28



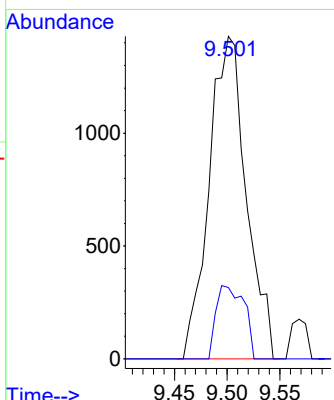
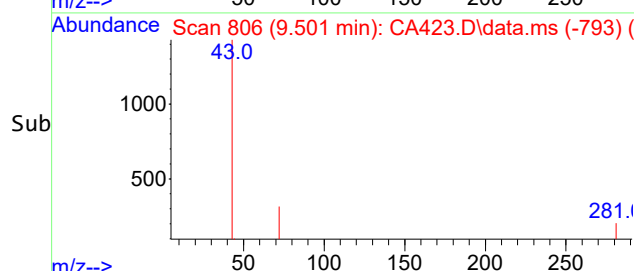
Tgt Ion: 43 Resp: 2339
Ion Ratio Lower Upper
43 100
58 20.7 2.6 62.6

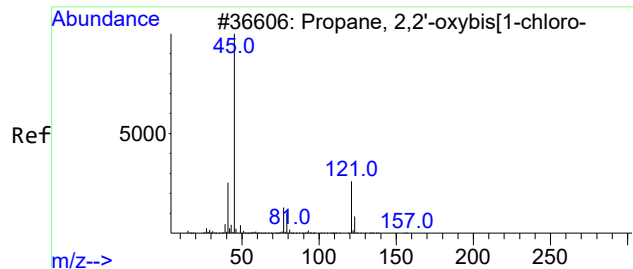


#21
2-Butanone
Concen: 1.91 ug/L
RT: 9.501 min Scan# 806
Delta R.T. -0.024 min
Lab File: CA423.D
Acq: 04 Apr 2024 18:28

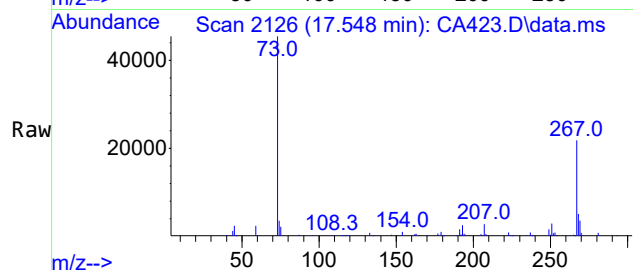


Tgt Ion: 43 Resp: 3491
Ion Ratio Lower Upper
43 100
72 17.0 0.0 58.1

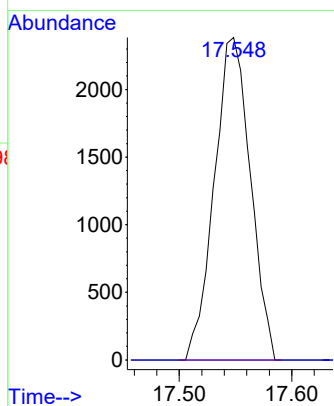
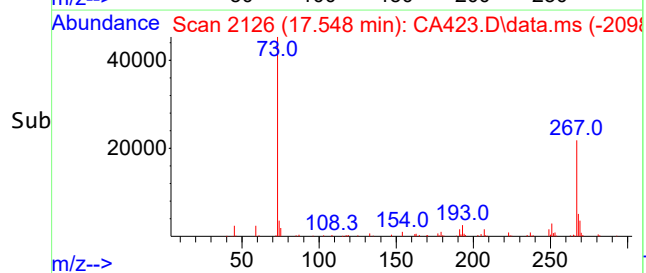




#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 3.17 ug/L
RT: 17.548 min Scan# 2126
Delta R.T. 0.042 min
Lab File: CA423.D
Acq: 04 Apr 2024 18:28



Tgt Ion: 45 Resp: 5309
Ion Ratio Lower Upper
45 100
121 0.0 4.6 64.6#



Standards

Calibration History Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

03/19/2024

03/19/2024

Cal Lvl:8 Amt:0.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY102.D

Injection Date	Mix	Calibration File
18 Mar 2024 11:39	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY102.D

Cal Lvl:1 Amt:1.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY113.D

Injection Date	Mix	Calibration File
18 Mar 2024 12:07	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY103.D
18 Mar 2024 16:45	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY113.D

Cal Lvl:2 Amt:2.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY114.D

Injection Date	Mix	Calibration File
18 Mar 2024 12:35	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY104.D
18 Mar 2024 17:13	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY114.D

Cal Lvl:3 Amt:5.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY115.D

Injection Date	Mix	Calibration File
18 Mar 2024 13:03	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY105.D
18 Mar 2024 17:41	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY115.D

Cal Lvl:4 Amt:10.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY116.D

Injection Date	Mix	Calibration File
18 Mar 2024 13:31	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY106.D
18 Mar 2024 18:08	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY116.D

Cal Lvl:5 Amt:20.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY117.D

Injection Date	Mix	Calibration File
18 Mar 2024 13:59	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY107.D
18 Mar 2024 18:36	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY117.D

Cal Lvl:6 Amt:50.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY118.D

Injection Date	Mix	Calibration File
18 Mar 2024 14:26	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY108.D
18 Mar 2024 19:04	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY118.D

Cal Lvl:7 Amt:100.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY120.D

Injection Date	Mix	Calibration File
18 Mar 2024 15:22	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY110.D
18 Mar 2024 20:00	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY120.D

Calibration History Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

Cal Lvl:9 Amt:80.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY119.D

Injection Date	Mix	Calibration File
18 Mar 2024 14:54	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY109.D
18 Mar 2024 19:32	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY119.D

VOAC-031824-8260D.M Tue Mar 19 10:07:27 2024

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

03/19/2024

03/19/2024

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound		8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
	m1	m2	6	7	9							
2)MA	Dichlorodifluoromethane		0.2169275 0.3191540	0.2921838 0.2972206	0.2421437 0.3176297	0.2588222	0.2690702	0.2766	AVRG			13.1637
3)MA	Chloromethane		0.2633283 0.3374436	0.3411389 0.3096790	0.2817108 0.3307604	0.2926895	0.3075803	0.3080	AVRG			9.0225
4)MA	Vinyl chloride		0.2473146 0.3530661	0.3386604 0.3266320	0.2966808 0.3462512	0.3054208	0.3251208	0.3174	AVRG			10.7743
5)MA	Bromomethane		0.1799788 0.2546098	0.2476504 0.2383259	0.2290269 0.2506274	0.2301198	0.2365925	0.2334	AVRG			10.0728
6)MA	Chloroethane		0.1513103 0.2145132	0.2056946 0.2010782	0.1998490 0.2161632	0.1988736	0.2092793	0.1996	AVRG			10.3065
7)MA	Trichlorofluoromethane		0.3189467 0.4123609	0.4286196 0.3894931	0.3868460 0.4078599	0.3825819	0.3962472	0.3904	AVRG			8.3639
8)MA	Ethyl ether		0.1592000 0.2189505	0.2142602 0.2176536	0.2066682 0.2205992	0.2067492	0.2117521	0.2070	AVRG			9.6655
9)MA	Acetone		0.0959496 0.0602103	0.0725344 0.0601548	0.0652937 0.0613501	0.0604509	0.0599468	0.0670	AVRG	#		18.6211
10)MA	1,1-Dichloroethylene		0.3512867 0.3504119	0.3509934 0.3290451	0.3453134 0.3576593	0.3493454	0.3400560	0.3468	AVRG			2.5284
11)MA	Iodomethane		0.4611253 0.4855637	0.4398422 0.4614200	0.4723853 0.5000129	0.4783824	0.4697520	0.4711	AVRG			3.8244
12)MA	Acetonitrile		0.0294497 0.0256796	0.0273395 0.0249432	0.0267352 0.0266757	0.0258240	0.0261005	0.0266	AVRG			5.1510
13)MA	Methyl acetate		0.1595437 0.1532878	0.1527581 0.1511794	0.1526654 0.1544275	0.1511499	0.1486551	0.1530	AVRG			2.0779
14)MA	Carbon disulfide		0.6998237 0.7248677	0.6451402 0.6700667	0.7048089 0.7293298	0.7165171	0.6919336	0.6978	AVRG			4.0918
15)MA	Methylene chloride			12492	18447	39785	73884	137407		1/x		

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

Compound			8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
b	m1	m2	6	7	9							
0.0048	0.2609	0.00	312471	631498	522012					LINR	#	0.9986
16)MA tert-Butyl methyl ether				0.7081586	0.6791648	0.7298488	0.7334699	0.7322576				
			0.7320218	0.7248549	0.7556178				0.7244	AVRG		3.0940
17)MA trans-1,2-Dichloroethyle				0.3452327	0.3688385	0.3508649	0.3550436	0.3429426				
			0.3435170	0.3308495	0.3574153				0.3493	AVRG		3.2707
18)MA Hexane					0.4074037	0.3591362	0.3585072	0.3434006				
			0.3394498	0.3368362	0.3309269				0.3537	AVRG		7.3451
19)MA Vinyl acetate				0.3575438	0.5101400	0.5001175	0.4762391	0.5013358				
			0.5211934	0.4944380	0.5002834				0.4827	AVRG		10.8049
20)MA 1,1-Dichloroethane				0.4491267	0.4284808	0.4390645	0.4487456	0.4358762				
			0.4311206	0.4130671	0.4444487				0.4362	AVRG		2.7689
21)MA 2-Butanone				0.0975666	0.0964468	0.0927676	0.0903971	0.0921791				
			0.0970691	0.0954733	0.0967256				0.0948	AVRG		2.8199
22)MA cis-1,2-Dichloroethylene				0.4115530	0.4266566	0.4139861	0.4134048	0.4062207				
			0.4047676	0.3909700	0.4197329				0.4109	AVRG		2.6004
23)MA 2,2-Dichloropropane				0.3746433	0.3388191	0.3661799	0.3451532	0.3293794				
			0.3375068	0.3243606	0.3555190				0.3464	AVRG		5.1004
24)MA Bromochloromethane				0.1468967	0.1523377	0.1568643	0.1570369	0.1557698				
			0.1588102	0.1559121	0.1642679				0.1560	AVRG		3.2001
25)MA Chloroform				0.4563915	0.4449181	0.4592091	0.4664302	0.4544753				
			0.4539765	0.4442120	0.4742187				0.4567	AVRG		2.2130
26)MA 1,1,1-Trichloroethane				0.4313554	0.4048658	0.4185911	0.4208205	0.4086373				
			0.4111078	0.3936133	0.4233548				0.4140	AVRG		2.8758
27)MA Cyclohexane				0.4423306	0.4113495	0.4274640	0.4184965	0.4042582				
			0.4079407	0.3816487	0.4144435				0.4135	AVRG		4.2752
28)MA 1,1-Dichloropropene				0.3540207	0.3202403	0.3382616	0.3456457	0.3334512				
			0.3363067	0.3224189	0.3469930				0.3372	AVRG		3.4954

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

Compound			8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
b	m1	m2	6	7	9							
29)MA	Carbon tetrachloride		0.3667225	0.3788225 0.3553769	0.3581909 0.3790505	0.3788956	0.3800666	0.3683856	0.3707	AVRG		2.7036
30)SA	1,2-Dichloroethane-d4		0.3164376 0.3033186	0.3016363 0.3039626	0.2984423 0.3001406	0.2976516	0.3046247	0.2985983	0.3028	AVRG		1.8920
31)MA	1,2-Dichloroethane		0.3454557	0.3460529 0.3337968	0.3457786 0.3521238	0.3433238	0.3516125	0.3382461	0.3445	AVRG		1.7982
32)MA	Benzene		0.9771671	1.0114822 0.9376050	0.9694452 1.0008600	0.9847163	0.9868747	0.9635308	0.9790	AVRG		2.3406
33)MA	Cyclohexene		0.4808655	0.5289220 0.4591259	0.4857239 0.4927315	0.4942916	0.4915427	0.4792113	0.4891	AVRG		4.0213
34)MA	n-Butyl alcohol		0.0074887 0.0072330	0.0067195 0.0072462	0.0069033 0.0074725	0.0068115	0.0066954	0.0068225	0.0070	AVRG	#	4.5109
35)MA	Trichloroethylene		0.2720667	0.2796936 0.2639975	0.2778284 0.2836393	0.2812295	0.2841097	0.2721979	0.2768	AVRG		2.5053
36)MA	2-Pentanone		0.1738635	0.1673743	0.1744855 0.1570093	0.1648307	0.1618747	0.1641178	0.1662	AVRG		3.7901
37)MA	1,2-Dichloropropane		0.2583419	0.2448539 0.2439642	0.2366459 0.2604225	0.2501823	0.2542392	0.2465198	0.2494	AVRG		3.2029
38)MA	Methylcyclohexane		0.4553212	0.4840054 0.4364593	0.4547726 0.4717591	0.4765538	0.4729098	0.4591698	0.4639	AVRG		3.2993
39)MA	Dibromomethane		0.1669874	0.1637697 0.1613686	0.1582861 0.1695856	0.1653843	0.1619618	0.1616314	0.1636	AVRG		2.1949
40)MA	Bromodichloromethane		0.3595720	0.3549972 0.3495672	0.3449459 0.3703481	0.3470462	0.3566960	0.3499592	0.3541	AVRG		2.3205
41)MA	2-Chloroethylvinyl ether		0.0116338	0.0059134 0.0102020	0.0108538 0.0091012	0.0117570	0.0102363	0.0096517	0.0099	AVRG	# #	18.7299
42)MA	cis-1,3-Dichloropropylene		0.4403226	0.3996013 0.4202636	0.4083555 0.4447764	0.4068782	0.4180122	0.4114415	0.4187	AVRG		3.8454

Response Factor Report VOAC

GEL Laboratories, LLC

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Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound		8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
	m1	m2	6	7	9							
44)MA	4-Methyl-2-pentanone		0.1040079	0.0950948 0.1027111	0.1018886 0.1050406	0.1008295	0.1009475	0.1009415	0.1014	AVRG		2.9459
45)SA	Toluene-d8		1.2965958	1.2616187 1.2931531	1.2613565 1.3023327	1.2746122	1.3165211	1.2823137	1.2917	AVRG		1.9407
46)MA	Toluene		1.2951343	1.3494283 1.2417769	1.2887857 1.3359954	1.2998740	1.3255829	1.2814521	1.3023	AVRG		2.6340
47)MA	trans-1,3-Dichloropropyl		0.4721093	0.4454972 0.4488508	0.4559616 0.4749321	0.4484029	0.4597077	0.4530614	0.4573	AVRG		2.4034
48)MA	1,1,2-Trichloroethane		0.2284503	0.2248484 0.2201461	0.2266111 0.2322999	0.2195911	0.2279776	0.2201331	0.2250	AVRG		2.0790
49)MA	2-Hexanone		0.1684654	0.1559747 0.1602933	0.1616042 0.1644256	0.1588656	0.1605324	0.1579916	0.1610	AVRG		2.4327
50)MA	1,3-Dichloropropane		0.4509912	0.4123830 0.4302235	0.4301711 0.4546124	0.4293320	0.4387517	0.4339626	0.4351	AVRG		3.0658
51)MA	Tetrachloroethylene		0.3045029	0.3218740 0.2918109	0.3180502 0.3192169	0.3153556	0.3179713	0.3101095	0.3124	AVRG		3.2001
52)MA	Dibromochloromethane		0.3726056	0.3303698 0.3649909	0.3503316 0.3845534	0.3587224	0.3663424	0.3618708	0.3612	AVRG		4.4288
53)MA	1,2-Dibromoethane		0.2968965	0.2800709 0.2879536	0.2923831 0.3015713	0.2822586	0.2928972	0.2824715	0.2896	AVRG		2.6539
54)MA	Chlorobenzene		0.9108668	0.9008418 0.8813975	0.9125896 0.9462939	0.8977949	0.9245694	0.9015765	0.9095	AVRG		2.1421
55)MA	1,1,1,2-Tetrachloroethan		0.3620313	0.3593327 0.3610578	0.3623754 0.3860893	0.3698812	0.3772495	0.3680543	0.3683	AVRG		2.5273
56)MA	Ethylbenzene		1.4524059	1.4982009 1.3887463	1.4817087 1.4991515	1.4351591	1.4672178	1.4299540	1.4566	AVRG		2.6047
57)MA	m,p-Xylenes			0.6054446	0.5931450	0.5826241	0.5902933	0.5736662				

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound		8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
	m1	m2	6	7	9							
			0.5804490	0.5516171	0.5992125				0.5846	AVRG		2.8786
58)MA	o-Xylene			1.2787589	1.2217551	1.2233603	1.2563777	1.2113280				
			1.1953830	1.1629015	1.2515765				1.2252	AVRG		3.0091
59)MA	Styrene			0.9131510	0.9060001	0.9400328	0.9682892	0.9635919				
			0.9968629	0.9583266	1.0283372				0.9593	AVRG		4.2469
61)MA	Bromoform			0.4072071	0.4235097	0.4230364	0.4169013	0.4311460				
			0.4646467	0.4616584	0.4769177				0.4381	AVRG		5.8880
62)MA	Isopropylbenzene			2.6401913	2.7099296	2.6633252	2.6692361	2.6617975				
			2.6763676	2.6009730	2.8086365				2.6788	AVRG		2.2751
63)SA	Bromofluorobenzene			0.8148371	0.8521302	0.8442927	0.8520498	0.8472591				
			0.8888739	0.8738561	0.8777752				0.8615	AVRG		3.0900
64)MA	1,1,2,2-Tetrachloroethan			0.5906830	0.6298746	0.6077669	0.5917339	0.5983868				
			0.6192003	0.6116396	0.6279075				0.6096	AVRG		2.5173
65)MA	1,2,3-Trichloropropane			0.1840475	0.1932228	0.1895244	0.1936137	0.1868914				
			0.1997012	0.1950267	0.2033212				0.1932	AVRG		3.3048
66)MA	Bromobenzene			0.7152866	0.7708298	0.7557094	0.7562318	0.7511251				
			0.7850176	0.7579021	0.8126957				0.7631	AVRG		3.6926
67)MA	n-Propylbenzene			2.9712154	3.0529978	3.0117718	3.0038798	2.9844766				
			3.0464849	2.9094530	3.1657850				3.0183	AVRG		2.4796
68)MA	1,3,5-Trimethylbenzene			2.2842627	2.3588301	2.3200334	2.3431073	2.3311922				
			2.3435997	2.2684083	2.4709973				2.3401	AVRG		2.6167
69)MA	2-Chlorotoluene			0.6805021	0.6646195	0.6671673	0.6719657	0.6637717				
			0.6760196	0.6457039	0.7039379				0.6717	AVRG		2.4815
70)MA	4-Chlorotoluene			1.8219394	1.8632537	1.8276307	1.8275021	1.8220514				
			1.8695169	1.7713314	1.9309534				1.8418	AVRG		2.5411
71)MA	tert-Butylbenzene			0.4932701	0.5436781	0.5295859	0.5368326	0.5286134				
			0.5292150	0.5160766	0.5645262				0.5302	AVRG		3.8855

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound		8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
	m1	m2	6	7	9							
72)MA	1,2,4-Trimethylbenzene		2.3770372	2.3611805	2.4843240	2.3737291	2.3870386	2.3968375	2.3977	AVRG		2.9250
73)MA	sec-Butylbenzene		2.9239767	2.9352878	2.9979385	2.9614439	2.9594936	2.9198166	2.9497	AVRG		2.7052
74)MA	4-Isopropyltoluene		2.6124352	2.5987928	2.6547844	2.6232553	2.6184292	2.6261989	2.6265	AVRG		2.8554
75)MA	1,3-Dichlorobenzene		1.4131932	1.4176718	1.4524996	1.4142681	1.4135193	1.3937486	1.4150	AVRG		2.7285
76)MA	1,4-Dichlorobenzene		1.4099536	1.4150589	1.4933001	1.4189590	1.4065150	1.3970346	1.4187	AVRG		3.2832
77)MA	n-Butylbenzene		2.2510946	2.3223950	2.3622230	2.3121294	2.3021974	2.2817119	2.2940	AVRG		3.5702
78)MA	1,2-Dichlorobenzene		1.3829733	1.3631271	1.4051280	1.3804011	1.3761803	1.3666058	1.3811	AVRG		2.5160
79)MA	1,2-Dibromo-3-chloroprop		0.1725824	0.1597147	0.1740680	0.1740429	0.1588498	0.1655132	0.1702	AVRG		4.8397
80)MA	1,2,4-Trichlorobenzene		1.1350290	1.1314755	1.1557722	1.1507724	1.1197597	1.1456481	1.1439	AVRG		3.9384
81)MA	Hexachlorobutadiene		0.6609917	0.7027119	0.6653925	0.6750541	0.6707296	0.6622264	0.6644	AVRG		5.0052
82)MA	Naphthalene		2.2972843	2.1879113	2.2259921	2.2167830	2.1707124	2.2266493	2.2543	AVRG		3.9417
83)MA	1,2,3-Trichlorobenzene		1.0525321	1.0702353	1.0496908	1.0914408	1.0465236	1.0458323	1.0607	AVRG		3.2583
85)B	Acrolein		0.0245291	0.0249919	0.0251928	0.0253925	0.0251514	0.0265642	0.0264	AVRG		7.7809
86)B	Trichlorotrifluoroethane		0.1043247	0.1224231	0.1020322	0.1072415	0.1080012	0.0983069	0.1070	AVRG		6.5756

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

Compound			8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
b	m1	m2	6	7	9							
87)B	Isopropyl Alcohol		0.0146384	0.0207511 0.0154337	0.0144960 0.0152520	0.0136253	0.0138632	0.0147994	0.0154	AVRG		14.7486
88)B	Allyl chloride		0.3722878	0.3468165 0.3745337	0.3567870 0.3668880	0.3622975	0.3713028	0.3624174	0.3642	AVRG		2.5291
89)B	tert-Butyl Alcohol		0.0269169	0.0362262 0.0273991	0.0267403 0.0277935	0.0256252	0.0260957	0.0274404	0.0280	AVRG		12.0915
90)B	Acrylonitrile		0.0768309	0.0760532 0.0768474	0.0735886 0.0779734	0.0749442	0.0749251	0.0783454	0.0762	AVRG		2.1399
91)B	Isopropyl ether		0.7445343	0.5510510 0.7488369	0.7427503 0.7568966	0.7436467	0.7430914	0.7430132	0.7217	AVRG		9.5786
92)B	2-Chloro-1,3-butadiene		0.3126203	0.3400461 0.3125272	0.3092897 0.3079325	0.3043512	0.3140478	0.3057781	0.3133	AVRG		3.6159
93)B	Ethyl tert-butyl ether		0.6567189	0.4395346 0.6561388	0.6529577 0.6594295	0.6480018	0.6481154	0.6525990	0.6267	AVRG		12.0838
94)B	Ethyl acetate		0.1843635	0.2029827 0.1820018	0.1908144 0.1951466	0.1930205	0.1822475	0.1957665	0.1908	AVRG		3.9066
95)B	Propionitrile		0.0293484	0.0360074 0.0296127	0.0296815 0.0301882	0.0280320	0.0283131	0.0299822	0.0301	AVRG		8.2551
96)B	Methacrylonitrile		0.1253434	0.1175793 0.1254254	0.1258869 0.1300266	0.1279422	0.1240844	0.1295621	0.1257	AVRG		3.1161
97)B	Tetrahydrofuran		0.0624157	0.0759879 0.0612471	0.0639673 0.0640758	0.0616955	0.0592612	0.0640206	0.0641	AVRG		7.9462
98)B	Isobutyl alcohol		0.0075548	0.0113889 0.0077285	0.0079543 0.0079823	0.0076330	0.0075983	0.0079297	0.0082	AVRG	# #	15.7044
99)B	Methyl tert-amyl ether		0.6563358	0.4334390 0.6522697	0.6456116 0.6566189	0.6541293	0.6514451	0.6560088	0.6257	AVRG		12.4306
100)B	Methyl methacrylate			0.1210843	0.1413389	0.1535077	0.1447051	0.1527536				

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(x^2)$

b	Compound		8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
	m1	m2	6	7	9							
			0.1490492	0.1538558	0.1680615				0.1480	AVRG		9.0999
101)B	1,4-Dioxane			0.0035093	0.0024333	0.0022810	0.0022227	0.0023310				
			0.0023398	0.0024664	0.0024663				0.0025	AVRG	# #	16.5490
102)B	2-Nitropropane			0.0710570	0.0665857	0.0677581	0.0649701	0.0687959				
			0.0674202	0.0678502	0.0730760				0.0684	AVRG		3.7375
104)B	Ethyl methacrylate			0.2856536	0.3480719	0.3637942	0.3677286	0.3826886				
			0.3704224	0.3789686	0.4047777				0.3628	AVRG		9.7020
106)B	1-Chlorohexane			0.6986393	0.4724536	0.4832710	0.4783845	0.4873950				
			0.4721744	0.4820864	0.4861372				0.5076	AVRG	#	15.2522
107)B	cis-1,4-Dichloro-2-buten			0.1778748	0.1799738	0.1839763	0.1869046	0.1989303				
			0.1934749	0.1967520	0.2047679				0.1903	AVRG		5.0552
108)B	Cyclohexanone			0.0196011	0.0137156	0.0118769	0.0119530	0.0135050				
			0.0144551	0.0145135	0.0143283				0.0142	AVRG	#	16.8873
109)B	trans-1,4-Dichloro-2-but			0.1528183	0.1530612	0.1571903	0.1615251	0.1700041				
			0.1639951	0.1650684	0.1723386				0.1620	AVRG		4.4994
110)B	Pentachloroethane			0.4626936	0.5151273	0.5124610	0.5453181	0.5527208				
			0.5627742	0.5565706	0.5254769				0.5291	AVRG		6.2290
111)B	Benzyl chloride			1.2072938	1.2968895	1.2888226	1.3387873	1.3891690				
			1.3564343	1.3337375	1.3365242				1.3185	AVRG		4.1658
112)B	bis(2-Chloroisopropyl)et			0.2945069	0.2444082	0.2213894	0.2300875	0.2423030				
			0.2383346	0.2338343	0.2307251				0.2419	AVRG		9.2904

(#) = Out of Range (\$) = Individual RF Out of Range

AVRG = Average, LINR = Linear Regression, $1/x$ = the inverse of concentration, $1/x^2$ = the inverse square of concentration

PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY102.D
Acq On : 18 Mar 2024 11:39
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-01|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD0005 5UL/5ML N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 09:59:48 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.952	10.934	1.000	1169899	50.00	ug/L	0.02
43) Chlorobenzene-d5	117	14.366	14.354	1.000	957446	50.00	ug/L	0.01
60) 1,4-Dichlorobenzene-d4	152	16.939	16.933	1.000	547189	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.952	10.928	1.000	0m	50.00	ug/L	0.02
103) B Chlorobenzene-d5	117	14.366	14.348	1.000	0m	50.00	ug/L	0.02
105) B 1,4-Dichlorobenzene-d4	152	16.939	16.920	1.000	0m	50.00	ug/L	0.02
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.562	10.543	0.964	370200	52.26	ug/L	0.02
45) Toluene-d8	98	12.726	12.714	0.886	1280259	51.76	ug/L	0.01
63) Bromofluorobenzene	95	15.628	15.622	0.923	493619	52.36	ug/L	0.00
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.819	4.782	0.440	2509	0.39	ug/L	85
3) Chloromethane	50	5.215	5.203	0.476	3564	0.49	ug/L	98
4) Vinyl chloride	62	5.453	5.422	0.498	2966	0.40	ug/L	96
5) Bromomethane	94	6.105	6.075	0.557	2354	0.43	ug/L	# 68
6) Chloroethane	64	6.227	6.197	0.569	2041	0.44	ug/L	99
7) Trichlorofluoromethane	101	6.648	6.629	0.607	3917	0.43	ug/L	94
8) Ethyl ether	59	7.001	6.971	0.639	2056	0.42	ug/L	88
9) Acetone	43	7.398	7.367	0.675	8197	5.23	ug/L	92
10) 1,1-Dichloroethylene	61	7.410	7.392	0.677	4711	0.58	ug/L	97
11) Iodomethane	142	7.678	7.654	0.701	29342	2.66	ug/L	99
12) Acetonitrile	41	7.763	7.739	0.709	11059	17.77	ug/L	90
13) Methyl acetate	43	7.824	7.794	0.714	11316	3.16	ug/L	95
14) Carbon disulfide	76	7.824	7.800	0.714	44981	2.75	ug/L	99
15) Methylene chloride	84	8.020	8.001	0.732	8998	0.55	ug/L	97
16) tert-Butyl methyl ether	73	8.355	8.330	0.763	9095	0.54	ug/L	80
17) trans-1,2-Dichloroethy...	61	8.398	8.373	0.767	4653	0.57	ug/L	97
18) Hexane	57	8.715	8.690	0.796	7992	N.D.		
19) Vinyl acetate	43	8.873	8.849	0.810	23439	2.08	ug/L	96
20) 1,1-Dichloroethane	63	8.922	8.897	0.815	5435	0.53	ug/L	98
21) 2-Butanone	43	9.556	9.525	0.873	7409	3.34	ug/L	88
22) cis-1,2-Dichloroethylene	61	9.611	9.586	0.878	5112	0.53	ug/L	92
23) 2,2-Dichloropropane	77	9.641	9.623	0.880	4285	0.53	ug/L	78
24) Bromochloromethane	128	9.903	9.885	0.904	1721	0.47	ug/L	92
25) Chloroform	83	9.934	9.922	0.907	5963	0.56	ug/L	100
26) 1,1,1-Trichloroethane	97	10.251	10.232	0.936	5384	0.56	ug/L	95
27) Cyclohexane	56	10.367	10.342	0.947	5933	0.61	ug/L	98
28) 1,1-Dichloropropene	75	10.415	10.403	0.951	4472	0.57	ug/L	# 98
29) Carbon tetrachloride	117	10.464	10.446	0.955	4674	0.54	ug/L	97
31) 1,2-Dichloroethane	62	10.653	10.635	0.973	4710	0.58	ug/L	99
32) Benzene	78	10.684	10.665	0.976	12518	0.55	ug/L	# 81
33) Cyclohexene	67	10.806	10.793	0.987	7001	0.61	ug/L	91
34) n-Butyl alcohol	56	11.037	11.019	1.008	8761	53.16	ug/L	86
35) Trichloroethylene	95	11.373	11.354	1.038	3893	0.60	ug/L	93
36) 2-Pentanone	43	11.458	11.434	1.046	12312	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY102.D
Acq On : 18 Mar 2024 11:39
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-01|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD0005 5UL/5ML N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 19 09:59:48 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.635	11.616	1.062	3039	0.52 ug/L	99
38) Methylcyclohexane	83	11.641	11.635	1.063	6374	0.59 ug/L	66
39) Dibromomethane	93	11.781	11.763	1.076	1823	0.48 ug/L	91
40) Bromodichloromethane	83	11.897	11.885	1.086	4424	0.53 ug/L	97
41) 2-Chloroethylvinyl ether	63	12.135	12.122	1.108	253	N.D.	
42) cis-1,3-Dichloropropylene	75	12.385	12.372	1.131	5101	0.52 ug/L	74
44) 4-Methyl-2-pentanone	58	12.482	12.470	0.869	5215	2.68 ug/L	99
46) Toluene	91	12.811	12.793	0.892	14315	0.57 ug/L #	100
47) trans-1,3-Dichloroprop...	75	12.970	12.952	0.903	4905	0.56 ug/L	93
48) 1,1,2-Trichloroethane	83	13.201	13.189	0.919	2190	0.51 ug/L	88
49) 2-Hexanone	43	13.397	13.384	0.933	8597	2.79 ug/L	95
50) 1,3-Dichloropropane	76	13.409	13.397	0.933	4486	0.54 ug/L	84
51) Tetrachloroethylene	164	13.451	13.439	0.936	3565	0.60 ug/L	96
52) Dibromochloromethane	129	13.695	13.689	0.953	3389	0.49 ug/L	99
53) 1,2-Dibromoethane	107	13.890	13.872	0.967	2824	0.51 ug/L	97
54) Chlorobenzene	112	14.403	14.390	1.003	9332	0.54 ug/L #	22
55) 1,1,1,2-Tetrachloroethane	131	14.457	14.445	1.006	3769	0.53 ug/L #	66
56) Ethylbenzene	91	14.470	14.457	1.007	16728	0.60 ug/L	96
57) m,p-Xylenes	106	14.585	14.573	1.015	14195	1.27 ug/L	100
58) o-Xylene	91	15.043	15.037	1.047	13405	0.57 ug/L	100
59) Styrene	104	15.049	15.037	1.048	9722	0.53 ug/L	97
61) Bromoform	173	15.317	15.305	0.904	2348	0.49 ug/L	87
62) Isopropylbenzene	105	15.427	15.414	0.911	15593	0.53 ug/L	98
64) 1,1,2,2-Tetrachloroethane	83	15.701	15.695	0.927	3782	0.57 ug/L	93
65) 1,2,3-Trichloropropane	110	15.799	15.792	0.933	1076	0.51 ug/L	93
66) Bromobenzene	156	15.853	15.847	0.936	4623	0.55 ug/L	95
67) n-Propylbenzene	91	15.872	15.866	0.937	19125	0.58 ug/L	99
68) 1,3,5-Trimethylbenzene	105	16.030	16.024	0.946	13561	0.53 ug/L	97
69) 2-Chlorotoluene	126	16.030	16.024	0.946	3976	0.54 ug/L	87
70) 4-Chlorotoluene	91	16.140	16.128	0.953	11855	0.59 ug/L	97
71) tert-Butylbenzene	134	16.433	16.420	0.970	3202	0.55 ug/L	94
72) 1,2,4-Trimethylbenzene	105	16.469	16.463	0.972	14693	0.56 ug/L	98
73) sec-Butylbenzene	105	16.670	16.664	0.984	18285	0.57 ug/L	100
74) 4-Isopropyltoluene	119	16.805	16.792	0.992	16111	0.56 ug/L	97
75) 1,3-Dichlorobenzene	146	16.878	16.865	0.996	8980	0.58 ug/L	84
76) 1,4-Dichlorobenzene	146	16.969	16.957	1.002	8959	0.58 ug/L #	8
77) n-Butylbenzene	91	17.286	17.280	1.021	14652	0.58 ug/L	98
78) 1,2-Dichlorobenzene	146	17.439	17.432	1.030	8313	0.55 ug/L	97
79) 1,2-Dibromo-3-chloropr...	157	18.390	18.383	1.086	875	0.47 ug/L	82
80) 1,2,4-Trichlorobenzene	180	19.591	19.578	1.157	7308	0.58 ug/L	98
81) Hexachlorobutadiene	225	19.792	19.780	1.168	4304	0.59 ug/L	92
82) Naphthalene	128	20.030	20.017	1.182	13750	0.56 ug/L	97
83) 1,2,3-Trichlorobenzene	180	20.408	20.401	1.205	6425	0.55 ug/L	97
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		7.385	7.355	0.674	0m	N.D. d	
87) Isopropyl Alcohol		7.477	7.440	0.683	0m	N.D. d	
88) Allyl chloride		7.763	7.843	0.709	0m	N.D. d	
89) tert-Butyl Alcohol		8.013	7.983	0.732	0m	N.D. d	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY102.D
Acq On : 18 Mar 2024 11:39
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-01|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD0005 SUL/5ML N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 19 09:59:48 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

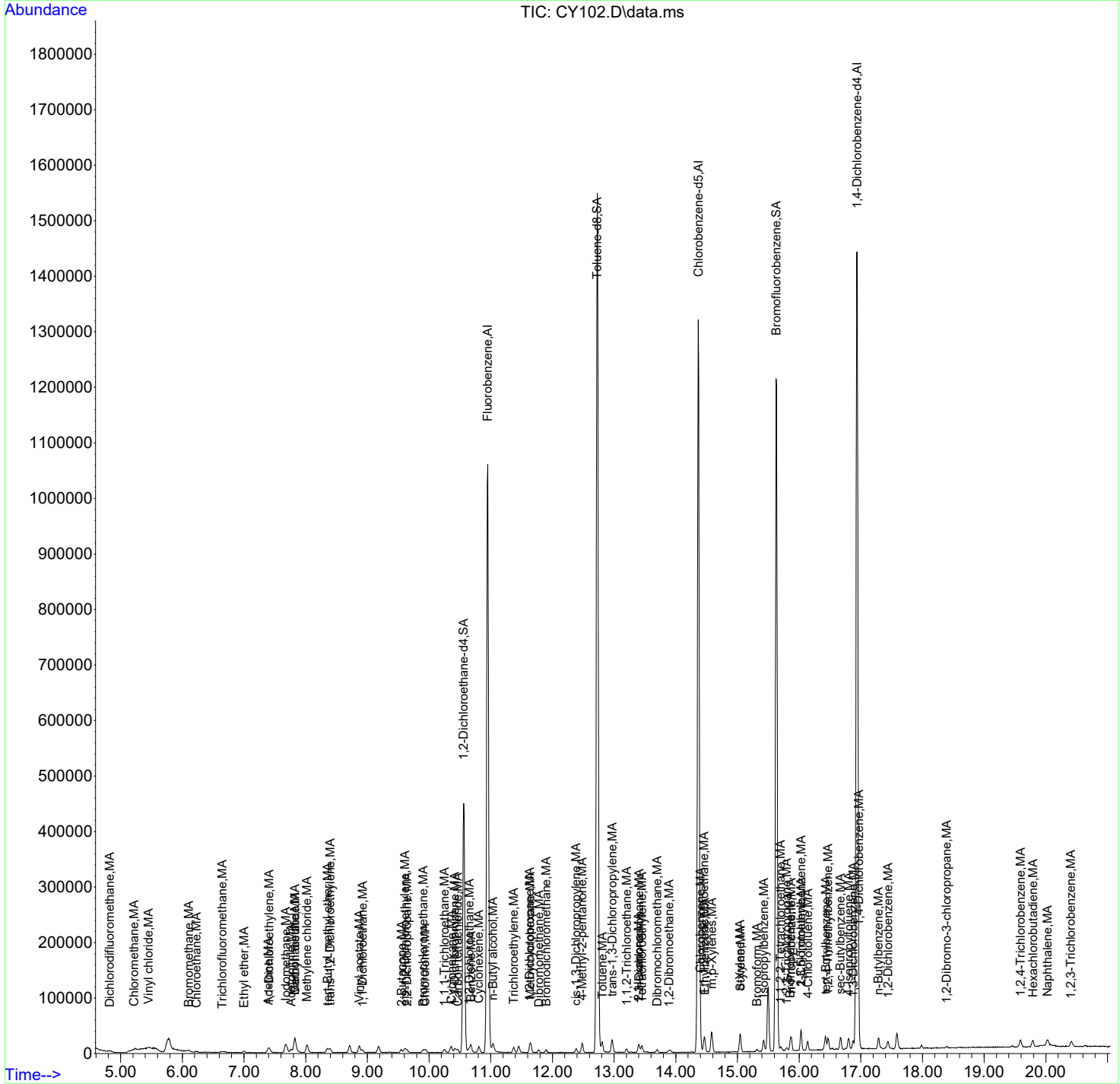
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.342	9.312	0.853	0m	N.D.	d
94) Ethyl acetate		9.556	9.531	0.873	0m	N.D.	d
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		9.824	9.794	0.897	0m	N.D.	d
97) Tetrahydrofuran		9.983	9.940	0.911	0m	N.D.	d
98) Isobutyl alcohol		10.361	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.684	10.671	0.976	0m	N.D.	d
100) Methyl methacrylate		11.647	11.580	1.063	0m	N.D.	d
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		12.135	12.086	1.108	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.256	14.238	0.842	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		17.085	17.073	1.009	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		17.585	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

```
Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY102.D
Acq On    : 18 Mar 2024 11:39
Operator  : PX1
InstName  : VOAC
Sample    : |WCVM240318-01|ICAL|1|VOAF|1|VOA8260D|
Misc      : VSTD0005 5UL/5ML N/A MIX[A]
ALS Vial  : 2 Sample Multiplier: 1
```

Quant Time: Mar 19 09:59:48 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY103.D
Acq On : 18 Mar 2024 12:07
Operator : PXY1
InstName : VOAC
Sample : |WVCM240318-02|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD001 SUL/5ML N/A MIX[A]
ALS Vial : 3 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 09:59:51 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.946	10.934	1.000	1280151	50.00	ug/L	0.01
43) Chlorobenzene-d5	117	14.366	14.354	1.000	1035809	50.00	ug/L	0.01
60) 1,4-Dichlorobenzene-d4	152	16.939	16.933	1.000	612342	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.946	10.928	1.000	0m	50.00	ug/L	0.02
103) B Chlorobenzene-d5	117	14.366	14.348	1.000	0m	50.00	ug/L	0.02
105) B 1,4-Dichlorobenzene-d4	152	16.939	16.920	1.000	0m	50.00	ug/L	0.02
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.556	10.543	0.964	386140	49.81	ug/L	0.01
45) Toluene-d8	98	12.726	12.714	0.886	1306796	48.83	ug/L	0.01
63) Bromofluorobenzene	95	15.628	15.622	0.923	498959	47.29	ug/L	0.00
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.807	4.782	0.439	5554	0.78	ug/L	95
3) Chloromethane	50	5.221	5.203	0.477	6742	0.85	ug/L	98
4) Vinyl chloride	62	5.447	5.422	0.498	6332	0.78	ug/L	96
5) Bromomethane	94	6.087	6.075	0.556	4608	0.77	ug/L	# 3
6) Chloroethane	64	6.221	6.197	0.568	3874	0.76	ug/L	99
7) Trichlorofluoromethane	101	6.623	6.629	0.605	8166	0.82	ug/L	98
8) Ethyl ether	59	6.983	6.971	0.638	4076	0.77	ug/L	94
9) Acetone	43	7.385	7.367	0.675	12283	7.16	ug/L	91
10) 1,1-Dichloroethylene	61	7.404	7.392	0.676	8994	1.01	ug/L	99
11) Iodomethane	142	7.672	7.654	0.701	59031	4.89	ug/L	100
12) Acetonitrile	41	7.757	7.739	0.709	18850	27.69	ug/L	93
13) Methyl acetate	43	7.812	7.794	0.714	20424	5.22	ug/L	99
14) Carbon disulfide	76	7.812	7.800	0.714	89588	5.01	ug/L	99
15) Methylene chloride	84	8.013	8.001	0.732	12492	0.95	ug/L	97
16) tert-Butyl methyl ether	73	8.343	8.330	0.762	18131	0.98	ug/L	88
17) trans-1,2-Dichloroethy...	61	8.391	8.373	0.767	8839	0.99	ug/L	95
18) Hexane	57	8.702	8.690	0.795	12580	N.D.		
19) Vinyl acetate	43	8.861	8.849	0.810	45771	3.70	ug/L	97
20) 1,1-Dichloroethane	63	8.910	8.897	0.814	11499	1.03	ug/L	99
21) 2-Butanone	43	9.544	9.525	0.872	12490	5.14	ug/L	96
22) cis-1,2-Dichloroethylene	61	9.598	9.586	0.877	10537	1.00	ug/L	98
23) 2,2-Dichloropropane	77	9.635	9.623	0.880	9592	1.08	ug/L	87
24) Bromochloromethane	128	9.897	9.885	0.904	3761	0.94	ug/L	96
25) Chloroform	83	9.934	9.922	0.908	11685	1.00	ug/L	99
26) 1,1,1-Trichloroethane	97	10.245	10.232	0.936	11044	1.04	ug/L	98
27) Cyclohexane	56	10.354	10.342	0.946	11325	1.07	ug/L	99
28) 1,1-Dichloropropene	75	10.415	10.403	0.952	9064	1.05	ug/L	# 97
29) Carbon tetrachloride	117	10.458	10.446	0.955	9699	1.02	ug/L	98
31) 1,2-Dichloroethane	62	10.647	10.635	0.973	8860	1.00	ug/L	97
32) Benzene	78	10.678	10.665	0.975	25897	1.03	ug/L	# 81
33) Cyclohexene	67	10.806	10.793	0.987	13542	1.08	ug/L	99
34) n-Butyl alcohol	56	11.031	11.019	1.008	17204	95.40	ug/L	92
35) Trichloroethylene	95	11.366	11.354	1.038	7161	1.01	ug/L	98
36) 2-Pentanone	43	11.446	11.434	1.046	22117	5.20	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY103.D
Acq On : 18 Mar 2024 12:07
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-02|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD001 SUL/5ML N/A MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 19 09:59:51 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.629	11.616	1.062	6269	0.98	ug/L 88
38) Methylcyclohexane	83	11.647	11.635	1.064	12392	1.04	ug/L 70
39) Dibromomethane	93	11.775	11.763	1.076	4193	1.00	ug/L 96
40) Bromodichloromethane	83	11.891	11.885	1.086	9089	1.00	ug/L 98
41) 2-Chloroethylvinyl ether	63	12.128	12.122	1.108	757	2.98	ug/L # 43
42) cis-1,3-Dichloropropylene	75	12.378	12.372	1.131	10231	0.95	ug/L 84
44) 4-Methyl-2-pentanone	58	12.482	12.470	0.869	9850	4.69	ug/L 91
46) Toluene	91	12.805	12.793	0.891	27955	1.04	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.958	12.952	0.902	9229	0.97	ug/L 96
48) 1,1,2-Trichloroethane	83	13.201	13.189	0.919	4658	1.00	ug/L 98
49) 2-Hexanone	43	13.390	13.384	0.932	16156	4.84	ug/L 97
50) 1,3-Dichloropropane	76	13.409	13.397	0.933	8543	0.95	ug/L 91
51) Tetrachloroethylene	164	13.451	13.439	0.936	6668	1.03	ug/L 98
52) Dibromochloromethane	129	13.695	13.689	0.953	6844	0.91	ug/L 98
53) 1,2-Dibromoethane	107	13.884	13.872	0.966	5802	0.97	ug/L 98
54) Chlorobenzene	112	14.402	14.390	1.003	18662	0.99	ug/L # 56
55) 1,1,1,2-Tetrachloroethane	131	14.457	14.445	1.006	7444	0.98	ug/L # 65
56) Ethylbenzene	91	14.463	14.457	1.007	31037	1.03	ug/L 94
57) m,p-Xylenes	106	14.579	14.573	1.015	25085	2.07	ug/L 93
58) o-Xylene	91	15.043	15.037	1.047	26491	1.04	ug/L 98
59) Styrene	104	15.043	15.037	1.047	18917	0.95	ug/L 98
61) Bromoform	173	15.317	15.305	0.904	4987	0.93	ug/L 98
62) Isopropylbenzene	105	15.421	15.414	0.910	32334	0.99	ug/L 98
64) 1,1,2,2-Tetrachloroethane	83	15.707	15.695	0.927	7234	0.97	ug/L 99
65) 1,2,3-Trichloropropane	110	15.799	15.792	0.933	2254	0.95	ug/L 87
66) Bromobenzene	156	15.853	15.847	0.936	8760	0.94	ug/L 93
67) n-Propylbenzene	91	15.872	15.866	0.937	36388	0.98	ug/L 100
68) 1,3,5-Trimethylbenzene	105	16.030	16.024	0.946	27975	0.98	ug/L 97
69) 2-Chlorotoluene	126	16.030	16.024	0.946	8334	1.01	ug/L 98
70) 4-Chlorotoluene	91	16.134	16.128	0.952	22313	0.99	ug/L 93
71) tert-Butylbenzene	134	16.426	16.420	0.970	6041	0.93	ug/L 90
72) 1,2,4-Trimethylbenzene	105	16.469	16.463	0.972	28917	0.98	ug/L 99
73) sec-Butylbenzene	105	16.670	16.664	0.984	35948	1.00	ug/L 98
74) 4-Isopropyltoluene	119	16.798	16.792	0.992	31827	0.99	ug/L 98
75) 1,3-Dichlorobenzene	146	16.872	16.865	0.996	17362	1.00	ug/L 85
76) 1,4-Dichlorobenzene	146	16.963	16.957	1.001	17330	1.00	ug/L # 68
77) n-Butylbenzene	91	17.286	17.280	1.021	28442	1.01	ug/L 99
78) 1,2-Dichlorobenzene	146	17.439	17.432	1.030	16694	0.99	ug/L 98
79) 1,2-Dibromo-3-chloropr...	157	18.390	18.383	1.086	1956	0.94	ug/L 82
80) 1,2,4-Trichlorobenzene	180	19.591	19.578	1.157	13857	0.99	ug/L 98
81) Hexachlorobutadiene	225	19.792	19.780	1.168	8606	1.06	ug/L 95
82) Naphthalene	128	20.023	20.017	1.182	26795	0.97	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.414	20.401	1.205	13107	1.01	ug/L 99
85) Acrolein	0.000	7.166	0.000	0	0	N.D.	
86) Trichlorotrifluoroethane	7.367	7.355	0.673	0m	0	N.D.	d
87) Isopropyl Alcohol	7.434	7.440	0.679	0m	0	N.D.	d
88) Allyl chloride	0.000	7.843	0.000	0	0	N.D.	
89) tert-Butyl Alcohol	8.013	7.983	0.732	0m	0	N.D.	d
90) Acrylonitrile	0.000	8.257	0.000	0	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY103.D
Acq On : 18 Mar 2024 12:07
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-02|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD001 SUL/5ML N/A MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 19 09:59:51 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

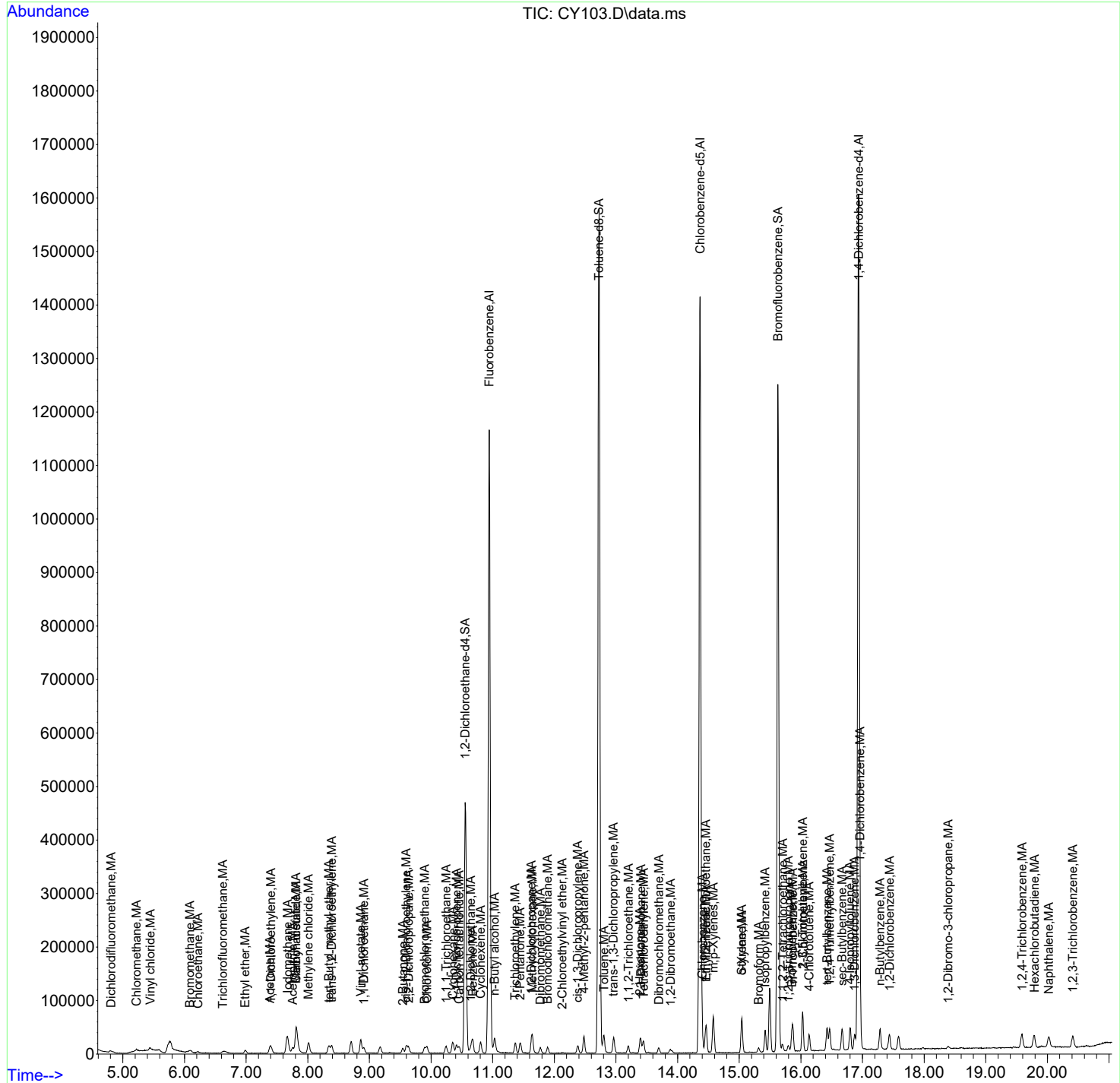
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.861	8.873	0.810	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.336	9.312	0.853	0m	N.D.	d
94) Ethyl acetate		9.544	9.531	0.872	0m	N.D.	d
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		9.806	9.794	0.896	0m	N.D.	d
97) Tetrahydrofuran		9.976	9.940	0.911	0m	N.D.	d
98) Isobutyl alcohol		10.287	10.263	0.940	0m	N.D.	d
99) Methyl tert-amyl ether		10.678	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.647	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		12.128	12.086	1.108	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		15.427	15.439	0.911	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		17.097	17.073	1.009	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		17.573	17.506	1.037	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY103.D
Acq On    : 18 Mar 2024 12:07
Operator  : PX11
InstName  : VOAC
Sample    : |WCVM240318-02|ICAL|1|VOAF|1|VOA8260D|
Misc      : VSTD001 5UL/5ML N/A MIX[A]
ALS Vial  : 3 Sample Multiplier: 1
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Quant Time: Mar 19 09:59:51 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY104.D
Acq On : 18 Mar 2024 12:35
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-03|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD002 SUL/5ML N/A MIX[A]
ALS Vial : 4 Sample Multiplier: 1

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03/19/2024

Quant Time: Mar 19 09:59:53 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.940	10.934	1.000	1260850	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.360	14.354	1.000	1012969	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.933	16.933	1.000	582100	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.940	10.928	1.000	0m	50.00	ug/L	0.01
103) B Chlorobenzene-d5	117	14.360	14.348	1.000	0m	50.00	ug/L	0.01
105) B 1,4-Dichlorobenzene-d4	152	16.933	16.920	1.000	0m	50.00	ug/L	0.01

System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.556	10.543	0.965	376291	49.29	ug/L	0.01
45) Toluene-d8	98	12.720	12.714	0.886	1277715	48.82	ug/L	0.00
63) Bromofluorobenzene	95	15.628	15.622	0.923	496025	49.46	ug/L	0.00

Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.801	4.782	0.439	14736	2.11	ug/L	97
3) Chloromethane	50	5.221	5.203	0.477	17205	2.21	ug/L	98
4) Vinyl chloride	62	5.441	5.422	0.497	17080	2.13	ug/L	98
5) Bromomethane	94	6.087	6.075	0.556	12490	2.12	ug/L	96
6) Chloroethane	64	6.215	6.197	0.568	10374	2.06	ug/L	100
7) Trichlorofluoromethane	101	6.636	6.629	0.607	21617	2.20	ug/L	98
8) Ethyl ether	59	6.989	6.971	0.639	10806	2.07	ug/L	92
9) Acetone	43	7.385	7.367	0.675	18291	10.83	ug/L	97
10) 1,1-Dichloroethylene	61	7.404	7.392	0.677	17702	2.02	ug/L	98
11) Iodomethane	142	7.666	7.654	0.701	110915	9.34	ug/L	100
12) Acetonitrile	41	7.757	7.739	0.709	34471	51.40	ug/L	96
13) Methyl acetate	43	7.812	7.794	0.714	38521	9.99	ug/L	98
14) Carbon disulfide	76	7.812	7.800	0.714	162685	9.25	ug/L	100
15) Methylene chloride	84	8.013	8.001	0.733	18447	1.88	ug/L	99
16) tert-Butyl methyl ether	73	8.343	8.330	0.763	34253	1.88	ug/L	93
17) trans-1,2-Dichloroethy...	61	8.391	8.373	0.767	18602	2.11	ug/L	99
18) Hexane	57	8.702	8.690	0.795	20547	2.30	ug/L	97
19) Vinyl acetate	43	8.861	8.849	0.810	128642	10.57	ug/L	98
20) 1,1-Dichloroethane	63	8.910	8.897	0.814	21610	1.96	ug/L	99
21) 2-Butanone	43	9.544	9.525	0.872	24321	10.17	ug/L	97
22) cis-1,2-Dichloroethylene	61	9.598	9.586	0.877	21518	2.08	ug/L	99
23) 2,2-Dichloropropane	77	9.635	9.623	0.881	17088	1.96	ug/L	92
24) Bromochloromethane	128	9.891	9.885	0.904	7683	1.95	ug/L	98
25) Chloroform	83	9.934	9.922	0.908	22439	1.95	ug/L	100
26) 1,1,1-Trichloroethane	97	10.239	10.232	0.936	20419	1.96	ug/L	98
27) Cyclohexane	56	10.348	10.342	0.946	20746	1.99	ug/L	99
28) 1,1-Dichloropropene	75	10.409	10.403	0.952	16151	1.90	ug/L #	98
29) Carbon tetrachloride	117	10.452	10.446	0.955	18065	1.93	ug/L	100
31) 1,2-Dichloroethane	62	10.641	10.635	0.973	17439	2.01	ug/L	99
32) Benzene	78	10.671	10.665	0.975	48893	1.98	ug/L #	82
33) Cyclohexene	67	10.799	10.793	0.987	24497	1.99	ug/L	97
34) n-Butyl alcohol	56	11.031	11.019	1.008	34816	196.01	ug/L	91
35) Trichloroethylene	95	11.366	11.354	1.039	14012	2.01	ug/L	100
36) 2-Pentanone	43	11.446	11.434	1.046	44000	10.50	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY104.D
Acq On : 18 Mar 2024 12:35
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-03|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD002 SUL/5ML N/A MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 19 09:59:53 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.629	11.616	1.063	11935	1.90	ug/L 89
38) Methylcyclohexane	83	11.641	11.635	1.064	22936	1.96	ug/L 72
39) Dibromomethane	93	11.775	11.763	1.076	7983	1.93	ug/L 94
40) Bromodichloromethane	83	11.891	11.885	1.087	17397	1.95	ug/L 98
41) 2-Chloroethylvinyl ether	63	12.129	12.122	1.109	2737	10.94	ug/L 94
42) cis-1,3-Dichloropropylene	75	12.378	12.372	1.132	20595	1.95	ug/L 94
44) 4-Methyl-2-pentanone	58	12.482	12.470	0.869	20642	10.04	ug/L 96
46) Toluene	91	12.805	12.793	0.892	52220	1.98	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.958	12.952	0.902	18475	1.99	ug/L 97
48) 1,1,2-Trichloroethane	83	13.195	13.189	0.919	9182	2.01	ug/L 99
49) 2-Hexanone	43	13.390	13.384	0.932	32740	10.04	ug/L 98
50) 1,3-Dichloropropane	76	13.403	13.397	0.933	17430	1.98	ug/L 95
51) Tetrachloroethylene	164	13.445	13.439	0.936	12887	2.04	ug/L 99
52) Dibromochloromethane	129	13.689	13.689	0.953	14195	1.94	ug/L 100
53) 1,2-Dibromoethane	107	13.878	13.872	0.966	11847	2.02	ug/L 96
54) Chlorobenzene	112	14.396	14.390	1.003	36977	2.01	ug/L 80
55) 1,1,1,2-Tetrachloroethane	131	14.451	14.445	1.006	14683	1.97	ug/L # 66
56) Ethylbenzene	91	14.463	14.457	1.007	60037	2.03	ug/L 94
57) m,p-Xylenes	106	14.579	14.573	1.015	48067	4.06	ug/L 99
58) o-Xylene	91	15.037	15.037	1.047	49504	1.99	ug/L 100
59) Styrene	104	15.037	15.037	1.047	36710	1.89	ug/L 97
61) Bromoform	173	15.317	15.305	0.905	9861	1.93	ug/L 93
62) Isopropylbenzene	105	15.421	15.414	0.911	63098	2.02	ug/L 98
64) 1,1,2,2-Tetrachloroethane	83	15.701	15.695	0.927	14666	2.07	ug/L 95
65) 1,2,3-Trichloropropane	110	15.792	15.792	0.933	4499	2.00	ug/L # 79
66) Bromobenzene	156	15.853	15.847	0.936	17948	2.02	ug/L 98
67) n-Propylbenzene	91	15.872	15.866	0.937	71086	2.02	ug/L 100
68) 1,3,5-Trimethylbenzene	105	16.024	16.024	0.946	54923	2.02	ug/L 99
69) 2-Chlorotoluene	126	16.024	16.024	0.946	15475	1.98	ug/L 93
70) 4-Chlorotoluene	91	16.134	16.128	0.953	43384	2.02	ug/L 96
71) tert-Butylbenzene	134	16.427	16.420	0.970	12659	2.05	ug/L 99
72) 1,2,4-Trimethylbenzene	105	16.469	16.463	0.973	57845	2.07	ug/L 96
73) sec-Butylbenzene	105	16.670	16.664	0.985	69804	2.03	ug/L 100
74) 4-Isopropyltoluene	119	16.798	16.792	0.992	61814	2.02	ug/L 98
75) 1,3-Dichlorobenzene	146	16.872	16.865	0.996	33820	2.05	ug/L 84
76) 1,4-Dichlorobenzene	146	16.963	16.957	1.002	34770	2.11	ug/L # 73
77) n-Butylbenzene	91	17.286	17.280	1.021	55002	2.06	ug/L 99
78) 1,2-Dichlorobenzene	146	17.432	17.432	1.030	32717	2.03	ug/L 98
79) 1,2-Dibromo-3-chloropr...	157	18.396	18.383	1.086	4053	2.05	ug/L 87
80) 1,2,4-Trichlorobenzene	180	19.584	19.578	1.157	26911	2.02	ug/L 99
81) Hexachlorobutadiene	225	19.786	19.780	1.169	15493	2.00	ug/L 92
82) Naphthalene	128	20.023	20.017	1.183	51830	1.97	ug/L 99
83) 1,2,3-Trichlorobenzene	180	20.407	20.401	1.205	24441	1.98	ug/L 94
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.355	0.000	0	N.D.		
87) Isopropyl Alcohol	7.422	7.440	0.678	0m	N.D.	d	
88) Allyl chloride	0.000	7.843	0.000	0	N.D.		
89) tert-Butyl Alcohol	8.007	7.983	0.732	0m	N.D.	d	
90) Acrylonitrile	0.000	8.257	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY104.D
Acq On : 18 Mar 2024 12:35
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-03|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD002 SUL/5ML N/A MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 19 09:59:53 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

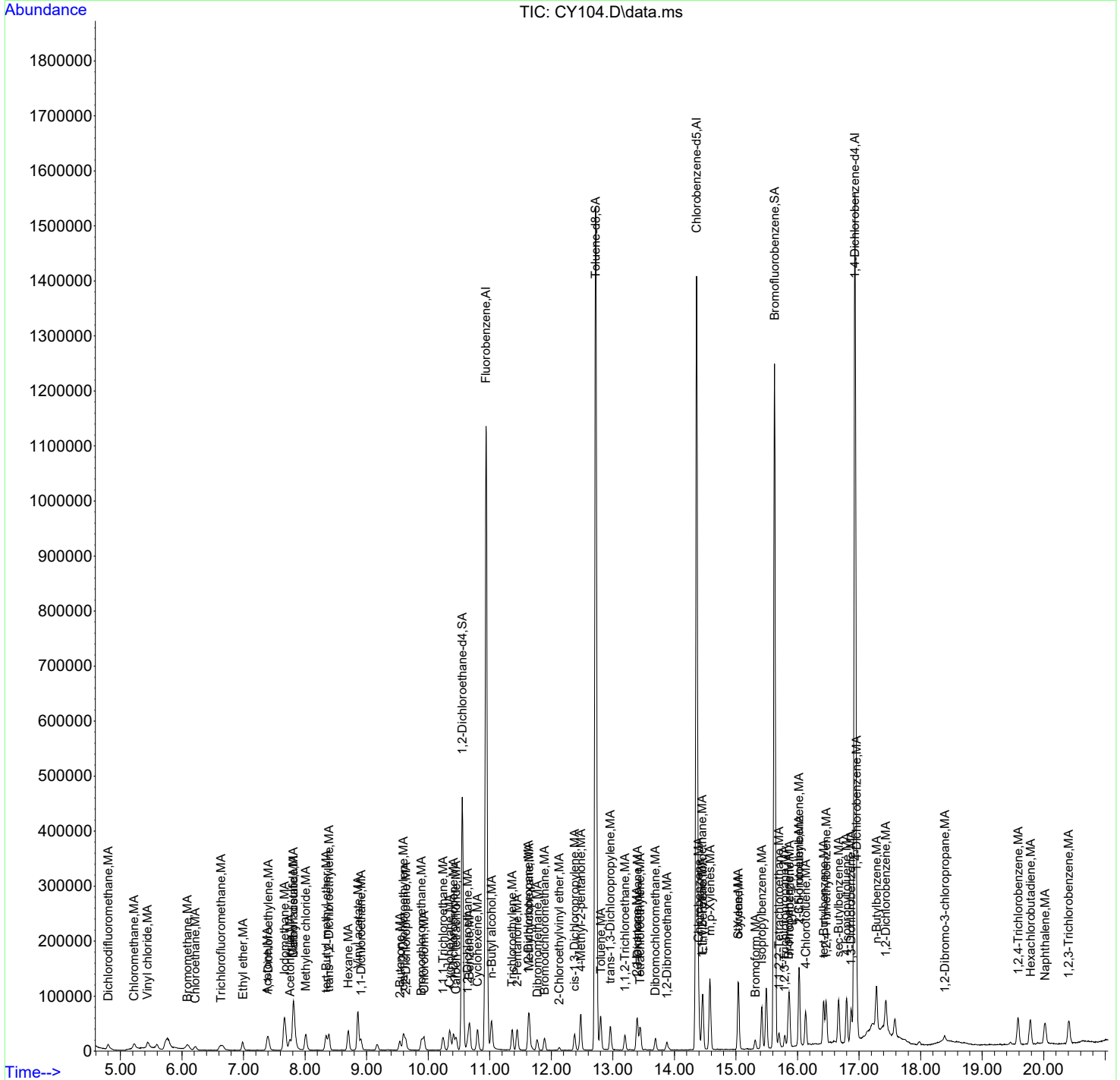
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.855	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.336	9.312	0.853	0m	N.D.	d
94) Ethyl acetate		9.544	9.531	0.872	0m	N.D.	d
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		9.787	9.794	0.895	0m	N.D.	d
97) Tetrahydrofuran		9.964	9.940	0.911	0m	N.D.	d
98) Isobutyl alcohol		10.354	10.263	0.947	0m	N.D.	d
99) Methyl tert-amyl ether		10.678	10.671	0.976	0m	N.D.	d
100) Methyl methacrylate		11.641	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		12.129	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		15.421	15.439	0.911	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		17.073	17.073	1.008	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		17.585	17.506	1.039	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

```
Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY104.D
Acq On    : 18 Mar 2024 12:35
Operator  : PX1
InstName  : VOAC
Sample    : |WCVM240318-03|ICAL|1|VOAF|1|VOA8260D|
Misc      : VSTD002 SUL/5ML N/A MIX[A]
ALS Vial  : 4 Sample Multiplier: 1
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Quant Time: Mar 19 09:59:53 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY105.D
Acq On : 18 Mar 2024 13:03
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-04|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 SUL/5ML N/A MIX[A]
ALS Vial : 5 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 09:59:55 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.940	10.934	1.000	1246491	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.360	14.354	1.000	1000997	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.932	16.933	1.000	581983	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.940	10.928	1.000	0m	50.00	ug/L	0.01
103) B Chlorobenzene-d5	117	14.360	14.348	1.000	0m	50.00	ug/L	0.01
105) B 1,4-Dichlorobenzene-d4	152	16.932	16.920	1.000	0m	50.00	ug/L	0.01

System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.549	10.543	0.964	371020	49.16	ug/L	0.00
45) Toluene-d8	98	12.720	12.714	0.886	1275883	49.34	ug/L	0.00
63) Bromofluorobenzene	95	15.622	15.622	0.923	491364	49.00	ug/L	0.00

Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.788	4.782	0.438	30183	4.38	ug/L	100
3) Chloromethane	50	5.209	5.203	0.476	35115	4.57	ug/L	100
4) Vinyl chloride	62	5.428	5.422	0.496	36981	4.67	ug/L	99
5) Bromomethane	94	6.069	6.075	0.555	28548	4.91	ug/L	96
6) Chloroethane	64	6.209	6.197	0.568	24911	5.01	ug/L	99
7) Trichlorofluoromethane	101	6.629	6.629	0.606	48220	4.95	ug/L	99
8) Ethyl ether	59	6.977	6.971	0.638	25761	4.99	ug/L	94
9) Acetone	43	7.373	7.367	0.674	40694	24.37	ug/L	95
10) 1,1-Dichloroethylene	61	7.391	7.392	0.676	43043	4.98	ug/L	99
11) Iodomethane	142	7.660	7.654	0.700	294412	25.07	ug/L	100
12) Acetonitrile	41	7.745	7.739	0.708	83313	125.67	ug/L	99
13) Methyl acetate	43	7.800	7.794	0.713	95148	24.95	ug/L	100
14) Carbon disulfide	76	7.806	7.800	0.714	439269	25.25	ug/L	100
15) Methylene chloride	84	8.001	8.001	0.731	39785	5.19	ug/L	99
16) tert-Butyl methyl ether	73	8.336	8.330	0.762	90975	5.04	ug/L	97
17) trans-1,2-Dichloroethy...	61	8.379	8.373	0.766	43735	5.02	ug/L	99
18) Hexane	57	8.696	8.690	0.795	44766	5.08	ug/L	97
19) Vinyl acetate	43	8.855	8.849	0.809	311696	25.90	ug/L	99
20) 1,1-Dichloroethane	63	8.903	8.897	0.814	54729	5.03	ug/L	100
21) 2-Butanone	43	9.531	9.525	0.871	57817	24.46	ug/L	100
22) cis-1,2-Dichloroethylene	61	9.592	9.586	0.877	51603	5.04	ug/L	100
23) 2,2-Dichloropropane	77	9.629	9.623	0.880	45644	5.28	ug/L	96
24) Bromochloromethane	128	9.891	9.885	0.904	19553	5.03	ug/L	99
25) Chloroform	83	9.928	9.922	0.907	57240	5.03	ug/L	99
26) 1,1,1-Trichloroethane	97	10.232	10.232	0.935	52177	5.05	ug/L	99
27) Cyclohexane	56	10.342	10.342	0.945	53283	5.17	ug/L	99
28) 1,1-Dichloropropene	75	10.409	10.403	0.952	42164	5.02	ug/L #	98
29) Carbon tetrachloride	117	10.446	10.446	0.955	47229	5.11	ug/L	99
31) 1,2-Dichloroethane	62	10.641	10.635	0.973	42795	4.98	ug/L	99
32) Benzene	78	10.665	10.665	0.975	122744	5.03	ug/L #	83
33) Cyclohexene	67	10.799	10.793	0.987	61613	5.05	ug/L	100
34) n-Butyl alcohol	56	11.025	11.019	1.008	84905	483.52	ug/L	94
35) Trichloroethylene	95	11.360	11.354	1.038	35055	5.08	ug/L	99
36) 2-Pentanone	43	11.440	11.434	1.046	102730	24.79	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY105.D
Acq On : 18 Mar 2024 13:03
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-04|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 SUL/5ML N/A MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 19 09:59:55 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.622	11.616	1.062	31185	5.02	ug/L 89
38) Methylcyclohexane	83	11.635	11.635	1.064	59402	5.14	ug/L 75
39) Dibromomethane	93	11.763	11.763	1.075	20615	5.05	ug/L 98
40) Bromodichloromethane	83	11.885	11.885	1.086	43259	4.90	ug/L 99
41) 2-Chloroethylvinyl ether	63	12.128	12.122	1.109	5862	23.71	ug/L 98
42) cis-1,3-Dichloropropylene	75	12.378	12.372	1.132	50717	4.86	ug/L 97
44) 4-Methyl-2-pentanone	58	12.476	12.470	0.869	50465	24.85	ug/L 96
46) Toluene	91	12.799	12.793	0.891	130117	4.99	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.958	12.952	0.902	44885	4.90	ug/L 98
48) 1,1,2-Trichloroethane	83	13.195	13.189	0.919	21981	4.88	ug/L 95
49) 2-Hexanone	43	13.384	13.384	0.932	79512	24.67	ug/L 99
50) 1,3-Dichloropropane	76	13.403	13.397	0.933	42976	4.93	ug/L 96
51) Tetrachloroethylene	164	13.445	13.439	0.936	31567	5.05	ug/L 99
52) Dibromochloromethane	129	13.689	13.689	0.953	35908	4.97	ug/L 100
53) 1,2-Dibromoethane	107	13.878	13.872	0.966	28254	4.87	ug/L 100
54) Chlorobenzene	112	14.396	14.390	1.003	89869	4.94	ug/L 92
55) 1,1,1,2-Tetrachloroethane	131	14.451	14.445	1.006	37025	5.02	ug/L 97
56) Ethylbenzene	91	14.463	14.457	1.007	143659	4.93	ug/L 94
57) m,p-Xylenes	106	14.579	14.573	1.015	116641	9.97	ug/L 100
58) o-Xylene	91	15.036	15.037	1.047	122458	4.99	ug/L 100
59) Styrene	104	15.036	15.037	1.047	94097	4.90	ug/L 99
61) Bromoform	173	15.311	15.305	0.904	24620	4.83	ug/L 91
62) Isopropylbenzene	105	15.421	15.414	0.911	155001	4.97	ug/L 99
64) 1,1,2,2-Tetrachloroethane	83	15.695	15.695	0.927	35371	4.98	ug/L 95
65) 1,2,3-Trichloropropane	110	15.792	15.792	0.933	11030	4.91	ug/L 97
66) Bromobenzene	156	15.853	15.847	0.936	43981	4.95	ug/L 99
67) n-Propylbenzene	91	15.866	15.866	0.937	175280	4.99	ug/L 100
68) 1,3,5-Trimethylbenzene	105	16.024	16.024	0.946	135022	4.96	ug/L 99
69) 2-Chlorotoluene	126	16.024	16.024	0.946	38828	4.97	ug/L 96
70) 4-Chlorotoluene	91	16.134	16.128	0.953	106365	4.96	ug/L 97
71) tert-Butylbenzene	134	16.426	16.420	0.970	30821	4.99	ug/L 99
72) 1,2,4-Trimethylbenzene	105	16.463	16.463	0.972	138147	4.95	ug/L 99
73) sec-Butylbenzene	105	16.664	16.664	0.984	172351	5.02	ug/L 100
74) 4-Isopropyltoluene	119	16.798	16.792	0.992	152669	4.99	ug/L 99
75) 1,3-Dichlorobenzene	146	16.871	16.865	0.996	82308	5.00	ug/L 85
76) 1,4-Dichlorobenzene	146	16.963	16.957	1.002	82581	5.00	ug/L # 75
77) n-Butylbenzene	91	17.280	17.280	1.021	134562	5.04	ug/L 100
78) 1,2-Dichlorobenzene	146	17.432	17.432	1.030	80337	5.00	ug/L 99
79) 1,2-Dibromo-3-chloropr...	157	18.390	18.383	1.086	10129	5.11	ug/L 97
80) 1,2,4-Trichlorobenzene	180	19.584	19.578	1.157	66973	5.03	ug/L 99
81) Hexachlorobutadiene	225	19.779	19.780	1.168	39287	5.08	ug/L 93
82) Naphthalene	128	20.017	20.017	1.182	129013	4.92	ug/L 99
83) 1,2,3-Trichlorobenzene	180	20.407	20.401	1.205	63520	5.15	ug/L 97
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.355	0.000	0	N.D.		
87) Isopropyl Alcohol	7.416	7.440	0.678	0m	N.D.	d	
88) Allyl chloride	0.000	7.843	0.000	0	N.D.		
89) tert-Butyl Alcohol	8.007	7.983	0.732	0m	N.D.	d	
90) Acrylonitrile	8.336	8.257	0.762	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY105.D
Acq On : 18 Mar 2024 13:03
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-04|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 SUL/5ML N/A MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 19 09:59:55 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

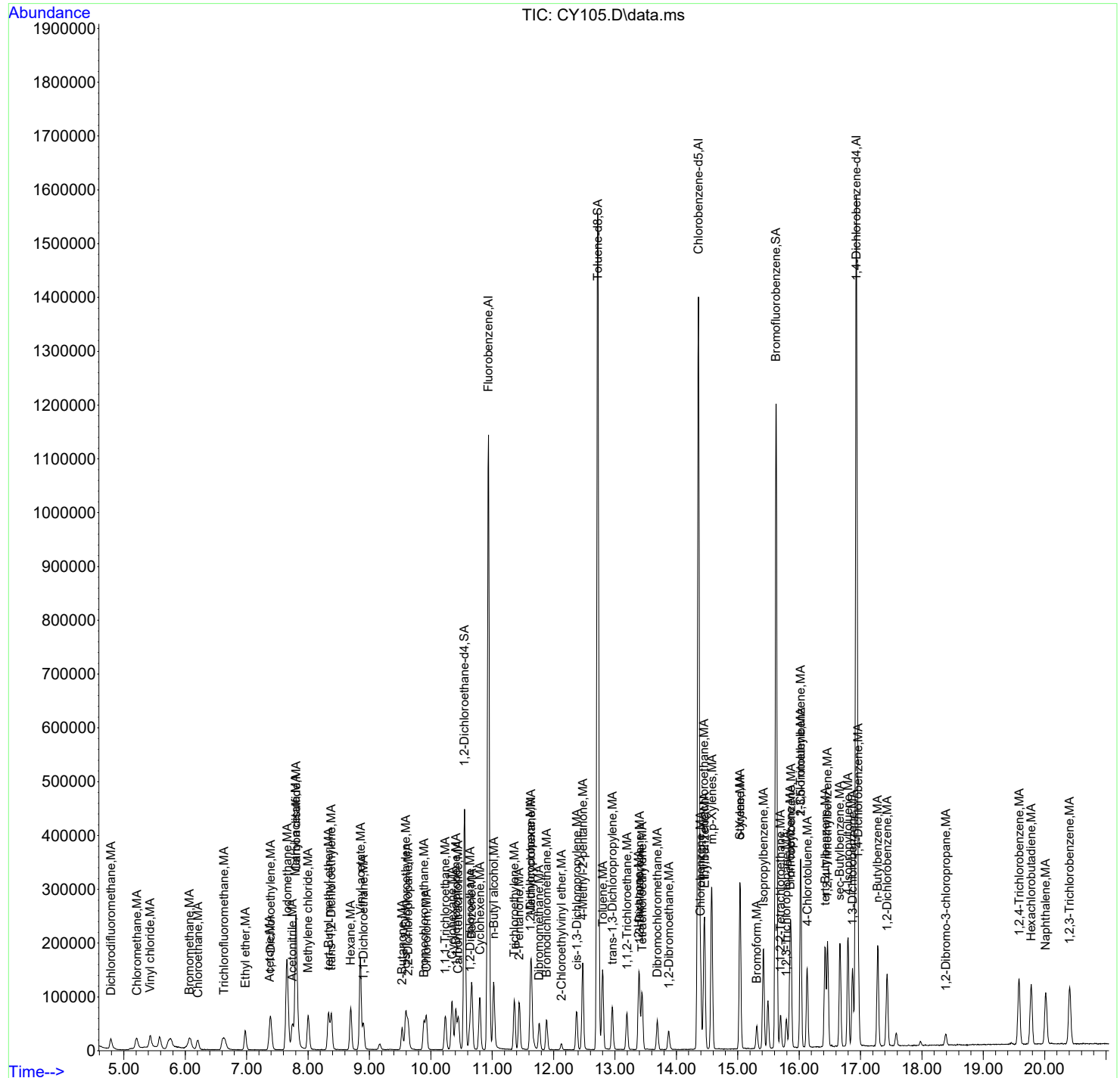
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.842	8.873	0.808	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.318	9.312	0.852	0m	N.D.	d
94) Ethyl acetate		9.531	9.531	0.871	0m	N.D.	d
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		9.806	9.794	0.896	0m	N.D.	d
97) Tetrahydrofuran		9.952	9.940	0.910	0m	N.D.	d
98) Isobutyl alcohol		10.275	10.263	0.939	0m	N.D.	d
99) Methyl tert-amyl ether		10.671	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.635	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		12.128	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		15.414	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		17.097	17.073	1.010	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		17.591	17.506	1.039	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY105.D
Acq On : 18 Mar 2024 13:03
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-04|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 5UL/5ML N/A MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 19 09:59:55 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY106.D
Acq On : 18 Mar 2024 13:31
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-05|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 5UL/5ML N/A MIX[A]
ALS Vial : 6 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 09:59:58 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.940	10.934	1.000	1228469	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.360	14.354	1.000	984680	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.933	16.933	1.000	582500	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.940	10.928	1.000	0m	50.00	ug/L	0.01
103) B Chlorobenzene-d5	117	14.360	14.348	1.000	0m	50.00	ug/L	0.01
105) B 1,4-Dichlorobenzene-d4	152	16.933	16.920	1.000	0m	50.00	ug/L	0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.550	10.543	0.964	374222	50.31	ug/L	0.00
45) Toluene-d8	98	12.720	12.714	0.886	1296352	50.96	ug/L	0.00
63) Bromofluorobenzene	95	15.622	15.622	0.923	496319	49.45	ug/L	0.00
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.801	4.782	0.439	63591	9.36	ug/L	98
3) Chloromethane	50	5.215	5.203	0.477	71912	9.50	ug/L	99
4) Vinyl chloride	62	5.441	5.422	0.497	75040	9.62	ug/L	100
5) Bromomethane	94	6.087	6.075	0.556	56539	9.86	ug/L	99
6) Chloroethane	64	6.215	6.197	0.568	48862	9.96	ug/L	100
7) Trichlorofluoromethane	101	6.636	6.629	0.607	93998	9.80	ug/L	99
8) Ethyl ether	59	6.983	6.971	0.638	50797	9.99	ug/L	94
9) Acetone	43	7.379	7.367	0.675	74262	45.12	ug/L	97
10) 1,1-Dichloroethylene	61	7.398	7.392	0.676	85832	10.07	ug/L	99
11) Iodomethane	142	7.660	7.654	0.700	587678	50.78	ug/L	100
12) Acetonitrile	41	7.751	7.739	0.709	158620	242.77	ug/L	100
13) Methyl acetate	43	7.806	7.794	0.714	185683	49.41	ug/L	99
14) Carbon disulfide	76	7.812	7.800	0.714	880219	51.34	ug/L	100
15) Methylene chloride	84	8.007	8.001	0.732	73884	10.60	ug/L	99
16) tert-Butyl methyl ether	73	8.336	8.330	0.762	180209	10.12	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.385	8.373	0.766	87232	10.16	ug/L	99
18) Hexane	57	8.702	8.690	0.795	88083	10.14	ug/L	98
19) Vinyl acetate	43	8.855	8.849	0.809	585045	49.33	ug/L	100
20) 1,1-Dichloroethane	63	8.903	8.897	0.814	110254	10.29	ug/L	99
21) 2-Butanone	43	9.531	9.525	0.871	111050	47.66	ug/L	98
22) cis-1,2-Dichloroethylene	61	9.592	9.586	0.877	101571	10.06	ug/L	99
23) 2,2-Dichloropropane	77	9.629	9.623	0.880	84802	9.96	ug/L	96
24) Bromochloromethane	128	9.891	9.885	0.904	38583	10.07	ug/L	98
25) Chloroform	83	9.928	9.922	0.907	114599	10.21	ug/L	100
26) 1,1,1-Trichloroethane	97	10.239	10.232	0.936	103393	10.16	ug/L	99
27) Cyclohexane	56	10.348	10.342	0.946	102822	10.12	ug/L	99
28) 1,1-Dichloropropene	75	10.409	10.403	0.952	84923	10.25	ug/L #	100
29) Carbon tetrachloride	117	10.452	10.446	0.955	93380	10.25	ug/L	100
31) 1,2-Dichloroethane	62	10.641	10.635	0.973	86389	10.21	ug/L	99
32) Benzene	78	10.671	10.665	0.975	242469	10.08	ug/L #	83
33) Cyclohexene	67	10.799	10.793	0.987	120769	10.05	ug/L	100
34) n-Butyl alcohol	56	11.025	11.019	1.008	164503	950.57	ug/L	97
35) Trichloroethylene	95	11.360	11.354	1.038	69804	10.26	ug/L	100
36) 2-Pentanone	43	11.440	11.434	1.046	198858	48.69	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY106.D
Acq On : 18 Mar 2024 13:31
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-05|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 5UL/5ML N/A MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 19 09:59:58 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.622	11.616	1.062	62465	10.19	ug/L 88
38) Methylcyclohexane	83	11.641	11.635	1.064	116191	10.19	ug/L 75
39) Dibromomethane	93	11.763	11.763	1.075	39793	9.90	ug/L 96
40) Bromodichloromethane	83	11.891	11.885	1.087	87638	10.07	ug/L 99
41) 2-Chloroethylvinyl ether	63	12.129	12.122	1.109	12575	51.60	ug/L 99
42) cis-1,3-Dichloropropylene	75	12.378	12.372	1.132	102703	9.98	ug/L 99
44) 4-Methyl-2-pentanone	58	12.476	12.470	0.869	99401	49.76	ug/L 98
46) Toluene	91	12.799	12.793	0.891	261055	10.18	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.958	12.952	0.902	90533	10.05	ug/L 98
48) 1,1,2-Trichloroethane	83	13.189	13.189	0.918	44897	10.13	ug/L 99
49) 2-Hexanone	43	13.384	13.384	0.932	158073	49.85	ug/L 98
50) 1,3-Dichloropropane	76	13.403	13.397	0.933	86406	10.09	ug/L 99
51) Tetrachloroethylene	164	13.439	13.439	0.936	62620	10.18	ug/L 100
52) Dibromochloromethane	129	13.689	13.689	0.953	72146	10.14	ug/L 99
53) 1,2-Dibromoethane	107	13.872	13.872	0.966	57682	10.12	ug/L 99
54) Chlorobenzene	112	14.396	14.390	1.003	182081	10.17	ug/L 96
55) 1,1,1,2-Tetrachloroethane	131	14.445	14.445	1.006	74294	10.24	ug/L 98
56) Ethylbenzene	91	14.457	14.457	1.007	288948	10.07	ug/L 92
57) m,p-Xylenes	106	14.573	14.573	1.015	232500	20.20	ug/L 97
58) o-Xylene	91	15.037	15.037	1.047	247426	10.25	ug/L 99
59) Styrene	104	15.037	15.037	1.047	190691	10.09	ug/L 98
61) Bromoform	173	15.311	15.305	0.904	48569	9.52	ug/L 92
62) Isopropylbenzene	105	15.414	15.414	0.910	310966	9.96	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.695	15.695	0.927	68937	9.71	ug/L 100
65) 1,2,3-Trichloropropane	110	15.792	15.792	0.933	22556	10.02	ug/L 96
66) Bromobenzene	156	15.847	15.847	0.936	88101	9.91	ug/L 99
67) n-Propylbenzene	91	15.866	15.866	0.937	349952	9.95	ug/L 99
68) 1,3,5-Trimethylbenzene	105	16.024	16.024	0.946	272972	10.01	ug/L 99
69) 2-Chlorotoluene	126	16.024	16.024	0.946	78284	10.00	ug/L 97
70) 4-Chlorotoluene	91	16.128	16.128	0.952	212904	9.92	ug/L 96
71) tert-Butylbenzene	134	16.420	16.420	0.970	62541	10.12	ug/L 99
72) 1,2,4-Trimethylbenzene	105	16.463	16.463	0.972	278090	9.96	ug/L 100
73) sec-Butylbenzene	105	16.664	16.664	0.984	344781	10.03	ug/L 100
74) 4-Isopropyltoluene	119	16.792	16.792	0.992	305047	9.97	ug/L 99
75) 1,3-Dichlorobenzene	146	16.872	16.865	0.996	164675	9.99	ug/L 86
76) 1,4-Dichlorobenzene	146	16.963	16.957	1.002	163859	9.91	ug/L 95
77) n-Butylbenzene	91	17.280	17.280	1.021	268206	10.04	ug/L 100
78) 1,2-Dichlorobenzene	146	17.432	17.432	1.030	160325	9.96	ug/L 100
79) 1,2-Dibromo-3-chloropr...	157	18.390	18.383	1.086	18506	9.33	ug/L 97
80) 1,2,4-Trichlorobenzene	180	19.578	19.578	1.156	130452	9.79	ug/L 99
81) Hexachlorobutadiene	225	19.780	19.780	1.168	78140	10.09	ug/L 93
82) Naphthalene	128	20.017	20.017	1.182	252888	9.63	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.407	20.401	1.205	121920	9.87	ug/L 97
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.355	0.000	0	N.D.		
87) Isopropyl Alcohol	7.422	7.440	0.678	0m	N.D. d		
88) Allyl chloride	0.000	7.843	0.000	0	N.D.		
89) tert-Butyl Alcohol	8.001	7.983	0.731	0m	N.D. d		
90) Acrylonitrile	8.336	8.257	0.762	0m	N.D. d		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY106.D
Acq On : 18 Mar 2024 13:31
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-05|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 5UL/5ML N/A MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 19 09:59:58 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

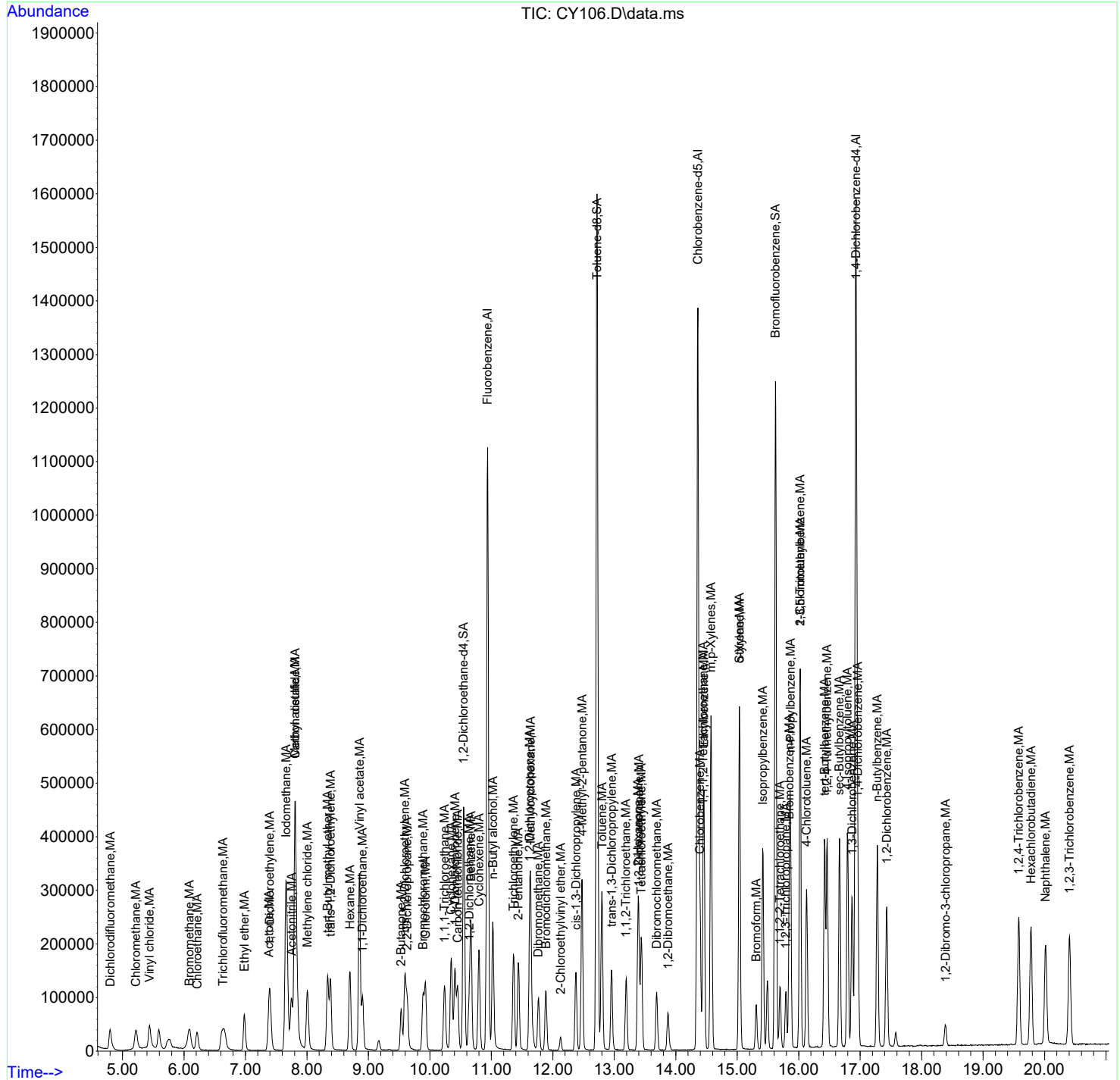
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.855	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.324	9.312	0.852	0m	N.D.	d
94) Ethyl acetate		9.531	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.537	9.592	0.872	0m	N.D.	d
96) Methacrylonitrile		9.806	9.794	0.896	0m	N.D.	d
97) Tetrahydrofuran		9.940	9.940	0.909	0m	N.D.	d
98) Isobutyl alcohol		10.348	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.665	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.635	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		12.019	12.086	1.099	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		15.421	15.439	0.911	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.506	16.487	0.975	0m	N.D.	d
111) Benzyl chloride		17.073	17.073	1.008	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		17.573	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

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Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY106.D
Acq On    : 18 Mar 2024 13:31
Operator  : PX11
InstName  : VOAC
Sample    : |WCVM240318-05|ICAL|1|VOAF|1|VOA8260D|
Misc      : VSTD010 5UL/5ML N/A MIX[A]
ALS Vial  : 6 Sample Multiplier: 1
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Quant Time: Mar 19 09:59:58 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY107.D
Acq On : 18 Mar 2024 13:59
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-06|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD020 SUL/5ML N/A MIX[A]
ALS Vial : 7 Sample Multiplier: 1

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03/19/2024

Quant Time: Mar 19 10:00:00 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.940	10.934	1.000	1244545	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.360	14.354	1.000	998623	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.932	16.933	1.000	575936	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.940	10.928	1.000	0m	50.00	ug/L	0.01
103) B Chlorobenzene-d5	117	14.360	14.348	1.000	0m	50.00	ug/L	0.01
105) B 1,4-Dichlorobenzene-d4	152	16.932	16.920	1.000	0m	50.00	ug/L	0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.549	10.543	0.964	371619	49.31	ug/L	0.00
45) Toluene-d8	98	12.720	12.714	0.886	1280548	49.64	ug/L	0.00
63) Bromofluorobenzene	95	15.622	15.622	0.923	487967	49.18	ug/L	0.00
Target Compounds								
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.794	4.782	0.438	133948	19.45	ug/L	99
3) Chloromethane	50	5.215	5.203	0.477	153119	19.97	ug/L	100
4) Vinyl chloride	62	5.441	5.422	0.497	161851	20.49	ug/L	100
5) Bromomethane	94	6.087	6.075	0.556	117780	20.28	ug/L	97
6) Chloroethane	64	6.215	6.197	0.568	104183	20.97	ug/L	100
7) Trichlorofluoromethane	101	6.641	6.629	0.607	197259	20.30	ug/L	100
8) Ethyl ether	59	6.983	6.971	0.638	105414	20.46	ug/L	93
9) Acetone	43	7.379	7.367	0.675	149213	89.49	ug/L	98
10) 1,1-Dichloroethylene	61	7.397	7.392	0.676	169286	19.61	ug/L	100
11) Iodomethane	142	7.660	7.654	0.700	1169255	99.72	ug/L	100
12) Acetonitrile	41	7.745	7.739	0.708	324833	490.73	ug/L	99
13) Methyl acetate	43	7.806	7.794	0.714	370016	97.19	ug/L	100
14) Carbon disulfide	76	7.812	7.800	0.714	1722285	99.16	ug/L	100
15) Methylene chloride	84	8.007	8.001	0.732	137407	20.24	ug/L	99
16) tert-Butyl methyl ether	73	8.336	8.330	0.762	364531	20.22	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.379	8.373	0.766	170723	19.63	ug/L	99
18) Hexane	57	8.696	8.690	0.795	170951	19.42	ug/L	99
19) Vinyl acetate	43	8.855	8.849	0.809	1247870	103.87	ug/L	100
20) 1,1-Dichloroethane	63	8.903	8.897	0.814	216987	19.98	ug/L	99
21) 2-Butanone	43	9.531	9.525	0.871	229442	97.21	ug/L	99
22) cis-1,2-Dichloroethylene	61	9.592	9.586	0.877	202224	19.77	ug/L	100
23) 2,2-Dichloropropane	77	9.629	9.623	0.880	163971	19.01	ug/L	99
24) Bromochloromethane	128	9.891	9.885	0.904	77545	19.97	ug/L	99
25) Chloroform	83	9.928	9.922	0.907	226246	19.90	ug/L	100
26) 1,1,1-Trichloroethane	97	10.238	10.232	0.936	203427	19.74	ug/L	100
27) Cyclohexane	56	10.348	10.342	0.946	201247	19.55	ug/L	98
28) 1,1-Dichloropropene	75	10.409	10.403	0.952	165998	19.78	ug/L	# 100
29) Carbon tetrachloride	117	10.452	10.446	0.955	183389	19.88	ug/L	100
31) 1,2-Dichloroethane	62	10.641	10.635	0.973	168385	19.63	ug/L	99
32) Benzene	78	10.665	10.665	0.975	479663	19.68	ug/L	99
33) Cyclohexene	67	10.799	10.793	0.987	238560	19.60	ug/L	99
34) n-Butyl alcohol	56	11.025	11.019	1.008	339636	1937.21	ug/L	97
35) Trichloroethylene	95	11.360	11.354	1.038	135505	19.66	ug/L	99
36) 2-Pentanone	43	11.439	11.434	1.046	408504	98.73	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY107.D
Acq On : 18 Mar 2024 13:59
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-06|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD020 5UL/5ML N/A MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 19 10:00:00 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.622	11.616	1.062	122722	19.77	ug/L 86
38) Methylcyclohexane	83	11.634	11.635	1.064	228583	19.80	ug/L 76
39) Dibromomethane	93	11.769	11.763	1.076	80463	19.76	ug/L 97
40) Bromodichloromethane	83	11.884	11.885	1.086	174216	19.76	ug/L 100
41) 2-Chloroethylvinyl ether	63	12.122	12.122	1.108	24024	97.31	ug/L 99
42) cis-1,3-Dichloropropylene	75	12.372	12.372	1.131	204823	19.65	ug/L 99
44) 4-Methyl-2-pentanone	58	12.476	12.470	0.869	201605	99.52	ug/L 98
46) Toluene	91	12.799	12.793	0.891	511875	19.68	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.957	12.952	0.902	180975	19.81	ug/L 99
48) 1,1,2-Trichloroethane	83	13.195	13.189	0.919	87932	19.57	ug/L 96
49) 2-Hexanone	43	13.384	13.384	0.932	315548	98.12	ug/L 99
50) 1,3-Dichloropropane	76	13.402	13.397	0.933	173346	19.95	ug/L 100
51) Tetrachloroethylene	164	13.439	13.439	0.936	123873	19.86	ug/L 99
52) Dibromochloromethane	129	13.689	13.689	0.953	144549	20.04	ug/L 99
53) 1,2-Dibromoethane	107	13.872	13.872	0.966	112833	19.51	ug/L 99
54) Chlorobenzene	112	14.390	14.390	1.002	360134	19.83	ug/L 98
55) 1,1,1,2-Tetrachloroethane	131	14.445	14.445	1.006	147019	19.99	ug/L 100
56) Ethylbenzene	91	14.457	14.457	1.007	571194	19.63	ug/L 93
57) m,p-Xylenes	106	14.573	14.573	1.015	458301	39.25	ug/L 98
58) o-Xylene	91	15.036	15.037	1.047	483864	19.77	ug/L 100
59) Styrene	104	15.036	15.037	1.047	384906	20.09	ug/L 99
61) Bromoform	173	15.311	15.305	0.904	99325	19.68	ug/L 94
62) Isopropylbenzene	105	15.414	15.414	0.910	613210	19.87	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.695	15.695	0.927	137853	19.63	ug/L 100
65) 1,2,3-Trichloropropane	110	15.792	15.792	0.933	43055	19.35	ug/L 97
66) Bromobenzene	156	15.847	15.847	0.936	173040	19.69	ug/L 99
67) n-Propylbenzene	91	15.865	15.866	0.937	687547	19.78	ug/L 99
68) 1,3,5-Trimethylbenzene	105	16.024	16.024	0.946	537047	19.92	ug/L 99
69) 2-Chlorotoluene	126	16.024	16.024	0.946	152916	19.76	ug/L 97
70) 4-Chlorotoluene	91	16.128	16.128	0.952	419754	19.79	ug/L 97
71) tert-Butylbenzene	134	16.420	16.420	0.970	121779	19.94	ug/L 99
72) 1,2,4-Trimethylbenzene	105	16.463	16.463	0.972	552170	19.99	ug/L 99
73) sec-Butylbenzene	105	16.664	16.664	0.984	672651	19.80	ug/L 100
74) 4-Isopropyltoluene	119	16.792	16.792	0.992	605009	20.00	ug/L 99
75) 1,3-Dichlorobenzene	146	16.871	16.865	0.996	321084	19.70	ug/L 86
76) 1,4-Dichlorobenzene	146	16.963	16.957	1.002	321841	19.69	ug/L 97
77) n-Butylbenzene	91	17.280	17.280	1.021	525648	19.89	ug/L 100
78) 1,2-Dichlorobenzene	146	17.432	17.432	1.030	314831	19.79	ug/L 99
79) 1,2-Dibromo-3-chloropr...	157	18.389	18.383	1.086	38130	19.45	ug/L 99
80) 1,2,4-Trichlorobenzene	180	19.578	19.578	1.156	263928	20.03	ug/L 100
81) Hexachlorobutadiene	225	19.779	19.780	1.168	152560	19.93	ug/L 94
82) Naphthalene	128	20.017	20.017	1.182	512963	19.75	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.407	20.401	1.205	240933	19.72	ug/L 96
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.355	0.000	0	N.D.		
87) Isopropyl Alcohol	7.416	7.440	0.678	0m	N.D.	d	
88) Allyl chloride	0.000	7.843	0.000	0	N.D.		
89) tert-Butyl Alcohol	8.013	7.983	0.733	0m	N.D.	d	
90) Acrylonitrile	8.336	8.257	0.762	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY107.D
Acq On : 18 Mar 2024 13:59
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-06|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD020 SUL/5ML N/A MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 19 10:00:00 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

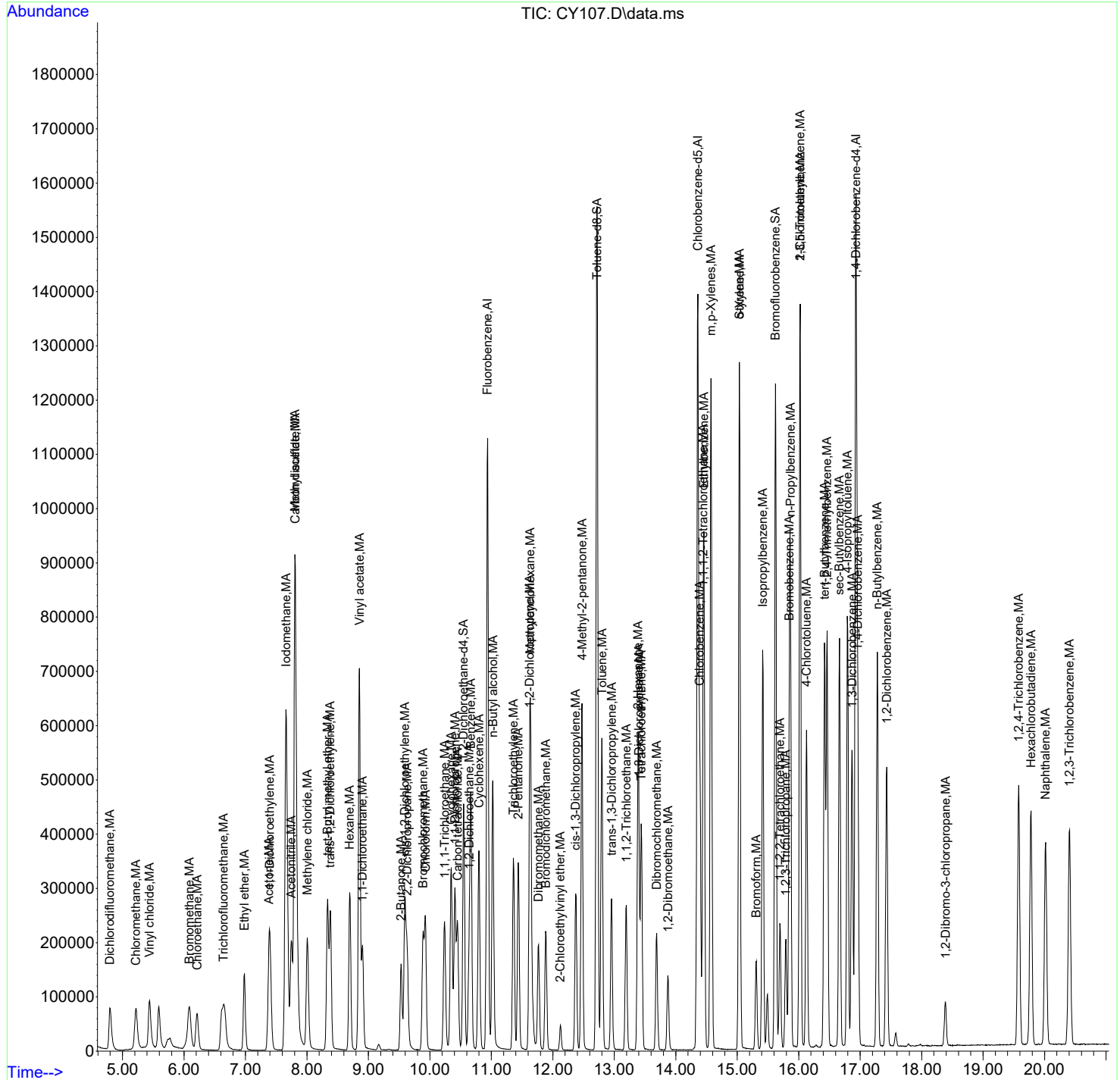
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.855	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.324	9.312	0.852	0m	N.D.	d
94) Ethyl acetate		9.531	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.537	9.592	0.872	0m	N.D.	d
96) Methacrylonitrile		9.873	9.794	0.902	0m	N.D.	d
97) Tetrahydrofuran		9.928	9.940	0.907	0m	N.D.	d
98) Isobutyl alcohol		10.348	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.665	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.634	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.763	11.696	1.075	0m	N.D.	d
102) 2-Nitropropane		12.122	12.086	1.108	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.299	14.238	0.844	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.414	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.499	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.572	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY107.D
Acq On : 18 Mar 2024 13:59
Operator : PXY1
InstName : VOAC
Sample : |WCVL240318-06|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD020 5UL/5ML N/A MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 19 10:00:00 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY108.D
Acq On : 18 Mar 2024 14:26
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-07|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[A]
ALS Vial : 8 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 10:00:02 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.934	10.934	1.000	1169849	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.354	14.354	1.000	981150	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.933	16.933	1.000	548845	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.934	10.928	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.354	14.348	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.933	16.920	1.000	0m	50.00	ug/L	0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.543	10.543	0.964	354837	50.09	ug/L	0.00
45) Toluene-d8	98	12.714	12.714	0.886	1272155	50.19	ug/L	0.00
63) Bromofluorobenzene	95	15.622	15.622	0.923	487854	51.59	ug/L	0.00
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.782	4.782	0.437	373362	57.68	ug/L	100
3) Chloromethane	50	5.203	5.203	0.476	394758	54.77	ug/L	100
4) Vinyl chloride	62	5.422	5.422	0.496	413034	55.62	ug/L	100
5) Bromomethane	94	6.075	6.075	0.556	297855	54.55	ug/L	99
6) Chloroethane	64	6.197	6.197	0.567	250948	53.74	ug/L	100
7) Trichlorofluoromethane	101	6.629	6.629	0.606	482400	52.82	ug/L	100
8) Ethyl ether	59	6.971	6.971	0.638	256139	52.89	ug/L	94
9) Acetone	43	7.367	7.367	0.674	352185	224.71	ug/L	99
10) 1,1-Dichloroethylene	61	7.392	7.392	0.676	409929	50.53	ug/L	99
11) Iodomethane	142	7.654	7.654	0.700	2840181	257.70	ug/L	100
12) Acetonitrile	41	7.739	7.739	0.708	751030	1207.04	ug/L	100
13) Methyl acetate	43	7.794	7.794	0.713	896618	250.54	ug/L	100
14) Carbon disulfide	76	7.800	7.800	0.713	4239929	259.69	ug/L	100
15) Methylene chloride	84	8.001	8.001	0.732	312471	50.26	ug/L	100
16) tert-Butyl methyl ether	73	8.330	8.330	0.762	856355	50.52	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.373	8.373	0.766	401863	49.17	ug/L	100
18) Hexane	57	8.690	8.690	0.795	397105	47.99	ug/L	100
19) Vinyl acetate	43	8.849	8.849	0.809	3048588	269.96	ug/L	100
20) 1,1-Dichloroethane	63	8.897	8.897	0.814	504346	49.41	ug/L	100
21) 2-Butanone	43	9.525	9.525	0.871	567781	255.91	ug/L	99
22) cis-1,2-Dichloroethylene	61	9.586	9.586	0.877	473517	49.25	ug/L	100
23) 2,2-Dichloropropane	77	9.623	9.623	0.880	394832	48.71	ug/L	99
24) Bromochloromethane	128	9.885	9.885	0.904	185784	50.90	ug/L	100
25) Chloroform	83	9.922	9.922	0.907	531084	49.70	ug/L	99
26) 1,1,1-Trichloroethane	97	10.232	10.232	0.936	480934	49.65	ug/L	99
27) Cyclohexane	56	10.342	10.342	0.946	477229	49.33	ug/L	99
28) 1,1-Dichloropropene	75	10.403	10.403	0.951	393428	49.87	ug/L	# 99
29) Carbon tetrachloride	117	10.446	10.446	0.955	429010	49.47	ug/L	99
31) 1,2-Dichloroethane	62	10.635	10.635	0.973	404131	50.13	ug/L	100
32) Benzene	78	10.665	10.665	0.975	1143138	49.91	ug/L	99
33) Cyclohexene	67	10.793	10.793	0.987	562540	49.16	ug/L	99
34) n-Butyl alcohol	56	11.019	11.019	1.008	846156	5134.45	ug/L	99
35) Trichloroethylene	95	11.354	11.354	1.038	318277	49.14	ug/L	97
36) 2-Pentanone	43	11.434	11.434	1.046	1016970	261.49	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY108.D
Acq On : 18 Mar 2024 14:26
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-07|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 19 10:00:02 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.616	11.616	1.062	302221	51.79	ug/L 88
38) Methylcyclohexane	83	11.635	11.635	1.064	532657	49.08	ug/L 75
39) Dibromomethane	93	11.763	11.763	1.076	195350	51.03	ug/L 97
40) Bromodichloromethane	83	11.885	11.885	1.087	420645	50.77	ug/L 99
41) 2-Chloroethylvinyl ether	63	12.122	12.122	1.109	68049	293.23	ug/L 100
42) cis-1,3-Dichloropropylene	75	12.372	12.372	1.132	515111	52.58	ug/L 99
44) 4-Methyl-2-pentanone	58	12.470	12.470	0.869	510237	256.35	ug/L 100
46) Toluene	91	12.793	12.793	0.891	1270721	49.73	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.952	12.952	0.902	463210	51.62	ug/L 100
48) 1,1,2-Trichloroethane	83	13.189	13.189	0.919	224144	50.77	ug/L 96
49) 2-Hexanone	43	13.384	13.384	0.932	826449	261.56	ug/L 100
50) 1,3-Dichloropropane	76	13.397	13.397	0.933	442490	51.83	ug/L 100
51) Tetrachloroethylene	164	13.439	13.439	0.936	298763	48.74	ug/L 100
52) Dibromochloromethane	129	13.689	13.689	0.954	365582	51.58	ug/L 100
53) 1,2-Dibromoethane	107	13.872	13.872	0.966	291300	51.27	ug/L 100
54) Chlorobenzene	112	14.390	14.390	1.003	893697	50.08	ug/L 100
55) 1,1,1,2-Tetrachloroethane	131	14.445	14.445	1.006	355207	49.15	ug/L 100
56) Ethylbenzene	91	14.457	14.457	1.007	1425028	49.86	ug/L 92
57) m,p-Xylenes	106	14.573	14.573	1.015	1139015	99.30	ug/L 99
58) o-Xylene	91	15.037	15.037	1.048	1172850	48.78	ug/L 100
59) Styrene	104	15.037	15.037	1.048	978072	51.96	ug/L 100
61) Bromoform	173	15.305	15.305	0.904	255019	53.03	ug/L 93
62) Isopropylbenzene	105	15.414	15.414	0.910	1468911	49.95	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.695	15.695	0.927	339845	50.78	ug/L 100
65) 1,2,3-Trichloropropane	110	15.792	15.792	0.933	109605	51.69	ug/L 99
66) Bromobenzene	156	15.847	15.847	0.936	430853	51.44	ug/L 100
67) n-Propylbenzene	91	15.866	15.866	0.937	1672048	50.47	ug/L 99
68) 1,3,5-Trimethylbenzene	105	16.024	16.024	0.946	1286273	50.08	ug/L 100
69) 2-Chlorotoluene	126	16.024	16.024	0.946	371030	50.32	ug/L 98
70) 4-Chlorotoluene	91	16.128	16.128	0.952	1026075	50.75	ug/L 96
71) tert-Butylbenzene	134	16.420	16.420	0.970	290457	49.90	ug/L 100
72) 1,2,4-Trimethylbenzene	105	16.463	16.463	0.972	1304625	49.57	ug/L 100
73) sec-Butylbenzene	105	16.664	16.664	0.984	1604810	49.56	ug/L 100
74) 4-Isopropyltoluene	119	16.792	16.792	0.992	1433822	49.73	ug/L 100
75) 1,3-Dichlorobenzene	146	16.865	16.865	0.996	775624	49.94	ug/L 86
76) 1,4-Dichlorobenzene	146	16.957	16.957	1.001	773846	49.69	ug/L 97
77) n-Butylbenzene	91	17.280	17.280	1.021	1235502	49.06	ug/L 100
78) 1,2-Dichlorobenzene	146	17.432	17.432	1.030	759038	50.07	ug/L 100
79) 1,2-Dibromo-3-chloropr...	157	18.383	18.383	1.086	94721	50.69	ug/L 100
80) 1,2,4-Trichlorobenzene	180	19.578	19.578	1.156	622955	49.61	ug/L 100
81) Hexachlorobutadiene	225	19.780	19.780	1.168	362782	49.74	ug/L 93
82) Naphthalene	128	20.017	20.017	1.182	1260853	50.95	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.401	20.401	1.205	577677	49.62	ug/L 96
85) Acrolein		7.184	7.166	0.657	0m	N.D.	d
86) Trichlorotrifluoroethane		7.361	7.355	0.673	0m	N.D.	d
87) Isopropyl Alcohol		7.410	7.440	0.678	0m	N.D.	d
88) Allyl chloride		7.995	7.843	0.731	0m	N.D.	d
89) tert-Butyl Alcohol		7.995	7.983	0.731	0m	N.D.	d
90) Acrylonitrile		8.330	8.257	0.762	0m	N.D.	d

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY108.D
Acq On : 18 Mar 2024 14:26
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-07|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 19 10:00:02 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

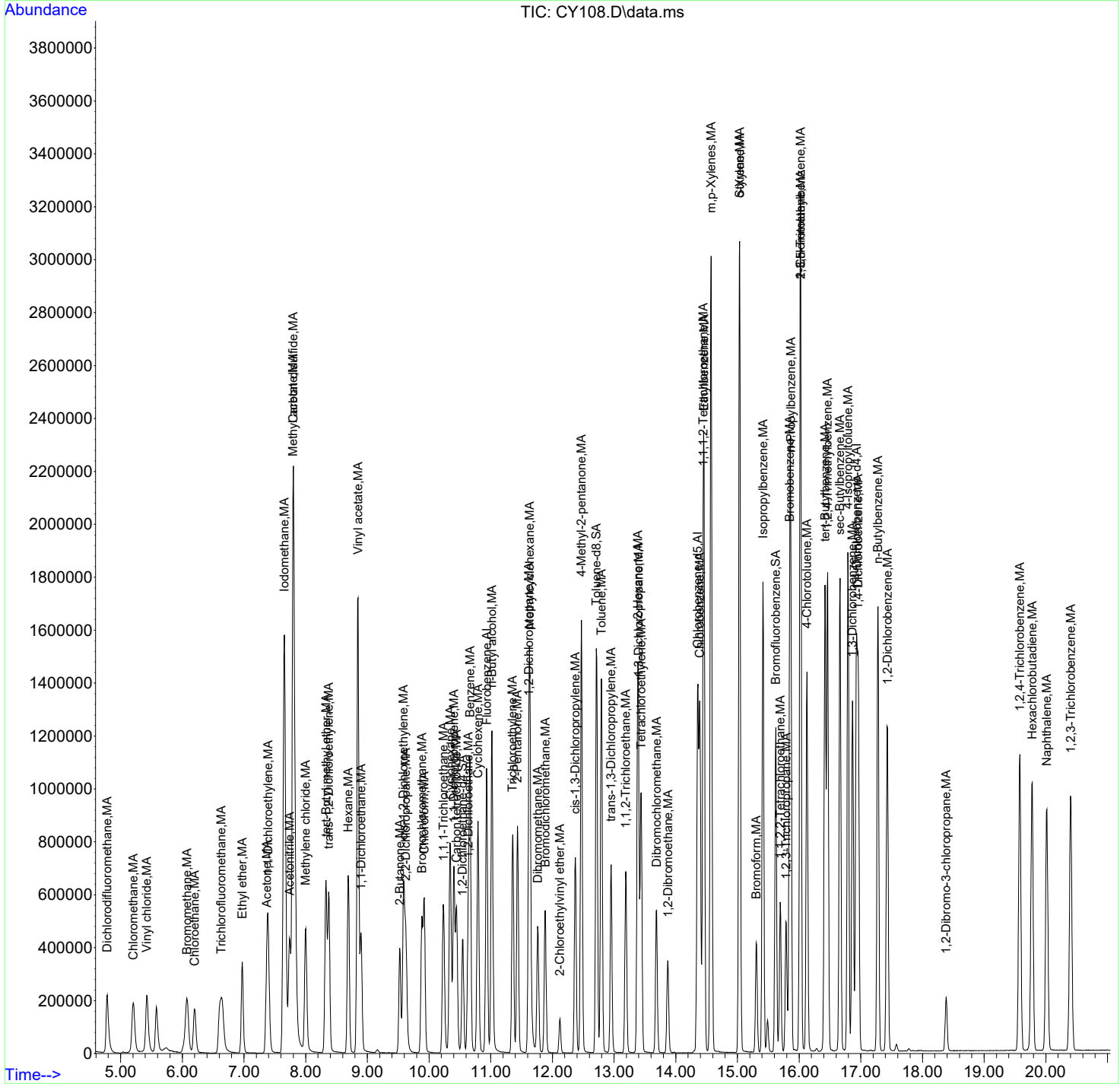
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.842	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate		9.525	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.525	9.592	0.871	0m	N.D.	d
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran		9.909	9.940	0.906	0m	N.D.	d
98) Isobutyl alcohol		10.257	10.263	0.938	0m	N.D.	d
99) Methyl tert-amyl ether		10.665	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.635	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.757	11.696	1.075	0m	N.D.	d
102) 2-Nitropropane		12.122	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.244	14.238	0.841	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.414	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.487	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.573	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

```
Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY108.D
Acq On    : 18 Mar 2024  14:26
Operator  : PX11
InstName  : VOAC
Sample    : |WCVM240318-07|ICAL|1|VOAF|1|VOA8260D|
Misc      : VSTD050 SUL/5ML N/A MIX[A]
ALS Vial  : 8   Sample Multiplier: 1
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Quant Time: Mar 19 10:00:02 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY109.D
Acq On : 18 Mar 2024 14:54
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-08|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD080 4UL/5ML N/A MIX[A]
ALS Vial : 9 Sample Multiplier: 1

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03/19/2024

Quant Time: Mar 19 10:00:04 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.933	10.934	1.000	1193774	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.354	14.354	1.000	983992	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.932	16.933	1.000	553742	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.933	10.928	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.354	14.348	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.932	16.920	1.000	0m	50.00	ug/L	0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.543	10.543	0.964	358300	49.57	ug/L	0.00
45) Toluene-d8	98	12.714	12.714	0.886	1281485	50.41	ug/L	0.00
63) Bromofluorobenzene	95	15.622	15.622	0.923	486061	50.95	ug/L	0.00
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.782	4.782	0.437	606685	91.85	ug/L	99
3) Chloromethane	50	5.203	5.203	0.476	631765	85.90	ug/L	100
4) Vinyl chloride	62	5.428	5.422	0.496	661353	87.27	ug/L	100
5) Bromomethane	94	6.075	6.075	0.556	478708	85.92	ug/L	99
6) Chloroethane	64	6.203	6.197	0.567	412880	86.64	ug/L	100
7) Trichlorofluoromethane	101	6.635	6.629	0.607	779028	83.58	ug/L	99
8) Ethyl ether	59	6.971	6.971	0.638	421353	85.26	ug/L	95
9) Acetone	43	7.367	7.367	0.674	585905	366.34	ug/L	100
10) 1,1-Dichloroethylene	61	7.385	7.392	0.675	683143	82.51	ug/L	100
11) Iodomethane	142	7.654	7.654	0.700	4775219	424.58	ug/L	100
12) Acetonitrile	41	7.739	7.739	0.708	1273791	2006.19	ug/L	100
13) Methyl acetate	43	7.794	7.794	0.713	1474812	403.84	ug/L	99
14) Carbon disulfide	76	7.800	7.800	0.713	6965240	418.07	ug/L	100
15) Methylene chloride	84	8.001	8.001	0.732	522012	82.88	ug/L	100
16) tert-Butyl methyl ether	73	8.330	8.330	0.762	1443259	83.44	ug/L	99
17) trans-1,2-Dichloroethy...	61	8.373	8.373	0.766	682677	81.85	ug/L	100
18) Hexane	57	8.690	8.690	0.795	632083	74.86	ug/L	100
19) Vinyl acetate	43	8.842	8.849	0.809	4777803	414.60	ug/L	100
20) 1,1-Dichloroethane	63	8.897	8.897	0.814	848914	81.51	ug/L	100
21) 2-Butanone	43	9.525	9.525	0.871	923748	408.00	ug/L	99
22) cis-1,2-Dichloroethylene	61	9.586	9.586	0.877	801706	81.72	ug/L	99
23) 2,2-Dichloropropane	77	9.623	9.623	0.880	679055	82.10	ug/L	100
24) Bromochloromethane	128	9.885	9.885	0.904	313758	84.25	ug/L	100
25) Chloroform	83	9.921	9.922	0.907	905776	83.06	ug/L	100
26) 1,1,1-Trichloroethane	97	10.232	10.232	0.936	808624	81.80	ug/L	99
27) Cyclohexane	56	10.342	10.342	0.946	791603	80.18	ug/L	98
28) 1,1-Dichloropropene	75	10.403	10.403	0.951	662770	82.33	ug/L #	99
29) Carbon tetrachloride	117	10.446	10.446	0.955	724001	81.80	ug/L	99
31) 1,2-Dichloroethane	62	10.635	10.635	0.973	672570	81.76	ug/L	100
32) Benzene	78	10.665	10.665	0.975	1911681	81.79	ug/L	100
33) Cyclohexene	67	10.793	10.793	0.987	941136	80.60	ug/L	100
34) n-Butyl alcohol	56	11.019	11.019	1.008	1427267	8487.05	ug/L	100
35) Trichloroethylene	95	11.354	11.354	1.038	541762	81.96	ug/L	98
36) 2-Pentanone	43	11.433	11.434	1.046	1499469	377.83	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY109.D
Acq On : 18 Mar 2024 14:54
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-08|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD080 4UL/5ML N/A MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 19 10:00:04 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.622	11.616	1.063	497417	83.54	ug/L 88
38) Methylcyclohexane	83	11.635	11.635	1.064	901078	81.36	ug/L 75
39) Dibromomethane	93	11.763	11.763	1.076	323915	82.92	ug/L 97
40) Bromodichloromethane	83	11.885	11.885	1.087	707379	83.66	ug/L 99
41) 2-Chloroethylvinyl ether	63	12.122	12.122	1.109	86918	367.03	ug/L 99
42) cis-1,3-Dichloropropylene	75	12.372	12.372	1.132	849540	84.98	ug/L 99
44) 4-Methyl-2-pentanone	58	12.470	12.470	0.869	826873	414.23	ug/L 100
46) Toluene	91	12.793	12.793	0.891	2103374	82.07	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.951	12.952	0.902	747727	83.08	ug/L 100
48) 1,1,2-Trichloroethane	83	13.189	13.189	0.919	365730	82.59	ug/L 97
49) 2-Hexanone	43	13.384	13.384	0.932	1294348	408.46	ug/L 100
50) 1,3-Dichloropropane	76	13.396	13.397	0.933	715736	83.60	ug/L 98
51) Tetrachloroethylene	164	13.439	13.439	0.936	502571	81.76	ug/L 100
52) Dibromochloromethane	129	13.689	13.689	0.954	605436	85.17	ug/L 100
53) 1,2-Dibromoethane	107	13.872	13.872	0.966	474790	83.32	ug/L 100
54) Chlorobenzene	112	14.390	14.390	1.003	1489833	83.24	ug/L 100
55) 1,1,1,2-Tetrachloroethane	131	14.445	14.445	1.006	607854	83.87	ug/L 99
56) Ethylbenzene	91	14.457	14.457	1.007	2360245	82.34	ug/L 92
57) m,p-Xylenes	106	14.573	14.573	1.015	1886785	164.01	ug/L 98
58) o-Xylene	91	15.036	15.037	1.048	1970466	81.72	ug/L 100
59) Styrene	104	15.036	15.037	1.048	1619001	85.76	ug/L 100
61) Bromoform	173	15.305	15.305	0.904	422543	87.08	ug/L 93
62) Isopropylbenzene	105	15.414	15.414	0.910	2488416	83.88	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.695	15.695	0.927	556318	82.40	ug/L 100
65) 1,2,3-Trichloropropane	110	15.792	15.792	0.933	180140	84.20	ug/L 99
66) Bromobenzene	156	15.847	15.847	0.936	720038	85.20	ug/L 99
67) n-Propylbenzene	91	15.866	15.866	0.937	2804845	83.91	ug/L 99
68) 1,3,5-Trimethylbenzene	105	16.024	16.024	0.946	2189272	84.48	ug/L 99
69) 2-Chlorotoluene	126	16.024	16.024	0.946	623680	83.84	ug/L 97
70) 4-Chlorotoluene	91	16.128	16.128	0.952	1710800	83.87	ug/L 96
71) tert-Butylbenzene	134	16.420	16.420	0.970	500163	85.18	ug/L 99
72) 1,2,4-Trimethylbenzene	105	16.463	16.463	0.972	2224891	83.79	ug/L 100
73) sec-Butylbenzene	105	16.664	16.664	0.984	2739057	83.85	ug/L 100
74) 4-Isopropyltoluene	119	16.792	16.792	0.992	2458881	84.53	ug/L 100
75) 1,3-Dichlorobenzene	146	16.865	16.865	0.996	1304533	83.25	ug/L 86
76) 1,4-Dichlorobenzene	146	16.957	16.957	1.001	1302230	82.88	ug/L 98
77) n-Butylbenzene	91	17.280	17.280	1.021	2122634	83.55	ug/L 100
78) 1,2-Dichlorobenzene	146	17.426	17.432	1.029	1282195	83.83	ug/L 100
79) 1,2-Dibromo-3-chloropr...	157	18.383	18.383	1.086	162156	86.01	ug/L 99
80) 1,2,4-Trichlorobenzene	180	19.578	19.578	1.156	1095804	86.49	ug/L 100
81) Hexachlorobutadiene	225	19.779	19.780	1.168	609835	82.88	ug/L 93
82) Naphthalene	128	20.011	20.017	1.182	2172353	87.01	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.401	20.401	1.205	994361	84.65	ug/L 96
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	7.361	7.355	0.673	0m	N.D.	d	
87) Isopropyl Alcohol	7.404	7.440	0.677	0m	N.D.	d	
88) Allyl chloride	0.000	7.843	0.000	0	N.D.		
89) tert-Butyl Alcohol	8.001	7.983	0.732	0m	N.D.	d	
90) Acrylonitrile	8.330	8.257	0.762	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY109.D
Acq On : 18 Mar 2024 14:54
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-08|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD080 4UL/5ML N/A MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 19 10:00:04 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

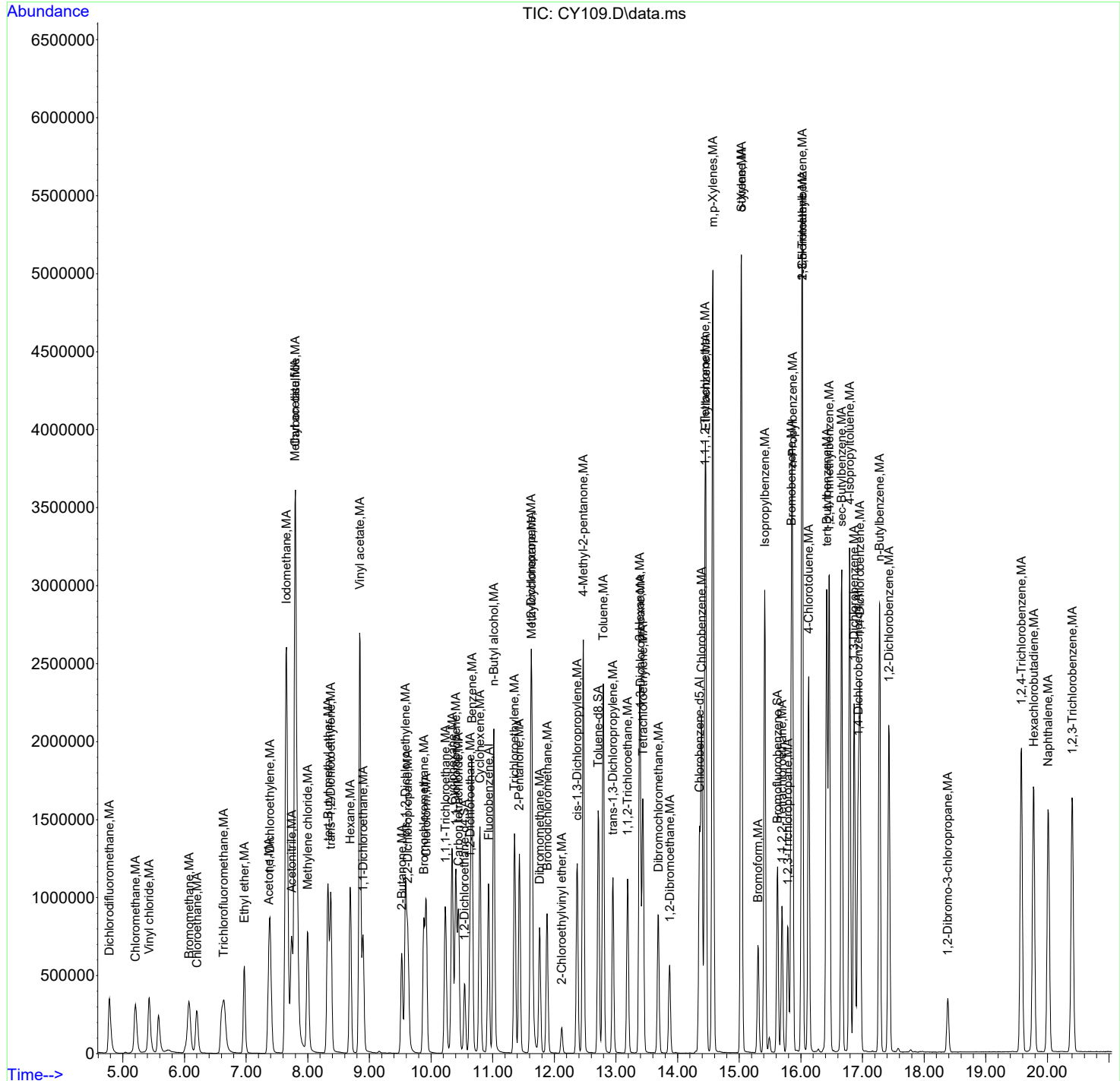
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.842	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.324	9.312	0.853	0m	N.D.	d
94) Ethyl acetate		9.525	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.525	9.592	0.871	0m	N.D.	d
96) Methacrylonitrile		9.848	9.794	0.901	0m	N.D.	d
97) Tetrahydrofuran		9.921	9.940	0.907	0m	N.D.	d
98) Isobutyl alcohol		10.238	10.263	0.936	0m	N.D.	d
99) Methyl tert-amyl ether		10.659	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.635	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.763	11.696	1.076	0m	N.D.	d
102) 2-Nitropropane		12.122	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.293	14.238	0.844	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.414	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.493	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.585	17.506	1.039	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

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Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY109.D
Acq On    : 18 Mar 2024  14:54
Operator  : PX11
InstName  : VOAC
Sample    : |WCVM240318-08|ICAL|1|VOAF|1|VOA8260D|
Misc      : VSTD080 4UL/5ML N/A MIX[A]
ALS Vial  : 9   Sample Multiplier: 1
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Quant Time: Mar 19 10:00:04 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY110.D
Acq On : 18 Mar 2024 15:22
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-09|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[A]
ALS Vial : 10 Sample Multiplier: 1

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03/19/2024

Quant Time: Mar 19 10:00:06 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.934	10.934	1.000	1248601	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.354	14.354	1.000	1034797	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.926	16.933	1.000	580036	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.934	10.928	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.354	14.348	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.926	16.920	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.543	10.543	0.964	379528	50.20	ug/L	0.00
45) Toluene-d8	98	12.714	12.714	0.886	1338151	50.05	ug/L	0.00
63) Bromofluorobenzene	95	15.622	15.622	0.923	506868	50.72	ug/L	0.00
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.782	4.782	0.437	742220	107.44	ug/L	100 A
3) Chloromethane	50	5.203	5.203	0.476	773331	100.53	ug/L	100 A
4) Vinyl chloride	62	5.428	5.422	0.496	815666	102.91	ug/L	100 A
5) Bromomethane	94	6.075	6.075	0.556	595148	102.13	ug/L	99 A
6) Chloroethane	64	6.203	6.197	0.567	502133	100.74	ug/L	99 A
7) Trichlorofluoromethane	101	6.636	6.629	0.607	972643	99.78	ug/L	100
8) Ethyl ether	59	6.971	6.971	0.638	543525	105.16	ug/L	95 A
9) Acetone	43	7.367	7.367	0.674	751094	449.01	ug/L	100
10) 1,1-Dichloroethylene	61	7.391	7.392	0.676	821692	94.89	ug/L	99
11) Iodomethane	142	7.654	7.654	0.700	5761295	489.77	ug/L	100
12) Acetonitrile	41	7.739	7.739	0.708	1557206	2344.87	ug/L	100
13) Methyl acetate	43	7.794	7.794	0.713	1887628	494.18	ug/L	99
14) Carbon disulfide	76	7.806	7.800	0.714	8366460	480.12	ug/L	100
15) Methylene chloride	84	8.001	8.001	0.732	631498	96.00	ug/L	99
16) tert-Butyl methyl ether	73	8.330	8.330	0.762	1810109	100.06	ug/L	99 A
17) trans-1,2-Dichloroethy...	61	8.373	8.373	0.766	826198	94.71	ug/L	100
18) Hexane	57	8.690	8.690	0.795	841148	95.24	ug/L	99
19) Vinyl acetate	43	8.842	8.849	0.809	6173558	512.20	ug/L	100 A
20) 1,1-Dichloroethane	63	8.897	8.897	0.814	1031512	94.69	ug/L	100
21) 2-Butanone	43	9.525	9.525	0.871	1192080	503.40	ug/L	99 A
22) cis-1,2-Dichloroethylene	61	9.586	9.586	0.877	976331	95.15	ug/L	99
23) 2,2-Dichloropropane	77	9.623	9.623	0.880	809994	93.63	ug/L	99
24) Bromochloromethane	128	9.885	9.885	0.904	389344	99.95	ug/L	99
25) Chloroform	83	9.921	9.922	0.907	1109287	97.26	ug/L	100
26) 1,1,1-Trichloroethane	97	10.232	10.232	0.936	982932	95.07	ug/L	99
27) Cyclohexane	56	10.342	10.342	0.946	953054	92.30	ug/L	98
28) 1,1-Dichloropropene	75	10.403	10.403	0.951	805145	95.63	ug/L #	99
29) Carbon tetrachloride	117	10.446	10.446	0.955	887448	95.87	ug/L	99
31) 1,2-Dichloroethane	62	10.635	10.635	0.973	833558	96.88	ug/L	100
32) Benzene	78	10.665	10.665	0.975	2341389	95.78	ug/L	99
33) Cyclohexene	67	10.793	10.793	0.987	1146530	93.88	ug/L	100
34) n-Butyl alcohol	56	11.019	11.019	1.008	1809531	10287.64	ug/L	100 A
35) Trichloroethylene	95	11.354	11.354	1.038	659255	95.36	ug/L	98
36) 2-Pentanone	43	11.433	11.434	1.046	2089837	503.47	ug/L	100 A

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY110.D
Acq On : 18 Mar 2024 15:22
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-09|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 10:00:06 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.616	11.616	1.062	609228	97.82	ug/L 87
38) Methylcyclohexane	83	11.635	11.635	1.064	1089927	94.09	ug/L 76
39) Dibromomethane	93	11.763	11.763	1.076	402970	98.62	ug/L 97
40) Bromodichloromethane	83	11.885	11.885	1.087	872940	98.71	ug/L 100
41) 2-Chloroethylvinyl ether	63	12.122	12.122	1.109	127382	514.28	ug/L 100 A
42) cis-1,3-Dichloropropylene	75	12.372	12.372	1.132	1049483	100.37	ug/L 99 A
44) 4-Methyl-2-pentanone	58	12.470	12.470	0.869	1062851	506.30	ug/L 99 A
46) Toluene	91	12.793	12.793	0.891	2569974	95.36	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.951	12.952	0.902	928939	98.15	ug/L 100
48) 1,1,2-Trichloroethane	83	13.189	13.189	0.919	455613	97.84	ug/L 97
49) 2-Hexanone	43	13.378	13.384	0.932	1658710	497.75	ug/L 99
50) 1,3-Dichloropropane	76	13.396	13.397	0.933	890388	98.89	ug/L 99
51) Tetrachloroethylene	164	13.439	13.439	0.936	603930	93.42	ug/L 100
52) Dibromochloromethane	129	13.683	13.689	0.953	755383	101.04	ug/L 100 A
53) 1,2-Dibromoethane	107	13.872	13.872	0.966	595947	99.44	ug/L 100
54) Chlorobenzene	112	14.390	14.390	1.003	1824135	96.91	ug/L 99
55) 1,1,1,2-Tetrachloroethane	131	14.445	14.445	1.006	747243	98.04	ug/L 100
56) Ethylbenzene	91	14.457	14.457	1.007	2874141	95.34	ug/L 93
57) m,p-Xylenes	106	14.573	14.573	1.015	2283247	188.73	ug/L 98
58) o-Xylene	91	15.030	15.037	1.047	2406734	94.92	ug/L 100
59) Styrene	104	15.036	15.037	1.048	1983347	99.90	ug/L 100
61) Bromoform	173	15.305	15.305	0.904	535557	105.37	ug/L 93 A
62) Isopropylbenzene	105	15.414	15.414	0.911	3017316	97.09	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.695	15.695	0.927	709546	100.33	ug/L 100 A
65) 1,2,3-Trichloropropane	110	15.786	15.792	0.933	226245	100.96	ug/L 99 A
66) Bromobenzene	156	15.847	15.847	0.936	879221	99.32	ug/L 99
67) n-Propylbenzene	91	15.866	15.866	0.937	3375175	96.40	ug/L 99
68) 1,3,5-Trimethylbenzene	105	16.018	16.024	0.946	2631517	96.94	ug/L 100
69) 2-Chlorotoluene	126	16.024	16.024	0.947	749063	96.13	ug/L 97
70) 4-Chlorotoluene	91	16.128	16.128	0.953	2054872	96.18	ug/L 96
71) tert-Butylbenzene	134	16.420	16.420	0.970	598686	97.33	ug/L 99
72) 1,2,4-Trimethylbenzene	105	16.457	16.463	0.972	2656591	95.51	ug/L 100
73) sec-Butylbenzene	105	16.664	16.664	0.985	3257269	95.19	ug/L 100
74) 4-Isopropyltoluene	119	16.792	16.792	0.992	2903021	95.28	ug/L 100
75) 1,3-Dichlorobenzene	146	16.865	16.865	0.996	1557310	94.87	ug/L 86
76) 1,4-Dichlorobenzene	146	16.957	16.957	1.002	1553694	94.40	ug/L 98
77) n-Butylbenzene	91	17.274	17.280	1.021	2464524	92.61	ug/L 100
78) 1,2-Dichlorobenzene	146	17.426	17.432	1.030	1539228	96.07	ug/L 99
79) 1,2-Dibromo-3-chloropr...	157	18.383	18.383	1.086	201868	102.22	ug/L 99 A
80) 1,2,4-Trichlorobenzene	180	19.578	19.578	1.157	1248601	94.09	ug/L 100
81) Hexachlorobutadiene	225	19.773	19.780	1.168	684473	88.80	ug/L 93
82) Naphthalene	128	20.011	20.017	1.182	2618433	100.13	ug/L 100 A
83) 1,2,3-Trichlorobenzene	180	20.401	20.401	1.205	1167829	94.91	ug/L 96
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.355	0.000	0	N.D.		
87) Isopropyl Alcohol	7.404	7.440	0.677	0m	N.D.	d	
88) Allyl chloride	7.995	7.843	0.731	0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	7.983	0.000	0	N.D.		
90) Acrylonitrile	8.324	8.257	0.761	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY110.D
Acq On : 18 Mar 2024 15:22
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-09|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 10:00:06 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

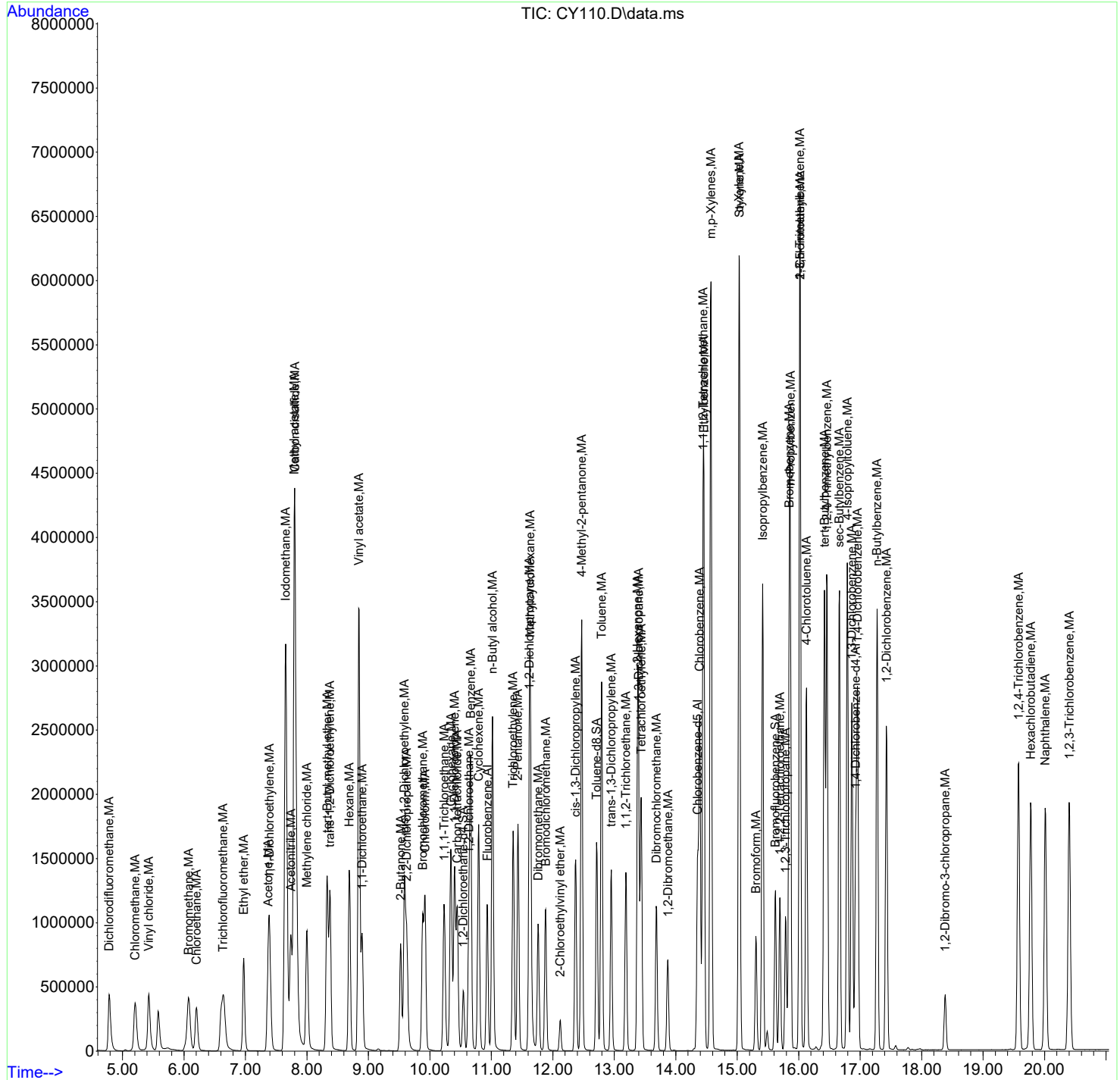
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.842	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.324	9.312	0.853	0m	N.D.	d
94) Ethyl acetate		9.525	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.525	9.592	0.871	0m	N.D.	d
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran		9.921	9.940	0.907	0m	N.D.	d
98) Isobutyl alcohol		10.342	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.665	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.635	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.763	11.696	1.076	0m	N.D.	d
102) 2-Nitropropane		12.122	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.299	14.238	0.845	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.414	15.439	0.911	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.487	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.573	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY110.D
Acq On : 18 Mar 2024 15:22
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-09|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 10:00:06 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 660974
Instrument ID: VOAC.I
Injection Date: 18-MAR-24 16:17
Data File: data\031824VC_ICAL\CY112.D
Init. Cal. Date(s): 18-MAR-24 11:39 - 18-MAR-24 20:00
Lab Sample ID: WCV M240318-10
Method: data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Type: ISTD
Method Update: 19-MAR-24 09:59

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S 1,2-Dichloroethane-d4	0.3028	0.30755		.01		1.56869	30		Averaged
S Toluene-d8	1.2917	1.33091		.01		3.03553	30		Averaged
S Bromofluorobenzene	0.8615	0.88373		.01		2.58038	30		Averaged
Dichlorodifluoromethane	0.2766	0.3275		.01		18.40202	30		Averaged
Chloromethane	0.308	0.30129		.1		-2.17857	30		Averaged
Vinyl chloride	0.3174	0.31412		.01		-1.0334	30		Averaged
Bromomethane	0.2334	0.24382		.01		4.46444	30		Averaged
Chloroethane	0.1996	0.2157		.01		8.06613	30		Averaged
Trichlorofluoromethane	0.3904	0.41401		.01		6.04764	30		Averaged
Acetone	0.067	0.06026		.01		-10.0597	30		Averaged
1,1-Dichloroethylene	0.3468	0.35316		.01		1.83391	30		Averaged
Iodomethane	0.4711	0.51221		.01		8.72639	30		Averaged
Acetonitrile	0.0266	0.02597		.01		-2.36842	30		Averaged
Carbon disulfide	0.6978	0.80262		.01		15.0215	30		Averaged
Methylene chloride	50	51.29	50			2.58	30		Linear
trans-1,2-Dichloroethylene	0.3493	0.34964		.01		0.09734	30		Averaged
Vinyl acetate	0.4827	0.47138		.01		-2.34514	30		Averaged
1,1-Dichloroethane	0.4362	0.43963		.1		0.78634	30		Averaged
2-Butanone	0.0948	0.09199		.01		-2.96414	30		Averaged
Chloroform	0.4567	0.46697		.01		2.24874	30		Averaged
1,1,1-Trichloroethane	0.414	0.40871		.01		-1.27778	30		Averaged
Carbon tetrachloride	0.3707	0.37795		.01		1.95576	30		Averaged
1,2-Dichloroethane	0.3445	0.336		.01		-2.46734	30		Averaged
Benzene	0.979	0.97291		.01		-0.62206	30		Averaged
Trichloroethylene	0.2768	0.27191		.01		-1.76662	30		Averaged
1,2-Dichloropropane	0.2494	0.25165		.01		0.90217	30		Averaged
Dibromomethane	0.1636	0.16523		.01		0.99633	30		Averaged
Bromodichloromethane	0.3541	0.36333		.01		2.60661	30		Averaged
cis-1,3-Dichloropropylene	0.4187	0.42499		.01		1.50227	30		Averaged
4-Methyl-2-pentanone	0.1014	0.10287		.01		1.4497	30		Averaged
Toluene	1.3023	1.29141		.01		-0.83621	30		Averaged
trans-1,3-Dichloropropylene	0.4573	0.4649		.01		1.66193	30		Averaged
1,1,2-Trichloroethane	0.225	0.22386		.01		-0.50667	30		Averaged
2-Hexanone	0.161	0.15609		.01		-3.04969	30		Averaged
Tetrachloroethylene	0.3124	0.31259		.01		0.06082	30		Averaged
Dibromochloromethane	0.3612	0.37614		.01		4.13621	30		Averaged
1,2-Dibromoethane	0.2896	0.29316		.01		1.22928	30		Averaged

Continuing Calibration Summary

Instrument ID: VOAC.I

Injection Date: 18-MAR-24 16:17

Data File: data\031824VC_ICAL\CY112.D

Init. Cal. Date(s) 18-MAR-24 11:39 18-MAR-24 20:00

Lab Sample ID WCV240318-10

Method: data\031824VC_ICAL\VOAC-031824-8260D.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Chlorobenzene	0.9095	0.91506		.3		0.61132	30		Averaged
1,1,1,2-Tetrachloroethane	0.3683	0.37504		.01		1.83003	30		Averaged
Ethylbenzene	1.4566	1.43397		.01		-1.55362	30		Averaged
m,p-Xylenes	0.5846	0.57224		.01		-2.11427	30		Averaged
Styrene	0.9593	0.96149		.01		0.22829	30		Averaged
o-Xylene	1.2252	1.21035		.01		-1.21205	30		Averaged
Bromoform	0.4381	0.45771		.1		4.47615	30		Averaged
1,1,2,2-Tetrachloroethane	0.6096	0.60711		.3		-0.40846	30		Averaged
1,2,3-Trichloropropane	0.1932	0.19644		.01		1.67702	30		Averaged
1,2-Dibromo-3-chloropropane	0.1702	0.18142		.01		6.59224	30		Averaged
1,2,4-Trichlorobenzene	1.1439	1.16979		.01		2.26331	30		Averaged

PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY112.D
Acq On : 18 Mar 2024 16:17
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-10|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[A]
ALS Vial : 12 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 10:00:10 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.934	10.934	1.000	1178811	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.354	14.354	1.000	945542	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.926	16.933	1.000	526660	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.934	10.928	1.000	1178386	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.354	14.348	1.000	945542	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.926	16.920	1.000	528979	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.543	10.543	0.964	362541	50.79	ug/L	0.00
45) Toluene-d8	98	12.714	12.714	0.886	1258429	51.52	ug/L	0.00
63) Bromofluorobenzene	95	15.616	15.622	0.923	465423	51.29	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	85	4.788	4.782	0.438	386061	59.19	ug/L	100
3) Chloromethane	50	5.209	5.203	0.476	355169	48.90	ug/L	99
4) Vinyl chloride	62	5.428	5.422	0.496	370285	49.48	ug/L	100
5) Bromomethane	94	6.081	6.075	0.556	287423	52.24	ug/L	98
6) Chloroethane	64	6.203	6.197	0.567	254269	54.03	ug/L	99
7) Trichlorofluoromethane	101	6.642	6.629	0.607	488038	53.03	ug/L	100
8) Ethyl ether	59	6.971	6.971	0.638	239024	48.98	ug/L	95
9) Acetone	43	7.367	7.367	0.674	355193	224.91	ug/L	99
10) 1,1-Dichloroethylene	61	7.391	7.392	0.676	416310	50.92	ug/L	99
11) Iodomethane	142	7.654	7.654	0.700	3019014	271.84	ug/L	100
12) Acetonitrile	41	7.739	7.739	0.708	765267	1220.58	ug/L	100
13) Methyl acetate	43	7.794	7.794	0.713	886124	245.72	ug/L	99
14) Carbon disulfide	76	7.800	7.800	0.713	4730670	287.55	ug/L	100
15) Methylene chloride	84	8.001	8.001	0.732	321163	51.29	ug/L	100
16) tert-Butyl methyl ether	73	8.330	8.330	0.762	830019	48.60	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.373	8.373	0.766	412159	50.04	ug/L	100
18) Hexane	57	8.690	8.690	0.795	364463	43.71	ug/L	100
19) Vinyl acetate	43	8.842	8.849	0.809	2778318	244.15	ug/L	100
20) 1,1-Dichloroethane	63	8.897	8.897	0.814	518237	50.39	ug/L	100
21) 2-Butanone	43	9.525	9.525	0.871	542204	242.52	ug/L	99
22) cis-1,2-Dichloroethylene	61	9.586	9.586	0.877	480664	49.62	ug/L	99
23) 2,2-Dichloropropane	77	9.623	9.623	0.880	395899	48.47	ug/L	99
24) Bromochloromethane	128	9.879	9.885	0.904	189469	51.52	ug/L	98
25) Chloroform	83	9.922	9.922	0.907	550468	51.12	ug/L	99
26) 1,1,1-Trichloroethane	97	10.232	10.232	0.936	481794	49.36	ug/L	100
27) Cyclohexane	56	10.342	10.342	0.946	482289	49.47	ug/L	98
28) 1,1-Dichloropropene	75	10.397	10.403	0.951	395629	49.77	ug/L #	99
29) Carbon tetrachloride	117	10.446	10.446	0.955	445535	50.98	ug/L	100
31) 1,2-Dichloroethane	62	10.635	10.635	0.973	396086	48.76	ug/L	100
32) Benzene	78	10.659	10.665	0.975	1146882	49.69	ug/L	99
33) Cyclohexene	67	10.793	10.793	0.987	528452	45.83	ug/L	99
34) n-Butyl alcohol	56	11.019	11.019	1.008	830404	5000.56	ug/L	99
35) Trichloroethylene	95	11.354	11.354	1.038	320532	49.11	ug/L	97
36) 2-Pentanone	43	11.433	11.434	1.046	819571	209.13	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY112.D
Acq On : 18 Mar 2024 16:17
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-10|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[A]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 19 10:00:10 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.616	11.616	1.062	296653	50.45	ug/L 87
38) Methylcyclohexane	83	11.629	11.635	1.064	536584	49.06	ug/L 75
39) Dibromomethane	93	11.763	11.763	1.076	194777	50.49	ug/L 97
40) Bromodichloromethane	83	11.879	11.885	1.086	428301	51.30	ug/L 100
41) 2-Chloroethylvinyl ether	63	12.116	12.122	1.108	70024	299.45	ug/L 100
42) cis-1,3-Dichloropropylene	75	12.366	12.372	1.131	500978	50.75	ug/L 100
44) 4-Methyl-2-pentanone	58	12.470	12.470	0.869	486336	253.54	ug/L 100
46) Toluene	91	12.793	12.793	0.891	1221086	49.58	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.951	12.952	0.902	439580	50.83	ug/L 100
48) 1,1,2-Trichloroethane	83	13.189	13.189	0.919	211666	49.74	ug/L 98
49) 2-Hexanone	43	13.378	13.384	0.932	737952	242.35	ug/L 100
50) 1,3-Dichloropropane	76	13.397	13.397	0.933	414930	50.43	ug/L 98
51) Tetrachloroethylene	164	13.433	13.439	0.936	295565	50.04	ug/L 100
52) Dibromochloromethane	129	13.683	13.689	0.953	355658	52.07	ug/L 100
53) 1,2-Dibromoethane	107	13.866	13.872	0.966	277196	50.62	ug/L 99
54) Chlorobenzene	112	14.390	14.390	1.003	865232	50.31	ug/L 100
55) 1,1,1,2-Tetrachloroethane	131	14.445	14.445	1.006	354612	50.92	ug/L 100
56) Ethylbenzene	91	14.451	14.457	1.007	1355875	49.22	ug/L 92
57) m,p-Xylenes	106	14.567	14.573	1.015	1082150	97.89	ug/L 98
58) o-Xylene	91	15.030	15.037	1.047	1144435	49.39	ug/L 100
59) Styrene	104	15.030	15.037	1.047	909125	50.11	ug/L 99
61) Bromoform	173	15.305	15.305	0.904	241056	52.23	ug/L 93
62) Isopropylbenzene	105	15.408	15.414	0.910	1446302	51.26	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.689	15.695	0.927	319738	49.79	ug/L 100
65) 1,2,3-Trichloropropane	110	15.786	15.792	0.933	103456	50.85	ug/L 98
66) Bromobenzene	156	15.841	15.847	0.936	407649	50.72	ug/L 100
67) n-Propylbenzene	91	15.859	15.866	0.937	1604309	50.46	ug/L 99
68) 1,3,5-Trimethylbenzene	105	16.018	16.024	0.946	1259183	51.09	ug/L 100
69) 2-Chlorotoluene	126	16.018	16.024	0.946	362154	51.19	ug/L 97
70) 4-Chlorotoluene	91	16.122	16.128	0.952	986782	50.87	ug/L 96
71) tert-Butylbenzene	134	16.414	16.420	0.970	288891	51.73	ug/L 99
72) 1,2,4-Trimethylbenzene	105	16.457	16.463	0.972	1273048	50.41	ug/L 100
73) sec-Butylbenzene	105	16.658	16.664	0.984	1582962	50.95	ug/L 99
74) 4-Isopropyltoluene	119	16.792	16.792	0.992	1422427	51.42	ug/L 100
75) 1,3-Dichlorobenzene	146	16.865	16.865	0.996	751777	50.44	ug/L 86
76) 1,4-Dichlorobenzene	146	16.957	16.957	1.002	750564	50.23	ug/L 98
77) n-Butylbenzene	91	17.274	17.280	1.021	1213528	50.22	ug/L 100
78) 1,2-Dichlorobenzene	146	17.426	17.432	1.030	734508	50.49	ug/L 99
79) 1,2-Dibromo-3-chloropr...	157	18.383	18.383	1.086	95549	53.29	ug/L 99
80) 1,2,4-Trichlorobenzene	180	19.572	19.578	1.156	616081	51.13	ug/L 99
81) Hexachlorobutadiene	225	19.773	19.780	1.168	377252	53.90	ug/L 93
82) Naphthalene	128	20.011	20.017	1.182	1240863	52.26	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.401	20.401	1.205	582867	52.17	ug/L 97
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		7.373	7.355	0.674	0m	N.D.	d
87) Isopropyl Alcohol		7.404	7.440	0.677	0m	N.D.	d
88) Allyl chloride		0.000	7.843	0.000	0	N.D.	
89) tert-Butyl Alcohol		7.995	7.983	0.731	0m	N.D.	d
90) Acrylonitrile		8.330	8.257	0.762	0m	N.D.	d

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY112.D
Acq On : 18 Mar 2024 16:17
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-10|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[A]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 19 10:00:10 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

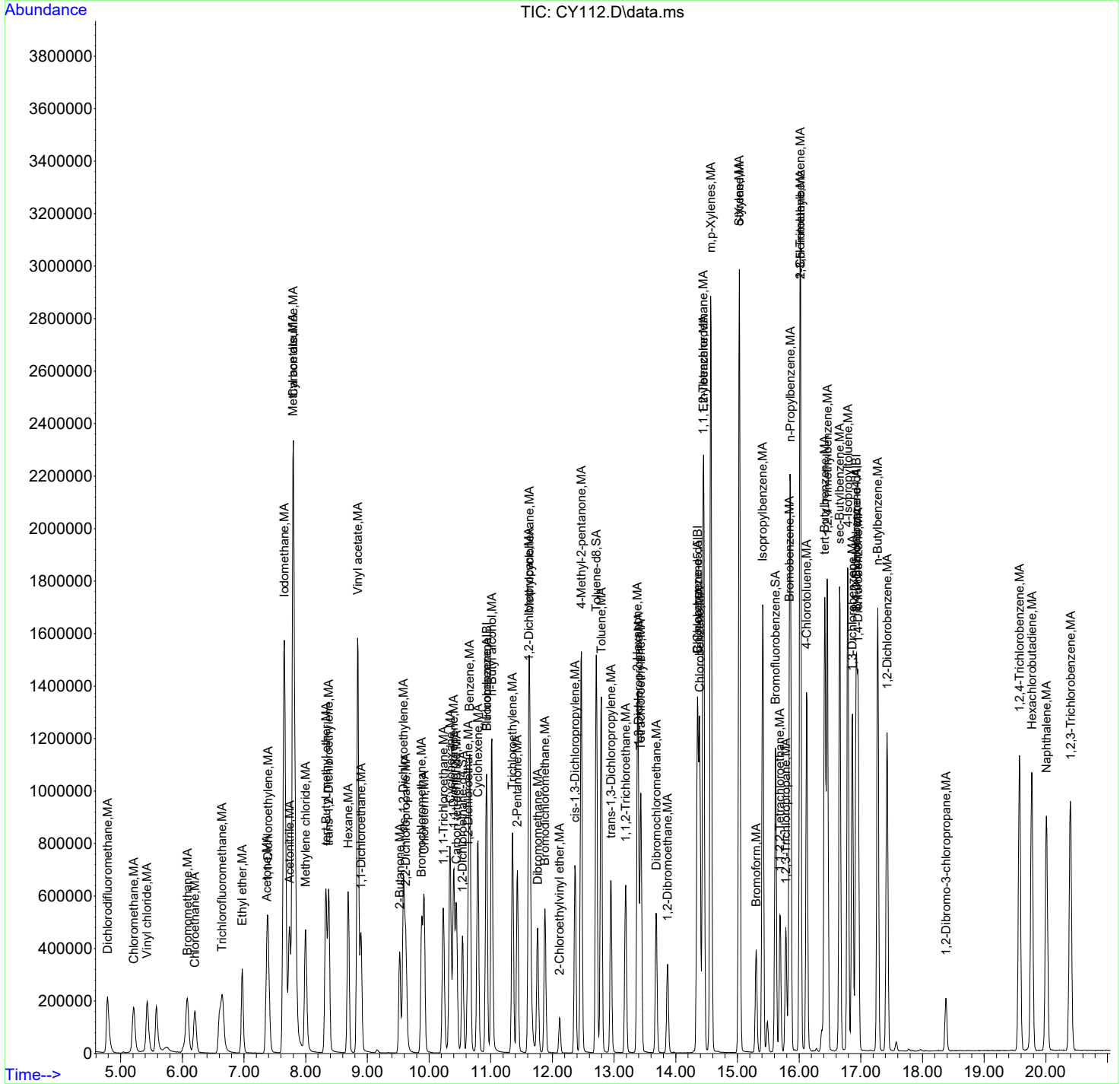
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.842	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate		9.525	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.531	9.592	0.872	0m	N.D.	d
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran		9.928	9.940	0.908	0m	N.D.	d
98) Isobutyl alcohol		10.251	10.263	0.938	0m	N.D.	d
99) Methyl tert-amyl ether		10.659	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.629	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.750	11.696	1.075	0m	N.D.	d
102) 2-Nitropropane		12.116	12.086	1.108	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.244	14.238	0.842	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.408	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.494	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		17.091	17.073	1.010	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		17.567	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

```
Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY112.D
Acq On    : 18 Mar 2024 16:17
Operator  : PX1
InstName  : VOAC
Sample    : |WCVM240318-10|ICV|1|VOAF|1|VOA8260D|
Misc      : ICV SUL/5ML N/A MIX[A]
ALS Vial  : 12 Sample Multiplier: 1
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Quant Time: Mar 19 10:00:10 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY113.D
Acq On : 18 Mar 2024 16:45
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-11|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 SUL/5ML N/A MIX[B]
ALS Vial : 13 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:12 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.927	10.934	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.354	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.926	16.933	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.927	10.928	1.000	918699	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.354	14.348	1.000	635770	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.926	16.920	1.000	346817	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.543	10.543	0.965	0d	0.00	ug/L	
45) Toluene-d8	98	12.714	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.616	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.782	4.782	0.438	0m	N.D.	d	
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone		7.367	7.367	0.674	0m	N.D.	d	
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		7.641	7.654	0.699	0m	N.D.	d	
12) Acetonitrile		7.745	7.739	0.709	0m	N.D.	d	
13) Methyl acetate		7.794	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.794	7.800	0.713	0m	N.D.	d	
15) Methylene chloride		7.989	8.001	0.731	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		8.373	8.373	0.766	0m	N.D.	d	
18) Hexane		8.678	8.690	0.794	0m	N.D.	d	
19) Vinyl acetate		8.855	8.849	0.810	0m	N.D.	d	
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone		9.537	9.525	0.873	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.537	9.586	0.873	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.915	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.275	10.342	0.940	0m	N.D.	d	
28) 1,1-Dichloropropene		10.403	10.403	0.952	0m	N.D.	d	
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.629	10.635	0.973	0m	N.D.	d	
32) Benzene		10.653	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.787	10.793	0.987	0m	N.D.	d	
34) n-Butyl alcohol		11.019	11.019	1.008	0m	N.D.	d	
35) Trichloroethylene		11.360	11.354	1.040	0m	N.D.	d	
36) 2-Pentanone		11.433	11.434	1.046	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY113.D
Acq On : 18 Mar 2024 16:45
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-11|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 SUL/5ML N/A MIX[B]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 19 10:00:12 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.622	11.635	1.064	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		11.885	11.885	1.088	0m	N.D.	d
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		12.366	12.372	1.132	0m	N.D.	d
44) 4-Methyl-2-pentanone		12.470	12.470	0.869	0m	N.D.	d
46) Toluene		12.793	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.951	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		13.183	13.189	0.918	0m	N.D.	d
49) 2-Hexanone		13.384	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		13.397	13.397	0.933	0m	N.D.	d
51) Tetrachloroethylene		13.427	13.439	0.935	0m	N.D.	d
52) Dibromochloromethane		13.683	13.689	0.953	0m	N.D.	d
53) 1,2-Dibromoethane		13.866	13.872	0.966	0m	N.D.	d
54) Chlorobenzene		14.384	14.390	1.002	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene		14.451	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.567	14.573	1.015	0m	N.D.	d
58) o-Xylene		0.000	15.037	0.000	0	N.D.	
59) Styrene		15.030	15.037	1.047	0m	N.D.	d
61) Bromoform		15.305	15.305	0.904	0m	N.D.	d
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		15.689	15.695	0.927	0m	N.D.	d
65) 1,2,3-Trichloropropane		15.780	15.792	0.932	0m	N.D.	d
66) Bromobenzene		15.847	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		15.853	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		16.018	16.024	0.946	0m	N.D.	d
70) 4-Chlorotoluene		16.128	16.128	0.953	0m	N.D.	d
71) tert-Butylbenzene		16.420	16.420	0.970	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.457	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		16.786	16.792	0.992	0m	N.D.	d
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		17.274	17.280	1.021	0m	N.D.	d
78) 1,2-Dichlorobenzene		17.420	17.432	1.029	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		18.383	18.383	1.086	0m	N.D.	d
80) 1,2,4-Trichlorobenzene		19.572	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.773	19.780	1.168	0m	N.D.	d
82) Naphthalene		20.011	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.401	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.178	7.166	0.657	2296	4.74 ug/L	90
86) Trichlorotrifluoroethane	85	7.355	7.355	0.673	11247	5.72 ug/L	96
87) Isopropyl Alcohol	45	7.446	7.440	0.681	19064	67.56 ug/L #	58
88) Allyl chloride	41	7.843	7.843	0.718	31862	4.76 ug/L #	79
89) tert-Butyl Alcohol	59	7.989	7.983	0.731	33281	64.62 ug/L	91
90) Acrylonitrile	53	8.263	8.257	0.756	6987	4.99 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY113.D
Acq On : 18 Mar 2024 16:45
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-11|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 SUL/5ML N/A MIX[B]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 19 10:00:12 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

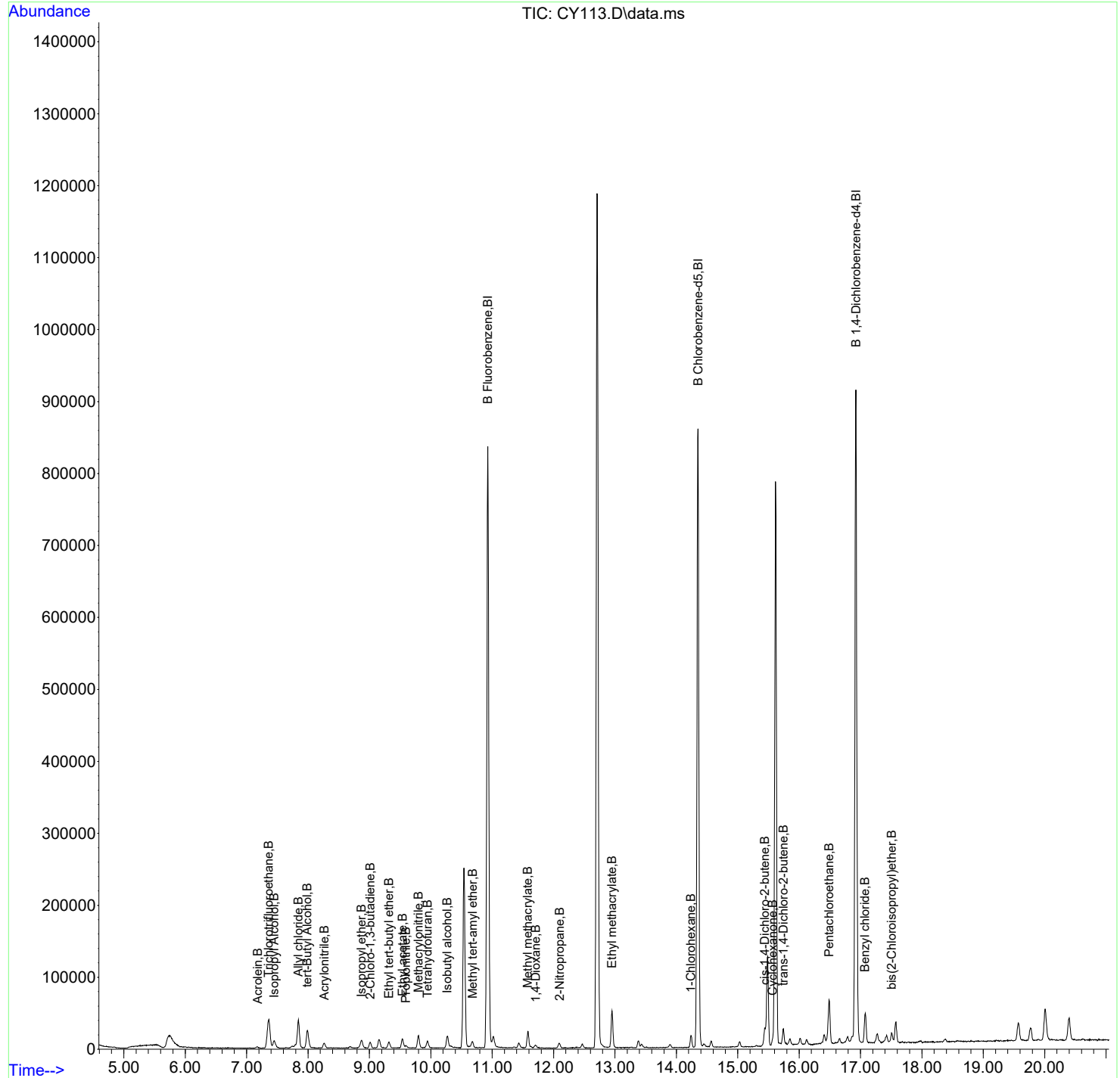
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
91) Isopropyl ether	45	8.873	8.873	0.812	10125	0.76 ug/L	#	58
92) 2-Chloro-1,3-butadiene	53	9.013	9.013	0.825	6248	1.09 ug/L		90
93) Ethyl tert-butyl ether	59	9.318	9.312	0.853	8076	0.70 ug/L		97
94) Ethyl acetate	43	9.537	9.531	0.873	18648	5.32 ug/L		97
95) Propionitrile	54	9.592	9.592	0.878	3308	5.97 ug/L		95
96) Methacrylonitrile	41	9.800	9.794	0.897	10802	4.68 ug/L		97
97) Tetrahydrofuran	42	9.946	9.940	0.910	6981	5.93 ug/L		93
98) Isobutyl alcohol	41	10.269	10.263	0.940	10463	69.27 ug/L		94
99) Methyl tert-amyl ether	73	10.684	10.671	0.978	7964	0.69 ug/L		96
100) Methyl methacrylate	69	11.580	11.580	1.060	11124	4.09 ug/L		93
101) 1,4-Dioxane	88	11.708	11.696	1.071	3224	70.01 ug/L		100
102) 2-Nitropropane	43	12.098	12.086	1.107	6528	5.19 ug/L		93
104) Ethyl methacrylate	69	12.951	12.945	0.902	18161	3.94 ug/L		90
106) 1-Chlorohexane	55	14.238	14.238	0.841	4846	1.38 ug/L	#	80
107) cis-1,4-Dichloro-2-butene	53	15.439	15.439	0.912	6169	4.67 ug/L		94
108) Cyclohexanone	42	15.567	15.567	0.920	3399	34.40 ug/L	#	83
109) trans-1,4-Dichloro-2-b...	53	15.744	15.738	0.930	5300	4.72 ug/L		89
110) Pentachloroethane	167	16.487	16.487	0.974	16047	4.37 ug/L		93
111) Benzyl chloride	91	17.073	17.073	1.009	41871	4.58 ug/L		97
112) bis(2-Chloroisopropyl)...	45	17.506	17.506	1.034	10214	6.09 ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY113.D
Acq On : 18 Mar 2024 16:45
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-11|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 5UL/5ML N/A MIX[B]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 19 10:00:12 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY114.D
Acq On : 18 Mar 2024 17:13
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-12|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 5UL/5ML N/A MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:14 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.934	10.934	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.354	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.926	16.933	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.934	10.928	1.000	1296600	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.354	14.348	1.000	1015954	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.926	16.920	1.000	590058	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.543	10.543	0.964	0d	0.00	ug/L	
45) Toluene-d8	98	12.714	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.616	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone		7.367	7.367	0.674	0m	N.D.	d	
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		7.648	7.654	0.699	0m	N.D.	d	
12) Acetonitrile		7.739	7.739	0.708	0m	N.D.	d	
13) Methyl acetate		7.800	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.849	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		8.001	8.001	0.732	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.684	8.690	0.794	0m	N.D.	d	
19) Vinyl acetate		8.873	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone		9.537	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.537	9.586	0.872	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.915	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.342	10.342	0.946	0m	N.D.	d	
28) 1,1-Dichloropropene		10.397	10.403	0.951	0m	N.D.	d	
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.629	10.635	0.972	0m	N.D.	d	
32) Benzene		10.659	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.787	10.793	0.987	0m	N.D.	d	
34) n-Butyl alcohol		11.031	11.019	1.009	0m	N.D.	d	
35) Trichloroethylene		11.354	11.354	1.038	0m	N.D.	d	
36) 2-Pentanone		11.433	11.434	1.046	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY114.D
Acq On : 18 Mar 2024 17:13
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-12|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 5UL/5ML N/A MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 19 10:00:14 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.641	11.635	1.065	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		12.360	12.372	1.130	0m	N.D.	d
44) 4-Methyl-2-pentanone		12.464	12.470	0.868	0m	N.D.	d
46) Toluene		12.787	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.951	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.384	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		13.396	13.397	0.933	0m	N.D.	d
51) Tetrachloroethylene		13.433	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.390	14.390	1.003	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene		14.451	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.573	14.573	1.015	0m	N.D.	d
58) o-Xylene		15.030	15.037	1.047	0m	N.D.	d
59) Styrene		15.036	15.037	1.048	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.408	15.414	0.910	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.689	15.695	0.927	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		15.847	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		15.859	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		16.018	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.018	16.024	0.946	0m	N.D.	d
70) 4-Chlorotoluene		16.122	16.128	0.952	0m	N.D.	d
71) tert-Butylbenzene		16.426	16.420	0.970	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.451	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		16.725	16.792	0.988	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.853	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.951	16.957	1.001	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.426	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		18.383	18.383	1.086	0m	N.D.	d
80) 1,2,4-Trichlorobenzene		19.572	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.773	19.780	1.168	0m	N.D.	d
82) Naphthalene		20.011	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.395	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.178	7.166	0.657	6533	9.56	ug/L 92
86) Trichlorotrifluoroethane	85	7.355	7.355	0.673	26459	9.54	ug/L 93
87) Isopropyl Alcohol	45	7.452	7.440	0.682	37591	94.39	ug/L 97
88) Allyl chloride	41	7.849	7.843	0.718	92522	9.80	ug/L 95
89) tert-Butyl Alcohol	59	7.989	7.983	0.731	69343	95.40	ug/L 92
90) Acrylonitrile	53	8.263	8.257	0.756	19083	9.66	ug/L 99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY114.D
Acq On : 18 Mar 2024 17:13
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-12|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 5UL/5ML N/A MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 19 10:00:14 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

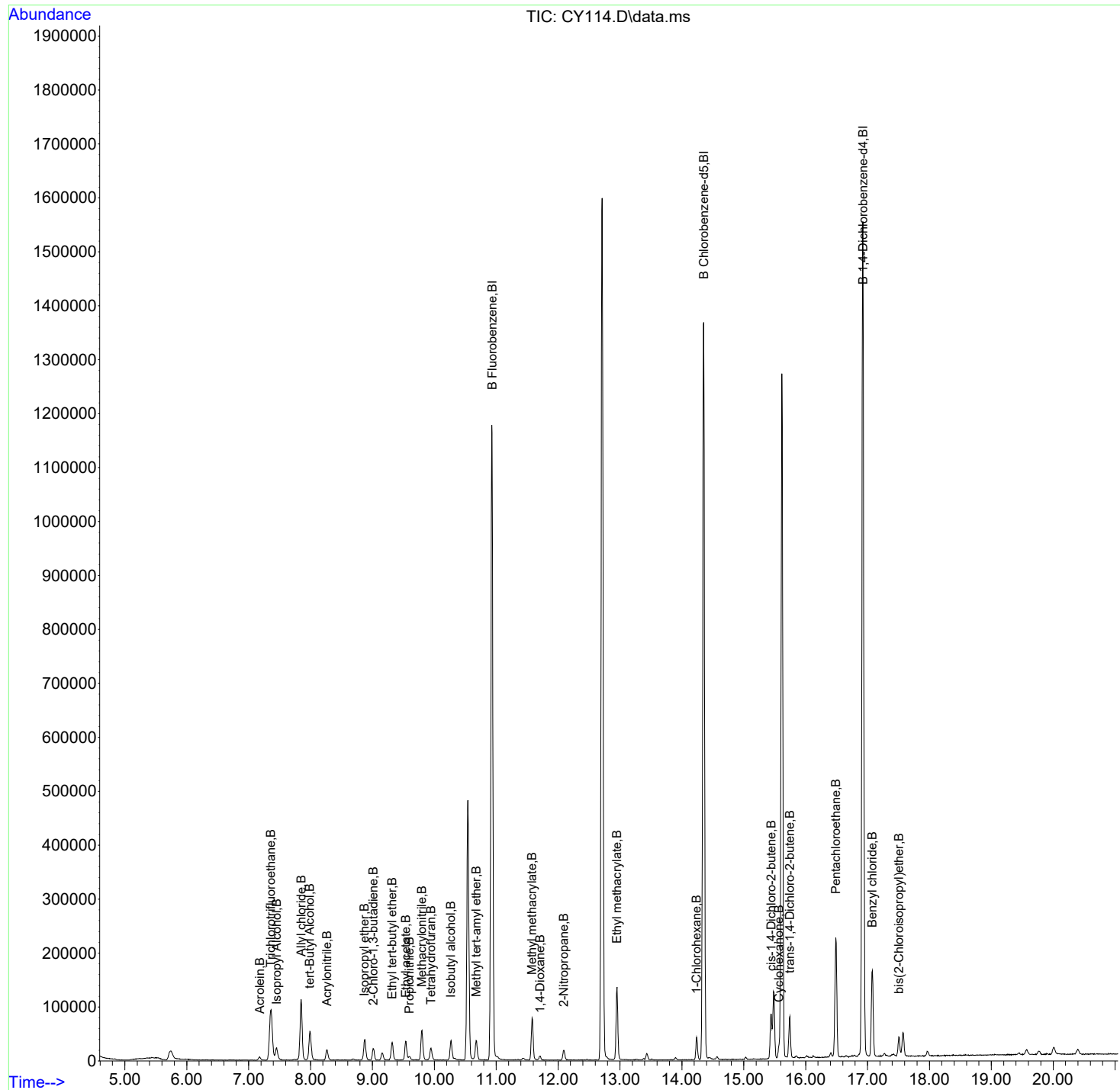
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.873	8.873	0.812	38522	2.06 ug/L	95
92) 2-Chloro-1,3-butadiene	53	9.013	9.013	0.824	16041	1.97 ug/L	99
93) Ethyl tert-butyl ether	59	9.318	9.312	0.852	33865	2.08 ug/L	99
94) Ethyl acetate	43	9.537	9.531	0.872	49482	10.00 ug/L	99
95) Propionitrile	54	9.598	9.592	0.878	7697	9.85 ug/L	99
96) Methacrylonitrile	41	9.800	9.794	0.896	32645	10.01 ug/L	98
97) Tetrahydrofuran	42	9.946	9.940	0.910	16588	9.98 ug/L	99
98) Isobutyl alcohol	41	10.269	10.263	0.939	20627	96.75 ug/L	93
99) Methyl tert-amyl ether	73	10.677	10.671	0.977	33484	2.06 ug/L	98
100) Methyl methacrylate	69	11.580	11.580	1.059	36652	9.55 ug/L	96
101) 1,4-Dioxane	88	11.708	11.696	1.071	6310	97.09 ug/L	96
102) 2-Nitropropane	43	12.092	12.086	1.106	17267	9.73 ug/L	93
104) Ethyl methacrylate	69	12.951	12.945	0.902	70725	9.60 ug/L	98
106) 1-Chlorohexane	55	14.238	14.238	0.841	11151	1.86 ug/L	95
107) cis-1,4-Dichloro-2-butene	53	15.445	15.439	0.912	21239	9.46 ug/L	97
108) Cyclohexanone	42	15.567	15.567	0.920	8093	48.15 ug/L	92
109) trans-1,4-Dichloro-2-b...	53	15.744	15.738	0.930	18063	9.45 ug/L	99
110) Pentachloroethane	167	16.487	16.487	0.974	60791	9.74 ug/L	94
111) Benzyl chloride	91	17.079	17.073	1.009	153048	9.84 ug/L	100
112) bis(2-Chloroisopropyl)...	45	17.505	17.506	1.034	28843	10.10 ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY114.D
Acq On : 18 Mar 2024 17:13
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-12|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 5UL/5ML N/A MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 19 10:00:14 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY115.D
Acq On : 18 Mar 2024 17:41
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-13|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD025 SUL/5ML N/A MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:16 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.927	10.934	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.347	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.926	16.933	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.927	10.928	1.000	1294163	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.347	14.348	1.000	1044673	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.926	16.920	1.000	613155	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.964	0d	0.00	ug/L	
45) Toluene-d8	98	12.708	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.616	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.782	4.782	0.438	0m	N.D.	d	
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone		7.355	7.367	0.673	0m	N.D.	d	
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile		7.733	7.739	0.708	0m	N.D.	d	
13) Methyl acetate		7.788	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.843	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.995	8.001	0.732	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.684	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.873	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		9.013	8.897	0.825	0m	N.D.	d	
21) 2-Butanone		9.531	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.537	9.586	0.873	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.909	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.269	10.342	0.940	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene		10.659	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.781	10.793	0.987	0m	N.D.	d	
34) n-Butyl alcohol		11.019	11.019	1.008	0m	N.D.	d	
35) Trichloroethylene		11.348	11.354	1.038	0m	N.D.	d	
36) 2-Pentanone		11.574	11.434	1.059	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY115.D
Acq On : 18 Mar 2024 17:41
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-13|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD025 5UL/5ML N/A MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 19 10:00:16 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.586	11.635	1.060	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.781	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.933	12.952	0.901	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.378	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		13.433	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.390	14.390	1.003	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.433	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		14.457	14.457	1.008	0m	N.D.	d
57) m,p-Xylenes		14.573	14.573	1.016	0m	N.D.	d
58) o-Xylene		15.030	15.037	1.048	0m	N.D.	d
59) Styrene		15.024	15.037	1.047	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.408	15.414	0.910	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.737	15.695	0.930	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		15.847	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		15.859	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		16.012	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.012	16.024	0.946	0m	N.D.	d
70) 4-Chlorotoluene		16.122	16.128	0.952	0m	N.D.	d
71) tert-Butylbenzene		16.408	16.420	0.969	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.445	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		16.652	16.664	0.984	0m	N.D.	d
74) 4-Isopropyltoluene		16.786	16.792	0.992	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.865	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.945	16.957	1.001	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.426	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.560	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.773	19.780	1.168	0m	N.D.	d
82) Naphthalene		20.005	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.389	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.172	7.166	0.656	16431	24.08	ug/L 100
86) Trichlorotrifluoroethane	85	7.343	7.355	0.672	69394	25.06	ug/L 97
87) Isopropyl Alcohol	45	7.440	7.440	0.681	88167	221.80	ug/L 97
88) Allyl chloride	41	7.843	7.843	0.718	234436	24.87	ug/L 98
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	165816	228.55	ug/L 98
90) Acrylonitrile	53	8.257	8.257	0.756	48495	24.59	ug/L 99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY115.D
Acq On : 18 Mar 2024 17:41
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-13|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD025 5UL/5ML N/A MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 19 10:00:16 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

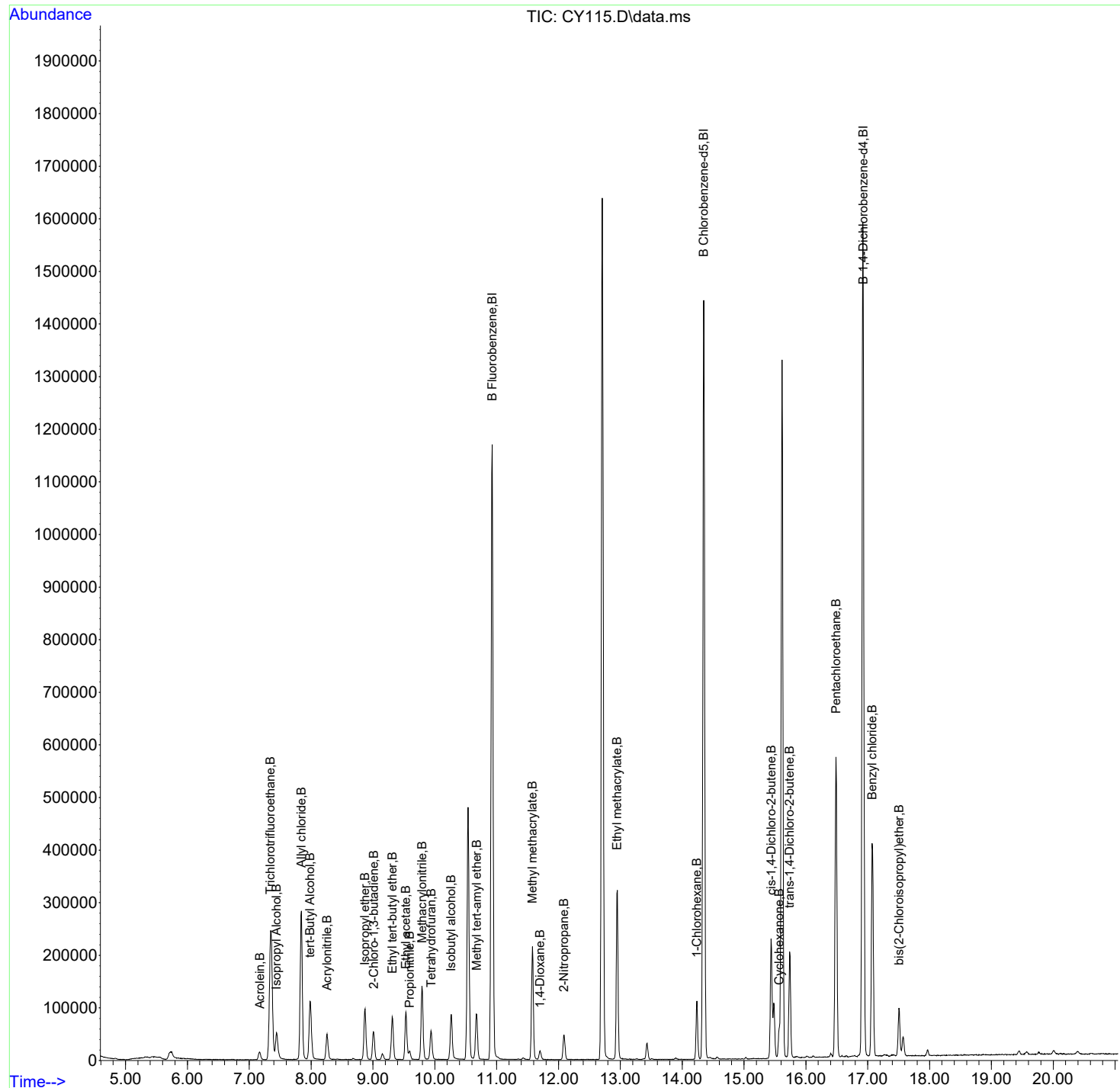
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.873	8.873	0.812	96240	5.15 ug/L	98
92) 2-Chloro-1,3-butadiene	53	9.013	9.013	0.825	39388	4.86 ug/L	99
93) Ethyl tert-butyl ether	59	9.312	9.312	0.852	83862	5.17 ug/L	99
94) Ethyl acetate	43	9.531	9.531	0.872	124900	25.29 ug/L	99
95) Propionitrile	54	9.592	9.592	0.878	18139	23.25 ug/L	98
96) Methacrylonitrile	41	9.793	9.794	0.896	82789	25.44 ug/L	100
97) Tetrahydrofuran	42	9.940	9.940	0.910	39922	24.07 ug/L	100
98) Isobutyl alcohol	41	10.263	10.263	0.939	49392	232.11 ug/L	95
99) Methyl tert-amyl ether	73	10.677	10.671	0.977	84655	5.23 ug/L	99
100) Methyl methacrylate	69	11.580	11.580	1.060	99332	25.92 ug/L	98
101) 1,4-Dioxane	88	11.702	11.696	1.071	14760	227.53 ug/L	98
102) 2-Nitropropane	43	12.086	12.086	1.106	43845	24.75 ug/L	99
104) Ethyl methacrylate	69	12.945	12.945	0.902	190023	25.07 ug/L	98
106) 1-Chlorohexane	55	14.238	14.238	0.841	29632	4.76 ug/L	99
107) cis-1,4-Dichloro-2-butene	53	15.439	15.439	0.912	56403	24.17 ug/L	99
108) Cyclohexanone	42	15.567	15.567	0.920	18206	104.23 ug/L	94
109) trans-1,4-Dichloro-2-b...	53	15.737	15.738	0.930	48191	24.26 ug/L	97
110) Pentachloroethane	167	16.487	16.487	0.974	157109	24.21 ug/L	97
111) Benzyl chloride	91	17.073	17.073	1.009	395124	24.44 ug/L	100
112) bis(2-Chloroisopropyl)...	45	17.505	17.506	1.034	67873	22.88 ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY115.D
Acq On : 18 Mar 2024 17:41
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-13|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD025 5UL/5ML N/A MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 19 10:00:16 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY116.D
Acq On : 18 Mar 2024 18:08
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-14|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.927	10.934	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.347	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.927	10.928	1.000	1321439	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.347	14.348	1.000	1022145	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	603479	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.964	0d	0.00	ug/L	
45) Toluene-d8	98	12.708	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.616	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		6.971	6.971	0.638	0m	N.D.	d	
9) Acetone		7.355	7.367	0.673	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.349	7.392	0.673	0m	N.D.	d	
11) Iodomethane		7.647	7.654	0.700	0m	N.D.	d	
12) Acetonitrile		7.684	7.739	0.703	0m	N.D.	d	
13) Methyl acetate		7.788	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.843	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.989	8.001	0.731	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		8.373	8.373	0.766	0m	N.D.	d	
18) Hexane		8.684	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.867	8.849	0.811	0m	N.D.	d	
20) 1,1-Dichloroethane		9.001	8.897	0.824	0m	N.D.	d	
21) 2-Butanone		9.531	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.531	9.586	0.872	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.921	9.922	0.908	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.336	10.342	0.946	0m	N.D.	d	
28) 1,1-Dichloropropene		10.379	10.403	0.950	0m	N.D.	d	
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.623	10.635	0.972	0m	N.D.	d	
32) Benzene		10.659	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.775	10.793	0.986	0m	N.D.	d	
34) n-Butyl alcohol		11.019	11.019	1.008	0m	N.D.	d	
35) Trichloroethylene		11.348	11.354	1.038	0m	N.D.	d	
36) 2-Pentanone		11.433	11.434	1.046	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY116.D
Acq On : 18 Mar 2024 18:08
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-14|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 19 10:00:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.574	11.635	1.059	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.787	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.939	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.378	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		13.433	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.384	14.390	1.003	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.439	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		14.451	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.567	14.573	1.015	0m	N.D.	d
58) o-Xylene		15.030	15.037	1.048	0m	N.D.	d
59) Styrene		15.024	15.037	1.047	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.414	15.414	0.911	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.737	15.695	0.930	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		15.841	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		15.853	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		16.012	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.018	16.024	0.947	0m	N.D.	d
70) 4-Chlorotoluene		16.122	16.128	0.953	0m	N.D.	d
71) tert-Butylbenzene		16.487	16.420	0.974	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.451	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		16.652	16.664	0.984	0m	N.D.	d
74) 4-Isopropyltoluene		16.780	16.792	0.992	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.865	16.865	0.997	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.957	16.957	1.002	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.426	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.566	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.767	19.780	1.168	0m	N.D.	d
82) Naphthalene		20.011	20.017	1.183	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.389	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.166	7.166	0.656	33236	47.70	ug/L 98
86) Trichlorotrifluoroethane	85	7.349	7.355	0.673	142717	50.47	ug/L 98
87) Isopropyl Alcohol	45	7.440	7.440	0.681	183194	451.35	ug/L 99
88) Allyl chloride	41	7.843	7.843	0.718	490654	50.98	ug/L 99
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	344839	465.50	ug/L 98
90) Acrylonitrile	53	8.257	8.257	0.756	99009	49.17	ug/L 99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY116.D
Acq On : 18 Mar 2024 18:08
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-14|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 19 10:00:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

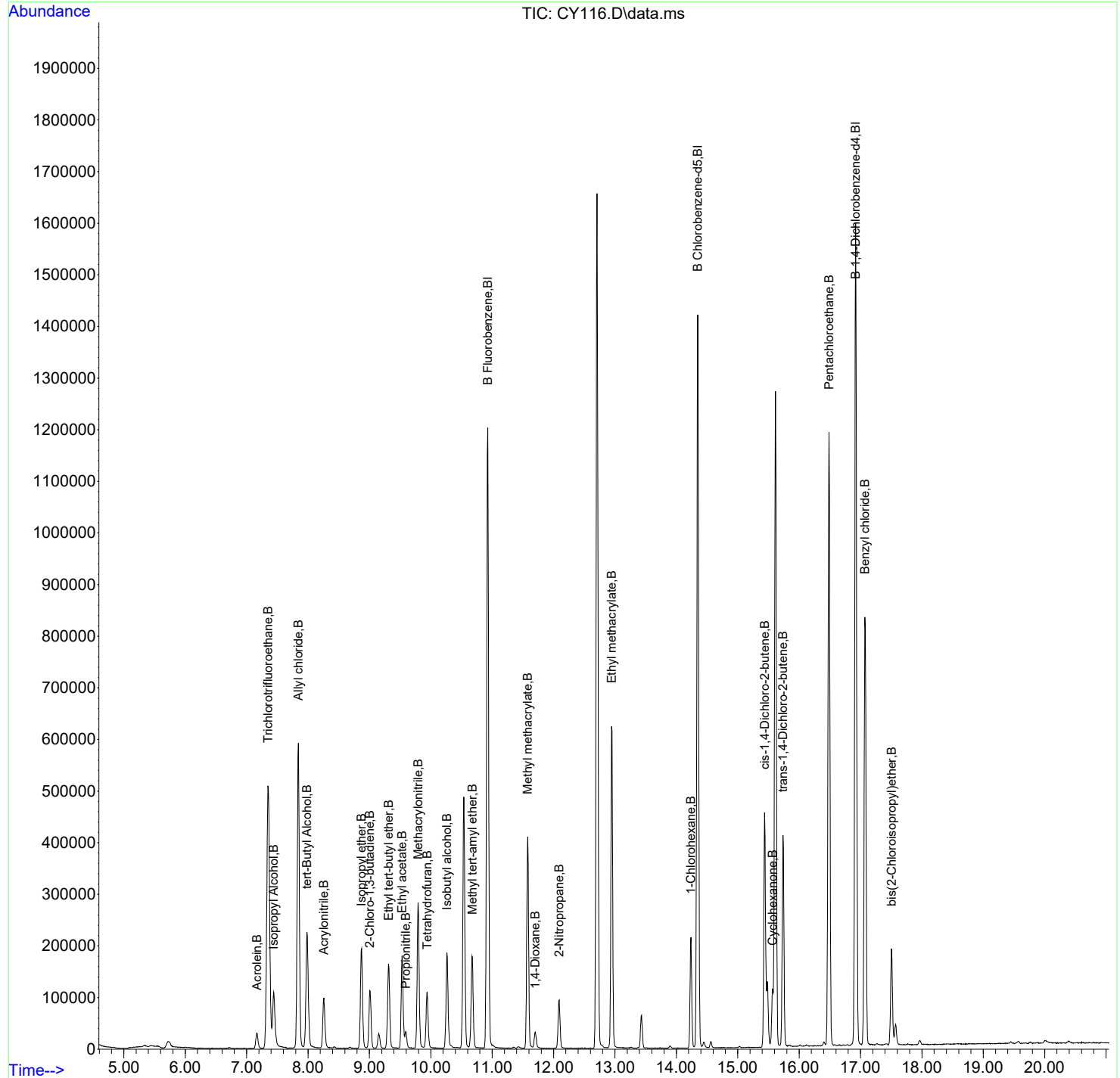
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.873	8.873	0.812	196390	10.30	ug/L 99
92) 2-Chloro-1,3-butadiene	53	9.007	9.013	0.824	82999	10.02	ug/L 99
93) Ethyl tert-butyl ether	59	9.312	9.312	0.852	171289	10.34	ug/L 99
94) Ethyl acetate	43	9.531	9.531	0.872	240829	47.76	ug/L 100
95) Propionitrile	54	9.592	9.592	0.878	37414	46.96	ug/L 98
96) Methacrylonitrile	41	9.793	9.794	0.896	163970	49.35	ug/L 98
97) Tetrahydrofuran	42	9.940	9.940	0.910	78310	46.24	ug/L 99
98) Isobutyl alcohol	41	10.263	10.263	0.939	100407	462.11	ug/L 98
99) Methyl tert-amyl ether	73	10.677	10.671	0.977	172169	10.41	ug/L 99
100) Methyl methacrylate	69	11.580	11.580	1.060	191219	48.87	ug/L 98
101) 1,4-Dioxane	88	11.702	11.696	1.071	29372	443.44	ug/L 98
102) 2-Nitropropane	43	12.092	12.086	1.107	85854	47.47	ug/L 97
104) Ethyl methacrylate	69	12.945	12.945	0.902	375872	50.68	ug/L 98
106) 1-Chlorohexane	55	14.238	14.238	0.841	57739	9.43	ug/L 98
107) cis-1,4-Dichloro-2-butene	53	15.439	15.439	0.912	112793	49.10	ug/L 99
108) Cyclohexanone	42	15.567	15.567	0.920	36067	209.80	ug/L 97
109) trans-1,4-Dichloro-2-b...	53	15.737	15.738	0.930	97477	49.85	ug/L 97
110) Pentachloroethane	167	16.487	16.487	0.974	329088	51.53	ug/L 98
111) Benzyl chloride	91	17.073	17.073	1.009	807930	50.77	ug/L 100
112) bis(2-Chloroisopropyl)...	45	17.505	17.506	1.035	138853	47.55	ug/L 99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY116.D
Acq On : 18 Mar 2024 18:08
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-14|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 19 10:00:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY117.D
Acq On : 18 Mar 2024 18:36
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-15|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:20 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.928	10.934	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.348	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.928	10.928	1.000	1345363	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.348	14.348	1.000	1031728	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	585680	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.964	0d	0.00	ug/L	
45) Toluene-d8	98	12.708	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.616	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.782	4.782	0.438	0m	N.D.	d	
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		6.971	6.971	0.638	0m	N.D.	d	
9) Acetone		7.361	7.367	0.674	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.355	7.392	0.673	0m	N.D.	d	
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile		7.733	7.739	0.708	0m	N.D.	d	
13) Methyl acetate		7.788	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.843	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.989	8.001	0.731	0m	N.D.	d	
16) tert-Butyl methyl ether		8.324	8.330	0.762	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.690	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.873	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		9.007	8.897	0.824	0m	N.D.	d	
21) 2-Butanone		9.531	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.531	9.586	0.872	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.915	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.263	10.342	0.939	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.623	10.635	0.972	0m	N.D.	d	
32) Benzene		10.653	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.781	10.793	0.987	0m	N.D.	d	
34) n-Butyl alcohol		11.031	11.019	1.009	0m	N.D.	d	
35) Trichloroethylene		11.348	11.354	1.038	0m	N.D.	d	
36) 2-Pentanone		11.434	11.434	1.046	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY117.D
Acq On : 18 Mar 2024 18:36
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-15|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 19 10:00:20 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.574	11.635	1.059	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.793	12.793	0.892	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.958	12.952	0.903	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.378	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		13.390	13.397	0.933	0m	N.D.	d
51) Tetrachloroethylene		13.433	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.372	14.390	1.002	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.439	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		14.451	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.561	14.573	1.015	0m	N.D.	d
58) o-Xylene		15.030	15.037	1.048	0m	N.D.	d
59) Styrene		15.030	15.037	1.048	0m	N.D.	d
61) Bromoform		15.299	15.305	0.904	0m	N.D.	d
62) Isopropylbenzene		15.408	15.414	0.911	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.683	15.695	0.927	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		15.835	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		15.853	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		16.012	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.012	16.024	0.946	0m	N.D.	d
70) 4-Chlorotoluene		16.122	16.128	0.953	0m	N.D.	d
71) tert-Butylbenzene		16.408	16.420	0.970	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.457	16.463	0.973	0m	N.D.	d
73) sec-Butylbenzene		16.658	16.664	0.985	0m	N.D.	d
74) 4-Isopropyltoluene		16.786	16.792	0.992	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.859	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.951	16.957	1.002	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.420	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.572	19.578	1.157	0m	N.D.	d
81) Hexachlorobutadiene		19.773	19.780	1.169	0m	N.D.	d
82) Naphthalene		20.011	20.017	1.183	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.383	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.172	7.166	0.656	71477	100.76	ug/L 98
86) Trichlorotrifluoroethane	85	7.349	7.355	0.673	264517	91.89	ug/L 97
87) Isopropyl Alcohol	45	7.440	7.440	0.681	398211	963.67	ug/L 100
88) Allyl chloride	41	7.843	7.843	0.718	975166	99.52	ug/L 99
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	738347	978.98	ug/L 98
90) Acrylonitrile	53	8.257	8.257	0.756	210806	102.83	ug/L 99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY117.D
Acq On : 18 Mar 2024 18:36
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-15|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 19 10:00:20 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

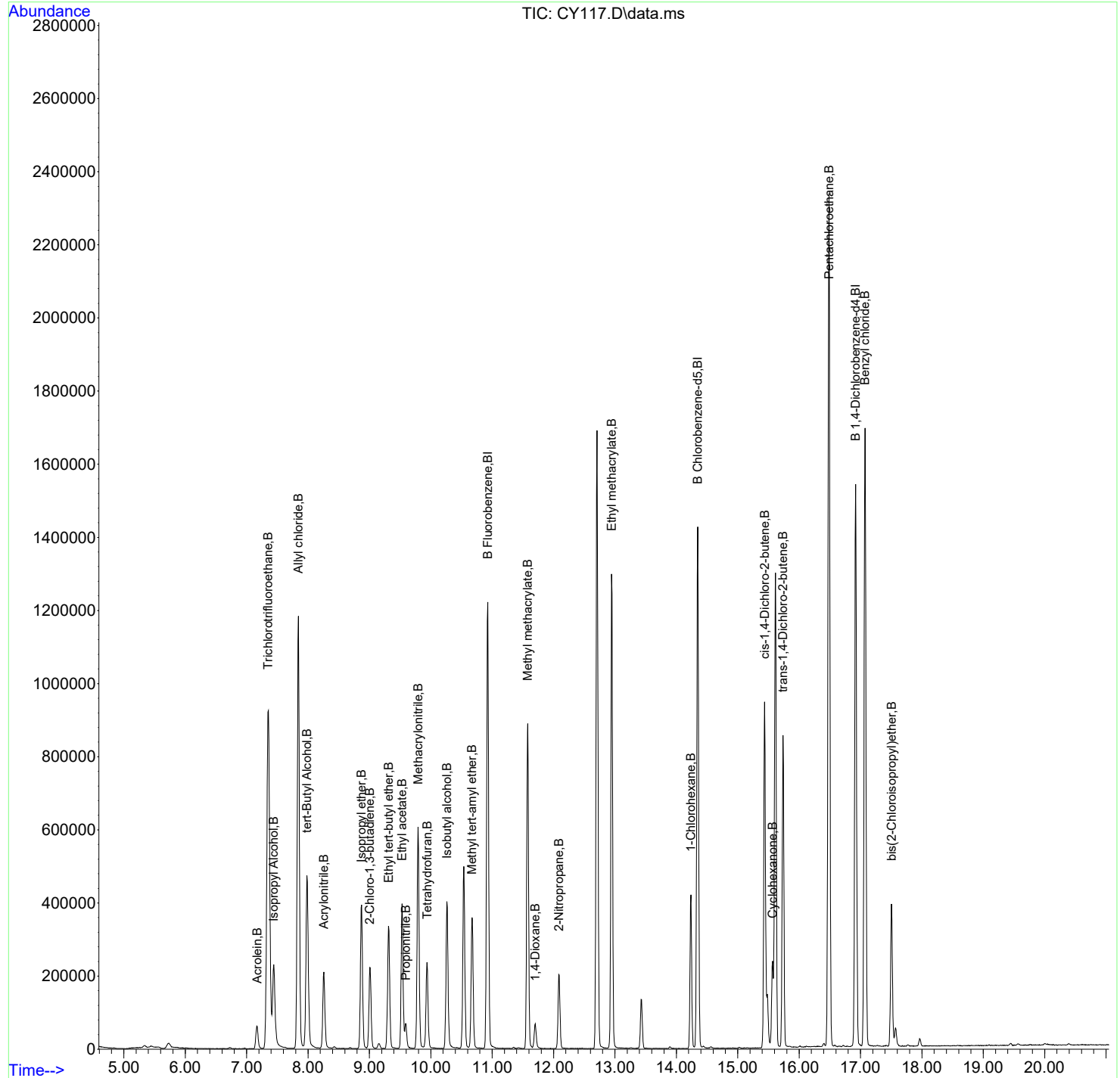
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.873	8.873	0.812	399849	20.59	ug/L 100
92) 2-Chloro-1,3-butadiene	53	9.007	9.013	0.824	164553	19.52	ug/L 100
93) Ethyl tert-butyl ether	59	9.312	9.312	0.852	351193	20.83	ug/L 99
94) Ethyl acetate	43	9.531	9.531	0.872	526754	102.61	ug/L 100
95) Propionitrile	54	9.592	9.592	0.878	80674	99.46	ug/L 99
96) Methacrylonitrile	41	9.794	9.794	0.896	348616	103.05	ug/L 98
97) Tetrahydrofuran	42	9.940	9.940	0.910	172262	99.90	ug/L 100
98) Isobutyl alcohol	41	10.263	10.263	0.939	213367	964.54	ug/L 100
99) Methyl tert-amyl ether	73	10.671	10.671	0.977	353028	20.97	ug/L 100
100) Methyl methacrylate	69	11.580	11.580	1.060	411018	103.18	ug/L 99
101) 1,4-Dioxane	88	11.702	11.696	1.071	62722	930.10	ug/L 99
102) 2-Nitropropane	43	12.086	12.086	1.106	185111	100.52	ug/L 99
104) Ethyl methacrylate	69	12.945	12.945	0.902	789661	105.49	ug/L 99
106) 1-Chlorohexane	55	14.238	14.238	0.841	114183	19.21	ug/L 98
107) cis-1,4-Dichloro-2-butene	53	15.439	15.439	0.912	233019	104.52	ug/L 99
108) Cyclohexanone	42	15.567	15.567	0.920	79096	474.07	ug/L 99
109) trans-1,4-Dichloro-2-b...	53	15.738	15.738	0.930	199136	104.94	ug/L 99
110) Pentachloroethane	167	16.487	16.487	0.974	647435	104.46	ug/L 99
111) Benzyl chloride	91	17.073	17.073	1.009	1627217	105.36	ug/L 100
112) bis(2-Chloroisopropyl)...	45	17.506	17.506	1.035	283824	100.15	ug/L 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY117.D
Acq On : 18 Mar 2024 18:36
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-15|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 19 10:00:20 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY118.D
Acq On : 18 Mar 2024 19:04
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-16|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD250 5UL/5ML N/A MIX[B]
ALS Vial : 18 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 10:00:22 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.928	10.934	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.348	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.928	10.928	1.000	1286756	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.348	14.348	1.000	996877	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	561712	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.964	0d	0.00	ug/L	
45) Toluene-d8	98	12.708	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.610	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.782	4.782	0.438	0m	N.D.	d	
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		6.965	6.971	0.637	0m	N.D.	d	
9) Acetone		7.361	7.367	0.674	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.355	7.392	0.673	0m	N.D.	d	
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile		7.843	7.739	0.718	0m	N.D.	d	
13) Methyl acetate		7.794	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.843	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.995	8.001	0.732	0m	N.D.	d	
16) tert-Butyl methyl ether		8.324	8.330	0.762	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.696	8.690	0.796	0m	N.D.	d	
19) Vinyl acetate		8.873	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		9.007	8.897	0.824	0m	N.D.	d	
21) 2-Butanone		9.531	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.531	9.586	0.872	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.915	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.263	10.342	0.939	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.629	10.635	0.973	0m	N.D.	d	
32) Benzene		10.665	10.665	0.976	0m	N.D.	d	
33) Cyclohexene		10.769	10.793	0.985	0m	N.D.	d	
34) n-Butyl alcohol		11.013	11.019	1.008	0m	N.D.	d	
35) Trichloroethylene		11.348	11.354	1.038	0m	N.D.	d	
36) 2-Pentanone		11.434	11.434	1.046	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY118.D
Acq On : 18 Mar 2024 19:04
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-16|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD250 5UL/5ML N/A MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 19 10:00:22 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.574	11.635	1.059	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.787	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.945	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.378	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		13.427	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.378	14.390	1.002	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.439	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		0.000	14.457	0.000	0	N.D.	
57) m,p-Xylenes		14.561	14.573	1.015	0m	N.D.	d
58) o-Xylene		15.030	15.037	1.048	0m	N.D.	d
59) Styrene		15.030	15.037	1.048	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.415	15.414	0.911	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.738	15.695	0.930	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		15.841	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		16.012	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.018	16.024	0.947	0m	N.D.	d
70) 4-Chlorotoluene		16.122	16.128	0.953	0m	N.D.	d
71) tert-Butylbenzene		16.487	16.420	0.974	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.457	16.463	0.973	0m	N.D.	d
73) sec-Butylbenzene		16.658	16.664	0.985	0m	N.D.	d
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		16.853	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.951	16.957	1.002	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.420	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.572	19.578	1.157	0m	N.D.	d
81) Hexachlorobutadiene		19.767	19.780	1.168	0m	N.D.	d
82) Naphthalene		20.005	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.395	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.166	7.166	0.656	157815	232.60	ug/L 100
86) Trichlorotrifluoroethane	85	7.355	7.355	0.673	671202	243.78	ug/L 96
87) Isopropyl Alcohol	45	7.440	7.440	0.681	941800	2382.95	ug/L 100
88) Allyl chloride	41	7.843	7.843	0.718	2395218	255.58	ug/L 100
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	1731773	2400.75	ug/L 99
90) Acrylonitrile	53	8.257	8.257	0.756	494313	252.11	ug/L 100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY118.D
Acq On : 18 Mar 2024 19:04
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-16|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD250 5UL/5ML N/A MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 19 10:00:22 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

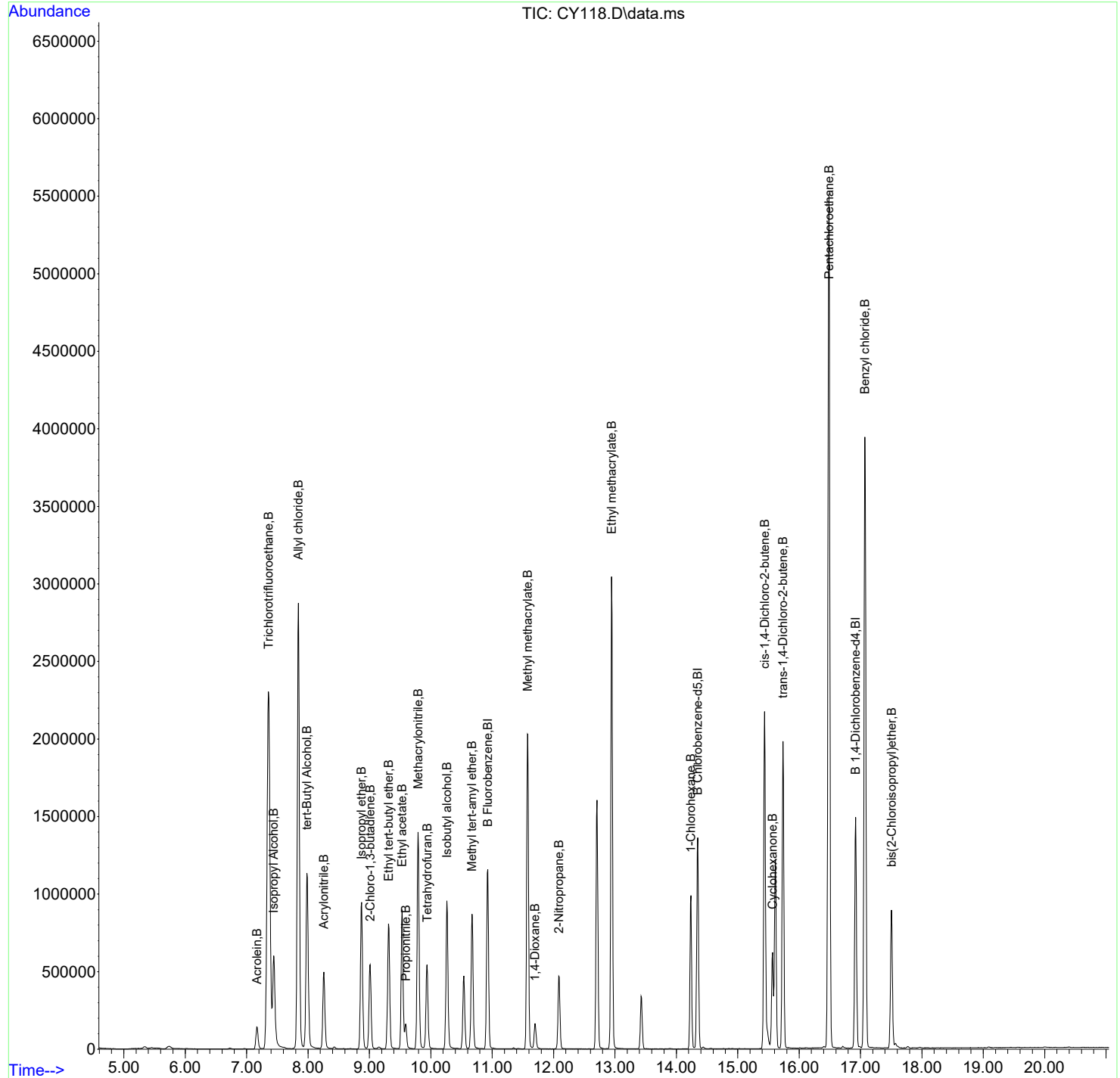
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.873	8.873	0.812	958034	51.58	ug/L 100
92) 2-Chloro-1,3-butadiene	53	9.013	9.013	0.825	402266	49.89	ug/L 100
93) Ethyl tert-butyl ether	59	9.312	9.312	0.852	845037	52.40	ug/L 100
94) Ethyl acetate	43	9.531	9.531	0.872	1186154	241.58	ug/L 100
95) Propionitrile	54	9.592	9.592	0.878	188821	243.39	ug/L 100
96) Methacrylonitrile	41	9.794	9.794	0.896	806432	249.23	ug/L 99
97) Tetrahydrofuran	42	9.940	9.940	0.910	401569	243.49	ug/L 100
98) Isobutyl alcohol	41	10.263	10.263	0.939	486061	2297.35	ug/L 99
99) Methyl tert-amyl ether	73	10.671	10.671	0.977	844544	52.45	ug/L 100
100) Methyl methacrylate	69	11.580	11.580	1.060	958950	251.70	ug/L 100
101) 1,4-Dioxane	88	11.696	11.696	1.070	150537	2333.97	ug/L 100
102) 2-Nitropropane	43	12.086	12.086	1.106	433767	246.28	ug/L 100
104) Ethyl methacrylate	69	12.945	12.945	0.902	1846328	255.28	ug/L 100
106) 1-Chlorohexane	55	14.238	14.238	0.841	265226	46.51	ug/L 98
107) cis-1,4-Dichloro-2-butene	53	15.439	15.439	0.912	543386	254.13	ug/L 100
108) Cyclohexanone	42	15.567	15.567	0.920	202990	1268.56	ug/L 100
109) trans-1,4-Dichloro-2-b...	53	15.738	15.738	0.930	460590	253.08	ug/L 100
110) Pentachloroethane	167	16.487	16.487	0.974	1580585	265.89	ug/L 100
111) Benzyl chloride	91	17.073	17.073	1.009	3809627	257.20	ug/L 100
112) bis(2-Chloroisopropyl)...	45	17.506	17.506	1.035	669377	246.27	ug/L 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY118.D
Acq On : 18 Mar 2024 19:04
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-16|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD250 5UL/5ML N/A MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 19 10:00:22 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY119.D
Acq On : 18 Mar 2024 19:32
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-17|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD300 3UL/5ML N/A MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:25 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.921	10.934	1.000	0m	50.00	ug/L	-0.01
43) Chlorobenzene-d5	117	14.348	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.921	10.928	1.000	1284973	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.348	14.348	1.000	1042032	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	602702	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.531	10.543	0.964	0d	0.00	ug/L	
45) Toluene-d8	98	12.708	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.610	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		6.959	6.971	0.637	0m	N.D.	d	
9) Acetone		7.349	7.367	0.673	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.349	7.392	0.673	0m	N.D.	d	
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile		7.703	7.739	0.705	0m	N.D.	d	
13) Methyl acetate		7.782	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.837	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.983	8.001	0.731	0m	N.D.	d	
16) tert-Butyl methyl ether		8.330	8.330	0.763	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.684	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.867	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		9.007	8.897	0.825	0m	N.D.	d	
21) 2-Butanone		9.525	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.531	9.586	0.873	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.909	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.257	10.342	0.939	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.623	10.635	0.973	0m	N.D.	d	
32) Benzene		10.647	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.775	10.793	0.987	0m	N.D.	d	
34) n-Butyl alcohol		11.019	11.019	1.009	0m	N.D.	d	
35) Trichloroethylene		11.348	11.354	1.039	0m	N.D.	d	
36) 2-Pentanone		11.574	11.434	1.060	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY119.D
Acq On : 18 Mar 2024 19:32
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-17|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD300 3UL/5ML N/A MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 19 10:00:25 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.574	11.635	1.060	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		12.354	12.372	1.131	0m	N.D.	d
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.781	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.946	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.378	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		13.391	13.397	0.933	0m	N.D.	d
51) Tetrachloroethylene		13.427	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.378	14.390	1.002	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.439	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		0.000	14.457	0.000	0	N.D.	
57) m,p-Xylenes		14.561	14.573	1.015	0m	N.D.	d
58) o-Xylene		15.024	15.037	1.047	0m	N.D.	d
59) Styrene		15.018	15.037	1.047	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.408	15.414	0.911	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.738	15.695	0.930	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		15.835	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		16.018	16.024	0.947	0m	N.D.	d
69) 2-Chlorotoluene		16.012	16.024	0.946	0m	N.D.	d
70) 4-Chlorotoluene		16.116	16.128	0.952	0m	N.D.	d
71) tert-Butylbenzene		16.481	16.420	0.974	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.457	16.463	0.973	0m	N.D.	d
73) sec-Butylbenzene		16.652	16.664	0.984	0m	N.D.	d
74) 4-Isopropyltoluene		16.902	16.792	0.999	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.859	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.957	16.957	1.002	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.420	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.566	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.761	19.780	1.168	0m	N.D.	d
82) Naphthalene		20.005	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.395	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.160	7.166	0.656	229985	339.45	ug/L 99
86) Trichlorotrifluoroethane	85	7.349	7.355	0.673	822848	299.27	ug/L 96
87) Isopropyl Alcohol	45	7.434	7.440	0.681	1175908	2979.42	ug/L 100
88) Allyl chloride	41	7.837	7.843	0.718	2828647	302.24	ug/L 100
89) tert-Butyl Alcohol	59	7.977	7.983	0.730	2142832	2974.72	ug/L 99
90) Acrylonitrile	53	8.251	8.257	0.756	601162	307.03	ug/L 100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY119.D
Acq On : 18 Mar 2024 19:32
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-17|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD300 3UL/5ML N/A MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 19 10:00:25 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

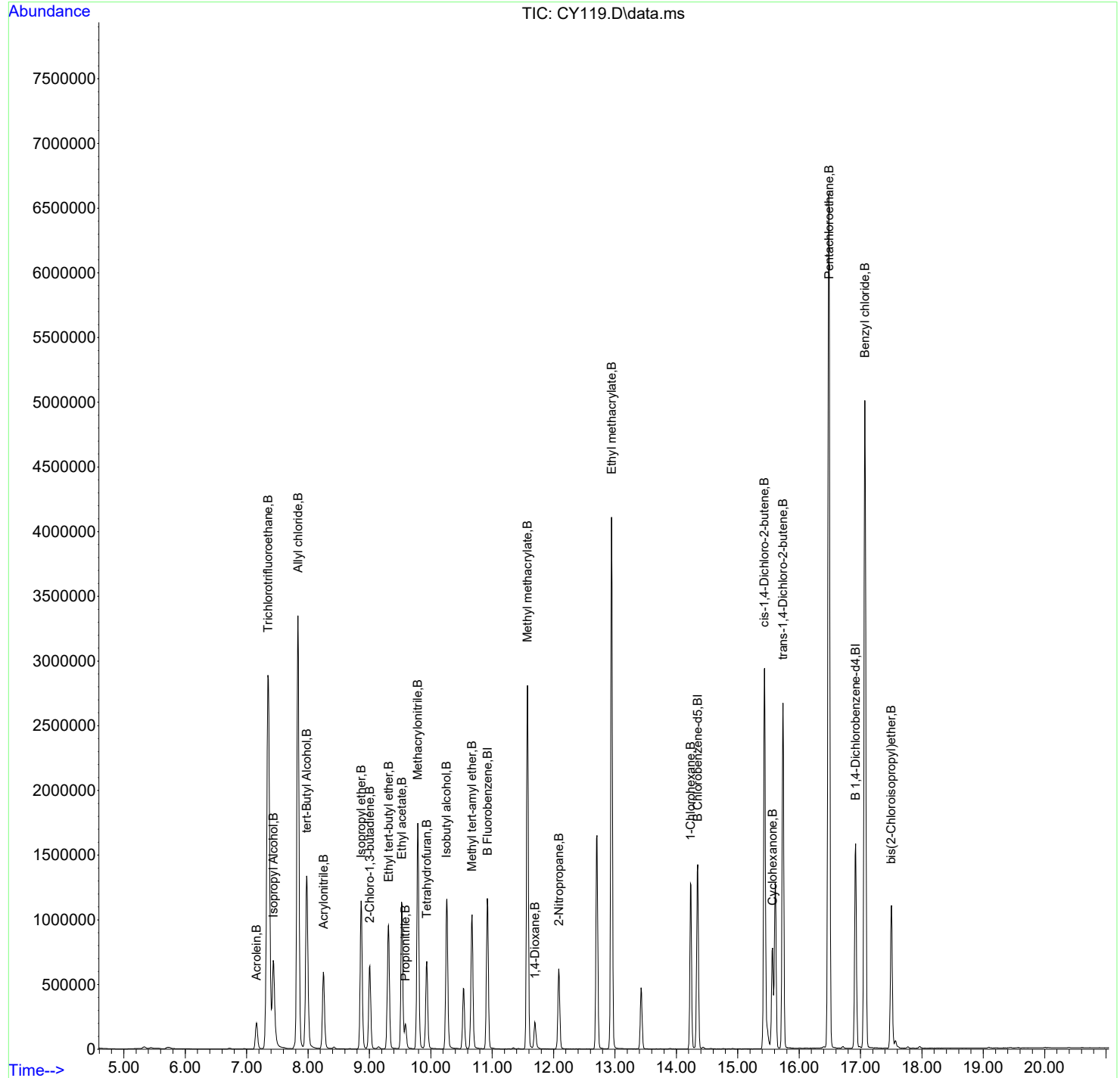
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.867	8.873	0.812	1167110	62.92	ug/L 99
92) 2-Chloro-1,3-butadiene	53	9.007	9.013	0.825	474822	58.97	ug/L 100
93) Ethyl tert-butyl ether	59	9.312	9.312	0.853	1016819	63.13	ug/L 100
94) Ethyl acetate	43	9.525	9.531	0.872	1504549	306.85	ug/L 100
95) Propionitrile	54	9.586	9.592	0.878	232746	300.42	ug/L 99
96) Methacrylonitrile	41	9.788	9.794	0.896	1002484	310.25	ug/L 99
97) Tetrahydrofuran	42	9.934	9.940	0.910	494014	299.96	ug/L 99
98) Isobutyl alcohol	41	10.257	10.263	0.939	615423	2912.81	ug/L 99
99) Methyl tert-amyl ether	73	10.672	10.671	0.977	1012485	62.96	ug/L 100
100) Methyl methacrylate	69	11.574	11.580	1.060	1295727	340.56	ug/L 100
101) 1,4-Dioxane	88	11.696	11.696	1.071	190150	2952.24	ug/L 99
102) 2-Nitropropane	43	12.086	12.086	1.107	563404	320.33	ug/L 99
104) Ethyl methacrylate	69	12.946	12.945	0.902	2530748	334.75	ug/L 100
106) 1-Chlorohexane	55	14.232	14.238	0.841	351595	57.47	ug/L 97
107) cis-1,4-Dichloro-2-butene	53	15.433	15.439	0.912	740484	322.75	ug/L 99
108) Cyclohexanone	42	15.567	15.567	0.920	259071	1508.92	ug/L 100
109) trans-1,4-Dichloro-2-b...	53	15.738	15.738	0.930	623213	319.15	ug/L 99
110) Pentachloroethane	167	16.488	16.487	0.974	1900236	297.92	ug/L 99
111) Benzyl chloride	91	17.073	17.073	1.009	4833155	304.11	ug/L 100
112) bis(2-Chloroisopropyl)...	45	17.500	17.506	1.034	834351	286.08	ug/L 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY119.D
Acq On : 18 Mar 2024 19:32
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-17|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD300 3UL/5ML N/A MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 19 10:00:25 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY120.D
Acq On : 18 Mar 2024 20:00
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-18|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD500 5UL/5ML N/A MIX[B]
ALS Vial : 20 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 10:00:27 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.921	10.934	1.000	0m	50.00	ug/L	-0.01
43) Chlorobenzene-d5	117	14.347	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.921	10.928	1.000	1255726	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.347	14.348	1.000	983227	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	560747	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.965	0d	0.00	ug/L	
45) Toluene-d8	98	12.708	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.609	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.782	4.782	0.438	0m	N.D.	d	
3) Chloromethane		5.343	5.203	0.489	0m	N.D.	d	
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		6.971	6.971	0.638	0m	N.D.	d	
9) Acetone		7.355	7.367	0.673	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.349	7.392	0.673	0m	N.D.	d	
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile		7.733	7.739	0.708	0m	N.D.	d	
13) Methyl acetate		7.788	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.836	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.995	8.001	0.732	0m	N.D.	d	
16) tert-Butyl methyl ether		8.318	8.330	0.762	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.684	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.867	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		9.007	8.897	0.825	0m	N.D.	d	
21) 2-Butanone		9.531	9.525	0.873	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.531	9.586	0.873	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.909	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.409	10.342	0.953	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.635	10.635	0.974	0m	N.D.	d	
32) Benzene		10.653	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		0.000	10.793	0.000	0	N.D.		
34) n-Butyl alcohol		11.013	11.019	1.008	0m	N.D.	d	
35) Trichloroethylene		11.348	11.354	1.039	0m	N.D.	d	
36) 2-Pentanone		11.433	11.434	1.047	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY120.D
Acq On : 18 Mar 2024 20:00
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-18|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD500 5UL/5ML N/A MIX[B]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 19 10:00:27 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.574	11.635	1.060	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		12.372	12.372	1.133	0m	N.D.	d
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.787	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.939	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.378	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		13.390	13.397	0.933	0m	N.D.	d
51) Tetrachloroethylene		13.427	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.378	14.390	1.002	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.433	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		14.445	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.555	14.573	1.014	0m	N.D.	d
58) o-Xylene		15.030	15.037	1.048	0m	N.D.	d
59) Styrene		15.036	15.037	1.048	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.408	15.414	0.911	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.737	15.695	0.930	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		16.012	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.018	16.024	0.947	0m	N.D.	d
70) 4-Chlorotoluene		16.115	16.128	0.952	0m	N.D.	d
71) tert-Butylbenzene		16.487	16.420	0.974	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.451	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		16.646	16.664	0.984	0m	N.D.	d
74) 4-Isopropyltoluene		16.865	16.792	0.997	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.859	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.951	16.957	1.002	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.420	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.566	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.779	19.780	1.169	0m	N.D.	d
82) Naphthalene		20.011	20.017	1.183	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.383	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.166	7.166	0.656	367380	554.86	ug/L 99 A
86) Trichlorotrifluoroethane	85	7.355	7.355	0.673	1341619	499.31	ug/L 96
87) Isopropyl Alcohol	45	7.440	7.440	0.681	1938052	5024.85	ug/L 100 A
88) Allyl chloride	41	7.836	7.843	0.718	4703117	514.23	ug/L 99 A
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	3440574	4887.51	ug/L 99
90) Acrylonitrile	53	8.251	8.257	0.755	964993	504.32	ug/L 100 A

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY120.D
Acq On : 18 Mar 2024 20:00
Operator : PX1
InstName : VOAC
Sample : |WCV240318-18|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD500 5UL/5ML N/A MIX[B]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 19 10:00:27 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

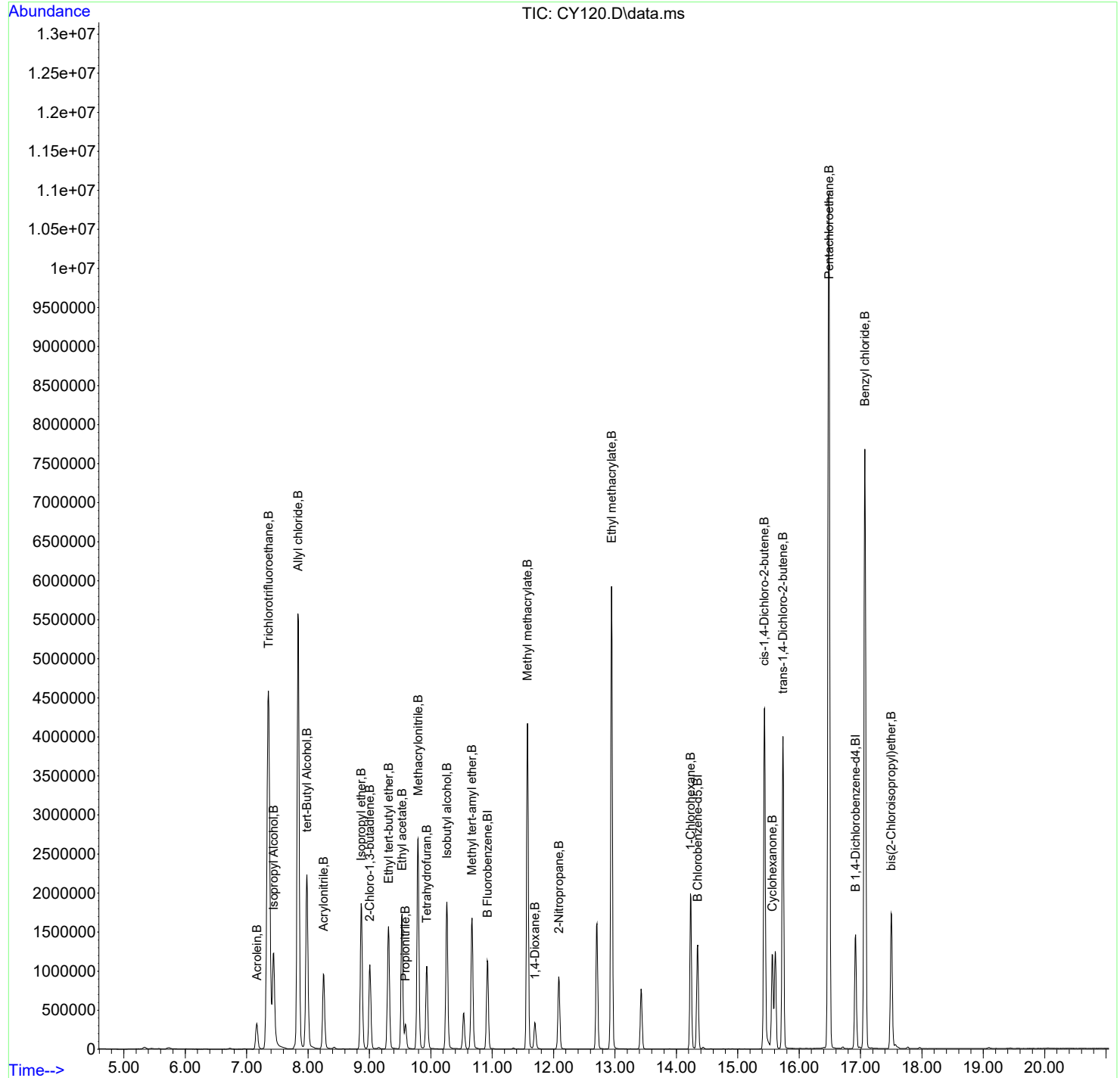
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
91) Isopropyl ether	45	8.867	8.873	0.812	1880668	103.76	ug/L	99 A
92) 2-Chloro-1,3-butadiene	53	9.007	9.013	0.825	784897	99.75	ug/L	99
93) Ethyl tert-butyl ether	59	9.312	9.312	0.853	1647861	104.70	ug/L	100 A
94) Ethyl acetate	43	9.531	9.531	0.873	2285444	476.96	ug/L	100
95) Propionitrile	54	9.586	9.592	0.878	371854	491.16	ug/L	99
96) Methacrylonitrile	41	9.793	9.794	0.897	1574999	498.78	ug/L	100
97) Tetrahydrofuran	42	9.934	9.940	0.910	769096	477.87	ug/L	99
98) Isobutyl alcohol	41	10.263	10.263	0.940	970493	4700.35	ug/L	99
99) Methyl tert-amyl ether	73	10.671	10.671	0.977	1638144	104.24	ug/L	100 A
100) Methyl methacrylate	69	11.574	11.580	1.060	1932007	519.63	ug/L	99 A
101) 1,4-Dioxane	88	11.696	11.696	1.071	309707	4920.45	ug/L	99
102) 2-Nitropropane	43	12.086	12.086	1.107	852013	495.70	ug/L	100
104) Ethyl methacrylate	69	12.945	12.945	0.902	3726122	522.34	ug/L	99 A
106) 1-Chlorohexane	55	14.232	14.238	0.841	540657	94.98	ug/L	97
107) cis-1,4-Dichloro-2-butene	53	15.433	15.439	0.912	1103281	516.87	ug/L	99 A
108) Cyclohexanone	42	15.561	15.567	0.920	406921	2547.38	ug/L	100 A
109) trans-1,4-Dichloro-2-b...	53	15.737	15.738	0.930	925616	509.47	ug/L	98 A
110) Pentachloroethane	167	16.487	16.487	0.974	3120953	525.92	ug/L	99 A
111) Benzyl chloride	91	17.073	17.073	1.009	7478893	505.79	ug/L	100 A
112) bis(2-Chloroisopropyl)...	45	17.499	17.506	1.034	1311219	483.23	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY120.D
Acq On : 18 Mar 2024 20:00
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-18|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD500 5UL/5ML N/A MIX[B]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 19 10:00:27 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 660974
Instrument ID: VOAC.I
Injection Date: 18-MAR-24 20:56
Data File: data\031824VC_ICAL\CY122.D
Init. Cal. Date(s): 18-MAR-24 11:39 - 18-MAR-24 20:00
Lab Sample ID: WCV M240318-19
Method: data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Type: ISTD
Method Update: 19-MAR-24 09:59

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S 1,2-Dichloroethane-d4	0.3028	0.30063		.01		-0.71664	30		Averaged
S Toluene-d8	1.2917	1.34893		.01		4.4306	30		Averaged
S Bromofluorobenzene	0.8615	0.88913		.01		3.2072	30		Averaged
Acrolein	0.0264	0.03241		.01		22.76515	30		Averaged
Allyl chloride	0.3642	0.34923		.01		-4.11038	30		Averaged
Acrylonitrile	0.0762	0.07369		.01		-3.29396	30		Averaged
2-Chloro-1,3-butadiene	0.3133	0.31231		.01		-0.31599	30		Averaged
Propionitrile	0.0301	0.0293		.01		-2.65781	30		Averaged
Methacrylonitrile	0.1257	0.12156		.01		-3.29356	30		Averaged
Isobutyl alcohol	0.0082	0.00755		.01		-7.92683	30		Averaged
Methyl methacrylate	0.148	0.1454		.01		-1.75676	30		Averaged
Ethyl methacrylate	0.3628	0.36297		.01		0.04686	30		Averaged
trans-1,4-Dichloro-2-butene	0.162	0.16251		.01		0.31481	30		Averaged
Pentachloroethane	0.5291	0.53754		.01		1.59516	30		Averaged
bis(2-Chloro-1-methylethyl)eth	0.2419	0.24092		.01		-0.40513	30		Averaged

PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY122.D
Acq On : 18 Mar 2024 20:56
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-19|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[B]
ALS Vial : 22 Sample Multiplier: 1

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03/19/2024

Quant Time: Mar 19 10:00:31 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.921	10.934	1.000	1288673	50.00	ug/L	-0.01
43) Chlorobenzene-d5	117	14.342	14.354	1.000	987081	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	553986	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.921	10.928	1.000	1288673	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.342	14.348	1.000	987081	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	554422	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.531	10.543	0.964	387408	49.65	ug/L	-0.01
45) Toluene-d8	98	12.702	12.714	0.886	1331507	52.21	ug/L	-0.01
63) Bromofluorobenzene	95	15.610	15.622	0.923	492563	51.61	ug/L	-0.01

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		6.630	6.629	0.607	0m	N.D.	d	
8) Ethyl ether		6.959	6.971	0.637	0m	N.D.	d	
9) Acetone		7.355	7.367	0.673	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.343	7.392	0.672	0m	N.D.	d	
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile		7.715	7.739	0.706	0m	N.D.	d	
13) Methyl acetate		7.788	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.843	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.995	8.001	0.732	0m	N.D.	d	
16) tert-Butyl methyl ether		8.318	8.330	0.762	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.684	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.867	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		9.007	8.897	0.825	0m	N.D.	d	
21) 2-Butanone		9.531	9.525	0.873	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.531	9.586	0.873	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.909	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.257	10.342	0.939	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.617	10.635	0.972	0m	N.D.	d	
32) Benzene		10.653	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		0.000	10.793	0.000	0	N.D.		
34) n-Butyl alcohol		11.019	11.019	1.009	0m	N.D.	d	
35) Trichloroethylene		11.342	11.354	1.039	0m	N.D.	d	
36) 2-Pentanone		11.421	11.434	1.046	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY122.D
Acq On : 18 Mar 2024 20:56
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-19|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 19 10:00:31 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.574	11.635	1.060	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.787	12.793	0.892	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.945	12.952	0.903	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.384	13.384	0.933	0m	N.D.	d
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		13.427	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.384	14.390	1.003	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.433	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		14.445	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.561	14.573	1.015	0m	N.D.	d
58) o-Xylene		15.024	15.037	1.048	0m	N.D.	d
59) Styrene		15.018	15.037	1.047	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.402	15.414	0.910	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.732	15.695	0.930	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		15.847	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		16.012	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.018	16.024	0.947	0m	N.D.	d
70) 4-Chlorotoluene		16.116	16.128	0.952	0m	N.D.	d
71) tert-Butylbenzene		16.481	16.420	0.974	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.451	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		16.646	16.664	0.984	0m	N.D.	d
74) 4-Isopropyltoluene		16.902	16.792	0.999	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.853	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.951	16.957	1.002	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.420	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.566	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.767	19.780	1.168	0m	N.D.	d
82) Naphthalene		19.999	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.395	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.166	7.166	0.656	208837	307.35	ug/L 100
86) Trichlorotrifluoroethane	85	7.355	7.355	0.673	627803	227.68	ug/L 97
87) Isopropyl Alcohol	45	7.440	7.440	0.681	979548	2474.77	ug/L 100
88) Allyl chloride	41	7.837	7.843	0.718	2250197	239.74	ug/L 100
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	1815737	2513.40	ug/L 99
90) Acrylonitrile	53	8.251	8.257	0.756	474801	241.80	ug/L 100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY122.D
Acq On : 18 Mar 2024 20:56
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-19|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 19 10:00:31 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

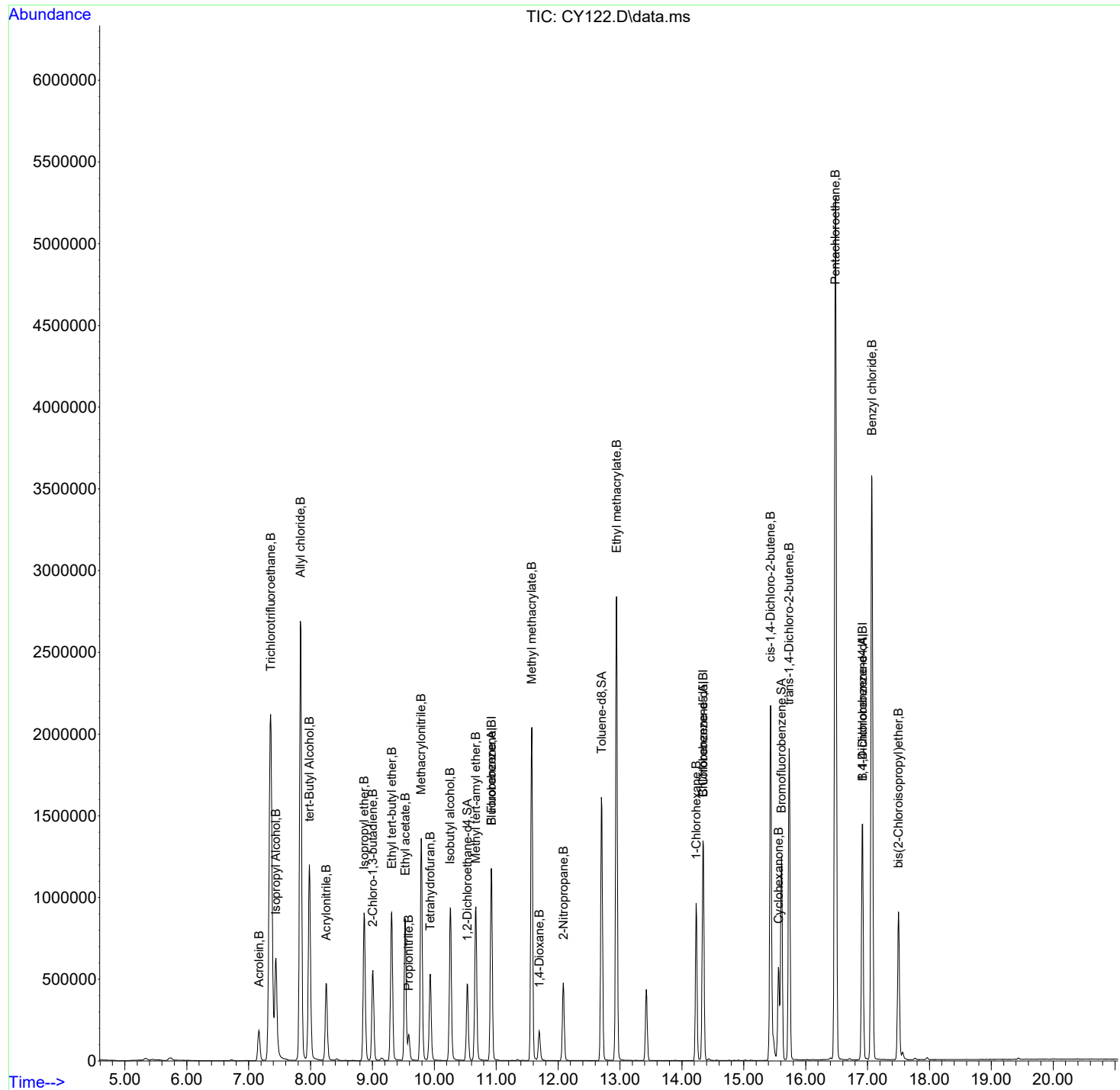
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.867	8.873	0.812	918239	49.36 ug/L	99
92) 2-Chloro-1,3-butadiene	53	9.007	9.013	0.825	402461	49.84 ug/L	100
93) Ethyl tert-butyl ether	59	9.312	9.312	0.853	955118	59.13 ug/L	100
94) Ethyl acetate	43	9.531	9.531	0.873	1152922	234.46 ug/L	100
95) Propionitrile	54	9.586	9.592	0.878	188812	243.01 ug/L	99
96) Methacrylonitrile	41	9.788	9.794	0.896	783277	241.71 ug/L	99
97) Tetrahydrofuran	42	9.934	9.940	0.910	386844	234.21 ug/L	100
98) Isobutyl alcohol	41	10.257	10.263	0.939	486437	2295.71 ug/L	99
99) Methyl tert-amyl ether	73	10.672	10.671	0.977	922566	57.21 ug/L	100
100) Methyl methacrylate	69	11.574	11.580	1.060	936892	245.54 ug/L	99
101) 1,4-Dioxane	88	11.696	11.696	1.071	163939	2537.98 ug/L	100
102) 2-Nitropropane	43	12.086	12.086	1.107	431092	244.40 ug/L	100
104) Ethyl methacrylate	69	12.945	12.945	0.903	1791400	250.14 ug/L	100
106) 1-Chlorohexane	55	14.232	14.238	0.841	256157	45.51 ug/L	98
107) cis-1,4-Dichloro-2-butene	53	15.433	15.439	0.912	535376	253.67 ug/L	100
108) Cyclohexanone	42	15.561	15.567	0.920	189180	1197.80 ug/L	99
109) trans-1,4-Dichloro-2-b...	53	15.732	15.738	0.930	450489	250.78 ug/L	100
110) Pentachloroethane	167	16.481	16.487	0.974	1490121	253.97 ug/L	100
111) Benzyl chloride	91	17.073	17.073	1.009	3494096	239.00 ug/L	100
112) bis(2-Chloroisopropyl)...	45	17.500	17.506	1.034	667865	248.94 ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY122.D
Acq On : 18 Mar 2024 20:56
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-19|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 19 10:00:31 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 660974
Instrument ID: VOAC.I
Injection Date: 04-APR-24 11:02
Data File: data\040424VC\CA407.D
Init. Cal. Date(s): 18-MAR-24 11:39 - 18-MAR-24 20:00
Lab Sample ID: WCV M240404-01
Method: data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Type: ISTD
Method Update: 19-MAR-24 09:59

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S 1,2-Dichloroethane-d4	0.3028	0.32162		.01		6.21532	20		Averaged
S Toluene-d8	1.2917	1.33966		.01		3.71294	20		Averaged
S Bromofluorobenzene	0.8615	0.88266		.01		2.45618	20		Averaged
Dichlorodifluoromethane	0.2766	0.32436		.01		17.26681	20		Averaged
Chloromethane	0.308	0.29424		.1		-4.46753	20		Averaged
Vinyl chloride	0.3174	0.30979		.01		-2.39761	20		Averaged
Bromomethane	0.2334	0.23276		.01		-0.27421	20		Averaged
Chloroethane	0.1996	0.21698		.01		8.70741	20		Averaged
Trichlorofluoromethane	0.3904	0.43313		.01		10.94518	20		Averaged
Acetone	0.067	0.07026		.01		4.86567	20		Averaged
1,1-Dichloroethylene	0.3468	0.41561		.01		19.84141	20		Averaged
Iodomethane	0.4711	0.50305		.01		6.782	20		Averaged
Acetonitrile	0.0266	0.02923		.01		9.88722	20		Averaged
Carbon disulfide	0.6978	0.89224		.01		27.86472	20	*	Averaged
Methylene chloride	50	52.16	50			4.32	20		Linear
trans-1,2-Dichloroethylene	0.3493	0.3923		.01		12.31033	20		Averaged
Vinyl acetate	0.4827	0.51595		.01		6.88834	20		Averaged
1,1-Dichloroethane	0.4362	0.49272		.1		12.95736	20		Averaged
2-Butanone	0.0948	0.10801		.01		13.9346	20		Averaged
Chloroform	0.4567	0.49531		.01		8.45413	20		Averaged
1,1,1-Trichloroethane	0.414	0.4464		.01		7.82609	20		Averaged
Carbon tetrachloride	0.3707	0.41548		.01		12.07985	20		Averaged
1,2-Dichloroethane	0.3445	0.37393		.01		8.54282	20		Averaged
Benzene	0.979	1.02033		.01		4.22165	20		Averaged
Trichloroethylene	0.2768	0.28876		.01		4.32081	20		Averaged
1,2-Dichloropropane	0.2494	0.27193		.01		9.03368	20		Averaged
Dibromomethane	0.1636	0.17319		.01		5.86186	20		Averaged
Bromodichloromethane	0.3541	0.38091		.01		7.57131	20		Averaged
cis-1,3-Dichloropropylene	0.4187	0.4435		.01		5.9231	20		Averaged
4-Methyl-2-pentanone	0.1014	0.11839		.01		16.75542	20		Averaged
Toluene	1.3023	1.45372		.01		11.62712	20		Averaged
trans-1,3-Dichloropropylene	0.4573	0.52601		.01		15.02515	20		Averaged
1,1,2-Trichloroethane	0.225	0.2477		.01		10.08889	20		Averaged
2-Hexanone	0.161	0.20336		.01		26.31056	20	*	Averaged
Tetrachloroethylene	0.3124	0.3271		.01		4.70551	20		Averaged
Dibromochloromethane	0.3612	0.37882		.01		4.87818	20		Averaged
1,2-Dibromoethane	0.2896	0.31138		.01		7.52072	20		Averaged

Continuing Calibration Summary

Instrument ID: VOAC.I

Injection Date: 04-APR-24 11:02

Data File: data\040424VC\CA407.D

Init. Cal. Date(s) 18-MAR-24 11:39 18-MAR-24 20:00

Lab Sample ID WCVL240404-01

Method: data\031824VC_ICAL\VOAC-031824-8260D.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Chlorobenzene	0.9095	0.96812		.3		6.4453	20		Averaged
1,1,1,2-Tetrachloroethane	0.3683	0.38136		.01		3.54602	20		Averaged
Ethylbenzene	1.4566	1.61706		.01		11.01606	20		Averaged
m,p-Xylenes	0.5846	0.62936		.01		7.65652	20		Averaged
Styrene	0.9593	1.00895		.01		5.17565	20		Averaged
o-Xylene	1.2252	1.30969		.01		6.89602	20		Averaged
Bromoform	0.4381	0.46672		.1		6.53276	20		Averaged
1,1,2,2-Tetrachloroethane	0.6096	0.70971		.3		16.42224	20		Averaged
1,2,3-Trichloropropane	0.1932	0.21632		.01		11.96687	20		Averaged
1,2-Dibromo-3-chloropropane	0.1702	0.17285		.01		1.55699	20		Averaged
1,2,4-Trichlorobenzene	1.1439	1.15515		.01		0.98348	20		Averaged

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA407.D
Acq On : 04 Apr 2024 11:02
Operator : PXY1
InstName : VOAC
Sample : |WCV240404-01|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

MA

04/05/2024

Quant Time: Apr 04 11:24:21 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.921	10.934	1.000	919031	50.00	ug/L	-0.01
43) Chlorobenzene-d5	117	14.341	14.354	1.000	694448	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	362790	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.921	10.928	1.000	918625	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.341	14.348	1.000	694448	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	363127	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.965	295575	53.11	ug/L	0.00
45) Toluene-d8	98	12.702	12.714	0.886	930324	51.85	ug/L	-0.01
63) Bromofluorobenzene	95	15.610	15.622	0.923	320220	51.23	ug/L	-0.01
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.776	4.782	0.437	298093	58.62	ug/L	100
3) Chloromethane	50	5.191	5.203	0.475	270416	47.76	ug/L	99
4) Vinyl chloride	62	5.410	5.422	0.495	284707	48.80	ug/L	100
5) Bromomethane	94	6.062	6.075	0.555	213915	49.87	ug/L	100
6) Chloroethane	64	6.191	6.197	0.567	199409	54.35	ug/L	99
7) Trichlorofluoromethane	101	6.617	6.629	0.606	398059	55.48	ug/L	99
8) Ethyl ether	59	6.965	6.971	0.638	175726	46.19	ug/L	89
9) Acetone	43	7.361	7.367	0.674	322874	262.23	ug/L	94
10) 1,1-Dichloroethylene	61	7.379	7.392	0.676	381961	59.93	ug/L	94
11) Iodomethane	142	7.641	7.654	0.700	2311607	266.98	ug/L	95
12) Acetonitrile	41	7.733	7.739	0.708	671626	1374.02	ug/L	99
13) Methyl acetate	43	7.788	7.794	0.713	794143	282.47	ug/L	97
14) Carbon disulfide	76	7.794	7.800	0.714	4100001	319.66	ug/L	100
15) Methylene chloride	84	7.989	8.001	0.731	254550	52.16	ug/L	90
16) tert-Butyl methyl ether	73	8.318	8.330	0.762	657953	49.41	ug/L	99
17) trans-1,2-Dichloroethy...	61	8.361	8.373	0.766	360533	56.15	ug/L	94
18) Hexane	57	8.684	8.690	0.795	252762	38.88	ug/L	94
19) Vinyl acetate	43	8.836	8.849	0.809	2370868	267.24	ug/L	97
20) 1,1-Dichloroethane	63	8.885	8.897	0.814	452826	56.47	ug/L	99
21) 2-Butanone	43	9.513	9.525	0.871	496310	284.74	ug/L	96
22) cis-1,2-Dichloroethylene	61	9.574	9.586	0.877	408041	54.03	ug/L	95
23) 2,2-Dichloropropane	77	9.611	9.623	0.880	319321	50.15	ug/L	90
24) Bromochloromethane	128	9.873	9.885	0.904	137068	47.81	ug/L #	86
25) Chloroform	83	9.909	9.922	0.907	455208	54.22	ug/L	99
26) 1,1,1-Trichloroethane	97	10.220	10.232	0.936	410256	53.91	ug/L	96
27) Cyclohexane	56	10.330	10.342	0.946	426480	56.11	ug/L	97
28) 1,1-Dichloropropene	75	10.391	10.403	0.951	345710	55.78	ug/L #	97
29) Carbon tetrachloride	117	10.434	10.446	0.955	381843	56.04	ug/L	99
31) 1,2-Dichloroethane	62	10.623	10.635	0.973	343653	54.26	ug/L	100
32) Benzene	78	10.653	10.665	0.975	937719	52.11	ug/L	97
33) Cyclohexene	67	10.781	10.793	0.987	468551	52.12	ug/L	96
34) n-Butyl alcohol	56	11.007	11.019	1.008	711080	5492.40	ug/L	94
35) Trichloroethylene	95	11.342	11.354	1.039	265379	52.15	ug/L	97
36) 2-Pentanone	43	11.427	11.434	1.046	610056	199.67	ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA407.D
Acq On : 04 Apr 2024 11:02
Operator : PXY1
InstName : VOAC
Sample : |WCV M240404-01|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 11:24:21 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.610	11.616	1.063	249909	54.52	ug/L 87
38) Methylcyclohexane	83	11.622	11.635	1.064	460310	53.99	ug/L 74
39) Dibromomethane	93	11.750	11.763	1.076	159166	52.92	ug/L 92
40) Bromodichloromethane	83	11.872	11.885	1.087	350068	53.78	ug/L 100
41) 2-Chloroethylvinyl ether	63	12.110	12.122	1.109	38700	212.27	ug/L 97
42) cis-1,3-Dichloropropylene	75	12.360	12.372	1.132	407588	52.96	ug/L 92
44) 4-Methyl-2-pentanone	58	12.458	12.470	0.869	411095	291.81	ug/L 88
46) Toluene	91	12.781	12.793	0.891	1009533	55.82	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.939	12.952	0.902	365287	57.51	ug/L 93
48) 1,1,2-Trichloroethane	83	13.177	13.189	0.919	172015	55.04	ug/L 99
49) 2-Hexanone	43	13.372	13.384	0.932	706128	315.74	ug/L 94
50) 1,3-Dichloropropane	76	13.384	13.397	0.933	344018	56.93	ug/L 94
51) Tetrachloroethylene	164	13.427	13.439	0.936	227152	52.36	ug/L 96
52) Dibromochloromethane	129	13.671	13.689	0.953	263069	52.44	ug/L 99
53) 1,2-Dibromoethane	107	13.860	13.872	0.966	216237	53.77	ug/L 100
54) Chlorobenzene	112	14.378	14.390	1.003	672311	53.22	ug/L 98
55) 1,1,1,2-Tetrachloroethane	131	14.433	14.445	1.006	264838	51.78	ug/L 100
56) Ethylbenzene	91	14.445	14.457	1.007	1122963	55.51	ug/L 94
57) m,p-Xylenes	106	14.561	14.573	1.015	874118	107.66	ug/L 96
58) o-Xylene	91	15.024	15.037	1.048	909514	53.45	ug/L 99
59) Styrene	104	15.024	15.037	1.048	700665	52.59	ug/L 96
61) Bromoform	173	15.293	15.305	0.904	169320	53.26	ug/L 93
62) Isopropylbenzene	105	15.402	15.414	0.910	1154634	59.40	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.683	15.695	0.927	257476	58.21	ug/L 100
65) 1,2,3-Trichloropropane	110	15.780	15.792	0.933	78478	55.99	ug/L 93
66) Bromobenzene	156	15.835	15.847	0.936	296416	53.53	ug/L 93
67) n-Propylbenzene	91	15.853	15.866	0.937	1343507	61.35	ug/L 98
68) 1,3,5-Trimethylbenzene	105	16.012	16.024	0.946	989213	58.26	ug/L 99
69) 2-Chlorotoluene	126	16.012	16.024	0.946	281425	57.74	ug/L 92
70) 4-Chlorotoluene	91	16.116	16.128	0.952	782045	58.52	ug/L 98
71) tert-Butylbenzene	134	16.408	16.420	0.970	220053	57.20	ug/L 96
72) 1,2,4-Trimethylbenzene	105	16.451	16.463	0.972	982723	56.49	ug/L 99
73) sec-Butylbenzene	105	16.652	16.664	0.984	1263181	59.02	ug/L 99
74) 4-Isopropyltoluene	119	16.780	16.792	0.992	1098799	57.66	ug/L 98
75) 1,3-Dichlorobenzene	146	16.853	16.865	0.996	556466	54.20	ug/L 85
76) 1,4-Dichlorobenzene	146	16.945	16.957	1.001	553348	53.75	ug/L 97
77) n-Butylbenzene	91	17.268	17.280	1.021	1003869	60.31	ug/L 98
78) 1,2-Dichlorobenzene	146	17.414	17.432	1.029	530810	52.97	ug/L 99
79) 1,2-Dibromo-3-chloropr...	157	18.371	18.383	1.086	62709	50.77	ug/L 93
80) 1,2,4-Trichlorobenzene	180	19.566	19.578	1.156	419078	50.49	ug/L 100
81) Hexachlorobutadiene	225	19.761	19.780	1.168	249126	51.68	ug/L 93
82) Naphthalene	128	19.999	20.017	1.182	867311	53.02	ug/L 99
83) 1,2,3-Trichlorobenzene	180	20.389	20.401	1.205	385038	50.03	ug/L 96
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	7.343	7.355	0.672	0m	N.D.	d	
87) Isopropyl Alcohol	7.398	7.440	0.677	0m	N.D.	d	
88) Allyl chloride	0.000	7.843	0.000	0	N.D.		
89) tert-Butyl Alcohol	7.983	7.983	0.731	0m	N.D.	d	
90) Acrylonitrile	8.318	8.257	0.762	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA407.D
Acq On : 04 Apr 2024 11:02
Operator : PXY1
InstName : VOAC
Sample : |WCVM240404-01|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 11:24:21 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.836	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate		9.513	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.513	9.592	0.871	0m	N.D.	d
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran		9.909	9.940	0.907	0m	N.D.	d
98) Isobutyl alcohol		10.330	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.647	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.622	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.750	11.696	1.076	0m	N.D.	d
102) 2-Nitropropane		12.110	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.232	14.238	0.841	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.402	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.475	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.573	17.506	1.039	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\

Data File : CA407.D

Acq On : 04 Apr 2024 11:02

Operator : PXY1

InstName : VOAC

Sample : |WCVM240404-01|CCV|1|VOAF|1|VOA8260D|

Misc : CCV/LCS 5G/5ML N/A SOIL MIX[A]

ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 11:24:21 2024

Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

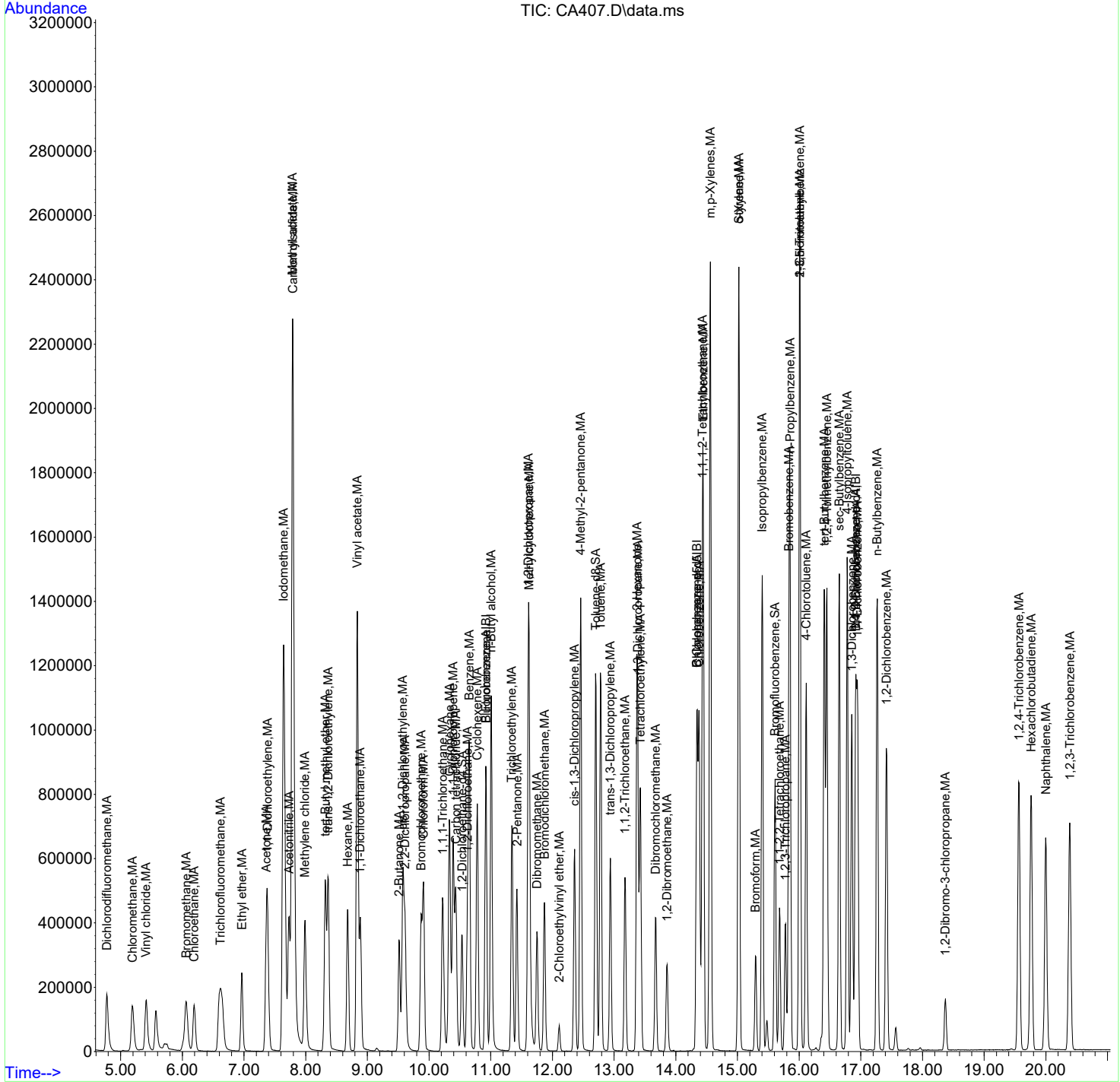
Quant Title : Volatile Organics

SubList :

QLast Update : Tue Mar 19 09:59:33 2024

Response via : Initial Calibration

Integrator: RTE



Continuing Calibration Summary

Client SDG: 660974
Instrument ID: VOAC.I
Injection Date: 04-APR-24 11:30
Data File: data\040424VC\CA408.D
Init. Cal. Date(s): 18-MAR-24 11:39 - 18-MAR-24 20:00
Lab Sample ID: WCV M240404-02
Method: data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Type: ISTD
Method Update: 19-MAR-24 09:59

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S 1,2-Dichloroethane-d4	0.3028	0.32747		.01		8.14729	20		Averaged
S Toluene-d8	1.2917	1.36041		.01		5.31935	20		Averaged
S Bromofluorobenzene	0.8615	0.9925		.01		15.20604	20		Averaged
Acrolein	0.0264	0.03501		.01		32.61364	20	*	Averaged
Allyl chloride	0.3642	0.3858		.01		5.93081	20		Averaged
Acrylonitrile	0.0762	0.07706		.01		1.12861	20		Averaged
2-Chloro-1,3-butadiene	0.3133	0.35566		.01		13.52059	20		Averaged
Propionitrile	0.0301	0.03036		.01		0.86379	20		Averaged
Methacrylonitrile	0.1257	0.1375		.01		9.38743	20		Averaged
Isobutyl alcohol	0.0082	0.00823		.01		0.36585	20		Averaged
Methyl methacrylate	0.148	0.16235		.01		9.69595	20		Averaged
Ethyl methacrylate	0.3628	0.41299		.01		13.83407	20		Averaged
trans-1,4-Dichloro-2-butene	0.162	0.22271		.01		37.47531	20	*	Averaged
Pentachloroethane	0.5291	0.55807		.01		5.47534	20		Averaged
bis(2-Chloro-1-methylethyl)eth	0.2419	0.28085		.01		16.10169	20		Averaged

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA408.D
Acq On : 04 Apr 2024 11:30
Operator : PXY1
InstName : VOAC
Sample : |WCV M240404-02|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[B]
ALS Vial : 3 Sample Multiplier: 1

MA

04/05/2024

Quant Time: Apr 04 12:06:39 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.921	10.934	1.000	938812	50.00	ug/L	-0.01
43) Chlorobenzene-d5	117	14.341	14.354	1.000	714337	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.914	16.933	1.000	351658	50.00	ug/L	-0.02
84) B Fluorobenzene	96	10.921	10.928	1.000	938650	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.341	14.348	1.000	714337	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.914	16.920	1.000	351658	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.531	10.543	0.964	307429	54.08	ug/L	-0.01
45) Toluene-d8	98	12.701	12.714	0.886	971791	52.66	ug/L	-0.01
63) Bromofluorobenzene	95	15.609	15.622	0.923	349019	57.61	ug/L	-0.01

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.788	4.782	0.438	0m	N.D.	d	
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		6.605	6.629	0.605	0m	N.D.	d	
8) Ethyl ether		6.952	6.971	0.637	0m	N.D.	d	
9) Acetone		7.349	7.367	0.673	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.349	7.392	0.673	0m	N.D.	d	
11) Iodomethane		7.629	7.654	0.699	0m	N.D.	d	
12) Acetonitrile		7.727	7.739	0.707	0m	N.D.	d	
13) Methyl acetate		7.775	7.794	0.712	0m	N.D.	d	
14) Carbon disulfide		7.830	7.800	0.717	0m	N.D.	d	
15) Methylene chloride		7.983	8.001	0.731	0m	N.D.	d	
16) tert-Butyl methyl ether		8.312	8.330	0.761	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		8.361	8.373	0.766	0m	N.D.	d	
18) Hexane		8.678	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.861	8.849	0.811	0m	N.D.	d	
20) 1,1-Dichloroethane		8.885	8.897	0.814	0m	N.D.	d	
21) 2-Butanone		9.525	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.525	9.586	0.872	0m	N.D.	d	
23) 2,2-Dichloropropane		9.617	9.623	0.881	0m	N.D.	d	
24) Bromochloromethane		9.873	9.885	0.904	0m	N.D.	d	
25) Chloroform		9.903	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		10.220	10.232	0.936	0m	N.D.	d	
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		10.385	10.403	0.951	0m	N.D.	d	
29) Carbon tetrachloride		10.434	10.446	0.955	0m	N.D.	d	
31) 1,2-Dichloroethane		10.616	10.635	0.972	0m	N.D.	d	
32) Benzene		10.647	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.781	10.793	0.987	0m	N.D.	d	
34) n-Butyl alcohol		11.007	11.019	1.008	0m	N.D.	d	
35) Trichloroethylene		11.342	11.354	1.039	0m	N.D.	d	
36) 2-Pentanone		11.421	11.434	1.046	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA408.D
Acq On : 04 Apr 2024 11:30
Operator : PXY1
InstName : VOAC
Sample : |WCVM240404-02|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 12:06:39 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		11.598	11.616	1.062	0m	N.D.	d
38) Methylcyclohexane		11.567	11.635	1.059	0m	N.D.	d
39) Dibromomethane		11.750	11.763	1.076	0m	N.D.	d
40) Bromodichloromethane		11.860	11.885	1.086	0m	N.D.	d
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		12.366	12.372	1.132	0m	N.D.	d
44) 4-Methyl-2-pentanone		12.458	12.470	0.869	0m	N.D.	d
46) Toluene		12.781	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.939	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		13.171	13.189	0.918	0m	N.D.	d
49) 2-Hexanone		13.372	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		13.378	13.397	0.933	0m	N.D.	d
51) Tetrachloroethylene		13.421	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		13.677	13.689	0.954	0m	N.D.	d
53) 1,2-Dibromoethane		13.854	13.872	0.966	0m	N.D.	d
54) Chlorobenzene		14.378	14.390	1.003	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.427	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		14.445	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.555	14.573	1.015	0m	N.D.	d
58) o-Xylene		15.018	15.037	1.047	0m	N.D.	d
59) Styrene		15.018	15.037	1.047	0m	N.D.	d
61) Bromoform		15.286	15.305	0.904	0m	N.D.	d
62) Isopropylbenzene		15.402	15.414	0.911	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.689	15.695	0.928	0m	N.D.	d
65) 1,2,3-Trichloropropane		15.780	15.792	0.933	0m	N.D.	d
66) Bromobenzene		15.835	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		15.853	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		16.012	16.024	0.947	0m	N.D.	d
69) 2-Chlorotoluene		16.006	16.024	0.946	0m	N.D.	d
70) 4-Chlorotoluene		16.115	16.128	0.953	0m	N.D.	d
71) tert-Butylbenzene		16.408	16.420	0.970	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.445	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		16.646	16.664	0.984	0m	N.D.	d
74) 4-Isopropyltoluene		16.780	16.792	0.992	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.853	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.945	16.957	1.002	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.414	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		18.365	18.383	1.086	0m	N.D.	d
80) 1,2,4-Trichlorobenzene		19.560	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.761	19.780	1.168	0m	N.D.	d
82) Naphthalene		19.999	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.389	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.160	7.166	0.656	164318	332.01	ug/L 98
86) Trichlorotrifluoroethane	85	7.349	7.355	0.673	551035	274.36	ug/L 91
87) Isopropyl Alcohol	45	7.434	7.440	0.681	695265	2411.57	ug/L 98
88) Allyl chloride	41	7.830	7.843	0.717	1810646	264.85	ug/L 91
89) tert-Butyl Alcohol	59	7.977	7.983	0.730	1300175	2470.87	ug/L 96
90) Acrylonitrile	53	8.245	8.257	0.755	361660	252.86	ug/L 99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA408.D
Acq On : 04 Apr 2024 11:30
Operator : PXY1
InstName : VOAC
Sample : |WCVM240404-02|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 12:06:39 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

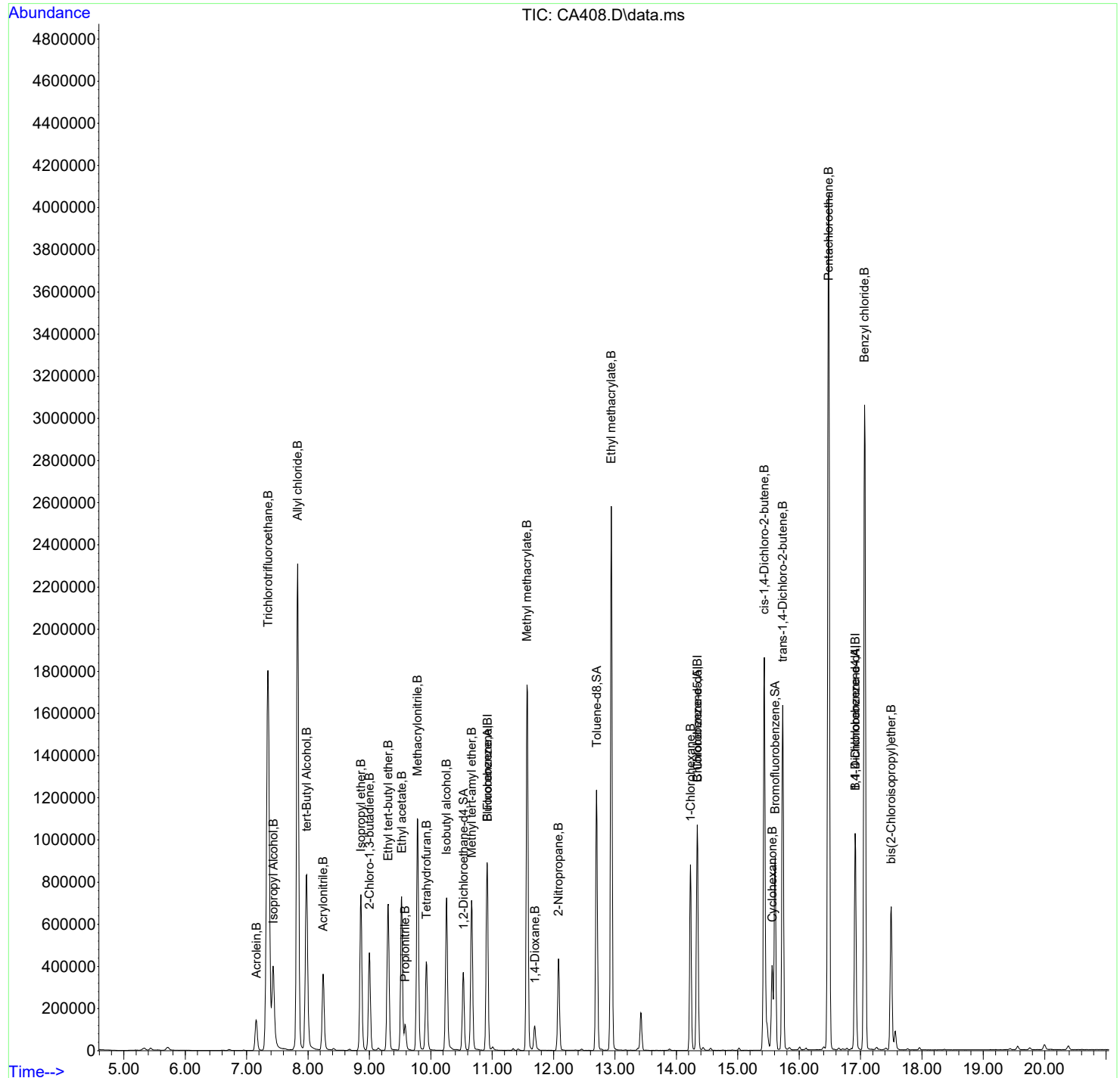
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.861	8.873	0.811	739480	54.58	ug/L 95
92) 2-Chloro-1,3-butadiene	53	9.001	9.013	0.824	333837	56.76	ug/L 92
93) Ethyl tert-butyl ether	59	9.306	9.312	0.852	714598	60.74	ug/L 98
94) Ethyl acetate	43	9.525	9.531	0.872	992667	277.15	ug/L 96
95) Propionitrile	54	9.580	9.592	0.877	142499	251.80	ug/L 99
96) Methacrylonitrile	41	9.781	9.794	0.896	645329	273.40	ug/L 96
97) Tetrahydrofuran	42	9.927	9.940	0.909	310196	257.84	ug/L 95
98) Isobutyl alcohol	41	10.257	10.263	0.939	386456	2503.97	ug/L 96
99) Methyl tert-amyl ether	73	10.665	10.671	0.977	668567	56.91	ug/L 99
100) Methyl methacrylate	69	11.567	11.580	1.059	761971	274.17	ug/L 92
101) 1,4-Dioxane	88	11.695	11.696	1.071	103263	2194.77	ug/L 95
102) 2-Nitropropane	43	12.080	12.086	1.106	374036	291.12	ug/L 97
104) Ethyl methacrylate	69	12.939	12.945	0.902	1475063	284.61	ug/L 93
106) 1-Chlorohexane	55	14.232	14.238	0.841	234006	65.55	ug/L 96
107) cis-1,4-Dichloro-2-butene	53	15.433	15.439	0.912	465666	347.87	ug/L 93
108) Cyclohexanone	42	15.561	15.567	0.920	140878	1406.29	ug/L 91
109) trans-1,4-Dichloro-2-b...	53	15.731	15.738	0.930	391587	343.69	ug/L 92
110) Pentachloroethane	167	16.481	16.487	0.974	981254	263.67	ug/L 92
111) Benzyl chloride	91	17.066	17.073	1.009	2782375	300.05	ug/L 98
112) bis(2-Chloroisopropyl)...	45	17.499	17.506	1.035	493812	290.19	ug/L 93

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA408.D
Acq On : 04 Apr 2024 11:30
Operator : PXY1
InstName : VOAC
Sample : |WCV M240404-02|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 12:06:39 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Quality Control Data

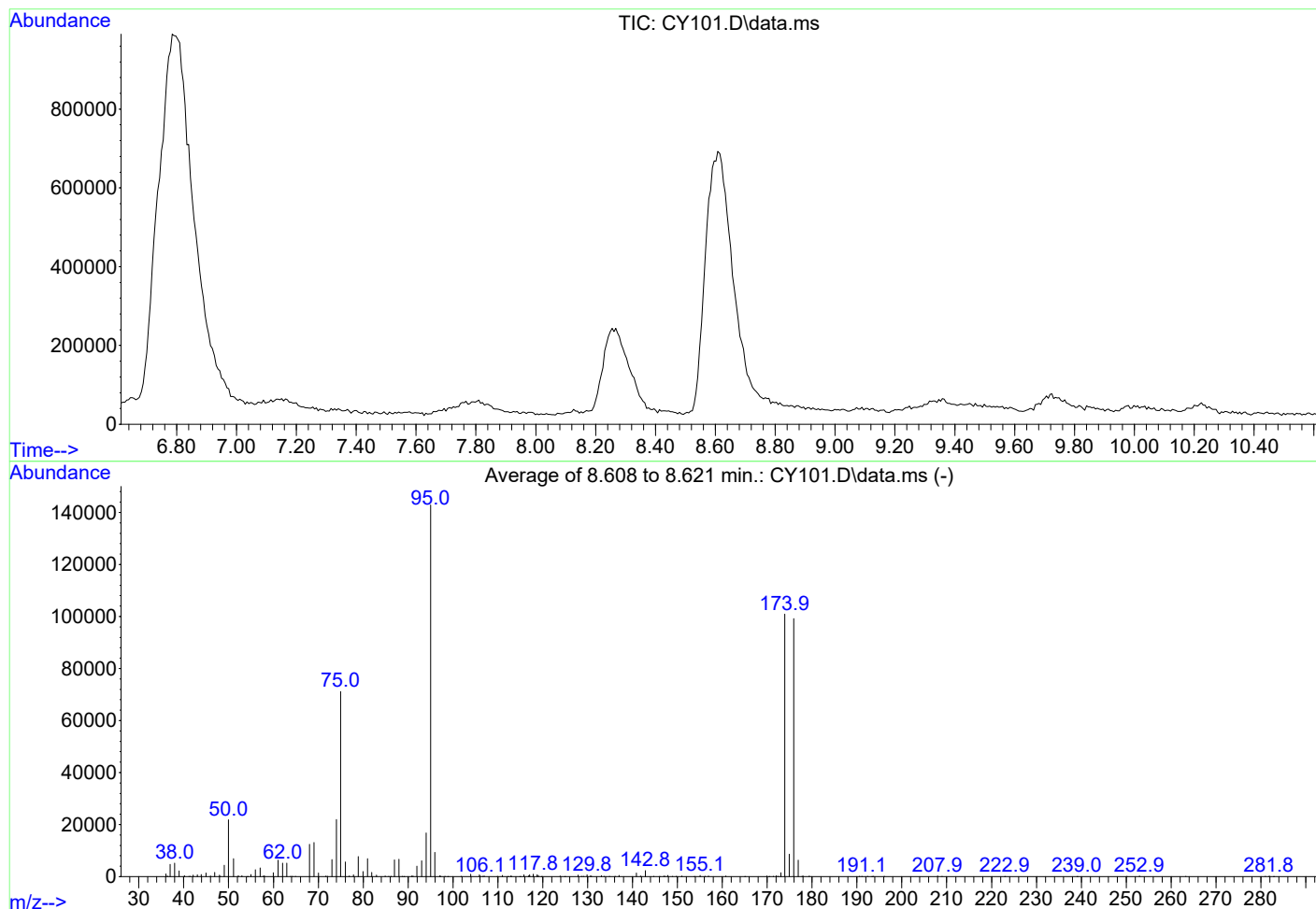
Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY101.D
Acq On : 18 Mar 2024 11:14
Operator : PXY1
Sample : |IVM240304-01|BFB|1|VOAF|1|VOA8260D|
Misc : BFB 1UL/10ML N/A
ALS Vial : 1 Sample Multiplier: 1

03/19/2024

03/19/2024

Integration File:

Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Title : Volatile Organics SubList :
Last Update : Tue Mar 19 09:59:33 2024



AutoFind: Scans 486, 487, 488; Background Corrected with Scan 467

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
Mass	Mass	Limit%	Limit%	Abn%	Abn	Pass/Fail
95	174	50	200	141.6	142848	PASS
96	95	5	9	6.5	9263	PASS
173	174	0.00	2	1.5	1546	PASS
174	95	50	200	70.6	100907	PASS
175	174	5	9	8.6	8670	PASS
176	174	95	105	98.3	99205	PASS
177	176	5	10	6.3	6290	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Matrix:	MISC SOLID
Lab Sample ID:	1205694059		
Client Sample:	QC for batch 2591975	Client:	PERM001
Client ID:	MB for batch 2591975	Method:	SW846 8260D
Batch ID:	2591977	Inst:	VOAC.I
Run Date:	04/04/2024 12:26	Analyst:	PXY1
Prep Date:	04/04/2024 08:01	Aliquot:	5 g
Data File:	data\040424VC\CA410P.D	Column:	DB-624
		Purge Vol:	5 mL
		Final Volume:	5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.333	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.333	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.333	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.333	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.333	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.333	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.67	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.333	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.67	5.00
75-05-8	Acetonitrile	U	25.0	ug/kg	8.33	25.0
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	5.00	ug/kg	1.67	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.67	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	1.67	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.333	1.00
108-05-4	Vinyl acetate	U	5.00	ug/kg	1.67	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.333	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.67	5.00
67-66-3	Chloroform	U	1.00	ug/kg	0.333	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.333	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.333	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.333	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.333	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.333	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.333	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.333	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.333	1.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.333	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.67	5.00
108-88-3	Toluene	U	1.00	ug/kg	0.333	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.333	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.333	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.67	5.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.333	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.333	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.333	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.333	1.00
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.333	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.333	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660974

Lab Sample ID: 1205694059

Client Sample: QC for batch 2591975

Client ID: MB for batch 2591975

Batch ID: 2591977

Run Date: 04/04/2024 12:26

Prep Date: 04/04/2024 08:01

Data File: data\040424VC\CA410P.D

Client: PERM001

Method: SW846 8260D

Inst: VOAC.I

Analyst: PXY1

Aliquot: 5 g

Column: DB-624

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-038

Dilution: 1

Purge Vol: 5 mL

Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	1.00	ug/kg	0.333	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.333	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.333	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.500	1.00
107-02-8	Acrolein	U	5.00	ug/kg	1.67	5.00
107-05-1	Allyl chloride	U	5.00	ug/kg	1.67	5.00
107-13-1	Acrylonitrile	U	5.00	ug/kg	1.67	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/kg	0.333	1.00
107-12-0	Propionitrile	U	5.00	ug/kg	1.67	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/kg	1.67	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/kg	16.7	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/kg	1.67	5.00
97-63-2	Ethyl methacrylate	U	5.00	ug/kg	1.67	5.00
76-01-7	Pentachloroethane	U	5.00	ug/kg	1.67	5.00
110-57-6	trans-1,4-Dichloro-2-butene	U	5.00	ug/kg	1.67	5.00
1330-20-7	Xylenes (total)	U	3.00	ug/kg	1.00	3.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/kg	0.333	1.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.333	1.00

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA410P.D
Acq On : 04 Apr 2024 12:26
Operator : PXY1
InstName : VOAC
Sample : |1205694059|2591977|1|VOAF|1|VOA8260D_S|
Misc : GEL 5G/5ML N/A SOIL
ALS Vial : 5 Sample Multiplier: 1

04/05/2024

Quant Time: Apr 04 13:45:17 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.915	10.934	1.000	946213	50.00	ug/L	-0.02
43) Chlorobenzene-d5	117	14.341	14.354	1.000	663760	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.914	16.933	1.000	337143	50.00	ug/L	-0.02
84) B Fluorobenzene	96	10.915	10.928	1.000	945815	50.00	ug/L	-0.01
103) B Chlorobenzene-d5	117	14.341	14.348	1.000	663760	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.914	16.920	1.000	337143	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.531	10.543	0.965	312259	54.50	ug/L	-0.01
45) Toluene-d8	98	12.701	12.714	0.886	924476	53.91	ug/L	-0.01
63) Bromofluorobenzene	95	15.603	15.622	0.923	305991	52.68	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	109%
45) Toluene-d8	50.000	81 - 120	108%
63) Bromofluorobenzene	50.000	74 - 128	105%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.361	7.367	0.674	1729	N.D.		
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.721	7.739	0.707	437	N.D.		
13) Methyl acetate	43	7.788	7.794	0.713	418	N.D.		
14) Carbon disulfide	76	7.788	7.800	0.713	290	N.D.		
15) Methylene chloride	84	7.983	8.001	0.731	6479	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.672	8.690	0.794	1189	N.D.		
19) Vinyl acetate	43	8.842	8.849	0.810	124	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.531	9.525	0.873	712	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene		0.000	10.665	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA410P.D
Acq On : 04 Apr 2024 12:26
Operator : PXY1
InstName : VOAC
Sample : |1205694059|2591977|1|VOAF|1|VOA8260D_S|
Misc : GEL 5G/5ML N/A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 13:45:17 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol	56	11.013	11.019	1.009	202	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone		0.000	11.434	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.781	12.793	0.891	187	N.D.	
47) trans-1,3-Dichloroprop...	75	12.939	12.952	0.902	366	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.445	14.457	1.007	256	N.D.	
57) m,p-Xylenes	106	14.561	14.573	1.015	251	N.D.	
58) o-Xylene	91	15.012	15.037	1.047	117	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene	105	15.481	15.414	0.915	121	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	15.695	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene	91	15.841	15.866	0.937	517	N.D.	
68) 1,3,5-Trimethylbenzene	105	16.012	16.024	0.947	125	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene	91	16.115	16.128	0.953	553	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.451	16.463	0.973	372	N.D.	
73) sec-Butylbenzene	105	16.646	16.664	0.984	600	N.D.	
74) 4-Isopropyltoluene	119	16.780	16.792	0.992	720	N.D.	
75) 1,3-Dichlorobenzene	146	16.847	16.865	0.996	354	N.D.	
76) 1,4-Dichlorobenzene	146	16.938	16.957	1.001	547	N.D.	
77) n-Butylbenzene	91	17.262	17.280	1.021	1052	N.D.	
78) 1,2-Dichlorobenzene	146	17.414	17.432	1.030	415	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	19.554	19.578	1.156	1002	N.D.	
81) Hexachlorobutadiene	225	19.755	19.780	1.168	142	N.D.	
82) Naphthalene	128	19.999	20.017	1.182	3492	N.D.	
83) 1,2,3-Trichlorobenzene	180	20.377	20.401	1.205	891	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA410P.D
Acq On : 04 Apr 2024 12:26
Operator : PXY1
InstName : VOAC
Sample : |1205694059|2591977|1|VOAF|1|VOA8260D_S|
Misc : GEL 5G/5ML N/A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 13:45:17 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

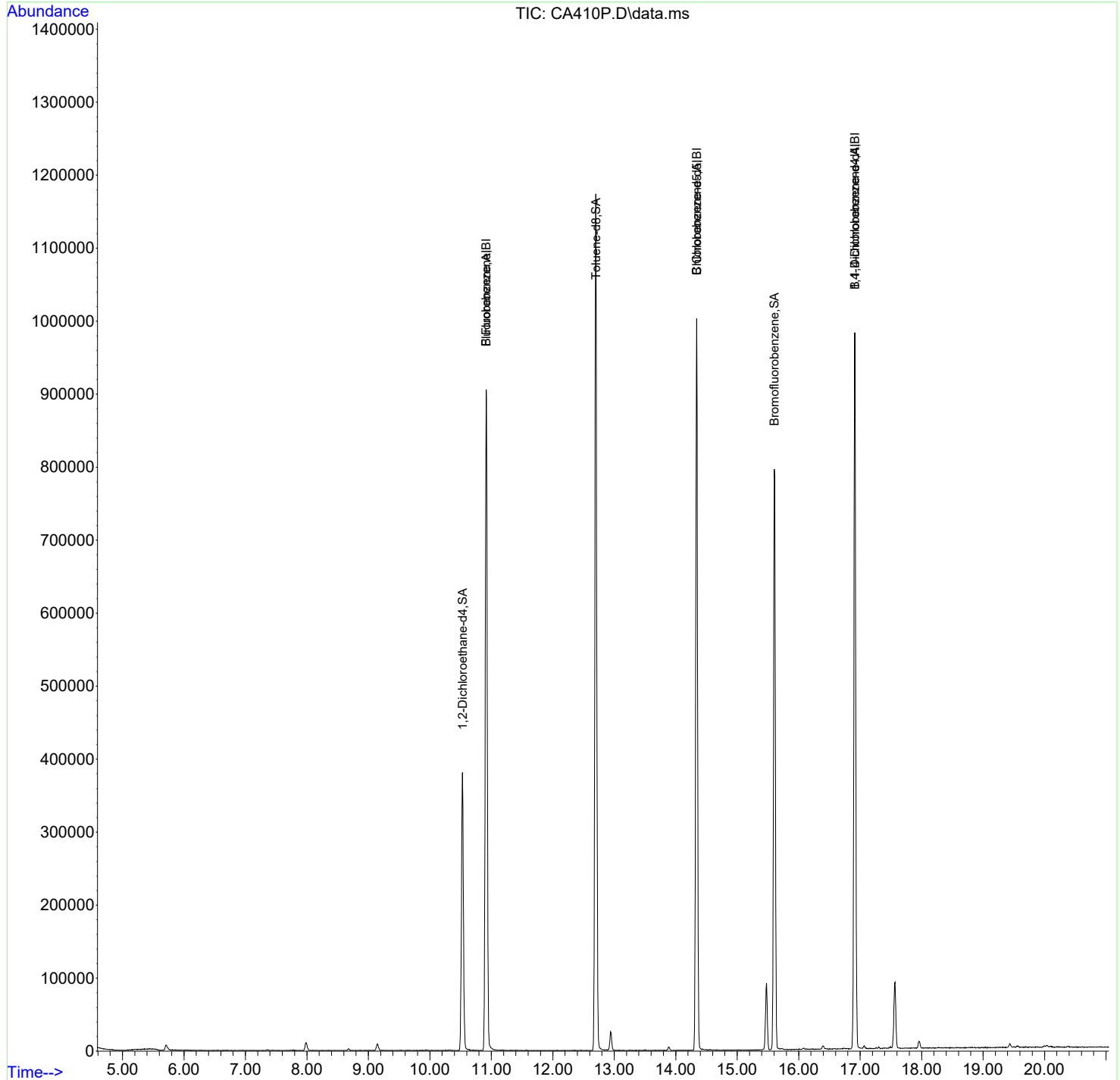
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.440	7.440	0.682	567	N.D.	
88) Allyl chloride		0.000	7.843	0.000	0	N.D.	
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	562	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.531	9.531	0.873	712	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile	41	9.787	9.794	0.897	116	N.D.	
97) Tetrahydrofuran	42	9.940	9.940	0.911	628	N.D.	
98) Isobutyl alcohol	41	10.251	10.263	0.939	112	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate	69	12.939	12.945	0.902	383	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene	53	15.427	15.439	0.912	191	N.D.	
108) Cyclohexanone	42	15.561	15.567	0.920	301	N.D.	
109) trans-1,4-Dichloro-2-b...	53	15.731	15.738	0.930	347	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride	91	17.067	17.073	1.009	4817	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.493	17.506	1.034	1771	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA410P.D
Acq On : 04 Apr 2024 12:26
Operator : PXY1
InstName : VOAC
Sample : |1205694059|2591977|1|VOAF|1|VOA8260D_S|
Misc : GEL 5G/5ML N/A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 13:45:17 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Volatile

Certificate of Analysis

Sample Summary

SDG Number: 660974

Lab Sample ID: 1205694060

Client Sample: QC for batch 2591975

Client ID: HB for batch 2591975

Batch ID: 2591977

Run Date: 04/04/2024 12:54

Prep Date: 04/04/2024 08:30

Data File: data\040424VC\CA411.D

Client: PERM001

Method: SW846 8260D

Inst: VOAC.I

Analyst: PXY1

Aliquot: 5 g

Column: DB-624

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-038

Dilution: 50

Purge Vol: 5 mL

Final Volume: 10 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	100	ug/kg	33.3	100
74-87-3	Chloromethane	U	100	ug/kg	33.3	100
75-01-4	Vinyl chloride	U	100	ug/kg	33.3	100
74-83-9	Bromomethane	U	100	ug/kg	33.3	100
75-00-3	Chloroethane	U	100	ug/kg	33.3	100
75-69-4	Trichlorofluoromethane	U	100	ug/kg	33.3	100
67-64-1	Acetone	U	500	ug/kg	167	500
75-35-4	1,1-Dichloroethylene	U	100	ug/kg	33.3	100
74-88-4	Iodomethane	U	500	ug/kg	167	500
75-05-8	Acetonitrile	U	2500	ug/kg	833	2500
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	500	ug/kg	167	500
75-15-0	Carbon disulfide	U	500	ug/kg	167	500
75-09-2	Methylene chloride	U	500	ug/kg	167	500
156-60-5	trans-1,2-Dichloroethylene	U	100	ug/kg	33.3	100
108-05-4	Vinyl acetate	U	500	ug/kg	167	500
75-34-3	1,1-Dichloroethane	U	100	ug/kg	33.3	100
78-93-3	2-Butanone	J	224	ug/kg	167	500
67-66-3	Chloroform	U	100	ug/kg	33.3	100
71-55-6	1,1,1-Trichloroethane	U	100	ug/kg	33.3	100
56-23-5	Carbon tetrachloride	U	100	ug/kg	33.3	100
107-06-2	1,2-Dichloroethane	U	100	ug/kg	33.3	100
71-43-2	Benzene	U	100	ug/kg	33.3	100
79-01-6	Trichloroethylene	U	100	ug/kg	33.3	100
78-87-5	1,2-Dichloropropane	U	100	ug/kg	33.3	100
74-95-3	Dibromomethane	U	100	ug/kg	33.3	100
75-27-4	Bromodichloromethane	U	100	ug/kg	33.3	100
10061-01-5	cis-1,3-Dichloropropylene	U	100	ug/kg	33.3	100
108-10-1	4-Methyl-2-pentanone	U	500	ug/kg	167	500
108-88-3	Toluene	U	100	ug/kg	33.3	100
10061-02-6	trans-1,3-Dichloropropylene	U	100	ug/kg	33.3	100
79-00-5	1,1,2-Trichloroethane	U	100	ug/kg	33.3	100
591-78-6	2-Hexanone	U	500	ug/kg	167	500
127-18-4	Tetrachloroethylene	U	100	ug/kg	33.3	100
124-48-1	Dibromochloromethane	U	100	ug/kg	33.3	100
106-93-4	1,2-Dibromoethane	U	100	ug/kg	33.3	100
108-90-7	Chlorobenzene	U	100	ug/kg	33.3	100
100-41-4	Ethylbenzene	U	100	ug/kg	33.3	100
100-42-5	Styrene	U	100	ug/kg	33.3	100

Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660974

Lab Sample ID: 1205694060

Client Sample: QC for batch 2591975

Client ID: HB for batch 2591975

Batch ID: 2591977

Run Date: 04/04/2024 12:54

Prep Date: 04/04/2024 08:30

Data File: data\040424VC\CA411.D

Client: PERM001

Method: SW846 8260D

Inst: VOAC.I

Analyst: PXY1

Aliquot: 5 g

Column: DB-624

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-038

Dilution: 50

Purge Vol: 5 mL

Final Volume: 10 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	100	ug/kg	33.3	100
79-34-5	1,1,2,2-Tetrachloroethane	U	100	ug/kg	33.3	100
96-18-4	1,2,3-Trichloropropane	U	100	ug/kg	33.3	100
96-12-8	1,2-Dibromo-3-chloropropane	U	100	ug/kg	50.0	100
107-02-8	Acrolein	U	500	ug/kg	167	500
107-05-1	Allyl chloride	U	500	ug/kg	167	500
107-13-1	Acrylonitrile	U	500	ug/kg	167	500
126-99-8	2-Chloro-1,3-butadiene	U	100	ug/kg	33.3	100
107-12-0	Propionitrile	U	500	ug/kg	167	500
126-98-7	Methacrylonitrile	U	500	ug/kg	167	500
78-83-1	Isobutyl alcohol	U	5000	ug/kg	1670	5000
80-62-6	Methyl methacrylate	U	500	ug/kg	167	500
97-63-2	Ethyl methacrylate	U	500	ug/kg	167	500
76-01-7	Pentachloroethane	U	500	ug/kg	167	500
110-57-6	trans-1,4-Dichloro-2-butene	U	500	ug/kg	167	500
1330-20-7	Xylenes (total)	U	300	ug/kg	100	300
120-82-1	1,2,4-Trichlorobenzene	U	100	ug/kg	33.3	100
630-20-6	1,1,1,2-Tetrachloroethane	U	100	ug/kg	33.3	100

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA411.D
Acq On : 04 Apr 2024 12:54
Operator : PXY1
InstName : VOAC
Sample : |1205694060|2591977|50|VOAF|1|VOA8260D_S|
Misc : GEL 5.0G/100UL N/A SOIL HB
ALS Vial : 6 Sample Multiplier: 1

MA
04/05/2024

Quant Time: Apr 04 13:45:30 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.915	10.934	1.000	956056	50.00	ug/L	-0.02
43) Chlorobenzene-d5	117	14.341	14.354	1.000	698713	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.914	16.933	1.000	348445	50.00	ug/L	-0.02
84) B Fluorobenzene	96	10.915	10.928	1.000	955885	50.00	ug/L	-0.01
103) B Chlorobenzene-d5	117	14.341	14.348	1.000	698511	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.914	16.920	1.000	348421	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.525	10.543	0.964	307687	53.15	ug/L	-0.02
45) Toluene-d8	98	12.695	12.714	0.885	956685	53.00	ug/L	-0.02
63) Bromofluorobenzene	95	15.603	15.622	0.923	324320	54.02	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	106%
45) Toluene-d8	50.000	81 - 120	106%
63) Bromofluorobenzene	50.000	74 - 128	108%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.355	7.367	0.674	1830	N.D.		
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.708	7.739	0.706	819	N.D.		
13) Methyl acetate	43	7.782	7.794	0.713	714	N.D.		
14) Carbon disulfide	76	7.788	7.800	0.713	177	N.D.		
15) Methylene chloride	84	7.977	8.001	0.731	8322	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.659	8.690	0.793	1459	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.513	9.525	0.872	4065	2.24	ug/L	79
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene		0.000	10.665	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA411.D
Acq On : 04 Apr 2024 12:54
Operator : PXY1
InstName : VOAC
Sample : |1205694060|2591977|50|VOAF|1|VOA8260D_S|
Misc : GEL 5.0G/100UL N/A SOIL HB
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 13:45:30 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.427	11.434	1.047	797	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.775	12.793	0.891	623	N.D.	
47) trans-1,3-Dichloroprop...	75	12.939	12.952	0.902	377	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene		0.000	14.457	0.000	0	N.D.	
57) m,p-Xylenes		0.000	14.573	0.000	0	N.D.	
58) o-Xylene		0.000	15.037	0.000	0	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene	105	15.469	15.414	0.915	248	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.603	15.695	0.923	144	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene	91	15.841	15.866	0.937	237	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene	91	16.115	16.128	0.953	382	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.445	16.463	0.972	270	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene	146	16.853	16.865	0.996	214	N.D.	
76) 1,4-Dichlorobenzene	146	16.938	16.957	1.001	321	N.D.	
77) n-Butylbenzene	91	17.249	17.280	1.020	356	N.D.	
78) 1,2-Dichlorobenzene	146	17.414	17.432	1.030	325	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	19.548	19.578	1.156	622	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.993	20.017	1.182	2325	N.D.	
83) 1,2,3-Trichlorobenzene	180	20.383	20.401	1.205	410	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA411.D
Acq On : 04 Apr 2024 12:54
Operator : PXY1
InstName : VOAC
Sample : |1205694060|2591977|50|VOAF|1|VOA8260D_S|
Misc : GEL 5.0G/100UL N/A SOIL HB
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 13:45:30 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

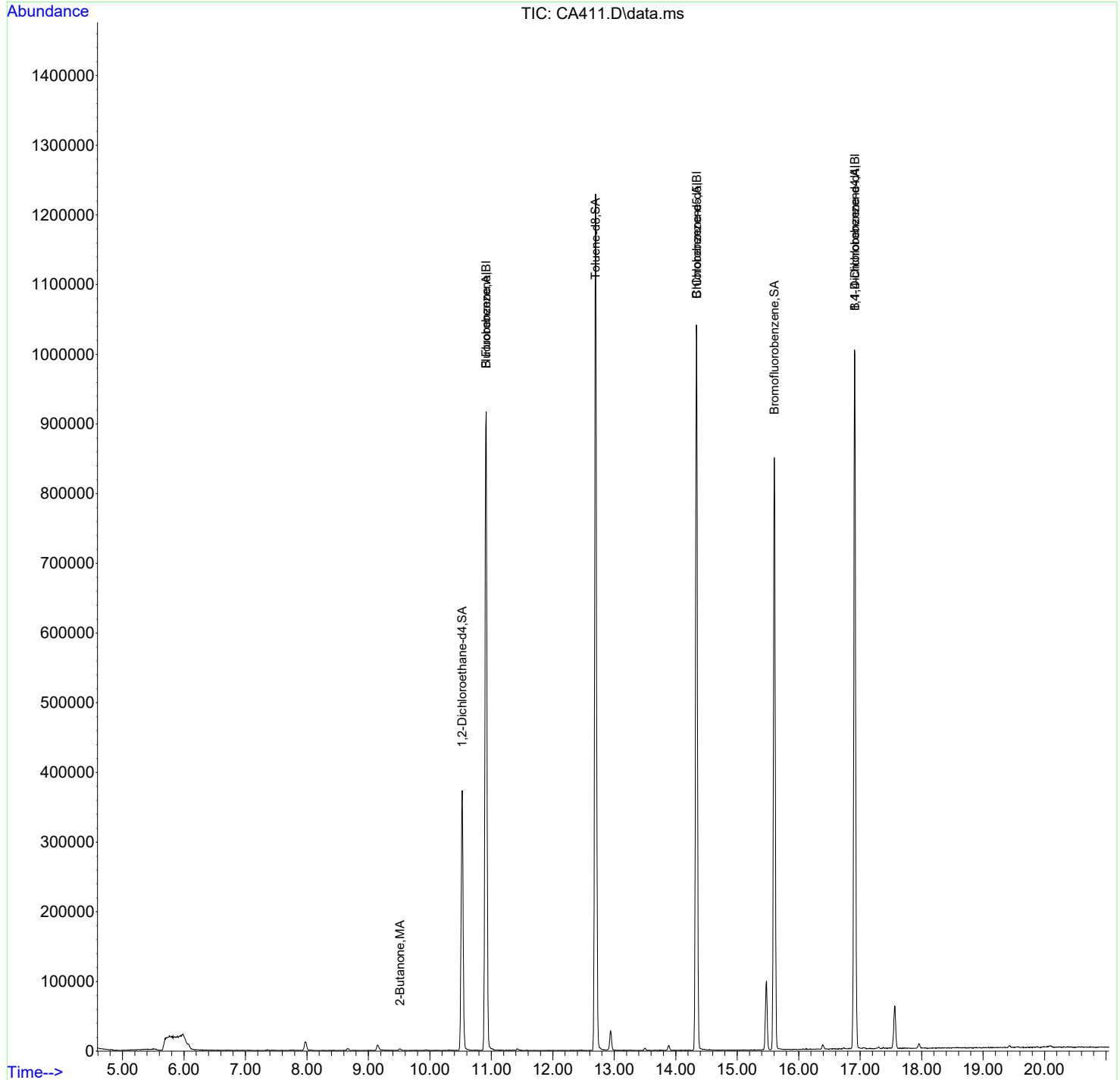
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.434	7.440	0.681	553	N.D.	
88) Allyl chloride	41	7.983	7.843	0.731	476	N.D.	
89) tert-Butyl Alcohol	59	8.068	7.983	0.739	627	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.513	9.531	0.872	4065	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.940	9.940	0.911	569	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride	91	17.066	17.073	1.009	2239	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.487	17.506	1.034	636	N.D.	

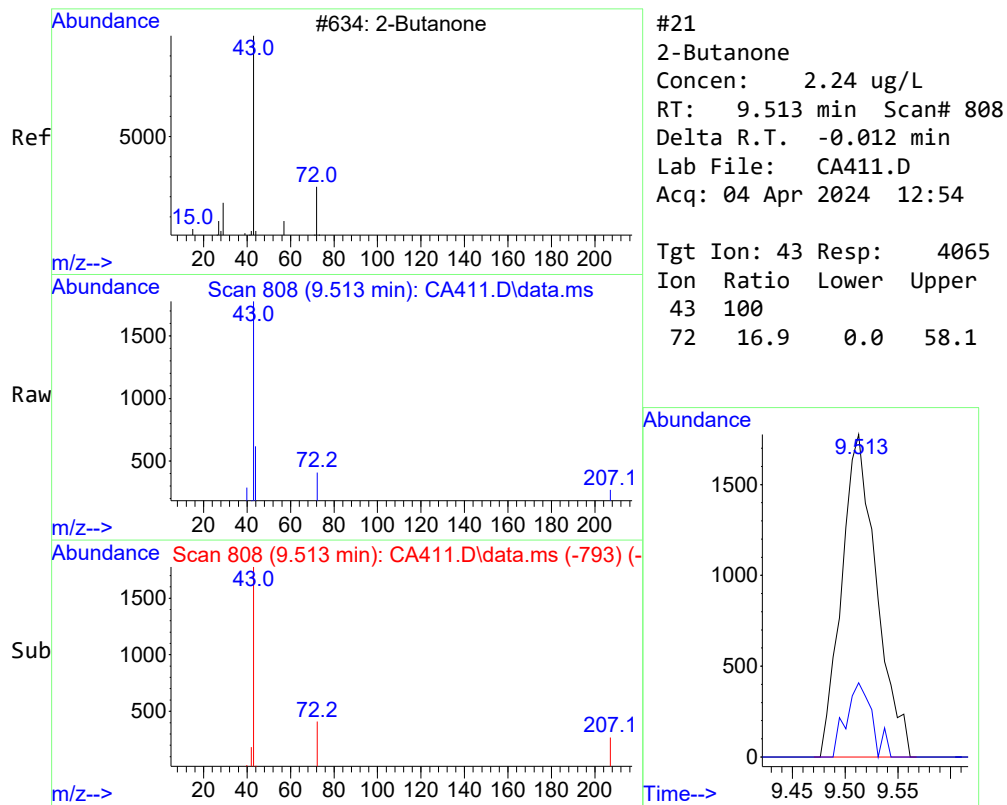
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA411.D
Acq On : 04 Apr 2024 12:54
Operator : PXY1
InstName : VOAC
Sample : |1205694060|2591977|50|VOAF|1|VOA8260D_S|
Misc : GEL 5.0G/100UL N/A SOIL HB
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 13:45:30 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Matrix:	MISC SOLID
Lab Sample ID:	1205694058		
Client Sample:	QC for batch 2591975	Client:	PERM001
Client ID:	LCS for batch 2591975	Method:	SW846 8260D
Batch ID:	2591977	Inst:	VOAC.I
Run Date:	04/04/2024 11:02	Analyst:	PXY1
Prep Date:	04/04/2024 08:00	Aliquot:	5 g
Data File:	data\040424VC\CA407P.D	Column:	DB-624
		Purge Vol:	5 mL
		Final Volume:	5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		58.6	ug/kg	0.333	1.00
74-87-3	Chloromethane		47.8	ug/kg	0.333	1.00
75-01-4	Vinyl chloride		48.8	ug/kg	0.333	1.00
74-83-9	Bromomethane		49.9	ug/kg	0.333	1.00
75-00-3	Chloroethane		54.4	ug/kg	0.333	1.00
75-69-4	Trichlorofluoromethane		55.5	ug/kg	0.333	1.00
67-64-1	Acetone		262	ug/kg	1.67	5.00
75-35-4	1,1-Dichloroethylene		59.9	ug/kg	0.333	1.00
74-88-4	Iodomethane		267	ug/kg	1.67	5.00
75-05-8	Acetonitrile		1370	ug/kg	8.33	25.0
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	5.00	ug/kg	1.67	5.00
75-15-0	Carbon disulfide		320	ug/kg	1.67	5.00
75-09-2	Methylene chloride		52.2	ug/kg	1.67	5.00
156-60-5	trans-1,2-Dichloroethylene		56.2	ug/kg	0.333	1.00
108-05-4	Vinyl acetate		267	ug/kg	1.67	5.00
75-34-3	1,1-Dichloroethane		56.5	ug/kg	0.333	1.00
78-93-3	2-Butanone		285	ug/kg	1.67	5.00
67-66-3	Chloroform		54.2	ug/kg	0.333	1.00
71-55-6	1,1,1-Trichloroethane		53.9	ug/kg	0.333	1.00
56-23-5	Carbon tetrachloride		56.0	ug/kg	0.333	1.00
107-06-2	1,2-Dichloroethane		54.3	ug/kg	0.333	1.00
71-43-2	Benzene		52.1	ug/kg	0.333	1.00
79-01-6	Trichloroethylene		52.2	ug/kg	0.333	1.00
78-87-5	1,2-Dichloropropane		54.5	ug/kg	0.333	1.00
74-95-3	Dibromomethane		52.9	ug/kg	0.333	1.00
75-27-4	Bromodichloromethane		53.8	ug/kg	0.333	1.00
10061-01-5	cis-1,3-Dichloropropylene		53.0	ug/kg	0.333	1.00
108-10-1	4-Methyl-2-pentanone		292	ug/kg	1.67	5.00
108-88-3	Toluene		55.8	ug/kg	0.333	1.00
10061-02-6	trans-1,3-Dichloropropylene		57.5	ug/kg	0.333	1.00
79-00-5	1,1,2-Trichloroethane		55.0	ug/kg	0.333	1.00
591-78-6	2-Hexanone		316	ug/kg	1.67	5.00
127-18-4	Tetrachloroethylene		52.4	ug/kg	0.333	1.00
124-48-1	Dibromochloromethane		52.4	ug/kg	0.333	1.00
106-93-4	1,2-Dibromoethane		53.8	ug/kg	0.333	1.00
108-90-7	Chlorobenzene		53.2	ug/kg	0.333	1.00
100-41-4	Ethylbenzene		55.5	ug/kg	0.333	1.00
100-42-5	Styrene		52.6	ug/kg	0.333	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660974

Lab Sample ID: 1205694058

Client Sample: QC for batch 2591975

Client ID: LCS for batch 2591975

Batch ID: 2591977

Run Date: 04/04/2024 11:02

Prep Date: 04/04/2024 08:00

Data File: data\040424VC\CA407P.D

Client: PERM001

Method: SW846 8260D

Inst: VOAC.I

Analyst: PXY1

Aliquot: 5 g

Column: DB-624

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-038

Dilution: 1

Purge Vol: 5 mL

Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform		53.3	ug/kg	0.333	1.00
79-34-5	1,1,2,2-Tetrachloroethane		58.2	ug/kg	0.333	1.00
96-18-4	1,2,3-Trichloropropane		56.0	ug/kg	0.333	1.00
96-12-8	1,2-Dibromo-3-chloropropane		50.8	ug/kg	0.500	1.00
107-02-8	Acrolein	U	5.00	ug/kg	1.67	5.00
107-05-1	Allyl chloride	U	5.00	ug/kg	1.67	5.00
107-13-1	Acrylonitrile	U	5.00	ug/kg	1.67	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/kg	0.333	1.00
107-12-0	Propionitrile	U	5.00	ug/kg	1.67	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/kg	1.67	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/kg	16.7	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/kg	1.67	5.00
97-63-2	Ethyl methacrylate	U	5.00	ug/kg	1.67	5.00
76-01-7	Pentachloroethane	U	5.00	ug/kg	1.67	5.00
110-57-6	trans-1,4-Dichloro-2-butene	U	5.00	ug/kg	1.67	5.00
1330-20-7	Xylenes (total)		161	ug/kg	1.00	3.00
120-82-1	1,2,4-Trichlorobenzene		50.5	ug/kg	0.333	1.00
630-20-6	1,1,1,2-Tetrachloroethane		51.8	ug/kg	0.333	1.00

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA407P.D
Acq On : 04 Apr 2024 11:02
Operator : PXY1
InstName : VOAC
Sample : |1205694058|2591977|1|VOAF|1|VOA8260D_S|
Misc : LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

MA

04/05/2024

Quant Time: Apr 04 11:24:21 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.921	10.934	1.000	919031	50.00	ug/L	-0.01
43) Chlorobenzene-d5	117	14.341	14.354	1.000	694448	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	362790	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.921	10.928	1.000	918625	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.341	14.348	1.000	694448	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	363127	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.965	295575	53.11	ug/L	0.00
45) Toluene-d8	98	12.702	12.714	0.886	930324	51.85	ug/L	-0.01
63) Bromofluorobenzene	95	15.610	15.622	0.923	320220	51.23	ug/L	-0.01

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	106%
45) Toluene-d8	50.000	81 - 120	104%
63) Bromofluorobenzene	50.000	74 - 128	102%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.776	4.782	0.437	298093	58.62	ug/L	100
3) Chloromethane	50	5.191	5.203	0.475	270416	47.76	ug/L	99
4) Vinyl chloride	62	5.410	5.422	0.495	284707	48.80	ug/L	100
5) Bromomethane	94	6.062	6.075	0.555	213915	49.87	ug/L	100
6) Chloroethane	64	6.191	6.197	0.567	199409	54.35	ug/L	99
7) Trichlorofluoromethane	101	6.617	6.629	0.606	398059	55.48	ug/L	99
8) Ethyl ether	59	6.965	6.971	0.638	175726	46.19	ug/L	89
9) Acetone	43	7.361	7.367	0.674	322874	262.23	ug/L	94
10) 1,1-Dichloroethylene	61	7.379	7.392	0.676	381961	59.93	ug/L	94
11) Iodomethane	142	7.641	7.654	0.700	2311607	266.98	ug/L	95
12) Acetonitrile	41	7.733	7.739	0.708	671626	1374.02	ug/L	99
13) Methyl acetate	43	7.788	7.794	0.713	794143	282.47	ug/L	97
14) Carbon disulfide	76	7.794	7.800	0.714	4100001	319.66	ug/L	100
15) Methylene chloride	84	7.989	8.001	0.731	254550	52.16	ug/L	90
16) tert-Butyl methyl ether	73	8.318	8.330	0.762	657953	49.41	ug/L	99
17) trans-1,2-Dichloroethy...	61	8.361	8.373	0.766	360533	56.15	ug/L	94
18) Hexane	57	8.684	8.690	0.795	252762	38.88	ug/L	94
19) Vinyl acetate	43	8.836	8.849	0.809	2370868	267.24	ug/L	97
20) 1,1-Dichloroethane	63	8.885	8.897	0.814	452826	56.47	ug/L	99
21) 2-Butanone	43	9.513	9.525	0.871	496310	284.74	ug/L	96
22) cis-1,2-Dichloroethylene	61	9.574	9.586	0.877	408041	54.03	ug/L	95
23) 2,2-Dichloropropane	77	9.611	9.623	0.880	319321	50.15	ug/L	90
24) Bromochloromethane	128	9.873	9.885	0.904	137068	47.81	ug/L #	86
25) Chloroform	83	9.909	9.922	0.907	455208	54.22	ug/L	99
26) 1,1,1-Trichloroethane	97	10.220	10.232	0.936	410256	53.91	ug/L	96
27) Cyclohexane	56	10.330	10.342	0.946	426480	56.11	ug/L	97
28) 1,1-Dichloropropene	75	10.391	10.403	0.951	345710	55.78	ug/L #	97
29) Carbon tetrachloride	117	10.434	10.446	0.955	381843	56.04	ug/L	99
31) 1,2-Dichloroethane	62	10.623	10.635	0.973	343653	54.26	ug/L	100
32) Benzene	78	10.653	10.665	0.975	937719	52.11	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA407P.D
Acq On : 04 Apr 2024 11:02
Operator : PXY1
InstName : VOAC
Sample : |1205694058|2591977|1|VOAF|1|VOA8260D_S|
Misc : LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 11:24:21 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene	67	10.781	10.793	0.987	468551	52.12	ug/L 96
34) n-Butyl alcohol	56	11.007	11.019	1.008	711080	5492.40	ug/L 94
35) Trichloroethylene	95	11.342	11.354	1.039	265379	52.15	ug/L 97
36) 2-Pentanone	43	11.427	11.434	1.046	610056	199.67	ug/L 95
37) 1,2-Dichloropropane	63	11.610	11.616	1.063	249909	54.52	ug/L 87
38) Methylcyclohexane	83	11.622	11.635	1.064	460310	53.99	ug/L 74
39) Dibromomethane	93	11.750	11.763	1.076	159166	52.92	ug/L 92
40) Bromodichloromethane	83	11.872	11.885	1.087	350068	53.78	ug/L 100
41) 2-Chloroethylvinyl ether	63	12.110	12.122	1.109	38700	212.27	ug/L 97
42) cis-1,3-Dichloropropylene	75	12.360	12.372	1.132	407588	52.96	ug/L 92
44) 4-Methyl-2-pentanone	58	12.458	12.470	0.869	411095	291.81	ug/L 88
46) Toluene	91	12.781	12.793	0.891	1009533	55.82	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.939	12.952	0.902	365287	57.51	ug/L 93
48) 1,1,2-Trichloroethane	83	13.177	13.189	0.919	172015	55.04	ug/L 99
49) 2-Hexanone	43	13.372	13.384	0.932	706128	315.74	ug/L 94
50) 1,3-Dichloropropane	76	13.384	13.397	0.933	344018	56.93	ug/L 94
51) Tetrachloroethylene	164	13.427	13.439	0.936	227152	52.36	ug/L 96
52) Dibromochloromethane	129	13.671	13.689	0.953	263069	52.44	ug/L 99
53) 1,2-Dibromoethane	107	13.860	13.872	0.966	216237	53.77	ug/L 100
54) Chlorobenzene	112	14.378	14.390	1.003	672311	53.22	ug/L 98
55) 1,1,1,2-Tetrachloroethane	131	14.433	14.445	1.006	264838	51.78	ug/L 100
56) Ethylbenzene	91	14.445	14.457	1.007	1122963	55.51	ug/L 94
57) m,p-Xylenes	106	14.561	14.573	1.015	874118	107.66	ug/L 96
58) o-Xylene	91	15.024	15.037	1.048	909514	53.45	ug/L 99
59) Styrene	104	15.024	15.037	1.048	700665	52.59	ug/L 96
61) Bromoform	173	15.293	15.305	0.904	169320	53.26	ug/L 93
62) Isopropylbenzene	105	15.402	15.414	0.910	1154634	59.40	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.683	15.695	0.927	257476	58.21	ug/L 100
65) 1,2,3-Trichloropropane	110	15.780	15.792	0.933	78478	55.99	ug/L 93
66) Bromobenzene	156	15.835	15.847	0.936	296416	53.53	ug/L 93
67) n-Propylbenzene	91	15.853	15.866	0.937	1343507	61.35	ug/L 98
68) 1,3,5-Trimethylbenzene	105	16.012	16.024	0.946	989213	58.26	ug/L 99
69) 2-Chlorotoluene	126	16.012	16.024	0.946	281425	57.74	ug/L 92
70) 4-Chlorotoluene	91	16.116	16.128	0.952	782045	58.52	ug/L 98
71) tert-Butylbenzene	134	16.408	16.420	0.970	220053	57.20	ug/L 96
72) 1,2,4-Trimethylbenzene	105	16.451	16.463	0.972	982723	56.49	ug/L 99
73) sec-Butylbenzene	105	16.652	16.664	0.984	1263181	59.02	ug/L 99
74) 4-Isopropyltoluene	119	16.780	16.792	0.992	1098799	57.66	ug/L 98
75) 1,3-Dichlorobenzene	146	16.853	16.865	0.996	556466	54.20	ug/L 85
76) 1,4-Dichlorobenzene	146	16.945	16.957	1.001	553348	53.75	ug/L 97
77) n-Butylbenzene	91	17.268	17.280	1.021	1003869	60.31	ug/L 98
78) 1,2-Dichlorobenzene	146	17.414	17.432	1.029	530810	52.97	ug/L 99
79) 1,2-Dibromo-3-chloropr...	157	18.371	18.383	1.086	62709	50.77	ug/L 93
80) 1,2,4-Trichlorobenzene	180	19.566	19.578	1.156	419078	50.49	ug/L 100
81) Hexachlorobutadiene	225	19.761	19.780	1.168	249126	51.68	ug/L 93
82) Naphthalene	128	19.999	20.017	1.182	867311	53.02	ug/L 99
83) 1,2,3-Trichlorobenzene	180	20.389	20.401	1.205	385038	50.03	ug/L 96
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		7.343	7.355	0.672	0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA407P.D
Acq On : 04 Apr 2024 11:02
Operator : PXY1
InstName : VOAC
Sample : |1205694058|2591977|1|VOAF|1|VOA8260D_S|
Misc : LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 11:24:21 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

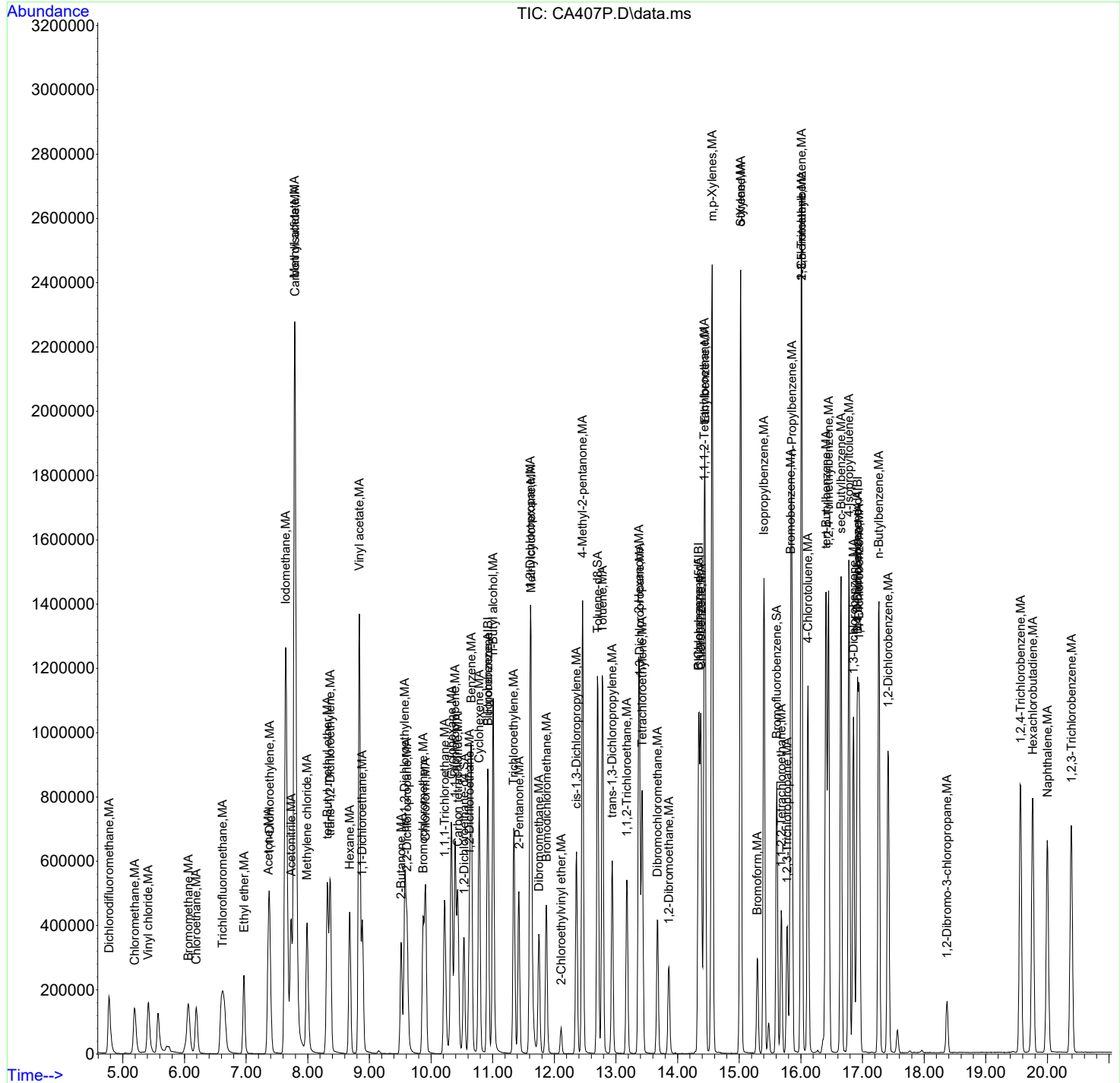
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol		7.398	7.440	0.677	0m	N.D.	d
88) Allyl chloride		0.000	7.843	0.000	0	N.D.	
89) tert-Butyl Alcohol		7.983	7.983	0.731	0m	N.D.	d
90) Acrylonitrile		8.318	8.257	0.762	0m	N.D.	d
91) Isopropyl ether		8.836	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate		9.513	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.513	9.592	0.871	0m	N.D.	d
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran		9.909	9.940	0.907	0m	N.D.	d
98) Isobutyl alcohol		10.330	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.647	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.622	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.750	11.696	1.076	0m	N.D.	d
102) 2-Nitropropane		12.110	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.232	14.238	0.841	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.402	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.475	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.573	17.506	1.039	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA407P.D
Acq On : 04 Apr 2024 11:02
Operator : PXY1
InstName : VOAC
Sample : |1205694058|2591977|1|VOAF|1|VOA8260D_S|
Misc : LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 11:24:21 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	1205694061	Date Received:	04/02/2024 08:50		
Client Sample:	QC for batch 2591975	Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.EPAPS	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 18:56	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:31	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040424VC\CA424.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		4970	ug/kg	29.7	89.3
74-87-3	Chloromethane		4060	ug/kg	29.7	89.3
75-01-4	Vinyl chloride		4070	ug/kg	29.7	89.3
74-83-9	Bromomethane		5300	ug/kg	29.7	89.3
75-00-3	Chloroethane		4540	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane		4540	ug/kg	29.7	89.3
67-64-1	Acetone		22100	ug/kg	149	446
75-35-4	1,1-Dichloroethylene		5100	ug/kg	29.7	89.3
74-88-4	Iodomethane		22500	ug/kg	149	446
75-05-8	Acetonitrile		118000	ug/kg	744	2230
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-15-0	Carbon disulfide		26800	ug/kg	149	446
75-09-2	Methylene chloride		4450	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene		4870	ug/kg	29.7	89.3
108-05-4	Vinyl acetate		21900	ug/kg	149	446
75-34-3	1,1-Dichloroethane		4970	ug/kg	29.7	89.3
78-93-3	2-Butanone	B	25800	ug/kg	149	446
67-66-3	Chloroform		4760	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane		4560	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride		4620	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane		4800	ug/kg	29.7	89.3
71-43-2	Benzene		4430	ug/kg	29.7	89.3
79-01-6	Trichloroethylene		4330	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane		4660	ug/kg	29.7	89.3
74-95-3	Dibromomethane		4530	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane		4580	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene		4400	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone		25900	ug/kg	149	446
108-88-3	Toluene		4680	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene		4940	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane		4800	ug/kg	29.7	89.3
591-78-6	2-Hexanone		26900	ug/kg	149	446
127-18-4	Tetrachloroethylene		4090	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane		4480	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane		4630	ug/kg	29.7	89.3
108-90-7	Chlorobenzene		4320	ug/kg	29.7	89.3
100-41-4	Ethylbenzene		4360	ug/kg	29.7	89.3
100-42-5	Styrene		4140	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	1205694061	Date Received:	04/02/2024 08:50		
Client Sample:	QC for batch 2591975	Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.EPAPS	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 18:56	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:31	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040424VC\CA424.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform		4420	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane		5140	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane		4910	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane		4230	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)		12700	ug/kg	89.3	268
120-82-1	1,2,4-Trichlorobenzene		3830	ug/kg	29.7	89.3
630-20-6	1,1,1,2-Tetrachloroethane		4440	ug/kg	29.7	89.3

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA424.D
Acq On : 04 Apr 2024 18:56
Operator : PXY1
InstName : VOAC
Sample : |1205694061|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL MIX[A] 660968001PS
ALS Vial : 19 Sample Multiplier: 1

MA

04/05/2024

Quant Time: Apr 05 09:45:28 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.897	10.934	1.000	947977	50.00	ug/L	-0.04
43) Chlorobenzene-d5	117	14.323	14.354	1.000	684649	50.00	ug/L	-0.03
60) 1,4-Dichlorobenzene-d4	152	16.896	16.933	1.000	350870	50.00	ug/L	-0.04
84) B Fluorobenzene	96	10.897	10.928	1.000	947885	50.00	ug/L	-0.03
103) B Chlorobenzene-d5	117	14.323	14.348	1.000	684670	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.896	16.920	1.000	350870	50.00	ug/L	-0.02

System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.507	10.543	0.964	313094	54.54	ug/L	-0.04
45) Toluene-d8	98	12.683	12.714	0.886	962001	54.39	ug/L	-0.03
63) Bromofluorobenzene	95	15.591	15.622	0.923	328453	54.33	ug/L	-0.03

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	109%
45) Toluene-d8	50.000	81 - 120	109%
63) Bromofluorobenzene	50.000	74 - 128	109%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.752	4.782	0.436	291953	55.66	ug/L	100
3) Chloromethane	50	5.166	5.203	0.474	265432	45.45	ug/L	99
4) Vinyl chloride	62	5.392	5.422	0.495	274555	45.63	ug/L	99
5) Bromomethane	94	6.014	6.075	0.552	262603	59.35	ug/L #	3
6) Chloroethane	64	6.142	6.197	0.564	192565	50.89	ug/L	99
7) Trichlorofluoromethane	101	6.587	6.629	0.604	376705	50.90	ug/L	100
8) Ethyl ether	59	6.940	6.971	0.637	177562	45.25	ug/L	88
9) Acetone	43	7.337	7.367	0.673	314475	247.61	ug/L	95
10) 1,1-Dichloroethylene	61	7.349	7.392	0.674	375318	57.09	ug/L	93
11) Iodomethane	142	7.611	7.654	0.698	2254922	252.48	ug/L	94
12) Acetonitrile	41	7.708	7.739	0.707	664007	1316.95	ug/L	99
13) Methyl acetate	43	7.763	7.794	0.712	837653	288.84	ug/L	96
14) Carbon disulfide	76	7.763	7.800	0.712	3974233	300.39	ug/L	100
15) Methylene chloride	84	7.958	8.001	0.730	251102	49.84	ug/L	89
16) tert-Butyl methyl ether	73	8.294	8.330	0.761	688936	50.16	ug/L	98
17) trans-1,2-Dichloroethy...	61	8.336	8.373	0.765	361287	54.55	ug/L	92
18) Hexane	57	8.653	8.690	0.794	245879	36.67	ug/L	93
19) Vinyl acetate	43	8.812	8.849	0.809	2245557	245.39	ug/L	96
20) 1,1-Dichloroethane	63	8.861	8.897	0.813	460294	55.65	ug/L	99
21) 2-Butanone	43	9.489	9.525	0.871	520158	289.31	ug/L	95
22) cis-1,2-Dichloroethylene	61	9.550	9.586	0.876	417145	53.54	ug/L	93
23) 2,2-Dichloropropane	77	9.586	9.623	0.880	345983	52.67	ug/L	85
24) Bromochloromethane	128	9.848	9.885	0.904	137920	46.63	ug/L #	83
25) Chloroform	83	9.885	9.922	0.907	461793	53.33	ug/L	100
26) 1,1,1-Trichloroethane	97	10.196	10.232	0.936	401318	51.12	ug/L	96
27) Cyclohexane	56	10.306	10.342	0.946	419257	53.48	ug/L	96
28) 1,1-Dichloropropene	75	10.367	10.403	0.951	332229	51.97	ug/L #	96
29) Carbon tetrachloride	117	10.409	10.446	0.955	363282	51.69	ug/L	100
31) 1,2-Dichloroethane	62	10.598	10.635	0.973	351241	53.77	ug/L	100
32) Benzene	78	10.629	10.665	0.975	920516	49.60	ug/L	96

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA424.D
Acq On : 04 Apr 2024 18:56
Operator : PXY1
InstName : VOAC
Sample : |1205694061|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL MIX[A] 660968001PS
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 05 09:45:28 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
33) Cyclohexene	67	10.757	10.793	0.987	450261	48.56	ug/L	95
34) n-Butyl alcohol	56	10.988	11.019	1.008	656083	4912.86	ug/L	93
35) Trichloroethylene	95	11.318	11.354	1.039	254565	48.50	ug/L	96
36) 2-Pentanone	43	11.403	11.434	1.046	605130	192.01	ug/L	94
37) 1,2-Dichloropropane	63	11.586	11.616	1.063	246700	52.17	ug/L	87
38) Methylcyclohexane	83	11.598	11.635	1.064	439313	49.95	ug/L	72
39) Dibromomethane	93	11.726	11.763	1.076	157407	50.74	ug/L	90
40) Bromodichloromethane	83	11.848	11.885	1.087	344114	51.25	ug/L	99
41) 2-Chloroethylvinyl ether	63	12.086	12.122	1.109	61185	325.36	ug/L	97
42) cis-1,3-Dichloropropylene	75	12.336	12.372	1.132	391043	49.26	ug/L	91
44) 4-Methyl-2-pentanone	58	12.439	12.470	0.868	403548	290.55	ug/L	86
46) Toluene	91	12.762	12.793	0.891	934049	52.38	ug/L #	100
47) trans-1,3-Dichloroprop...	75	12.921	12.952	0.902	346504	55.33	ug/L	92
48) 1,1,2-Trichloroethane	83	13.159	13.189	0.919	165700	53.78	ug/L	98
49) 2-Hexanone	43	13.348	13.384	0.932	663372	300.87	ug/L	94
50) 1,3-Dichloropropane	76	13.366	13.397	0.933	331985	55.73	ug/L	93
51) Tetrachloroethylene	164	13.403	13.439	0.936	195846	45.79	ug/L	95
52) Dibromochloromethane	129	13.653	13.689	0.953	248268	50.19	ug/L	100
53) 1,2-Dibromoethane	107	13.835	13.872	0.966	205552	51.84	ug/L	99
54) Chlorobenzene	112	14.360	14.390	1.003	601847	48.33	ug/L	96
55) 1,1,1,2-Tetrachloroethane	131	14.415	14.445	1.006	250668	49.71	ug/L	99
56) Ethylbenzene	91	14.427	14.457	1.007	974655	48.87	ug/L	94
57) m,p-Xylenes	106	14.543	14.573	1.015	747385	93.37	ug/L	95
58) o-Xylene	91	15.006	15.037	1.048	819092	48.82	ug/L	98
59) Styrene	104	15.006	15.037	1.048	609769	46.42	ug/L	93
61) Bromoform	173	15.274	15.305	0.904	152288	49.53	ug/L	93
62) Isopropylbenzene	105	15.384	15.414	0.911	985938	52.45	ug/L	99
64) 1,1,2,2-Tetrachloroethane	83	15.664	15.695	0.927	246508	57.62	ug/L	99
65) 1,2,3-Trichloropropane	110	15.756	15.792	0.933	74605	55.04	ug/L	94
66) Bromobenzene	156	15.817	15.847	0.936	259592	48.48	ug/L	92
67) n-Propylbenzene	91	15.835	15.866	0.937	1086280	51.29	ug/L	99
68) 1,3,5-Trimethylbenzene	105	15.994	16.024	0.947	827560	50.40	ug/L	99
69) 2-Chlorotoluene	126	15.994	16.024	0.947	237041	50.29	ug/L	91
70) 4-Chlorotoluene	91	16.097	16.128	0.953	620030	47.97	ug/L	97
71) tert-Butylbenzene	134	16.390	16.420	0.970	187105	50.29	ug/L	96
72) 1,2,4-Trimethylbenzene	105	16.432	16.463	0.973	820537	48.77	ug/L	99
73) sec-Butylbenzene	105	16.634	16.664	0.984	1034295	49.97	ug/L	99
74) 4-Isopropyltoluene	119	16.762	16.792	0.992	882829	47.90	ug/L	99
75) 1,3-Dichlorobenzene	146	16.835	16.865	0.996	455841	45.91	ug/L	85
76) 1,4-Dichlorobenzene	146	16.926	16.957	1.002	462056	46.41	ug/L	97
77) n-Butylbenzene	91	17.249	17.280	1.021	764476	47.49	ug/L	97
78) 1,2-Dichlorobenzene	146	17.396	17.432	1.030	475923	49.11	ug/L	99
79) 1,2-Dibromo-3-chloropr...	157	18.353	18.383	1.086	56603	47.38	ug/L	91
80) 1,2,4-Trichlorobenzene	180	19.542	19.578	1.157	344205	42.88	ug/L	99
81) Hexachlorobutadiene	225	19.737	19.780	1.168	185800	39.85	ug/L	93
82) Naphthalene	128	19.975	20.017	1.182	792041	50.07	ug/L	100
83) 1,2,3-Trichlorobenzene	180	20.365	20.401	1.205	329544	44.28	ug/L	96
85) Acrolein		0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA424.D
Acq On : 04 Apr 2024 18:56
Operator : PXY1
InstName : VOAC
Sample : |1205694061|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL MIX[A] 660968001PS
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 05 09:45:28 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

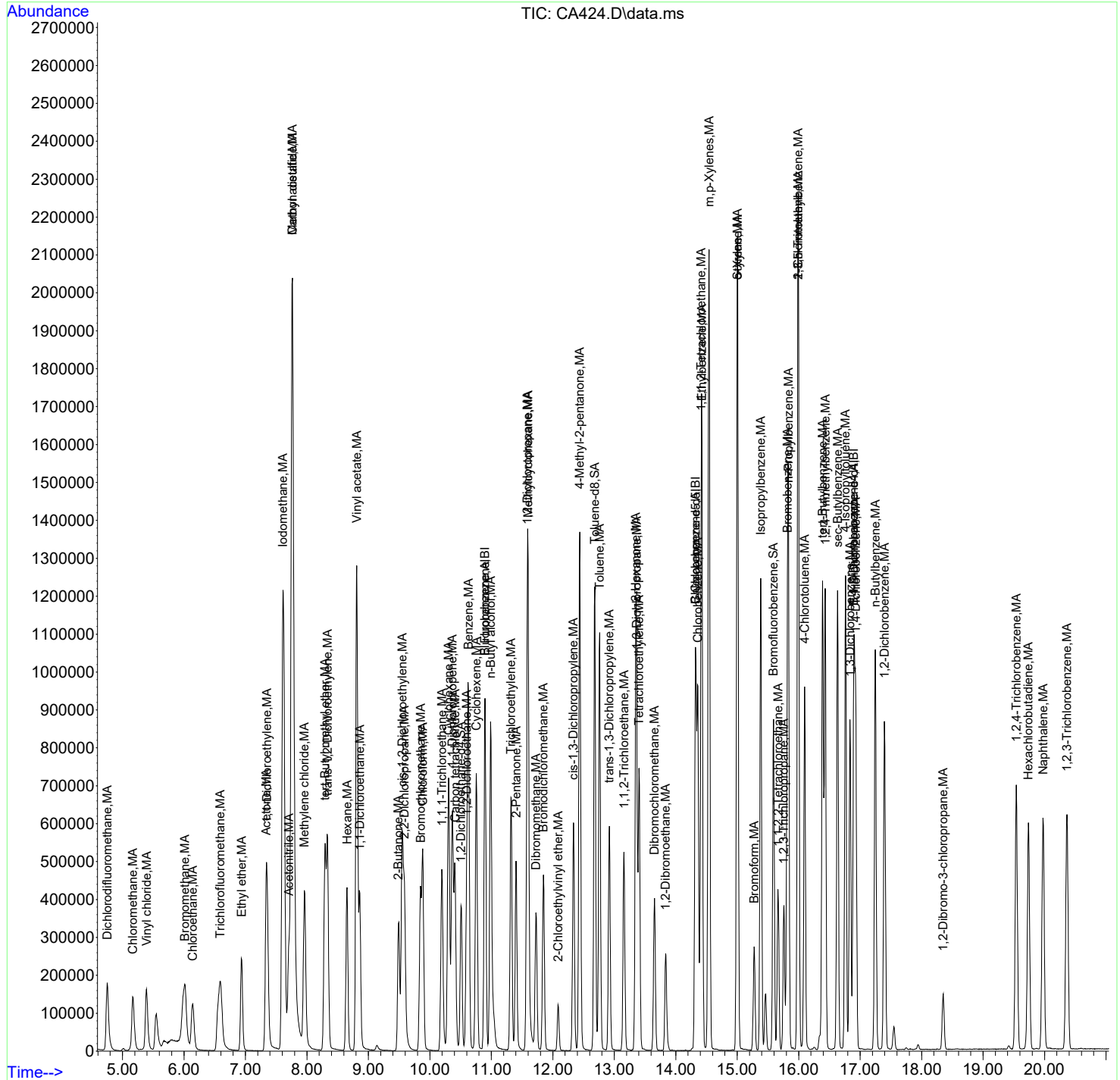
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol		7.373	7.440	0.677	0m	N.D.	d
88) Allyl chloride		0.000	7.843	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	7.983	0.000	0	N.D.	
90) Acrylonitrile		8.294	8.257	0.761	0m	N.D.	d
91) Isopropyl ether		8.806	8.873	0.808	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate		9.489	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.495	9.592	0.871	0m	N.D.	d
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran		9.873	9.940	0.906	0m	N.D.	d
98) Isobutyl alcohol		10.306	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.629	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.598	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.726	11.696	1.076	0m	N.D.	d
102) 2-Nitropropane		12.086	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.268	14.238	0.844	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.384	15.439	0.911	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.469	16.487	0.975	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.548	17.506	1.039	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA424.D
Acq On : 04 Apr 2024 18:56
Operator : PXY1
InstName : VOAC
Sample : |1205694061|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL MIX[A] 660968001PS
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 05 09:45:28 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics
SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	1205694062	Date Received:	04/02/2024 08:50		
Client Sample:	QC for batch 2591975	Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.EPAPSD	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 19:24	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:31	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040424VC\CA425.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		4950	ug/kg	29.7	89.3
74-87-3	Chloromethane		4030	ug/kg	29.7	89.3
75-01-4	Vinyl chloride		4050	ug/kg	29.7	89.3
74-83-9	Bromomethane		5200	ug/kg	29.7	89.3
75-00-3	Chloroethane		4490	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane		4540	ug/kg	29.7	89.3
67-64-1	Acetone		22200	ug/kg	149	446
75-35-4	1,1-Dichloroethylene		5100	ug/kg	29.7	89.3
74-88-4	Iodomethane		22700	ug/kg	149	446
75-05-8	Acetonitrile		117000	ug/kg	744	2230
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-15-0	Carbon disulfide		26700	ug/kg	149	446
75-09-2	Methylene chloride		4450	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene		4900	ug/kg	29.7	89.3
108-05-4	Vinyl acetate		21800	ug/kg	149	446
75-34-3	1,1-Dichloroethane		4980	ug/kg	29.7	89.3
78-93-3	2-Butanone	B	25500	ug/kg	149	446
67-66-3	Chloroform		4810	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane		4600	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride		4610	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane		4820	ug/kg	29.7	89.3
71-43-2	Benzene		4480	ug/kg	29.7	89.3
79-01-6	Trichloroethylene		4370	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane		4720	ug/kg	29.7	89.3
74-95-3	Dibromomethane		4540	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane		4640	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene		4480	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone		25700	ug/kg	149	446
108-88-3	Toluene		4720	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene		4920	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane		4790	ug/kg	29.7	89.3
591-78-6	2-Hexanone		26800	ug/kg	149	446
127-18-4	Tetrachloroethylene		4140	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane		4490	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane		4650	ug/kg	29.7	89.3
108-90-7	Chlorobenzene		4380	ug/kg	29.7	89.3
100-41-4	Ethylbenzene		4430	ug/kg	29.7	89.3
100-42-5	Styrene		4260	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	1205694062	Date Received:	04/02/2024 08:50		
Client Sample:	QC for batch 2591975	Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.EPAPSD	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 19:24	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:31	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040424VC\CA425.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform		4490	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane		5150	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane		4960	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane		4300	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)		12900	ug/kg	89.3	268
120-82-1	1,2,4-Trichlorobenzene		3960	ug/kg	29.7	89.3
630-20-6	1,1,1,2-Tetrachloroethane		4450	ug/kg	29.7	89.3

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA425.D
Acq On : 04 Apr 2024 19:24
Operator : PXY1
InstName : VOAC
Sample : |1205694062|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL MIX[A] 660968001PSD
ALS Vial : 20 Sample Multiplier: 1

MA

04/05/2024

Quant Time: Apr 05 09:45:44 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.897	10.934	1.000	946992	50.00	ug/L	-0.04
43) Chlorobenzene-d5	117	14.323	14.354	1.000	693459	50.00	ug/L	-0.03
60) 1,4-Dichlorobenzene-d4	152	16.896	16.933	1.000	352764	50.00	ug/L	-0.04
84) B Fluorobenzene	96	10.897	10.928	1.000	946873	50.00	ug/L	-0.03
103) B Chlorobenzene-d5	117	14.323	14.348	1.000	693459	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.896	16.920	1.000	352849	50.00	ug/L	-0.02

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.507	10.543	0.964	311783	54.37	ug/L	-0.04
45) Toluene-d8	98	12.683	12.714	0.886	965667	53.90	ug/L	-0.03
63) Bromofluorobenzene	95	15.591	15.622	0.923	331523	54.55	ug/L	-0.03

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	109%
45) Toluene-d8	50.000	81 - 120	108%
63) Bromofluorobenzene	50.000	74 - 128	109%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.752	4.782	0.436	290619	55.47	ug/L	99
3) Chloromethane	50	5.166	5.203	0.474	263046	45.09	ug/L	99
4) Vinyl chloride	62	5.386	5.422	0.494	272885	45.39	ug/L	100
5) Bromomethane	94	6.020	6.075	0.552	257316	58.22	ug/L #	3
6) Chloroethane	64	6.142	6.197	0.564	190031	50.27	ug/L	99
7) Trichlorofluoromethane	101	6.587	6.629	0.604	375827	50.83	ug/L	100
8) Ethyl ether	59	6.934	6.971	0.636	182332	46.51	ug/L	90
9) Acetone	43	7.337	7.367	0.673	315316	248.53	ug/L	94
10) 1,1-Dichloroethylene	61	7.349	7.392	0.674	374947	57.09	ug/L	94
11) Iodomethane	142	7.611	7.654	0.698	2263514	253.71	ug/L	94
12) Acetonitrile	41	7.709	7.739	0.707	661394	1313.14	ug/L	100
13) Methyl acetate	43	7.757	7.794	0.712	830750	286.76	ug/L	96
14) Carbon disulfide	76	7.757	7.800	0.712	3958972	299.55	ug/L	100
15) Methylene chloride	84	7.959	8.001	0.730	251112	49.89	ug/L	90
16) tert-Butyl methyl ether	73	8.294	8.330	0.761	685447	49.96	ug/L	99
17) trans-1,2-Dichloroethy...	61	8.337	8.373	0.765	363095	54.88	ug/L	92
18) Hexane	57	8.647	8.690	0.794	244370	36.48	ug/L	93
19) Vinyl acetate	43	8.806	8.849	0.808	2233328	244.31	ug/L	96
20) 1,1-Dichloroethane	63	8.855	8.897	0.813	460930	55.79	ug/L	99
21) 2-Butanone	43	9.489	9.525	0.871	512946	285.60	ug/L	95
22) cis-1,2-Dichloroethylene	61	9.550	9.586	0.876	420174	53.99	ug/L	93
23) 2,2-Dichloropropane	77	9.586	9.623	0.880	349625	53.28	ug/L	87
24) Bromochloromethane	128	9.848	9.885	0.904	138462	46.87	ug/L #	84
25) Chloroform	83	9.885	9.922	0.907	465528	53.82	ug/L	100
26) 1,1,1-Trichloroethane	97	10.196	10.232	0.936	404111	51.53	ug/L	96
27) Cyclohexane	56	10.306	10.342	0.946	415640	53.07	ug/L	97
28) 1,1-Dichloropropene	75	10.367	10.403	0.951	333797	52.27	ug/L #	96
29) Carbon tetrachloride	117	10.409	10.446	0.955	362306	51.60	ug/L	99
31) 1,2-Dichloroethane	62	10.598	10.635	0.973	352509	54.02	ug/L	99
32) Benzene	78	10.629	10.665	0.975	930118	50.16	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA425.D
Acq On : 04 Apr 2024 19:24
Operator : PXY1
InstName : VOAC
Sample : |1205694062|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL MIX[A] 660968001PSD
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 05 09:45:44 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
33) Cyclohexene	67	10.757	10.793	0.987	454099	49.03	ug/L	95
34) n-Butyl alcohol	56	10.988	11.019	1.008	660157	4948.51	ug/L	94
35) Trichloroethylene	95	11.318	11.354	1.039	256879	48.99	ug/L	96
36) 2-Pentanone	43	11.403	11.434	1.046	598702	190.17	ug/L	95
37) 1,2-Dichloropropane	63	11.586	11.616	1.063	249659	52.85	ug/L	88
38) Methylcyclohexane	83	11.598	11.635	1.064	440201	50.10	ug/L	72
39) Dibromomethane	93	11.726	11.763	1.076	157569	50.85	ug/L	91
40) Bromodichloromethane	83	11.848	11.885	1.087	348373	51.94	ug/L	99
41) 2-Chloroethylvinyl ether	63	12.086	12.122	1.109	54499	290.11	ug/L	97
42) cis-1,3-Dichloropropylene	75	12.336	12.372	1.132	397437	50.12	ug/L	92
44) 4-Methyl-2-pentanone	58	12.439	12.470	0.868	405103	287.96	ug/L	86
46) Toluene	91	12.763	12.793	0.891	954121	52.83	ug/L #	100
47) trans-1,3-Dichloroprop...	75	12.921	12.952	0.902	349313	55.07	ug/L	92
48) 1,1,2-Trichloroethane	83	13.159	13.189	0.919	167544	53.69	ug/L	98
49) 2-Hexanone	43	13.348	13.384	0.932	671372	300.63	ug/L	93
50) 1,3-Dichloropropane	76	13.366	13.397	0.933	334033	55.36	ug/L	94
51) Tetrachloroethylene	164	13.403	13.439	0.936	200851	46.36	ug/L	95
52) Dibromochloromethane	129	13.653	13.689	0.953	252074	50.32	ug/L	100
53) 1,2-Dibromoethane	107	13.836	13.872	0.966	209076	52.06	ug/L	100
54) Chlorobenzene	112	14.360	14.390	1.003	618919	49.07	ug/L	97
55) 1,1,1,2-Tetrachloroethane	131	14.415	14.445	1.006	254330	49.80	ug/L	99
56) Ethylbenzene	91	14.427	14.457	1.007	1003440	49.67	ug/L	94
57) m,p-Xylenes	106	14.543	14.573	1.015	768599	94.80	ug/L	94
58) o-Xylene	91	15.000	15.037	1.047	840047	49.44	ug/L	99
59) Styrene	104	15.006	15.037	1.048	634352	47.68	ug/L	95
61) Bromoform	173	15.274	15.305	0.904	155320	50.25	ug/L	93
62) Isopropylbenzene	105	15.384	15.414	0.911	1021380	54.04	ug/L	99
64) 1,1,2,2-Tetrachloroethane	83	15.664	15.695	0.927	248091	57.68	ug/L	99
65) 1,2,3-Trichloropropane	110	15.762	15.792	0.933	75635	55.50	ug/L	92
66) Bromobenzene	156	15.817	15.847	0.936	268356	49.84	ug/L	92
67) n-Propylbenzene	91	15.835	15.866	0.937	1137502	53.42	ug/L	98
68) 1,3,5-Trimethylbenzene	105	15.994	16.024	0.947	865823	52.44	ug/L	99
69) 2-Chlorotoluene	126	15.994	16.024	0.947	245431	51.79	ug/L	91
70) 4-Chlorotoluene	91	16.097	16.128	0.953	639655	49.23	ug/L	97
71) tert-Butylbenzene	134	16.390	16.420	0.970	195899	52.37	ug/L	95
72) 1,2,4-Trimethylbenzene	105	16.433	16.463	0.973	859074	50.78	ug/L	99
73) sec-Butylbenzene	105	16.634	16.664	0.984	1088644	52.31	ug/L	99
74) 4-Isopropyltoluene	119	16.762	16.792	0.992	929417	50.16	ug/L	98
75) 1,3-Dichlorobenzene	146	16.835	16.865	0.996	479320	48.01	ug/L	85
76) 1,4-Dichlorobenzene	146	16.926	16.957	1.002	476342	47.59	ug/L	96
77) n-Butylbenzene	91	17.243	17.280	1.021	811821	50.16	ug/L	98
78) 1,2-Dichlorobenzene	146	17.396	17.432	1.030	495990	50.90	ug/L	98
79) 1,2-Dibromo-3-chloropr...	157	18.353	18.383	1.086	57798	48.13	ug/L	92
80) 1,2,4-Trichlorobenzene	180	19.542	19.578	1.157	358176	44.38	ug/L	100
81) Hexachlorobutadiene	225	19.743	19.780	1.169	199670	42.59	ug/L	92
82) Naphthalene	128	19.975	20.017	1.182	835459	52.53	ug/L	100
83) 1,2,3-Trichlorobenzene	180	20.365	20.401	1.205	347548	46.44	ug/L	96
85) Acrolein		0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA425.D
Acq On : 04 Apr 2024 19:24
Operator : PXY1
InstName : VOAC
Sample : |1205694062|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL MIX[A] 660968001PSD
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 05 09:45:44 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

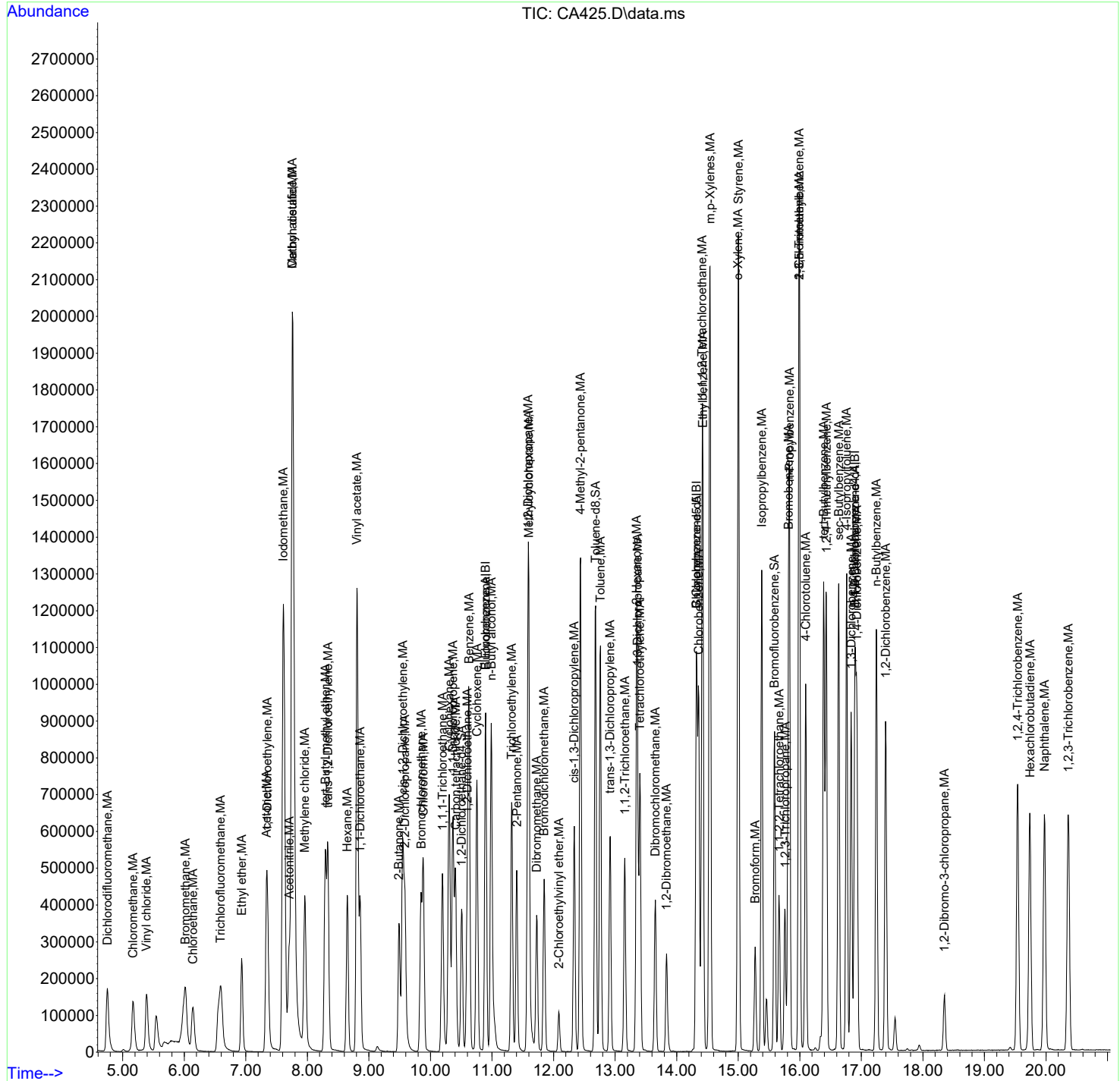
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol		7.361	7.440	0.676	0m	N.D.	d
88) Allyl chloride		0.000	7.843	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	7.983	0.000	0	N.D.	
90) Acrylonitrile		8.288	8.257	0.761	0m	N.D.	d
91) Isopropyl ether		8.812	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate		9.489	9.531	0.871	0m	N.D.	d
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran		9.897	9.940	0.908	0m	N.D.	d
98) Isobutyl alcohol		10.306	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.623	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.598	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.726	11.696	1.076	0m	N.D.	d
102) 2-Nitropropane		12.086	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		15.384	15.439	0.911	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.463	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.548	17.506	1.039	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA425.D
Acq On : 04 Apr 2024 19:24
Operator : PX1
InstName : VOAC
Sample : |1205694062|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL MIX[A] 660968001PSD
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 05 09:45:44 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Miscellaneous

Prep Logbook

Closed-System Purge-and-Trap Collection and Extraction: Volatile Organics in Soil and Waste Samples

Batch ID: 2591975
 Analyst: Patrick Yib
 Method: SW846 5035

Verified by: _____

Lab SOP: GL-OA-E-039 REV# 13
 Instrument: VOAB-003 OH AUS Balance

Sample ID	Prep Date	Sample Wt (g)	Preservative Volume (mL)	Final Volume (mL)	Prep Factor (mL/g)	Scanned Container
1205694058 LCS	04-APR-2024 08:00:00	5	DI WATER	5	1	NA
1205694059 MB	04-APR-2024 08:01:00	5	DI WATER	5	1	NA
1205694060 HB	04-APR-2024 08:30:00	5	METHANO	10	2	NA
660968001	04-APR-2024 08:31:00	5.6	METHANO	10	1.78571	660968001.01.01
1205694061 PS (660968001)	04-APR-2024 08:31:00	5.6	METHANO	10	1.78571	NA
1205694062 PSD (660968001)	04-APR-2024 08:31:00	5.6	METHANO	10	1.78571	NA
660968002	04-APR-2024 08:32:00	5.5	METHANO	10	1.81818	660968002.01.01
660968003	04-APR-2024 08:33:00	5.9	METHANO	10	1.69492	660968003.01.01
660968004	04-APR-2024 08:34:00	5.8	METHANO	10	1.72414	660968004.01.01
660968005	04-APR-2024 08:35:00	5.8	METHANO	10	1.72414	660968005.01.01
660968006	04-APR-2024 08:36:00	5.9	METHANO	10	1.69492	660968006.01.01
660974001	04-APR-2024 08:37:00	5.6	METHANO	10	1.78571	660974001.01.01
660974002	04-APR-2024 08:38:00	5.7	METHANO	10	1.75439	660974002.01.01
660974003	04-APR-2024 08:39:00	5.9	METHANO	10	1.69492	660974003.01.01
660974004	04-APR-2024 08:40:00	5.8	METHANO	10	1.72414	660974004.01.01
660974005	04-APR-2024 08:41:00	5.8	METHANO	10	1.72414	660974005.01.01
660974006	04-APR-2024 08:42:00	5.5	METHANO	10	1.81818	660974006.01.01

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
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03/18/2024

Date: 3/18/2024 Method 8260/624 Operator: PXY1

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 50

Daily Instrument Readings:
Multiplier Voltage: 1565

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/19/2024

Daily Standard

Volume Added for Purge (ul)

Purge Amount

(See pg. 001-002 for ICAL Std. Ids)

CI test lot # 034815B

Sequence Number: 031824VC

Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
BFB	IVM240304-01			1
IS	IVM240315-02	1	1	1
SS	IVM240315-01	1	1	1
ICV[A]	WCVM240318-10		5UL	
ICV[B]	WCVM240318-19		5UL	

5ML Water Purge Vol:
5.0G Soil Purge Wt.
N/A Mid level ext. MeOH Vol:
N/A Methanol Lot #
X Heated Purge

Analysis		Date												Comments	
Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	CI test (Y/N)	Accepta ble(O/X)		
3/18/2024	11:14	CY101.D	IVM240304-01	GEL	BFB	10ML	1	N/A	1	W	PXY1	N/A	O		
3/18/2024	11:39	CY102.D	WCVM240318-01	VSTD0005	ICAL	5UL/5ML	1	N/A	2	W	PXY1	N/A	O	MIX[A] UVM240301-01/UVM231218-01D/UVM231130-01D	
3/18/2024	12:07	CY103.D	WCVM240318-02	VSTD001	ICAL	5UL/5ML	1	N/A	3	W	PXY1	N/A	O	MIX[A] UVM240301-02/UVM231218-02D/UVM231130-02D	
3/18/2024	12:35	CY104.D	WCVM240318-03	VSTD002	ICAL	5UL/5ML	1	N/A	4	W	PXY1	N/A	O	MIX[A] UVM240301-03/UVM231218-03D/UVM231130-03D	
3/18/2024	13:03	CY105.D	WCVM240318-04	VSTD005	ICAL	5UL/5ML	1	N/A	5	W	PXY1	N/A	O	MIX[A] UVM240301-04/UVM231218-04D/UVM231130-04D	
3/18/2024	13:31	CY106.D	WCVM240318-05	VSTD010	ICAL	5UL/5ML	1	N/A	6	W	PXY1	N/A	O	MIX[A] UVM240301-05/UVM231218-05D/UVM231130-05D	
3/18/2024	13:59	CY107.D	WCVM240318-06	VSTD020	ICAL	5UL/5ML	1	N/A	7	W	PXY1	N/A	O	MIX[A] UVM240301-06/UVM231218-06D/UVM231130-06D	
3/18/2024	14:26	CY108.D	WCVM240318-07	VSTD050	ICAL	5UL/5ML	1	N/A	8	W	PXY1	N/A	O	MIX[A] UVM240301-07/UVM231218-07D/UVM231130-07D	
3/18/2024	14:54	CY109.D	WCVM240318-08	VSTD080	ICAL	4UL/5ML	1	N/A	9	W	PXY1	N/A	O	MIX[A] UVM240301-08/UVM231218-08D/UVM231130-08D	
3/18/2024	15:22	CY110.D	WCVM240318-09	VSTD100	ICAL	5UL/5ML	1	N/A	10	W	PXY1	N/A	O	MIX[A] UVM240301-08/UVM231218-08D/UVM231130-08D	
3/18/2024	15:50	CY111.D	BLANK	GEL	IB	5ML	1	N/A	11	W	PXY1	N/A	X	RINSE	
3/18/2024	16:17	CY112.D	WCVM240318-10	GEL	ICV	5UL/5ML	1	N/A	12	W	PXY1	N/A	O	MIX[A] UVM240108-10D/UVM231218-10F/UVM240222-01C	
3/18/2024	16:45	CY113.D	WCVM240318-11	VSTD005	ICAL	5UL/5ML	1	N/A	13	W	PXY1	N/A	O	MIX[B] UVM240226-01A/UVM240215-03	
3/18/2024	17:13	CY114.D	WCVM240318-12	VSTD010	ICAL	5UL/5ML	1	N/A	14	W	PXY1	N/A	O	MIX[B] UVM240226-02A/UVM240215-04	
3/18/2024	17:41	CY115.D	WCVM240318-13	VSTD025	ICAL	5UL/5ML	1	N/A	15	W	PXY1	N/A	O	MIX[B] UVM240226-03A/UVM240215-05	
3/18/2024	18:08	CY116.D	WCVM240318-14	VSTD050	ICAL	5UL/5ML	1	N/A	16	W	PXY1	N/A	O	MIX[B] UVM240226-04A/UVM240215-06	
3/18/2024	18:36	CY117.D	WCVM240318-15	VSTD100	ICAL	5UL/5ML	1	N/A	17	W	PXY1	N/A	O	MIX[B] UVM240226-05A/UVM240215-07	
3/18/2024	19:04	CY118.D	WCVM240318-16	VSTD250	ICAL	5UL/5ML	1	N/A	18	W	PXY1	N/A	O	MIX[B] UVM240226-06A/UVM240215-08	
3/18/2024	19:32	CY119.D	WCVM240318-17	VSTD300	ICAL	3UL/5ML	1	N/A	19	W	PXY1	N/A	O	MIX[B] UVM240226-07A/UVM240215-09	
3/18/2024	20:00	CY120.D	WCVM240318-18	VSTD500	ICAL	5UL/5ML	1	N/A	20	W	PXY1	N/A	O	MIX[B] UVM240226-07A/UVM240215-09	
3/18/2024	20:28	CY121.D	BLANK	GEL	IB	5ML	1	N/A	21	W	PXY1	N/A	X	RINSE	
3/18/2024	20:56	CY122.D	WCVM240318-19	GEL	ICV	5UL/5ML	1	N/A	22	W	PXY1	N/A	O	MIX[B] UVM240226-08C/UVM240314-08A	
3/18/2024	21:24	CY123.D	BLANK	GEL	IB	5ML	1	N/A	23	W	PXY1	N/A	X	RINSE	

04/05/2024
04/05/2024

Date: 4/4/2024 Method 8260/624 Operator: PXY1

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 50

Daily Instrument Readings:
Multiplier Voltage: 1565

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/19/2024
(See pg. 001-002 for ICAL Std. Ids)
Cl test lot # 034815B
Sequence Number: 040424VC

Daily Standard		Volume Added for Purge (ul)			
Solution ID#		Blk/ Smpl	CCV	MS/ LCS	BFB
BFB	IVM240321-01				1
IS	IVM240315-02	1	1	1	
SS	IVM240315-01	1	1	1	
CCV	WCVM240404-01			5UL	
LCS/MS	WCVM240404-01			5UL	
SH CCV	WCVM240404-02			5UL	
SH LCS	WCVM240404-02			5UL	

Purge Amount
5ML Water Purge Vol:
5.0G Soil Purge Wt.
N/A Mid level ext. MeOH Vol:
N/A Methanol Lot #
X Heated Purge

Analysis		Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test Accepta		Comments
Date	Time											(Y/N)	ble(O/X)	
4/4/2024	10:37	CA406.D	IVM240321-01	GEL	BFB1	10ML	1	N/A	1	W	PXY1	N/A	O	
4/4/2024	11:02	CA407.D	WCVM240404-01	GEL	CCV/LCS	5G/5ML	1	N/A	2	S	PXY1	N/A	O	SOIL MIX[A] UVM240201-10B/UVM240125-10A/UVM240222-01D
4/4/2024	11:30	CA408.D	WCVM240404-02	GEL	CCV/LCS	5G/5ML	1	N/A	3	S	PXY1	N/A	O	SOIL MIX[B] UVM240226-08D/UVM240314-08B
4/4/2024	11:58	CA409.D	1205	GEL	BLANK	5ML	1	N/A	4	W	PXY1	N/A	X	
4/4/2024	12:26	CA410.D	1205	GEL	BLANK	5G/5ML	1	N/A	5	S	PXY1	N/A	O	SOIL
4/4/2024	12:54	CA411.D	1205694060	GEL	2591977	5.0G/100UL	50	N/A	6	S	PXY1	N/A	O	SOIL HB
4/4/2024	13:22	CA412.D	660968001	PERM	2591977	5.6G/100UL	50	N/A	7	S	PXY1	N/A	O	SOIL
4/4/2024	13:49	CA413.D	660968002	PERM	2591977	5.5G/100UL	50	N/A	8	S	PXY1	N/A	O	SOIL
4/4/2024	14:17	CA414.D	660968003	PERM	2591977	5.9G/100UL	50	N/A	9	S	PXY1	N/A	O	SOIL
4/4/2024	14:45	CA415.D	660968004	PERM	2591977	5.8G/100UL	50	N/A	10	S	PXY1	N/A	O	SOIL
4/4/2024	15:13	CA416.D	660968005	PERM	2591977	5.8G/100UL	50	N/A	11	S	PXY1	N/A	O	SOIL
4/4/2024	15:41	CA417.D	660968006	PERM	2591977	5.9G/100UL	50	N/A	12	S	PXY1	N/A	O	SOIL
4/4/2024	16:09	CA418.D	660974001	PERM	2591977	5.6G/100UL	50	N/A	13	S	PXY1	N/A	O	SOIL
4/4/2024	16:37	CA419.D	660974002	PERM	2591977	5.7G/100UL	50	N/A	14	S	PXY1	N/A	O	SOIL
4/4/2024	17:05	CA420.D	660974003	PERM	2591977	5.9G/100UL	50	N/A	15	S	PXY1	N/A	O	SOIL
4/4/2024	17:32	CA421.D	660974004	PERM	2591977	5.8G/100UL	50	N/A	16	S	PXY1	N/A	O	SOIL
4/4/2024	18:00	CA422.D	660974005	PERM	2591977	5.8G/100UL	50	N/A	17	S	PXY1	N/A	O	SOIL
4/4/2024	18:28	CA423.D	660974006	PERM	2591977	5.5G/100UL	50	N/A	18	S	PXY1	N/A	O	SOIL
4/4/2024	18:56	CA424.D	1205694061	PERM	2591977	5.6G/100UL	50	N/A	19	S	PXY1	N/A	O	SOIL MIX[A] 660968001PS
4/4/2024	19:24	CA425.D	1205694062	PERM	2591977	5.6G/100UL	50	N/A	20	S	PXY1	N/A	O	SOIL MIX[A] 660968001PSD
4/4/2024	19:52	CA426.D	1205	GEL	BLANK	5ML	1	N/A	21	W	PXY1	N/A	X	RINSE
4/4/2024	20:19	CA427.D	1205	GEL	BLANK	5ML	1	N/A	22	W	PXY1	N/A	X	RINSE

Semi-Volatile Analysis

Case Narrative

**GC/MS Semivolatile
Technical Case Narrative
Perma-Fix of Florida
SDG #: 660974**

Product: Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry

Analytical Method: SW846 3541/8270E

Analytical Procedure: GL-OA-E-009 REV# 48

Analytical Batch: 2590892

Preparation Method: SW846 3541

Preparation Procedure: GL-OA-E-066 REV# 9

Preparation Batch: 2590877

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
660974001	12039.B4.Top Front.PFF
660974002	12039.B4.Middle Front.PFF
660974003	12039.B4.Bottom Front.PFF
660974004	12040.B4.Top Back.PFF
660974005	12040.B4.Middle Back.PFF
660974006	12040.B4.Bottom Back.PFF
1205692351	Method Blank (MB)
1205692352	Laboratory Control Sample (LCS)
1205692353	660558002(NonSDG) Matrix Spike (MS)
1205692354	660558002(NonSDG) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

Initial Calibration

The ICV (initial calibration verification) standard recovered above the acceptance criteria for several target analytes. This non-compliance had no adverse impact on the data as the failed analytes were not detected in the associated samples. The data were reported.

Please note that due to software issues at the time of packaging, the Initial Calibration Summary (ICV) forms (Form 07) for samples in this SDG displayed the Maximum Drift 20%, not the Method required 30%. 660974001 (12039.B4.Top Front.PFF), 660974002 (12039.B4.Middle Front.PFF), 660974003 (12039.B4.Bottom Front.PFF), 660974004 (12040.B4.Top Back.PFF), 660974005 (12040.B4.Middle Back.PFF) and 660974006 (12040.B4.Bottom Back.PFF).

CCV Requirements

All Calibration Verification Standards (CCV) did not meet the acceptance criteria as outlined in Method 8270D/E for samples 660974001 (12039.B4.Top Front.PFF), 660974002 (12039.B4.Middle Front.PFF), 660974003 (12039.B4.Bottom Front.PFF), 660974004 (12040.B4.Top Back.PFF), 660974005 (12040.B4.Middle Back.PFF) and 660974006 (12040.B4.Bottom Back.PFF) and the associated QC. However, the method allows for a designated

number of outliers dependent on the requested analyte list. This SDG satisfied the 8270D/E outlier acceptance criteria. If required, a CRDL was analyzed after the CCVs to demonstrate that there is adequate sensitivity to detect the failed compounds at the applicable lower quantitation limit.

Quality Control (QC) Information

Spike Recovery Statement

The MS and MSD (See Below) did not meet spike recovery acceptance criteria. There was a detected presence of bis(2-Ethylhexyl)phthalate above the reporting limits in the un-spike parent sample that caused biased calculated results in the MS and MSD. The data results have been reported.

Sample	Analyte	Value
1205692353 (Non SDG 660558002MS)	bis(2-Ethylhexyl)phthalate	1260* (17%-133%)
1205692354 (Non SDG 660558002MSD)	bis(2-Ethylhexyl)phthalate	675* (17%-133%)

MS/MSD Relative Percent Difference (RPD) Statement

The relative percent differences (RPD) for the MS and MSD, (See Below), were not within the acceptance limits. The failures were attributed to matrix interference. The data were reported.

Sample	Analyte	Value
1205692353MS and 1205692354MSD (Non SDG 660558002)	bis(2-Ethylhexyl)phthalate	RPD 43* (0%-30%)

Miscellaneous Information

Additional Comments

Diphenylamine Statement

Diphenylamine has superseded the reporting of N-Nitroso-diphenylamine. As per the EPA, N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine. Studies of these two compounds at GEL, both independent of each other and together, showed that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine are therefore reported as Diphenylamine on all reports and forms.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report for

PERM001 Perma-Fix of Florida

Client SDG: 660974 GEL Work Order: 660974


The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- E Concentration of the target analyte exceeds the instrument calibration range
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- DL Indicates that sample is diluted.
- RA Indicates that sample is re-analyzed without re-extraction.
- RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: 

Name: Barbara Bailey

Date: 09 APR 2024

Title: Data Validator

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660974001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:51	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.24 g	Final Volume:	1 mL
Data File:	S040424.S\3D0424.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	977	ug/kg	293	977
110-86-1	Pyridine	U	977	ug/kg	293	977
62-53-3	Aniline	U	977	ug/kg	293	977
108-95-2	Phenol	U	977	ug/kg	293	977
111-44-4	bis(2-Chloroethyl) ether	U	977	ug/kg	293	977
95-57-8	2-Chlorophenol	U	977	ug/kg	293	977
541-73-1	1,3-Dichlorobenzene	U	977	ug/kg	293	977
106-46-7	1,4-Dichlorobenzene	U	977	ug/kg	293	977
95-50-1	1,2-Dichlorobenzene	J	650	ug/kg	293	977
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	977	ug/kg	293	977
100-51-6	Benzyl alcohol	U	977	ug/kg	293	977
95-48-7	o-Cresol	U	977	ug/kg	293	977
65794-96-9	m,p-Cresols	U	977	ug/kg	293	977
621-64-7	N-Nitrosodipropylamine	U	977	ug/kg	293	977
67-72-1	Hexachloroethane	U	977	ug/kg	293	977
98-95-3	Nitrobenzene	U	977	ug/kg	293	977
78-59-1	Isophorone	U	977	ug/kg	293	977
88-75-5	2-Nitrophenol	U	977	ug/kg	293	977
105-67-9	2,4-Dimethylphenol	U	977	ug/kg	293	977
111-91-1	bis(2-Chloroethoxy)methane	U	977	ug/kg	293	977
120-83-2	2,4-Dichlorophenol	U	977	ug/kg	293	977
65-85-0	Benzoic acid	J	1910	ug/kg	488	1950
106-47-8	4-Chloroaniline	U	977	ug/kg	293	977
87-68-3	Hexachlorobutadiene	U	977	ug/kg	293	977
59-50-7	4-Chloro-3-methylphenol	U	977	ug/kg	391	977
91-57-6	2-Methylnaphthalene	U	97.7	ug/kg	29.3	97.7
91-20-3	Naphthalene	U	97.7	ug/kg	29.3	97.7
90-12-0	1-Methylnaphthalene	U	97.7	ug/kg	29.3	97.7
77-47-4	Hexachlorocyclopentadiene	U	977	ug/kg	293	977
88-06-2	2,4,6-Trichlorophenol	U	977	ug/kg	293	977
95-95-4	2,4,5-Trichlorophenol	U	977	ug/kg	293	977
91-58-7	2-Chloronaphthalene	U	97.7	ug/kg	29.3	97.7
88-74-4	o-Nitroaniline	U	977	ug/kg	322	977
99-09-2	m-Nitroaniline	U	977	ug/kg	293	977
131-11-3	Dimethylphthalate	U	97.7	ug/kg	29.3	97.7
99-65-0	m-Dinitrobenzene	U	977	ug/kg	293	977
606-20-2	2,6-Dinitrotoluene	U	977	ug/kg	293	977
121-14-2	2,4-Dinitrotoluene	U	977	ug/kg	293	977

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660974001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:51	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.24 g	Final Volume:	1 mL
Data File:	S040424.S\3D0424.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	97.7	ug/kg	29.3	97.7
83-32-9	Acenaphthene	U	97.7	ug/kg	29.3	97.7
51-28-5	2,4-Dinitrophenol	U	1950	ug/kg	293	1950
132-64-9	Dibenzofuran	U	977	ug/kg	293	977
58-90-2	2,3,4,6-Tetrachlorophenol	U	977	ug/kg	293	977
84-66-2	Diethylphthalate	U	97.7	ug/kg	29.3	97.7
100-02-7	4-Nitrophenol	U	977	ug/kg	293	977
86-73-7	Fluorene	U	97.7	ug/kg	29.3	97.7
7005-72-3	4-Chlorophenylphenylether	U	977	ug/kg	293	977
100-01-6	p-Nitroaniline	U	977	ug/kg	293	977
534-52-1	2-Methyl-4,6-dinitrophenol	U	977	ug/kg	293	977
122-39-4	Diphenylamine	U	977	ug/kg	293	977
122-66-7	1,2-Diphenylhydrazine	U	977	ug/kg	293	977
101-55-3	4-Bromophenylphenylether	U	977	ug/kg	293	977
118-74-1	Hexachlorobenzene	U	977	ug/kg	293	977
87-86-5	Pentachlorophenol	U	977	ug/kg	293	977
88-85-7	Dinoseb	U	977	ug/kg	293	977
85-01-8	Phenanthrene	U	97.7	ug/kg	29.3	97.7
120-12-7	Anthracene	U	97.7	ug/kg	29.3	97.7
86-74-8	Carbazole	U	97.7	ug/kg	29.3	97.7
84-74-2	Di-n-butylphthalate	U	97.7	ug/kg	29.3	97.7
206-44-0	Fluoranthene	U	97.7	ug/kg	29.3	97.7
129-00-0	Pyrene	U	97.7	ug/kg	29.3	97.7
85-68-7	Butylbenzylphthalate	U	97.7	ug/kg	29.3	97.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	97.7	ug/kg	29.3	97.7
56-55-3	Benzo(a)anthracene	U	97.7	ug/kg	29.3	97.7
218-01-9	Chrysene	U	97.7	ug/kg	29.3	97.7
72-43-5	Methoxychlor	U	977	ug/kg	293	977
117-84-0	Di-n-octylphthalate	U	97.7	ug/kg	29.3	97.7
205-99-2	Benzo(b)fluoranthene	U	97.7	ug/kg	29.3	97.7
207-08-9	Benzo(k)fluoranthene	U	97.7	ug/kg	29.3	97.7
50-32-8	Benzo(a)pyrene	U	97.7	ug/kg	29.3	97.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	97.7	ug/kg	29.3	97.7
53-70-3	Dibenzo(a,h)anthracene	U	97.7	ug/kg	29.3	97.7
191-24-2	Benzo(ghi)perylene	U	97.7	ug/kg	29.3	97.7
123-91-1	1,4-Dioxane	U	977	ug/kg	293	977
80-62-6	Methyl methacrylate	U	977	ug/kg	293	977
97-63-2	Ethyl methacrylate	U	977	ug/kg	293	977

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660974001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:51	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.24 g	Final Volume:	1 mL
Data File:	S040424.S\3D0424.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	977	ug/kg	293	977
10595-95-6	N-Nitrosomethylethylamine	U	977	ug/kg	293	977
66-27-3	Methyl methanesulfonate	U	977	ug/kg	293	977
55-18-5	N-Nitrosodiethylamine	U	977	ug/kg	293	977
62-50-0	Ethyl Methanesulfonate	U	977	ug/kg	293	977
76-01-7	Pentachloroethane	U	977	ug/kg	293	977
930-55-2	N-Nitrosopyrrolidine	U	977	ug/kg	293	977
98-86-2	Acetophenone	U	977	ug/kg	293	977
59-89-2	N-Nitrosomorpholine	U	977	ug/kg	293	977
95-53-4	o-Toluidine	U	977	ug/kg	293	977
100-75-4	N-Nitrosopiperidine	U	977	ug/kg	293	977
122-09-8	a,a-Dimethylphenethylamine	U	977	ug/kg	342	977
87-65-0	2,6-Dichlorophenol	U	977	ug/kg	293	977
1888-71-7	Hexachloropropene	U	977	ug/kg	293	977
924-16-3	N-Nitrosodi-n-butylamine	U	977	ug/kg	293	977
94-59-7	Safrole	U	977	ug/kg	293	977
95-94-3	1,2,4,5-Tetrachlorobenzene	U	977	ug/kg	293	977
120-58-1	Isosafrole	U	977	ug/kg	293	977
130-15-4	1,4-Naphthoquinone	U	977	ug/kg	293	977
608-93-5	Pentachlorobenzene	U	977	ug/kg	293	977
134-32-7	1-Naphthylamine	U	977	ug/kg	293	977
91-59-8	2-Naphthylamine	U	977	ug/kg	293	977
99-55-8	5-Nitro-o-toluidine	U	977	ug/kg	293	977
62-44-2	Phenacetin	U	977	ug/kg	293	977
99-35-4	1,3,5-Trinitrobenzene	U	977	ug/kg	293	977
2303-16-4	Diallate	U	977	ug/kg	293	977
92-67-1	4-Aminobiphenyl	U	977	ug/kg	293	977
82-68-8	Pentachloronitrobenzene	U	977	ug/kg	293	977
23950-58-5	Pronamide	U	977	ug/kg	293	977
56-57-5	4-Nitroquinoline-1-oxide	U	977	ug/kg	293	977
91-80-5	Methapyrilene	U	977	ug/kg	293	977
465-73-6	Isodrin	U	977	ug/kg	195	977
140-57-8	Aramite	U	977	ug/kg	293	977
143-50-0	Kepone	U	977	ug/kg	293	977
60-11-7	p-(Dimethylamino)azobenzene	U	977	ug/kg	293	977
510-15-6	Chlorobenzilate	U	977	ug/kg	293	977
119-93-7	3,3'-Dimethylbenzidine	U	977	ug/kg	293	977
53-96-3	2-Acetylaminofluorene	U	977	ug/kg	293	977

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660974

Lab Sample ID: 660974001

Client ID: 12039.B4.Top Front.PFF

Batch ID: 2590892

Run Date: 04/04/2024 21:51

Prep Date: 04/04/2024 09:45

Data File: S040424.S\3D0424.D

Date Collected: 03/30/2024 09:00

Date Received: 04/02/2024 08:50

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD3.I

Analyst: LL2

Aliquot: 10.24 g

Column: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	977	ug/kg	293	977
57-97-6	7,12-Dimethylbenz(a)anthracene	U	977	ug/kg	293	977
56-49-5	3-Methylcholanthrene	U	977	ug/kg	293	977
126-68-1	Triethylphosphorothioate	U	977	ug/kg	293	977
297-97-2	Thionazin	U	977	ug/kg	293	977
126-73-8	Tributylphosphate	U	977	ug/kg	293	977
3689-24-5	Sulfotepp	U	977	ug/kg	293	977
298-02-2	Phorate	U	977	ug/kg	293	977
60-51-5	Dimethoate	U	977	ug/kg	293	977
298-04-4	Disulfoton	U	977	ug/kg	293	977
298-00-0	Methyl parathion	U	977	ug/kg	293	977
56-38-2	Parathion	U	977	ug/kg	293	977
52-85-7	Famphur	U	977	ug/kg	293	977
106-50-3	p-Phenylenediamine	U	48800	ug/kg	9770	48800
70-30-4	Hexachlorophene	U	48800	ug/kg	11300	48800
120-82-1	1,2,4-Trichlorobenzene	U	977	ug/kg	293	977

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660974002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:13	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.26 g	Final Volume:	1 mL
Data File:	S040424.S\3D0425.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	975	ug/kg	292	975
110-86-1	Pyridine	U	975	ug/kg	292	975
62-53-3	Aniline	U	975	ug/kg	292	975
108-95-2	Phenol	U	975	ug/kg	292	975
111-44-4	bis(2-Chloroethyl) ether	U	975	ug/kg	292	975
95-57-8	2-Chlorophenol	U	975	ug/kg	292	975
541-73-1	1,3-Dichlorobenzene	U	975	ug/kg	292	975
106-46-7	1,4-Dichlorobenzene	U	975	ug/kg	292	975
95-50-1	1,2-Dichlorobenzene	U	975	ug/kg	292	975
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	975	ug/kg	292	975
100-51-6	Benzyl alcohol	U	975	ug/kg	292	975
95-48-7	o-Cresol	U	975	ug/kg	292	975
65794-96-9	m,p-Cresols	U	975	ug/kg	292	975
621-64-7	N-Nitrosodipropylamine	U	975	ug/kg	292	975
67-72-1	Hexachloroethane	U	975	ug/kg	292	975
98-95-3	Nitrobenzene	U	975	ug/kg	292	975
78-59-1	Isophorone	U	975	ug/kg	292	975
88-75-5	2-Nitrophenol	U	975	ug/kg	292	975
105-67-9	2,4-Dimethylphenol	U	975	ug/kg	292	975
111-91-1	bis(2-Chloroethoxy)methane	U	975	ug/kg	292	975
120-83-2	2,4-Dichlorophenol	U	975	ug/kg	292	975
65-85-0	Benzoic acid	U	1950	ug/kg	487	1950
106-47-8	4-Chloroaniline	U	975	ug/kg	292	975
87-68-3	Hexachlorobutadiene	U	975	ug/kg	292	975
59-50-7	4-Chloro-3-methylphenol	U	975	ug/kg	390	975
91-57-6	2-Methylnaphthalene	U	97.5	ug/kg	29.2	97.5
91-20-3	Naphthalene	U	97.5	ug/kg	29.2	97.5
90-12-0	1-Methylnaphthalene	U	97.5	ug/kg	29.2	97.5
77-47-4	Hexachlorocyclopentadiene	U	975	ug/kg	292	975
88-06-2	2,4,6-Trichlorophenol	U	975	ug/kg	292	975
95-95-4	2,4,5-Trichlorophenol	U	975	ug/kg	292	975
91-58-7	2-Chloronaphthalene	U	97.5	ug/kg	29.2	97.5
88-74-4	o-Nitroaniline	U	975	ug/kg	322	975
99-09-2	m-Nitroaniline	U	975	ug/kg	292	975
131-11-3	Dimethylphthalate	U	97.5	ug/kg	29.2	97.5
99-65-0	m-Dinitrobenzene	U	975	ug/kg	292	975
606-20-2	2,6-Dinitrotoluene	U	975	ug/kg	292	975
121-14-2	2,4-Dinitrotoluene	U	975	ug/kg	292	975

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660974002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:13	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.26 g	Final Volume:	1 mL
Data File:	S040424.S\3D0425.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	97.5	ug/kg	29.2	97.5
83-32-9	Acenaphthene	U	97.5	ug/kg	29.2	97.5
51-28-5	2,4-Dinitrophenol	U	1950	ug/kg	292	1950
132-64-9	Dibenzofuran	U	975	ug/kg	292	975
58-90-2	2,3,4,6-Tetrachlorophenol	U	975	ug/kg	292	975
84-66-2	Diethylphthalate	U	97.5	ug/kg	29.2	97.5
100-02-7	4-Nitrophenol	U	975	ug/kg	292	975
86-73-7	Fluorene	U	97.5	ug/kg	29.2	97.5
7005-72-3	4-Chlorophenylphenylether	U	975	ug/kg	292	975
100-01-6	p-Nitroaniline	U	975	ug/kg	292	975
534-52-1	2-Methyl-4,6-dinitrophenol	U	975	ug/kg	292	975
122-39-4	Diphenylamine	U	975	ug/kg	292	975
122-66-7	1,2-Diphenylhydrazine	U	975	ug/kg	292	975
101-55-3	4-Bromophenylphenylether	U	975	ug/kg	292	975
118-74-1	Hexachlorobenzene	U	975	ug/kg	292	975
87-86-5	Pentachlorophenol	U	975	ug/kg	292	975
88-85-7	Dinoseb	U	975	ug/kg	292	975
85-01-8	Phenanthrene	U	97.5	ug/kg	29.2	97.5
120-12-7	Anthracene	U	97.5	ug/kg	29.2	97.5
86-74-8	Carbazole	U	97.5	ug/kg	29.2	97.5
84-74-2	Di-n-butylphthalate	U	97.5	ug/kg	29.2	97.5
206-44-0	Fluoranthene	U	97.5	ug/kg	29.2	97.5
129-00-0	Pyrene	U	97.5	ug/kg	29.2	97.5
85-68-7	Butylbenzylphthalate	U	97.5	ug/kg	29.2	97.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	97.5	ug/kg	29.2	97.5
56-55-3	Benzo(a)anthracene	U	97.5	ug/kg	29.2	97.5
218-01-9	Chrysene	U	97.5	ug/kg	29.2	97.5
72-43-5	Methoxychlor	U	975	ug/kg	292	975
117-84-0	Di-n-octylphthalate	U	97.5	ug/kg	29.2	97.5
205-99-2	Benzo(b)fluoranthene	U	97.5	ug/kg	29.2	97.5
207-08-9	Benzo(k)fluoranthene	U	97.5	ug/kg	29.2	97.5
50-32-8	Benzo(a)pyrene	U	97.5	ug/kg	29.2	97.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	97.5	ug/kg	29.2	97.5
53-70-3	Dibenzo(a,h)anthracene	U	97.5	ug/kg	29.2	97.5
191-24-2	Benzo(ghi)perylene	U	97.5	ug/kg	29.2	97.5
123-91-1	1,4-Dioxane	U	975	ug/kg	292	975
80-62-6	Methyl methacrylate	U	975	ug/kg	292	975
97-63-2	Ethyl methacrylate	U	975	ug/kg	292	975

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660974002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:13	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.26 g	Final Volume:	1 mL
Data File:	S040424.S\3D0425.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	975	ug/kg	292	975
10595-95-6	N-Nitrosomethylethylamine	U	975	ug/kg	292	975
66-27-3	Methyl methanesulfonate	U	975	ug/kg	292	975
55-18-5	N-Nitrosodiethylamine	U	975	ug/kg	292	975
62-50-0	Ethyl Methanesulfonate	U	975	ug/kg	292	975
76-01-7	Pentachloroethane	U	975	ug/kg	292	975
930-55-2	N-Nitrosopyrrolidine	U	975	ug/kg	292	975
98-86-2	Acetophenone	U	975	ug/kg	292	975
59-89-2	N-Nitrosomorpholine	U	975	ug/kg	292	975
95-53-4	o-Toluidine	U	975	ug/kg	292	975
100-75-4	N-Nitrosopiperidine	U	975	ug/kg	292	975
122-09-8	a,a-Dimethylphenethylamine	U	975	ug/kg	341	975
87-65-0	2,6-Dichlorophenol	U	975	ug/kg	292	975
1888-71-7	Hexachloropropene	U	975	ug/kg	292	975
924-16-3	N-Nitrosodi-n-butylamine	U	975	ug/kg	292	975
94-59-7	Safrole	U	975	ug/kg	292	975
95-94-3	1,2,4,5-Tetrachlorobenzene	U	975	ug/kg	292	975
120-58-1	Isosafrole	U	975	ug/kg	292	975
130-15-4	1,4-Naphthoquinone	U	975	ug/kg	292	975
608-93-5	Pentachlorobenzene	U	975	ug/kg	292	975
134-32-7	1-Naphthylamine	U	975	ug/kg	292	975
91-59-8	2-Naphthylamine	U	975	ug/kg	292	975
99-55-8	5-Nitro-o-toluidine	U	975	ug/kg	292	975
62-44-2	Phenacetin	U	975	ug/kg	292	975
99-35-4	1,3,5-Trinitrobenzene	U	975	ug/kg	292	975
2303-16-4	Diallate	U	975	ug/kg	292	975
92-67-1	4-Aminobiphenyl	U	975	ug/kg	292	975
82-68-8	Pentachloronitrobenzene	U	975	ug/kg	292	975
23950-58-5	Pronamide	U	975	ug/kg	292	975
56-57-5	4-Nitroquinoline-1-oxide	U	975	ug/kg	292	975
91-80-5	Methapyrilene	U	975	ug/kg	292	975
465-73-6	Isodrin	U	975	ug/kg	195	975
140-57-8	Aramite	U	975	ug/kg	292	975
143-50-0	Kepone	U	975	ug/kg	292	975
60-11-7	p-(Dimethylamino)azobenzene	U	975	ug/kg	292	975
510-15-6	Chlorobenzilate	U	975	ug/kg	292	975
119-93-7	3,3'-Dimethylbenzidine	U	975	ug/kg	292	975
53-96-3	2-Acetylaminofluorene	U	975	ug/kg	292	975

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660974002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:13	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.26 g	Final Volume:	1 mL
Data File:	S040424.S\3D0425.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	975	ug/kg	292	975
57-97-6	7,12-Dimethylbenz(a)anthracene	U	975	ug/kg	292	975
56-49-5	3-Methylcholanthrene	U	975	ug/kg	292	975
126-68-1	Triethylphosphorothioate	U	975	ug/kg	292	975
297-97-2	Thionazin	U	975	ug/kg	292	975
126-73-8	Tributylphosphate	U	975	ug/kg	292	975
3689-24-5	Sulfotepp	U	975	ug/kg	292	975
298-02-2	Phorate	U	975	ug/kg	292	975
60-51-5	Dimethoate	U	975	ug/kg	292	975
298-04-4	Disulfoton	U	975	ug/kg	292	975
298-00-0	Methyl parathion	U	975	ug/kg	292	975
56-38-2	Parathion	U	975	ug/kg	292	975
52-85-7	Famphur	U	975	ug/kg	292	975
106-50-3	p-Phenylenediamine	U	48700	ug/kg	9750	48700
70-30-4	Hexachlorophene	U	48700	ug/kg	11300	48700
120-82-1	1,2,4-Trichlorobenzene	U	975	ug/kg	292	975

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660974003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:34	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.22 g	Final Volume:	1 mL
Data File:	S040424.S\3D0426.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	978	ug/kg	294	978
110-86-1	Pyridine	U	978	ug/kg	294	978
62-53-3	Aniline	U	978	ug/kg	294	978
108-95-2	Phenol	U	978	ug/kg	294	978
111-44-4	bis(2-Chloroethyl) ether	U	978	ug/kg	294	978
95-57-8	2-Chlorophenol	U	978	ug/kg	294	978
541-73-1	1,3-Dichlorobenzene	U	978	ug/kg	294	978
106-46-7	1,4-Dichlorobenzene	U	978	ug/kg	294	978
95-50-1	1,2-Dichlorobenzene	U	978	ug/kg	294	978
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	978	ug/kg	294	978
100-51-6	Benzyl alcohol	U	978	ug/kg	294	978
95-48-7	o-Cresol	U	978	ug/kg	294	978
65794-96-9	m,p-Cresols	U	978	ug/kg	294	978
621-64-7	N-Nitrosodipropylamine	U	978	ug/kg	294	978
67-72-1	Hexachloroethane	U	978	ug/kg	294	978
98-95-3	Nitrobenzene	U	978	ug/kg	294	978
78-59-1	Isophorone	U	978	ug/kg	294	978
88-75-5	2-Nitrophenol	U	978	ug/kg	294	978
105-67-9	2,4-Dimethylphenol	U	978	ug/kg	294	978
111-91-1	bis(2-Chloroethoxy)methane	U	978	ug/kg	294	978
120-83-2	2,4-Dichlorophenol	U	978	ug/kg	294	978
65-85-0	Benzoic acid	U	1960	ug/kg	489	1960
106-47-8	4-Chloroaniline	U	978	ug/kg	294	978
87-68-3	Hexachlorobutadiene	U	978	ug/kg	294	978
59-50-7	4-Chloro-3-methylphenol	U	978	ug/kg	391	978
91-57-6	2-Methylnaphthalene	U	97.8	ug/kg	29.4	97.8
91-20-3	Naphthalene	U	97.8	ug/kg	29.4	97.8
90-12-0	1-Methylnaphthalene	U	97.8	ug/kg	29.4	97.8
77-47-4	Hexachlorocyclopentadiene	U	978	ug/kg	294	978
88-06-2	2,4,6-Trichlorophenol	U	978	ug/kg	294	978
95-95-4	2,4,5-Trichlorophenol	U	978	ug/kg	294	978
91-58-7	2-Chloronaphthalene	U	97.8	ug/kg	29.4	97.8
88-74-4	o-Nitroaniline	U	978	ug/kg	323	978
99-09-2	m-Nitroaniline	U	978	ug/kg	294	978
131-11-3	Dimethylphthalate	U	97.8	ug/kg	29.4	97.8
99-65-0	m-Dinitrobenzene	U	978	ug/kg	294	978
606-20-2	2,6-Dinitrotoluene	U	978	ug/kg	294	978
121-14-2	2,4-Dinitrotoluene	U	978	ug/kg	294	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660974003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:34	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.22 g	Final Volume:	1 mL
Data File:	S040424.S\3D0426.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	97.8	ug/kg	29.4	97.8
83-32-9	Acenaphthene	U	97.8	ug/kg	29.4	97.8
51-28-5	2,4-Dinitrophenol	U	1960	ug/kg	294	1960
132-64-9	Dibenzofuran	U	978	ug/kg	294	978
58-90-2	2,3,4,6-Tetrachlorophenol	U	978	ug/kg	294	978
84-66-2	Diethylphthalate	U	97.8	ug/kg	29.4	97.8
100-02-7	4-Nitrophenol	U	978	ug/kg	294	978
86-73-7	Fluorene	U	97.8	ug/kg	29.4	97.8
7005-72-3	4-Chlorophenylphenylether	U	978	ug/kg	294	978
100-01-6	p-Nitroaniline	U	978	ug/kg	294	978
534-52-1	2-Methyl-4,6-dinitrophenol	U	978	ug/kg	294	978
122-39-4	Diphenylamine	U	978	ug/kg	294	978
122-66-7	1,2-Diphenylhydrazine	U	978	ug/kg	294	978
101-55-3	4-Bromophenylphenylether	U	978	ug/kg	294	978
118-74-1	Hexachlorobenzene	U	978	ug/kg	294	978
87-86-5	Pentachlorophenol	U	978	ug/kg	294	978
88-85-7	Dinoseb	U	978	ug/kg	294	978
85-01-8	Phenanthrene	U	97.8	ug/kg	29.4	97.8
120-12-7	Anthracene	U	97.8	ug/kg	29.4	97.8
86-74-8	Carbazole	U	97.8	ug/kg	29.4	97.8
84-74-2	Di-n-butylphthalate	U	97.8	ug/kg	29.4	97.8
206-44-0	Fluoranthene	U	97.8	ug/kg	29.4	97.8
129-00-0	Pyrene	U	97.8	ug/kg	29.4	97.8
85-68-7	Butylbenzylphthalate	U	97.8	ug/kg	29.4	97.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	97.8	ug/kg	29.4	97.8
56-55-3	Benzo(a)anthracene	U	97.8	ug/kg	29.4	97.8
218-01-9	Chrysene	U	97.8	ug/kg	29.4	97.8
72-43-5	Methoxychlor	U	978	ug/kg	294	978
117-84-0	Di-n-octylphthalate	U	97.8	ug/kg	29.4	97.8
205-99-2	Benzo(b)fluoranthene	U	97.8	ug/kg	29.4	97.8
207-08-9	Benzo(k)fluoranthene	U	97.8	ug/kg	29.4	97.8
50-32-8	Benzo(a)pyrene	U	97.8	ug/kg	29.4	97.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	97.8	ug/kg	29.4	97.8
53-70-3	Dibenzo(a,h)anthracene	U	97.8	ug/kg	29.4	97.8
191-24-2	Benzo(ghi)perylene	U	97.8	ug/kg	29.4	97.8
123-91-1	1,4-Dioxane	U	978	ug/kg	294	978
80-62-6	Methyl methacrylate	U	978	ug/kg	294	978
97-63-2	Ethyl methacrylate	U	978	ug/kg	294	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660974003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:34	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.22 g	Final Volume:	1 mL
Data File:	S040424.S\3D0426.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	978	ug/kg	294	978
10595-95-6	N-Nitrosomethylethylamine	U	978	ug/kg	294	978
66-27-3	Methyl methanesulfonate	U	978	ug/kg	294	978
55-18-5	N-Nitrosodiethylamine	U	978	ug/kg	294	978
62-50-0	Ethyl Methanesulfonate	U	978	ug/kg	294	978
76-01-7	Pentachloroethane	U	978	ug/kg	294	978
930-55-2	N-Nitrosopyrrolidine	U	978	ug/kg	294	978
98-86-2	Acetophenone	U	978	ug/kg	294	978
59-89-2	N-Nitrosomorpholine	U	978	ug/kg	294	978
95-53-4	o-Toluidine	U	978	ug/kg	294	978
100-75-4	N-Nitrosopiperidine	U	978	ug/kg	294	978
122-09-8	a,a-Dimethylphenethylamine	U	978	ug/kg	342	978
87-65-0	2,6-Dichlorophenol	U	978	ug/kg	294	978
1888-71-7	Hexachloropropene	U	978	ug/kg	294	978
924-16-3	N-Nitrosodi-n-butylamine	U	978	ug/kg	294	978
94-59-7	Safrole	U	978	ug/kg	294	978
95-94-3	1,2,4,5-Tetrachlorobenzene	U	978	ug/kg	294	978
120-58-1	Isosafrole	U	978	ug/kg	294	978
130-15-4	1,4-Naphthoquinone	U	978	ug/kg	294	978
608-93-5	Pentachlorobenzene	U	978	ug/kg	294	978
134-32-7	1-Naphthylamine	U	978	ug/kg	294	978
91-59-8	2-Naphthylamine	U	978	ug/kg	294	978
99-55-8	5-Nitro-o-toluidine	U	978	ug/kg	294	978
62-44-2	Phenacetin	U	978	ug/kg	294	978
99-35-4	1,3,5-Trinitrobenzene	U	978	ug/kg	294	978
2303-16-4	Diallate	U	978	ug/kg	294	978
92-67-1	4-Aminobiphenyl	U	978	ug/kg	294	978
82-68-8	Pentachloronitrobenzene	U	978	ug/kg	294	978
23950-58-5	Pronamide	U	978	ug/kg	294	978
56-57-5	4-Nitroquinoline-1-oxide	U	978	ug/kg	294	978
91-80-5	Methapyrilene	U	978	ug/kg	294	978
465-73-6	Isodrin	U	978	ug/kg	196	978
140-57-8	Aramite	U	978	ug/kg	294	978
143-50-0	Kepone	U	978	ug/kg	294	978
60-11-7	p-(Dimethylamino)azobenzene	U	978	ug/kg	294	978
510-15-6	Chlorobenzilate	U	978	ug/kg	294	978
119-93-7	3,3'-Dimethylbenzidine	U	978	ug/kg	294	978
53-96-3	2-Acetylaminofluorene	U	978	ug/kg	294	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660974003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:34	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.22 g	Final Volume:	1 mL
Data File:	S040424.S\3D0426.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	978	ug/kg	294	978
57-97-6	7,12-Dimethylbenz(a)anthracene	U	978	ug/kg	294	978
56-49-5	3-Methylcholanthrene	U	978	ug/kg	294	978
126-68-1	Triethylphosphorothioate	U	978	ug/kg	294	978
297-97-2	Thionazin	U	978	ug/kg	294	978
126-73-8	Tributylphosphate	U	978	ug/kg	294	978
3689-24-5	Sulfotepp	U	978	ug/kg	294	978
298-02-2	Phorate	U	978	ug/kg	294	978
60-51-5	Dimethoate	U	978	ug/kg	294	978
298-04-4	Disulfoton	U	978	ug/kg	294	978
298-00-0	Methyl parathion	U	978	ug/kg	294	978
56-38-2	Parathion	U	978	ug/kg	294	978
52-85-7	Famphur	U	978	ug/kg	294	978
106-50-3	p-Phenylenediamine	U	48900	ug/kg	9780	48900
70-30-4	Hexachlorophene	U	48900	ug/kg	11400	48900
120-82-1	1,2,4-Trichlorobenzene	U	978	ug/kg	294	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660974004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:55	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.23 g	Final Volume:	1 mL
Data File:	S040424.S\3D0427.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	978	ug/kg	293	978
110-86-1	Pyridine	U	978	ug/kg	293	978
62-53-3	Aniline	U	978	ug/kg	293	978
108-95-2	Phenol	U	978	ug/kg	293	978
111-44-4	bis(2-Chloroethyl) ether	U	978	ug/kg	293	978
95-57-8	2-Chlorophenol	U	978	ug/kg	293	978
541-73-1	1,3-Dichlorobenzene	U	978	ug/kg	293	978
106-46-7	1,4-Dichlorobenzene	U	978	ug/kg	293	978
95-50-1	1,2-Dichlorobenzene	J	588	ug/kg	293	978
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	978	ug/kg	293	978
100-51-6	Benzyl alcohol	U	978	ug/kg	293	978
95-48-7	o-Cresol	U	978	ug/kg	293	978
65794-96-9	m,p-Cresols	U	978	ug/kg	293	978
621-64-7	N-Nitrosodipropylamine	U	978	ug/kg	293	978
67-72-1	Hexachloroethane	U	978	ug/kg	293	978
98-95-3	Nitrobenzene	U	978	ug/kg	293	978
78-59-1	Isophorone	U	978	ug/kg	293	978
88-75-5	2-Nitrophenol	U	978	ug/kg	293	978
105-67-9	2,4-Dimethylphenol	U	978	ug/kg	293	978
111-91-1	bis(2-Chloroethoxy)methane	U	978	ug/kg	293	978
120-83-2	2,4-Dichlorophenol	U	978	ug/kg	293	978
65-85-0	Benzoic acid	U	1960	ug/kg	489	1960
106-47-8	4-Chloroaniline	U	978	ug/kg	293	978
87-68-3	Hexachlorobutadiene	U	978	ug/kg	293	978
59-50-7	4-Chloro-3-methylphenol	U	978	ug/kg	391	978
91-57-6	2-Methylnaphthalene	U	97.8	ug/kg	29.3	97.8
91-20-3	Naphthalene	J	37.1	ug/kg	29.3	97.8
90-12-0	1-Methylnaphthalene	U	97.8	ug/kg	29.3	97.8
77-47-4	Hexachlorocyclopentadiene	U	978	ug/kg	293	978
88-06-2	2,4,6-Trichlorophenol	U	978	ug/kg	293	978
95-95-4	2,4,5-Trichlorophenol	U	978	ug/kg	293	978
91-58-7	2-Chloronaphthalene	U	97.8	ug/kg	29.3	97.8
88-74-4	o-Nitroaniline	U	978	ug/kg	323	978
99-09-2	m-Nitroaniline	U	978	ug/kg	293	978
131-11-3	Dimethylphthalate	U	97.8	ug/kg	29.3	97.8
99-65-0	m-Dinitrobenzene	U	978	ug/kg	293	978
606-20-2	2,6-Dinitrotoluene	U	978	ug/kg	293	978
121-14-2	2,4-Dinitrotoluene	U	978	ug/kg	293	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660974004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:55	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.23 g	Final Volume:	1 mL
Data File:	S040424.S\3D0427.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	97.8	ug/kg	29.3	97.8
83-32-9	Acenaphthene	U	97.8	ug/kg	29.3	97.8
51-28-5	2,4-Dinitrophenol	U	1960	ug/kg	293	1960
132-64-9	Dibenzofuran	U	978	ug/kg	293	978
58-90-2	2,3,4,6-Tetrachlorophenol	U	978	ug/kg	293	978
84-66-2	Diethylphthalate	U	97.8	ug/kg	29.3	97.8
100-02-7	4-Nitrophenol	U	978	ug/kg	293	978
86-73-7	Fluorene	U	97.8	ug/kg	29.3	97.8
7005-72-3	4-Chlorophenylphenylether	U	978	ug/kg	293	978
100-01-6	p-Nitroaniline	U	978	ug/kg	293	978
534-52-1	2-Methyl-4,6-dinitrophenol	U	978	ug/kg	293	978
122-39-4	Diphenylamine	U	978	ug/kg	293	978
122-66-7	1,2-Diphenylhydrazine	U	978	ug/kg	293	978
101-55-3	4-Bromophenylphenylether	U	978	ug/kg	293	978
118-74-1	Hexachlorobenzene	U	978	ug/kg	293	978
87-86-5	Pentachlorophenol	U	978	ug/kg	293	978
88-85-7	Dinoseb	U	978	ug/kg	293	978
85-01-8	Phenanthrene	U	97.8	ug/kg	29.3	97.8
120-12-7	Anthracene	U	97.8	ug/kg	29.3	97.8
86-74-8	Carbazole	U	97.8	ug/kg	29.3	97.8
84-74-2	Di-n-butylphthalate	U	97.8	ug/kg	29.3	97.8
206-44-0	Fluoranthene	U	97.8	ug/kg	29.3	97.8
129-00-0	Pyrene	U	97.8	ug/kg	29.3	97.8
85-68-7	Butylbenzylphthalate	U	97.8	ug/kg	29.3	97.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	97.8	ug/kg	29.3	97.8
56-55-3	Benzo(a)anthracene	U	97.8	ug/kg	29.3	97.8
218-01-9	Chrysene	U	97.8	ug/kg	29.3	97.8
72-43-5	Methoxychlor	U	978	ug/kg	293	978
117-84-0	Di-n-octylphthalate	U	97.8	ug/kg	29.3	97.8
205-99-2	Benzo(b)fluoranthene	U	97.8	ug/kg	29.3	97.8
207-08-9	Benzo(k)fluoranthene	U	97.8	ug/kg	29.3	97.8
50-32-8	Benzo(a)pyrene	U	97.8	ug/kg	29.3	97.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	97.8	ug/kg	29.3	97.8
53-70-3	Dibenzo(a,h)anthracene	U	97.8	ug/kg	29.3	97.8
191-24-2	Benzo(ghi)perylene	U	97.8	ug/kg	29.3	97.8
123-91-1	1,4-Dioxane	U	978	ug/kg	293	978
80-62-6	Methyl methacrylate	U	978	ug/kg	293	978
97-63-2	Ethyl methacrylate	U	978	ug/kg	293	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660974004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:55	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.23 g	Final Volume:	1 mL
Data File:	S040424.S\3D0427.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	978	ug/kg	293	978
10595-95-6	N-Nitrosomethylethylamine	U	978	ug/kg	293	978
66-27-3	Methyl methanesulfonate	U	978	ug/kg	293	978
55-18-5	N-Nitrosodiethylamine	U	978	ug/kg	293	978
62-50-0	Ethyl Methanesulfonate	U	978	ug/kg	293	978
76-01-7	Pentachloroethane	U	978	ug/kg	293	978
930-55-2	N-Nitrosopyrrolidine	U	978	ug/kg	293	978
98-86-2	Acetophenone	U	978	ug/kg	293	978
59-89-2	N-Nitrosomorpholine	U	978	ug/kg	293	978
95-53-4	o-Toluidine	U	978	ug/kg	293	978
100-75-4	N-Nitrosopiperidine	U	978	ug/kg	293	978
122-09-8	a,a-Dimethylphenethylamine	U	978	ug/kg	342	978
87-65-0	2,6-Dichlorophenol	U	978	ug/kg	293	978
1888-71-7	Hexachloropropene	U	978	ug/kg	293	978
924-16-3	N-Nitrosodi-n-butylamine	U	978	ug/kg	293	978
94-59-7	Safrole	U	978	ug/kg	293	978
95-94-3	1,2,4,5-Tetrachlorobenzene	U	978	ug/kg	293	978
120-58-1	Isosafrole	U	978	ug/kg	293	978
130-15-4	1,4-Naphthoquinone	U	978	ug/kg	293	978
608-93-5	Pentachlorobenzene	U	978	ug/kg	293	978
134-32-7	1-Naphthylamine	U	978	ug/kg	293	978
91-59-8	2-Naphthylamine	U	978	ug/kg	293	978
99-55-8	5-Nitro-o-toluidine	U	978	ug/kg	293	978
62-44-2	Phenacetin	U	978	ug/kg	293	978
99-35-4	1,3,5-Trinitrobenzene	U	978	ug/kg	293	978
2303-16-4	Diallate	U	978	ug/kg	293	978
92-67-1	4-Aminobiphenyl	U	978	ug/kg	293	978
82-68-8	Pentachloronitrobenzene	U	978	ug/kg	293	978
23950-58-5	Pronamide	U	978	ug/kg	293	978
56-57-5	4-Nitroquinoline-1-oxide	U	978	ug/kg	293	978
91-80-5	Methapyrilene	U	978	ug/kg	293	978
465-73-6	Isodrin	U	978	ug/kg	196	978
140-57-8	Aramite	U	978	ug/kg	293	978
143-50-0	Kepone	U	978	ug/kg	293	978
60-11-7	p-(Dimethylamino)azobenzene	U	978	ug/kg	293	978
510-15-6	Chlorobenzilate	U	978	ug/kg	293	978
119-93-7	3,3'-Dimethylbenzidine	U	978	ug/kg	293	978
53-96-3	2-Acetylaminofluorene	U	978	ug/kg	293	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660974004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:55	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.23 g	Final Volume:	1 mL
Data File:	S040424.S\3D0427.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	978	ug/kg	293	978
57-97-6	7,12-Dimethylbenz(a)anthracene	U	978	ug/kg	293	978
56-49-5	3-Methylcholanthrene	U	978	ug/kg	293	978
126-68-1	Triethylphosphorothioate	U	978	ug/kg	293	978
297-97-2	Thionazin	U	978	ug/kg	293	978
126-73-8	Tributylphosphate	U	978	ug/kg	293	978
3689-24-5	Sulfotepp	U	978	ug/kg	293	978
298-02-2	Phorate	U	978	ug/kg	293	978
60-51-5	Dimethoate	U	978	ug/kg	293	978
298-04-4	Disulfoton	U	978	ug/kg	293	978
298-00-0	Methyl parathion	U	978	ug/kg	293	978
56-38-2	Parathion	U	978	ug/kg	293	978
52-85-7	Famphur	U	978	ug/kg	293	978
106-50-3	p-Phenylenediamine	U	48900	ug/kg	9780	48900
70-30-4	Hexachlorophene	U	48900	ug/kg	11300	48900
120-82-1	1,2,4-Trichlorobenzene	U	978	ug/kg	293	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660974005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 23:16	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.25 g	Final Volume:	1 mL
Data File:	S040424.S\3D0428.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	976	ug/kg	293	976
110-86-1	Pyridine	U	976	ug/kg	293	976
62-53-3	Aniline	U	976	ug/kg	293	976
108-95-2	Phenol	U	976	ug/kg	293	976
111-44-4	bis(2-Chloroethyl) ether	U	976	ug/kg	293	976
95-57-8	2-Chlorophenol	U	976	ug/kg	293	976
541-73-1	1,3-Dichlorobenzene	U	976	ug/kg	293	976
106-46-7	1,4-Dichlorobenzene	U	976	ug/kg	293	976
95-50-1	1,2-Dichlorobenzene	J	338	ug/kg	293	976
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	976	ug/kg	293	976
100-51-6	Benzyl alcohol	U	976	ug/kg	293	976
95-48-7	o-Cresol	U	976	ug/kg	293	976
65794-96-9	m,p-Cresols	U	976	ug/kg	293	976
621-64-7	N-Nitrosodipropylamine	U	976	ug/kg	293	976
67-72-1	Hexachloroethane	U	976	ug/kg	293	976
98-95-3	Nitrobenzene	U	976	ug/kg	293	976
78-59-1	Isophorone	U	976	ug/kg	293	976
88-75-5	2-Nitrophenol	U	976	ug/kg	293	976
105-67-9	2,4-Dimethylphenol	U	976	ug/kg	293	976
111-91-1	bis(2-Chloroethoxy)methane	U	976	ug/kg	293	976
120-83-2	2,4-Dichlorophenol	U	976	ug/kg	293	976
65-85-0	Benzoic acid	U	1950	ug/kg	488	1950
106-47-8	4-Chloroaniline	U	976	ug/kg	293	976
87-68-3	Hexachlorobutadiene	U	976	ug/kg	293	976
59-50-7	4-Chloro-3-methylphenol	U	976	ug/kg	390	976
91-57-6	2-Methylnaphthalene	U	97.6	ug/kg	29.3	97.6
91-20-3	Naphthalene	U	97.6	ug/kg	29.3	97.6
90-12-0	1-Methylnaphthalene	U	97.6	ug/kg	29.3	97.6
77-47-4	Hexachlorocyclopentadiene	U	976	ug/kg	293	976
88-06-2	2,4,6-Trichlorophenol	U	976	ug/kg	293	976
95-95-4	2,4,5-Trichlorophenol	U	976	ug/kg	293	976
91-58-7	2-Chloronaphthalene	U	97.6	ug/kg	29.3	97.6
88-74-4	o-Nitroaniline	U	976	ug/kg	322	976
99-09-2	m-Nitroaniline	U	976	ug/kg	293	976
131-11-3	Dimethylphthalate	U	97.6	ug/kg	29.3	97.6
99-65-0	m-Dinitrobenzene	U	976	ug/kg	293	976
606-20-2	2,6-Dinitrotoluene	U	976	ug/kg	293	976
121-14-2	2,4-Dinitrotoluene	U	976	ug/kg	293	976

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660974005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 23:16	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.25 g	Final Volume:	1 mL
Data File:	S040424.S\3D0428.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	97.6	ug/kg	29.3	97.6
83-32-9	Acenaphthene	U	97.6	ug/kg	29.3	97.6
51-28-5	2,4-Dinitrophenol	U	1950	ug/kg	293	1950
132-64-9	Dibenzofuran	U	976	ug/kg	293	976
58-90-2	2,3,4,6-Tetrachlorophenol	U	976	ug/kg	293	976
84-66-2	Diethylphthalate	U	97.6	ug/kg	29.3	97.6
100-02-7	4-Nitrophenol	U	976	ug/kg	293	976
86-73-7	Fluorene	U	97.6	ug/kg	29.3	97.6
7005-72-3	4-Chlorophenylphenylether	U	976	ug/kg	293	976
100-01-6	p-Nitroaniline	U	976	ug/kg	293	976
534-52-1	2-Methyl-4,6-dinitrophenol	U	976	ug/kg	293	976
122-39-4	Diphenylamine	U	976	ug/kg	293	976
122-66-7	1,2-Diphenylhydrazine	U	976	ug/kg	293	976
101-55-3	4-Bromophenylphenylether	U	976	ug/kg	293	976
118-74-1	Hexachlorobenzene	U	976	ug/kg	293	976
87-86-5	Pentachlorophenol	U	976	ug/kg	293	976
88-85-7	Dinoseb	U	976	ug/kg	293	976
85-01-8	Phenanthrene	U	97.6	ug/kg	29.3	97.6
120-12-7	Anthracene	U	97.6	ug/kg	29.3	97.6
86-74-8	Carbazole	U	97.6	ug/kg	29.3	97.6
84-74-2	Di-n-butylphthalate	U	97.6	ug/kg	29.3	97.6
206-44-0	Fluoranthene	U	97.6	ug/kg	29.3	97.6
129-00-0	Pyrene	U	97.6	ug/kg	29.3	97.6
85-68-7	Butylbenzylphthalate	U	97.6	ug/kg	29.3	97.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	97.6	ug/kg	29.3	97.6
56-55-3	Benzo(a)anthracene	U	97.6	ug/kg	29.3	97.6
218-01-9	Chrysene	U	97.6	ug/kg	29.3	97.6
72-43-5	Methoxychlor	U	976	ug/kg	293	976
117-84-0	Di-n-octylphthalate	U	97.6	ug/kg	29.3	97.6
205-99-2	Benzo(b)fluoranthene	U	97.6	ug/kg	29.3	97.6
207-08-9	Benzo(k)fluoranthene	U	97.6	ug/kg	29.3	97.6
50-32-8	Benzo(a)pyrene	U	97.6	ug/kg	29.3	97.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	97.6	ug/kg	29.3	97.6
53-70-3	Dibenzo(a,h)anthracene	U	97.6	ug/kg	29.3	97.6
191-24-2	Benzo(ghi)perylene	U	97.6	ug/kg	29.3	97.6
123-91-1	1,4-Dioxane	U	976	ug/kg	293	976
80-62-6	Methyl methacrylate	U	976	ug/kg	293	976
97-63-2	Ethyl methacrylate	U	976	ug/kg	293	976

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660974005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 23:16	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.25 g	Final Volume:	1 mL
Data File:	S040424.S\3D0428.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	976	ug/kg	293	976
10595-95-6	N-Nitrosomethylethylamine	U	976	ug/kg	293	976
66-27-3	Methyl methanesulfonate	U	976	ug/kg	293	976
55-18-5	N-Nitrosodiethylamine	U	976	ug/kg	293	976
62-50-0	Ethyl Methanesulfonate	U	976	ug/kg	293	976
76-01-7	Pentachloroethane	U	976	ug/kg	293	976
930-55-2	N-Nitrosopyrrolidine	U	976	ug/kg	293	976
98-86-2	Acetophenone	U	976	ug/kg	293	976
59-89-2	N-Nitrosomorpholine	U	976	ug/kg	293	976
95-53-4	o-Toluidine	U	976	ug/kg	293	976
100-75-4	N-Nitrosopiperidine	U	976	ug/kg	293	976
122-09-8	a,a-Dimethylphenethylamine	U	976	ug/kg	341	976
87-65-0	2,6-Dichlorophenol	U	976	ug/kg	293	976
1888-71-7	Hexachloropropene	U	976	ug/kg	293	976
924-16-3	N-Nitrosodi-n-butylamine	U	976	ug/kg	293	976
94-59-7	Safrole	U	976	ug/kg	293	976
95-94-3	1,2,4,5-Tetrachlorobenzene	U	976	ug/kg	293	976
120-58-1	Isosafrole	U	976	ug/kg	293	976
130-15-4	1,4-Naphthoquinone	U	976	ug/kg	293	976
608-93-5	Pentachlorobenzene	U	976	ug/kg	293	976
134-32-7	1-Naphthylamine	U	976	ug/kg	293	976
91-59-8	2-Naphthylamine	U	976	ug/kg	293	976
99-55-8	5-Nitro-o-toluidine	U	976	ug/kg	293	976
62-44-2	Phenacetin	U	976	ug/kg	293	976
99-35-4	1,3,5-Trinitrobenzene	U	976	ug/kg	293	976
2303-16-4	Diallate	U	976	ug/kg	293	976
92-67-1	4-Aminobiphenyl	U	976	ug/kg	293	976
82-68-8	Pentachloronitrobenzene	U	976	ug/kg	293	976
23950-58-5	Pronamide	U	976	ug/kg	293	976
56-57-5	4-Nitroquinoline-1-oxide	U	976	ug/kg	293	976
91-80-5	Methapyrilene	U	976	ug/kg	293	976
465-73-6	Isodrin	U	976	ug/kg	195	976
140-57-8	Aramite	U	976	ug/kg	293	976
143-50-0	Kepone	U	976	ug/kg	293	976
60-11-7	p-(Dimethylamino)azobenzene	U	976	ug/kg	293	976
510-15-6	Chlorobenzilate	U	976	ug/kg	293	976
119-93-7	3,3'-Dimethylbenzidine	U	976	ug/kg	293	976
53-96-3	2-Acetylaminofluorene	U	976	ug/kg	293	976

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660974005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 23:16	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.25 g	Final Volume:	1 mL
Data File:	S040424.S\3D0428.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	976	ug/kg	293	976
57-97-6	7,12-Dimethylbenz(a)anthracene	U	976	ug/kg	293	976
56-49-5	3-Methylcholanthrene	U	976	ug/kg	293	976
126-68-1	Triethylphosphorothioate	U	976	ug/kg	293	976
297-97-2	Thionazin	U	976	ug/kg	293	976
126-73-8	Tributylphosphate	U	976	ug/kg	293	976
3689-24-5	Sulfotepp	U	976	ug/kg	293	976
298-02-2	Phorate	U	976	ug/kg	293	976
60-51-5	Dimethoate	U	976	ug/kg	293	976
298-04-4	Disulfoton	U	976	ug/kg	293	976
298-00-0	Methyl parathion	U	976	ug/kg	293	976
56-38-2	Parathion	U	976	ug/kg	293	976
52-85-7	Famphur	U	976	ug/kg	293	976
106-50-3	p-Phenylenediamine	U	48800	ug/kg	9760	48800
70-30-4	Hexachlorophene	U	48800	ug/kg	11300	48800
120-82-1	1,2,4-Trichlorobenzene	U	976	ug/kg	293	976

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660974006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 23:38	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.93 g	Final Volume:	1 mL
Data File:	S040424.S\3D0429.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	915	ug/kg	274	915
110-86-1	Pyridine	U	915	ug/kg	274	915
62-53-3	Aniline	U	915	ug/kg	274	915
108-95-2	Phenol	U	915	ug/kg	274	915
111-44-4	bis(2-Chloroethyl) ether	U	915	ug/kg	274	915
95-57-8	2-Chlorophenol	U	915	ug/kg	274	915
541-73-1	1,3-Dichlorobenzene	U	915	ug/kg	274	915
106-46-7	1,4-Dichlorobenzene	U	915	ug/kg	274	915
95-50-1	1,2-Dichlorobenzene	U	915	ug/kg	274	915
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	915	ug/kg	274	915
100-51-6	Benzyl alcohol	U	915	ug/kg	274	915
95-48-7	o-Cresol	U	915	ug/kg	274	915
65794-96-9	m,p-Cresols	U	915	ug/kg	274	915
621-64-7	N-Nitrosodipropylamine	U	915	ug/kg	274	915
67-72-1	Hexachloroethane	U	915	ug/kg	274	915
98-95-3	Nitrobenzene	U	915	ug/kg	274	915
78-59-1	Isophorone	U	915	ug/kg	274	915
88-75-5	2-Nitrophenol	U	915	ug/kg	274	915
105-67-9	2,4-Dimethylphenol	U	915	ug/kg	274	915
111-91-1	bis(2-Chloroethoxy)methane	U	915	ug/kg	274	915
120-83-2	2,4-Dichlorophenol	U	915	ug/kg	274	915
65-85-0	Benzoic acid	U	1830	ug/kg	457	1830
106-47-8	4-Chloroaniline	U	915	ug/kg	274	915
87-68-3	Hexachlorobutadiene	U	915	ug/kg	274	915
59-50-7	4-Chloro-3-methylphenol	U	915	ug/kg	366	915
91-57-6	2-Methylnaphthalene	U	91.5	ug/kg	27.4	91.5
91-20-3	Naphthalene	U	91.5	ug/kg	27.4	91.5
90-12-0	1-Methylnaphthalene	U	91.5	ug/kg	27.4	91.5
77-47-4	Hexachlorocyclopentadiene	U	915	ug/kg	274	915
88-06-2	2,4,6-Trichlorophenol	U	915	ug/kg	274	915
95-95-4	2,4,5-Trichlorophenol	U	915	ug/kg	274	915
91-58-7	2-Chloronaphthalene	U	91.5	ug/kg	27.4	91.5
88-74-4	o-Nitroaniline	U	915	ug/kg	302	915
99-09-2	m-Nitroaniline	U	915	ug/kg	274	915
131-11-3	Dimethylphthalate	U	91.5	ug/kg	27.4	91.5
99-65-0	m-Dinitrobenzene	U	915	ug/kg	274	915
606-20-2	2,6-Dinitrotoluene	U	915	ug/kg	274	915
121-14-2	2,4-Dinitrotoluene	U	915	ug/kg	274	915

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660974006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 23:38	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.93 g	Final Volume:	1 mL
Data File:	S040424.S\3D0429.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	91.5	ug/kg	27.4	91.5
83-32-9	Acenaphthene	U	91.5	ug/kg	27.4	91.5
51-28-5	2,4-Dinitrophenol	U	1830	ug/kg	274	1830
132-64-9	Dibenzofuran	U	915	ug/kg	274	915
58-90-2	2,3,4,6-Tetrachlorophenol	U	915	ug/kg	274	915
84-66-2	Diethylphthalate	U	91.5	ug/kg	27.4	91.5
100-02-7	4-Nitrophenol	U	915	ug/kg	274	915
86-73-7	Fluorene	U	91.5	ug/kg	27.4	91.5
7005-72-3	4-Chlorophenylphenylether	U	915	ug/kg	274	915
100-01-6	p-Nitroaniline	U	915	ug/kg	274	915
534-52-1	2-Methyl-4,6-dinitrophenol	U	915	ug/kg	274	915
122-39-4	Diphenylamine	U	915	ug/kg	274	915
122-66-7	1,2-Diphenylhydrazine	U	915	ug/kg	274	915
101-55-3	4-Bromophenylphenylether	U	915	ug/kg	274	915
118-74-1	Hexachlorobenzene	U	915	ug/kg	274	915
87-86-5	Pentachlorophenol	U	915	ug/kg	274	915
88-85-7	Dinoseb	U	915	ug/kg	274	915
85-01-8	Phenanthrene	U	91.5	ug/kg	27.4	91.5
120-12-7	Anthracene	U	91.5	ug/kg	27.4	91.5
86-74-8	Carbazole	U	91.5	ug/kg	27.4	91.5
84-74-2	Di-n-butylphthalate	U	91.5	ug/kg	27.4	91.5
206-44-0	Fluoranthene	U	91.5	ug/kg	27.4	91.5
129-00-0	Pyrene	U	91.5	ug/kg	27.4	91.5
85-68-7	Butylbenzylphthalate	U	91.5	ug/kg	27.4	91.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	91.5	ug/kg	27.4	91.5
56-55-3	Benzo(a)anthracene	U	91.5	ug/kg	27.4	91.5
218-01-9	Chrysene	U	91.5	ug/kg	27.4	91.5
72-43-5	Methoxychlor	U	915	ug/kg	274	915
117-84-0	Di-n-octylphthalate	U	91.5	ug/kg	27.4	91.5
205-99-2	Benzo(b)fluoranthene	U	91.5	ug/kg	27.4	91.5
207-08-9	Benzo(k)fluoranthene	U	91.5	ug/kg	27.4	91.5
50-32-8	Benzo(a)pyrene	U	91.5	ug/kg	27.4	91.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	91.5	ug/kg	27.4	91.5
53-70-3	Dibenzo(a,h)anthracene	U	91.5	ug/kg	27.4	91.5
191-24-2	Benzo(ghi)perylene	U	91.5	ug/kg	27.4	91.5
123-91-1	1,4-Dioxane	U	915	ug/kg	274	915
80-62-6	Methyl methacrylate	U	915	ug/kg	274	915
97-63-2	Ethyl methacrylate	U	915	ug/kg	274	915

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660974006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 23:38	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.93 g	Final Volume:	1 mL
Data File:	S040424.S\3D0429.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	915	ug/kg	274	915
10595-95-6	N-Nitrosomethylethylamine	U	915	ug/kg	274	915
66-27-3	Methyl methanesulfonate	U	915	ug/kg	274	915
55-18-5	N-Nitrosodiethylamine	U	915	ug/kg	274	915
62-50-0	Ethyl Methanesulfonate	U	915	ug/kg	274	915
76-01-7	Pentachloroethane	U	915	ug/kg	274	915
930-55-2	N-Nitrosopyrrolidine	U	915	ug/kg	274	915
98-86-2	Acetophenone	U	915	ug/kg	274	915
59-89-2	N-Nitrosomorpholine	U	915	ug/kg	274	915
95-53-4	o-Toluidine	U	915	ug/kg	274	915
100-75-4	N-Nitrosopiperidine	U	915	ug/kg	274	915
122-09-8	a,a-Dimethylphenethylamine	U	915	ug/kg	320	915
87-65-0	2,6-Dichlorophenol	U	915	ug/kg	274	915
1888-71-7	Hexachloropropene	U	915	ug/kg	274	915
924-16-3	N-Nitrosodi-n-butylamine	U	915	ug/kg	274	915
94-59-7	Safrole	U	915	ug/kg	274	915
95-94-3	1,2,4,5-Tetrachlorobenzene	U	915	ug/kg	274	915
120-58-1	Isosafrole	U	915	ug/kg	274	915
130-15-4	1,4-Naphthoquinone	U	915	ug/kg	274	915
608-93-5	Pentachlorobenzene	U	915	ug/kg	274	915
134-32-7	1-Naphthylamine	U	915	ug/kg	274	915
91-59-8	2-Naphthylamine	U	915	ug/kg	274	915
99-55-8	5-Nitro-o-toluidine	U	915	ug/kg	274	915
62-44-2	Phenacetin	U	915	ug/kg	274	915
99-35-4	1,3,5-Trinitrobenzene	U	915	ug/kg	274	915
2303-16-4	Diallate	U	915	ug/kg	274	915
92-67-1	4-Aminobiphenyl	U	915	ug/kg	274	915
82-68-8	Pentachloronitrobenzene	U	915	ug/kg	274	915
23950-58-5	Pronamide	U	915	ug/kg	274	915
56-57-5	4-Nitroquinoline-1-oxide	U	915	ug/kg	274	915
91-80-5	Methapyrilene	U	915	ug/kg	274	915
465-73-6	Isodrin	U	915	ug/kg	183	915
140-57-8	Aramite	U	915	ug/kg	274	915
143-50-0	Kepone	U	915	ug/kg	274	915
60-11-7	p-(Dimethylamino)azobenzene	U	915	ug/kg	274	915
510-15-6	Chlorobenzilate	U	915	ug/kg	274	915
119-93-7	3,3'-Dimethylbenzidine	U	915	ug/kg	274	915
53-96-3	2-Acetylaminofluorene	U	915	ug/kg	274	915

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660974006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 23:38	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.93 g	Final Volume:	1 mL
Data File:	S040424.S\3D0429.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	915	ug/kg	274	915
57-97-6	7,12-Dimethylbenz(a)anthracene	U	915	ug/kg	274	915
56-49-5	3-Methylcholanthrene	U	915	ug/kg	274	915
126-68-1	Triethylphosphorothioate	U	915	ug/kg	274	915
297-97-2	Thionazin	U	915	ug/kg	274	915
126-73-8	Tributylphosphate	U	915	ug/kg	274	915
3689-24-5	Sulfotepp	U	915	ug/kg	274	915
298-02-2	Phorate	U	915	ug/kg	274	915
60-51-5	Dimethoate	U	915	ug/kg	274	915
298-04-4	Disulfoton	U	915	ug/kg	274	915
298-00-0	Methyl parathion	U	915	ug/kg	274	915
56-38-2	Parathion	U	915	ug/kg	274	915
52-85-7	Famphur	U	915	ug/kg	274	915
106-50-3	p-Phenylenediamine	U	45700	ug/kg	9150	45700
70-30-4	Hexachlorophene	U	45700	ug/kg	10600	45700
120-82-1	1,2,4-Trichlorobenzene	U	915	ug/kg	274	915

Quality Control Summary

Semi-Volatile
Surrogate Recovery Report

Page 1 of 1

SDG Number: 660974

Matrix Type: SOLID

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1205692351	MB for batch 2590877	78	81	69	72	77	90
1205692352	LCS for batch 2590877	77	82	69	70	83	89
1205692353	Y12EU4RS-68B(660558002MS)	62	68	57	59	71	66
1205692354	Y12EU4RS-68B(660558002MSD)	61	67	58	59	71	66
660974001	12039.B4.Top Front.PFF	75	80	69	73	74	86
660974002	12039.B4.Middle Front.PFF	75	78	67	70	74	84
660974003	12039.B4.Bottom Front.PFF	75	79	67	69	71	85
660974004	12040.B4.Top Back.PFF	69	74	62	66	70	83
660974005	12040.B4.Middle Back.PFF	68	72	62	65	72	83
660974006	12040.B4.Bottom Back.PFF	75	79	68	71	75	86

Surrogate

Acceptance Limits

2FP	= 2-Fluorophenol	(23%-108%)
PHL	= Phenol-d5	(24%-117%)
NBZ	= Nitrobenzene-d5	(23%-109%)
FBP	= 2-Fluorobiphenyl	(22%-120%)
TBP	= 2,4,6-Tribromophenol	(20%-130%)
TPH	= p-Terphenyl-d14	(22%-130%)

* Recovery outside Acceptance Limits

Column to be used to flag recovery values

D Sample Diluted

Quality Control Summary
Spike Recovery Report

SDG Number: 660974

Client ID: LCS for batch 2590877

Lab Sample ID: 1205692352

Instrument: MSD3.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample

Matrix: MISC SOLID

Analysis Date: 04/04/2024 15:46

Dilution: 1

Prep Batch ID:2590877

Batch ID: 2590892

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS N-Methyl-N-nitrosomethylamine	4690	0.0	3710	79	39-100
110-86-1	LCS Pyridine	4690	0.0	2930	63	32-69
62-53-3	LCS Aniline	4690	0.0	3180	68	35-91
108-95-2	LCS Phenol	4690	0.0	4120	88	47-108
111-44-4	LCS bis(2-Chloroethyl) ether	4690	0.0	3910	83	45-99
95-57-8	LCS 2-Chlorophenol	4690	0.0	4050	87	52-106
541-73-1	LCS 1,3-Dichlorobenzene	4690	0.0	3510	75	44-91
106-46-7	LCS 1,4-Dichlorobenzene	4690	0.0	3550	76	42-96
95-50-1	LCS 1,2-Dichlorobenzene	4690	0.0	3720	79	44-96
108-60-1	LCS bis(2-Chloro-1-methylethyl)ether	4690	0.0	3750	80	35-110
100-51-6	LCS Benzyl alcohol	4690	0.0	4190	89	42-116
95-48-7	LCS o-Cresol	4690	0.0	3970	85	50-109
65794-96-9	LCS m,p-Cresols	4690	0.0	4080	87	48-115
621-64-7	LCS N-Nitrosodipropylamine	4690	0.0	4100	88	43-109
67-72-1	LCS Hexachloroethane	4690	0.0	3550	76	42-94
98-95-3	LCS Nitrobenzene	4690	0.0	3740	80	48-102
78-59-1	LCS Isophorone	4690	0.0	3820	81	48-104
88-75-5	LCS 2-Nitrophenol	4690	0.0	3880	83	50-109
105-67-9	LCS 2,4-Dimethylphenol	4690	0.0	2740	58	44-97
111-91-1	LCS bis(2-Chloroethoxy)methane	4690	0.0	3950	84	49-101
120-83-2	LCS 2,4-Dichlorophenol	4690	0.0	4060	87	55-115
65-85-0	LCS Benzoic acid	9370	0.0	4860	52	20-108

Quality Control Summary
Spike Recovery Report

SDG Number: 660974

Client ID: LCS for batch 2590877

Lab Sample ID: 1205692352

Instrument: MSD3.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample

Matrix: MISC SOLID

Analysis Date: 04/04/2024 15:46

Dilution: 1

Prep Batch ID:2590877

Batch ID: 2590892

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
106-47-8	LCS 4-Chloroaniline	4690	0.0	3460	74	36-85
87-68-3	LCS Hexachlorobutadiene	4690	0.0	3590	77	46-108
59-50-7	LCS 4-Chloro-3-methylphenol	4690	0.0	4360	93	56-118
91-57-6	LCS 2-Methylnaphthalene	4690	0.0	3880	83	49-99
91-20-3	LCS Naphthalene	4690	0.0	3790	81	49-98
90-12-0	LCS 1-Methylnaphthalene	4690	0.0	4090	87	51-104
77-47-4	LCS Hexachlorocyclopentadiene	4690	0.0	1900	40	26-82
88-06-2	LCS 2,4,6-Trichlorophenol	4690	0.0	4020	86	54-123
95-95-4	LCS 2,4,5-Trichlorophenol	4690	0.0	4330	92	55-123
91-58-7	LCS 2-Chloronaphthalene	4690	0.0	3870	83	48-105
88-74-4	LCS o-Nitroaniline	4690	0.0	4190	89	47-122
99-09-2	LCS m-Nitroaniline	4690	0.0	3830	82	39-111
131-11-3	LCS Dimethylphthalate	4690	0.0	4370	93	56-116
606-20-2	LCS 2,6-Dinitrotoluene	4690	0.0	4160	89	54-117
121-14-2	LCS 2,4-Dinitrotoluene	4690	0.0	4520	96	52-123
208-96-8	LCS Acenaphthylene	4690	0.0	3860	82	50-102
83-32-9	LCS Acenaphthene	4690	0.0	4010	86	50-103
51-28-5	LCS 2,4-Dinitrophenol	4690	0.0	3100	66	22-89
132-64-9	LCS Dibenzofuran	4690	0.0	4080	87	55-112
58-90-2	LCS 2,3,4,6-Tetrachlorophenol	4690	0.0	3910	84	49-125
84-66-2	LCS Diethylphthalate	4690	0.0	4660	99	56-120
100-02-7	LCS 4-Nitrophenol	4690	0.0	4530	97	37-134

Semi-Volatile
Quality Control Summary
Spike Recovery Report

Page 3 of 4

SDG Number: 660974

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 2590877

Matrix: MISC SOLID

Lab Sample ID: 1205692352

Instrument: MSD3.I

Analysis Date: 04/04/2024 15:46

Dilution: 1

Analyst: LL2

Prep Batch ID: 2590877

Inj. Vol: 1 uL

Batch ID: 2590892

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS Fluorene	4690	0.0	4220	90	52-113
7005-72-3	LCS 4-Chlorophenylphenylether	4690	0.0	4240	90	52-119
100-01-6	LCS p-Nitroaniline	4690	0.0	4400	94	35-146
534-52-1	LCS 2-Methyl-4,6-dinitrophenol	4690	0.0	3580	76	21-106
122-39-4	LCS Diphenylamine	4690	0.0	4330	92	52-112
122-66-7	LCS 1,2-Diphenylhydrazine	4690	0.0	4110	88	49-113
101-55-3	LCS 4-Bromophenylphenylether	4690	0.0	4270	91	53-113
118-74-1	LCS Hexachlorobenzene	4690	0.0	4100	87	55-112
87-86-5	LCS Pentachlorophenol	4690	0.0	4220	90	31-114
85-01-8	LCS Phenanthrene	4690	0.0	4410	94	56-109
120-12-7	LCS Anthracene	4690	0.0	4330	92	54-106
86-74-8	LCS Carbazole	4690	0.0	4720	101	50-122
84-74-2	LCS Di-n-butylphthalate	4690	0.0	5050	108	54-122
206-44-0	LCS Fluoranthene	4690	0.0	4760	102	52-121
129-00-0	LCS Pyrene	4690	0.0	4780	102	42-117
85-68-7	LCS Butylbenzylphthalate	4690	0.0	4660	99	49-124
117-81-7	LCS bis(2-Ethylhexyl)phthalate	4690	0.0	4530	97	44-126
56-55-3	LCS Benzo(a)anthracene	4690	0.0	4490	96	55-114
218-01-9	LCS Chrysene	4690	0.0	4320	92	57-113
117-84-0	LCS Di-n-octylphthalate	4690	0.0	4880	104	46-134
205-99-2	LCS Benzo(b)fluoranthene	4690	0.0	4570	98	53-114
207-08-9	LCS Benzo(k)fluoranthene	4690	0.0	4440	95	53-121

Semi-Volatile
Quality Control Summary
Spike Recovery Report

Page 4 of 4

SDG Number: 660974

Client ID: LCS for batch 2590877

Lab Sample ID: 1205692352

Instrument: MSD3.I

Analyst: LL2

Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample

Matrix: MISC SOLID

Analysis Date: 04/04/2024 15:46

Dilution: 1

Prep Batch ID: 2590877

Batch ID: 2590892

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
50-32-8	LCS Benzo(a)pyrene	4690	0.0	4410	94	50-113
193-39-5	LCS Indeno(1,2,3-cd)pyrene	4690	0.0	4400	94	47-133
53-70-3	LCS Dibenzo(a,h)anthracene	4690	0.0	4620	99	45-133
191-24-2	LCS Benzo(ghi)perylene	4690	0.0	4920	105	42-125
123-91-1	LCS 1,4-Dioxane	4690	0.0	1970	42	34-58
930-55-2	LCS N-Nitrosopyrrolidine	4690	0.0	4210	90	57-125
98-86-2	LCS Acetophenone	4690	0.0	4230	90	49-104
87-65-0	LCS 2,6-Dichlorophenol	4690	0.0	4340	93	52-123
95-94-3	LCS 1,2,4,5-Tetrachlorobenzene	4690	0.0	3960	84	47-109
91-94-1	LCS 3,3'-Dichlorobenzidine	4690	0.0	3570	76	35-112
126-73-8	LCS Tributylphosphate	4690	0.0	4730	101	56-136
120-82-1	LCS 1,2,4-Trichlorobenzene	4690	0.0	3690	79	46-102

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660974

Client ID: Y12EU4RS-68B(660558002MS)

Lab Sample ID: 1205692353

Instrument: MSD3.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike

Matrix: RS

Analysis Date: 04/04/2024 16:53

Prep Batch ID:2590877

Batch ID: 2590892

Dilution: 1

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
117-81-7	MS bis(2-Ethylhexyl)phthalate	4960	19500	E	81900	1257 * 17-133
131-11-3	MS Dimethylphthalate	4960	53.6	J	3870	77 28-124
206-44-0	MS Fluoranthene	4960	62.4	J	3860	77 21-126
129-00-0	MS Pyrene	4960	39.0	J	3790	76 19-127
62-75-9	MS N-Methyl-N-nitrosomethylamine	4960	0.000	U	3060	62 12-100
110-86-1	MS Pyridine	4960	0.000	U	2480	50 17-69
62-53-3	MS Aniline	4960	0.000	U	2300	46 20-85
108-95-2	MS Phenol	4960	0.000	U	3630	73 17-116
111-44-4	MS bis(2-Chloroethyl) ether	4960	0.000	U	3260	66 15-109
95-57-8	MS 2-Chlorophenol	4960	0.000	U	3430	69 16-112
541-73-1	MS 1,3-Dichlorobenzene	4960	0.000	U	2790	56 14-98
106-46-7	MS 1,4-Dichlorobenzene	4960	0.000	U	2870	58 14-100
95-50-1	MS 1,2-Dichlorobenzene	4960	0.000	U	3090	62 18-104
108-60-1	MS bis(2-Chloro-1-methylethyl)ether	4960	0.000	U	3330	67 10-110
100-51-6	MS Benzyl alcohol	4960	0.000	U	3720	75 18-119
95-48-7	MS o-Cresol	4960	0.000	U	3570	72 16-120
65794-96-9	MS m,p-Cresols	4960	0.000	U	3610	73 20-119
621-64-7	MS N-Nitrosodipropylamine	4960	0.000	U	3580	72 15-118
67-72-1	MS Hexachloroethane	4960	0.000	U	2860	58 13-98
98-95-3	MS Nitrobenzene	4960	0.000	U	3270	66 17-109
78-59-1	MS Isophorone	4960	0.000	U	3440	69 16-113
88-75-5	MS 2-Nitrophenol	4960	0.000	U	3450	70 16-114

Quality Control Summary
Spike Recovery Report

SDG Number: 660974

Client ID: Y12EU4RS-68B(660558002MS)

Lab Sample ID: 1205692353

Instrument: MSD3.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike

Matrix: RS

Analysis Date: 04/04/2024 16:53

Dilution: 1

Prep Batch ID:2590877

Batch ID: 2590892

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
105-67-9	MS 2,4-Dimethylphenol	4960	0.000 U	2550	51	17-103
111-91-1	MS bis(2-Chloroethoxy)methane	4960	0.000 U	3460	70	20-110
120-83-2	MS 2,4-Dichlorophenol	4960	0.000 U	3640	73	19-124
106-47-8	MS 4-Chloroaniline	4960	0.000 U	2500	50	18-88
87-68-3	MS Hexachlorobutadiene	4960	0.000 U	3020	61	16-113
59-50-7	MS 4-Chloro-3-methylphenol	4960	0.000 U	4060	82	23-126
77-47-4	MS Hexachlorocyclopentadiene	4960	0.000 U	1290	26	10-78
88-06-2	MS 2,4,6-Trichlorophenol	4960	0.000 U	3720	75	21-132
95-95-4	MS 2,4,5-Trichlorophenol	4960	0.000 U	3750	76	23-127
91-58-7	MS 2-Chloronaphthalene	4960	0.000 U	3440	69	14-118
88-74-4	MS o-Nitroaniline	4960	0.000 U	3950	80	21-125
99-09-2	MS m-Nitroaniline	4960	0.000 U	2860	58	10-108
606-20-2	MS 2,6-Dinitrotoluene	4960	0.000 U	3820	77	23-124
121-14-2	MS 2,4-Dinitrotoluene	4960	0.000 U	3880	78	24-125
208-96-8	MS Acenaphthylene	4960	0.000 U	3480	70	16-116
83-32-9	MS Acenaphthene	4960	0.000 U	3600	73	16-115
51-28-5	MS 2,4-Dinitrophenol	4960	0.000 U	2900	58	19-117
132-64-9	MS Dibenzofuran	4960	0.000 U	3720	75	21-121
58-90-2	MS 2,3,4,6-Tetrachlorophenol	4960	0.000 U	3630	73	21-129
100-02-7	MS 4-Nitrophenol	4960	0.000 U	4050	82	12-137
86-73-7	MS Fluorene	4960	0.000 U	3790	76	16-123
7005-72-3	MS 4-Chlorophenylphenylether	4960	0.000 U	3780	76	21-126

Quality Control Summary
Spike Recovery Report

SDG Number: 660974

Client ID: Y12EU4RS-68B(660558002MS)

Lab Sample ID: 1205692353

Instrument: MSD3.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike

Matrix: RS

Analysis Date: 04/04/2024 16:53

Dilution: 1

Prep Batch ID:2590877

Batch ID: 2590892

CAS No.		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
100-01-6	MS	p-Nitroaniline	4960	0.000 U	3100	63	9-138
534-52-1	MS	2-Methyl-4,6-dinitrophenol	4960	0.000 U	2750	55	10-120
122-39-4	MS	Diphenylamine	4960	0.000 U	3980	80	20-116
122-66-7	MS	1,2-Diphenylhydrazine	4960	0.000 U	3740	75	17-119
101-55-3	MS	4-Bromophenylphenylether	4960	0.000 U	3840	77	20-122
118-74-1	MS	Hexachlorobenzene	4960	0.000 U	3560	72	23-128
87-86-5	MS	Pentachlorophenol	4960	0.000 U	4260	86	11-126
120-12-7	MS	Anthracene	4960	0.000 U	3680	74	19-116
86-74-8	MS	Carbazole	4960	0.000 U	4010	81	17-128
56-55-3	MS	Benzo(a)anthracene	4960	0.000 U	3450	70	21-121
218-01-9	MS	Chrysene	4960	0.000 U	3230	65	22-124
117-84-0	MS	Di-n-octylphthalate	4960	0.000 U	6040	122	24-135
205-99-2	MS	Benzo(b)fluoranthene	4960	0.000 U	2290	46	20-126
207-08-9	MS	Benzo(k)fluoranthene	4960	0.000 U	2040	41	20-133
50-32-8	MS	Benzo(a)pyrene	4960	0.000 U	1900	38	20-120
193-39-5	MS	Indeno(1,2,3-cd)pyrene	4960	0.000 U	959	19	14-125
53-70-3	MS	Dibenzo(a,h)anthracene	4960	0.000 U	1110	22	15-122
191-24-2	MS	Benzo(ghi)perylene	4960	0.000 U	955	19	13-120
123-91-1	MS	1,4-Dioxane	4960	0.000 U	1440	29	15-57
930-55-2	MS	N-Nitrosopyrrolidine	4960	0.000 U	3690	74	17-133
98-86-2	MS	Acetophenone	4960	0.000 U	3600	73	20-117
87-65-0	MS	2,6-Dichlorophenol	4960	0.000 U	3820	77	19-129

Quality Control Summary
Spike Recovery Report

SDG Number: 660974

Client ID: Y12EU4RS-68B(660558002MS)

Lab Sample ID: 1205692353

Instrument: MSD3.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike

Matrix: RS

Analysis Date: 04/04/2024 16:53

Dilution: 1

Prep Batch ID:2590877

Batch ID: 2590892

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
95-94-3	MS 1,2,4,5-Tetrachlorobenzene	4960	0.000 U	3490	70	21-114
91-94-1	MS 3,3'-Dichlorobenzidine	4960	0.000 U	486	10	8-108
126-73-8	MS Tributylphosphate	4960	0.000 U	4410	89	20-143
120-82-1	MS 1,2,4-Trichlorobenzene	4960	0.000 U	3130	63	17-108
65-85-0	MS Benzoic acid	9920	2440	8810	64	13-125
91-57-6	MS 2-Methylnaphthalene	4960	232	3690	70	15-112
91-20-3	MS Naphthalene	4960	119	3380	66	14-112
90-12-0	MS 1-Methylnaphthalene	4960	125	3820	75	15-118
84-66-2	MS Diethylphthalate	4960	267	4340	82	26-125
85-01-8	MS Phenanthrene	4960	310	4080	76	19-121
84-74-2	MS Di-n-butylphthalate	4960	972	5390	89	24-125
85-68-7	MS Butylbenzylphthalate	4960	1430	6850	109	19-133

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660974

Client ID: Y12EU4RS-68B(660558002MSD)

Lab Sample ID: 1205692354

Instrument: MSD3.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate

Matrix: RS

Analysis Date: 04/04/2024 17:14

Prep Batch ID:2590877

Batch ID: 2590892

Dilution: 1

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	Acceptance RPD %	Acceptance Limits
117-81-7	MSD bis(2-Ethylhexyl)phthalate	4960	19500	E	53000	675 *	17-133	43 * 0-30
131-11-3	MSD Dimethylphthalate	4960	53.6	J	3890	78	28-124	1 0-30
206-44-0	MSD Fluoranthene	4960	62.4	J	3680	73	21-126	5 0-30
129-00-0	MSD Pyrene	4960	39.0	J	3590	72	19-127	6 0-30
62-75-9	MSD N-Methyl-N-nitrosomethylamine	4960	0.000	U	3150	63	12-100	3 0-30
110-86-1	MSD Pyridine	4960	0.000	U	2750	56	17-69	10 0-30
62-53-3	MSD Aniline	4960	0.000	U	2150	43	20-85	7 0-30
108-95-2	MSD Phenol	4960	0.000	U	3540	71	17-116	3 0-30
111-44-4	MSD bis(2-Chloroethyl) ether	4960	0.000	U	3270	66	15-109	0 0-30
95-57-8	MSD 2-Chlorophenol	4960	0.000	U	3380	68	16-112	1 0-30
541-73-1	MSD 1,3-Dichlorobenzene	4960	0.000	U	2880	58	14-98	3 0-30
106-46-7	MSD 1,4-Dichlorobenzene	4960	0.000	U	2950	59	14-100	3 0-30
95-50-1	MSD 1,2-Dichlorobenzene	4960	0.000	U	3380	68	18-104	9 0-30
108-60-1	MSD bis(2-Chloro-1-methylethyl)ether	4960	0.000	U	3400	69	10-110	2 0-30
100-51-6	MSD Benzyl alcohol	4960	0.000	U	3620	73	18-119	3 0-30
95-48-7	MSD o-Cresol	4960	0.000	U	3470	70	16-120	3 0-30
65794-96-9	MSD m,p-Cresols	4960	0.000	U	3510	71	20-119	3 0-30
621-64-7	MSD N-Nitrosodipropylamine	4960	0.000	U	3560	72	15-118	1 0-30
67-72-1	MSD Hexachloroethane	4960	0.000	U	2960	60	13-98	4 0-30
98-95-3	MSD Nitrobenzene	4960	0.000	U	3340	67	17-109	2 0-30
78-59-1	MSD Isophorone	4960	0.000	U	3450	70	16-113	0 0-30
88-75-5	MSD 2-Nitrophenol	4960	0.000	U	3450	70	16-114	0 0-30

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660974

Client ID: Y12EU4RS-68B(660558002MSD)

Lab Sample ID: 1205692354

Instrument: MSD3.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate

Matrix: RS

Analysis Date: 04/04/2024 17:14

Prep Batch ID:2590877

Batch ID: 2590892

Dilution: 1

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	Acceptance RPD %	Acceptance Limits
105-67-9	MSD 2,4-Dimethylphenol	4960	0.000 U	2480	50	17-103	3	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	4960	0.000 U	3520	71	20-110	2	0-30
120-83-2	MSD 2,4-Dichlorophenol	4960	0.000 U	3640	73	19-124	0	0-30
106-47-8	MSD 4-Chloroaniline	4960	0.000 U	2370	48	18-88	6	0-30
87-68-3	MSD Hexachlorobutadiene	4960	0.000 U	3100	63	16-113	3	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	4960	0.000 U	4010	81	23-126	1	0-30
77-47-4	MSD Hexachlorocyclopentadiene	4960	0.000 U	1360	27	10-78	5	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	4960	0.000 U	3690	74	21-132	1	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	4960	0.000 U	3870	78	23-127	3	0-30
91-58-7	MSD 2-Chloronaphthalene	4960	0.000 U	3430	69	14-118	0	0-30
88-74-4	MSD o-Nitroaniline	4960	0.000 U	3980	80	21-125	1	0-30
99-09-2	MSD m-Nitroaniline	4960	0.000 U	2800	56	10-108	2	0-30
606-20-2	MSD 2,6-Dinitrotoluene	4960	0.000 U	3810	77	23-124	0	0-30
121-14-2	MSD 2,4-Dinitrotoluene	4960	0.000 U	3890	79	24-125	0	0-30
208-96-8	MSD Acenaphthylene	4960	0.000 U	3490	70	16-116	0	0-30
83-32-9	MSD Acenaphthene	4960	0.000 U	3600	73	16-115	0	0-30
51-28-5	MSD 2,4-Dinitrophenol	4960	0.000 U	2340	47	19-117	21	0-30
132-64-9	MSD Dibenzofuran	4960	0.000 U	3730	75	21-121	1	0-30
58-90-2	MSD 2,3,4,6-Tetrachlorophenol	4960	0.000 U	3640	73	21-129	0	0-30
100-02-7	MSD 4-Nitrophenol	4960	0.000 U	3980	80	12-137	2	0-30
86-73-7	MSD Fluorene	4960	0.000 U	3810	77	16-123	1	0-30
7005-72-3	MSD 4-Chlorophenylphenylether	4960	0.000 U	3800	77	21-126	1	0-30

Quality Control Summary
Spike Recovery Report

SDG Number: 660974

Client ID: Y12EU4RS-68B(660558002MSD)

Lab Sample ID: 1205692354

Instrument: MSD3.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate

Matrix: RS

Analysis Date: 04/04/2024 17:14

Dilution: 1

Prep Batch ID:2590877

Batch ID: 2590892

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
100-01-6	MSD p-Nitroaniline	4960	0.000 U	3050	62	9-138	2	0-30
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	4960	0.000 U	2220	45	10-120	21	0-30
122-39-4	MSD Diphenylamine	4960	0.000 U	3940	80	20-116	1	0-30
122-66-7	MSD 1,2-Diphenylhydrazine	4960	0.000 U	3770	76	17-119	1	0-30
101-55-3	MSD 4-Bromophenylphenylether	4960	0.000 U	3840	77	20-122	0	0-30
118-74-1	MSD Hexachlorobenzene	4960	0.000 U	3530	71	23-128	1	0-30
87-86-5	MSD Pentachlorophenol	4960	0.000 U	3980	80	11-126	7	0-30
120-12-7	MSD Anthracene	4960	0.000 U	3630	73	19-116	2	0-30
86-74-8	MSD Carbazole	4960	0.000 U	3940	79	17-128	2	0-30
56-55-3	MSD Benzo(a)anthracene	4960	0.000 U	3150	63	21-121	9	0-30
218-01-9	MSD Chrysene	4960	0.000 U	3130	63	22-124	3	0-30
117-84-0	MSD Di-n-octylphthalate	4960	0.000 U	5440	110	24-135	11	0-30
205-99-2	MSD Benzo(b)fluoranthene	4960	0.000 U	2060	42	20-126	10	0-30
207-08-9	MSD Benzo(k)fluoranthene	4960	0.000 U	1970	40	20-133	3	0-30
50-32-8	MSD Benzo(a)pyrene	4960	0.000 U	1780	36	20-120	7	0-30
193-39-5	MSD Indeno(1,2,3-cd)pyrene	4960	0.000 U	966	20	14-125	1	0-30
53-70-3	MSD Dibenzo(a,h)anthracene	4960	0.000 U	1110	22	15-122	0	0-30
191-24-2	MSD Benzo(ghi)perylene	4960	0.000 U	931	19	13-120	3	0-30
123-91-1	MSD 1,4-Dioxane	4960	0.000 U	1610	33	15-57	11	0-30
930-55-2	MSD N-Nitrosopyrrolidine	4960	0.000 U	3610	73	17-133	2	0-30
98-86-2	MSD Acetophenone	4960	0.000 U	3550	72	20-117	1	0-30
87-65-0	MSD 2,6-Dichlorophenol	4960	0.000 U	3820	77	19-129	0	0-30

Quality Control Summary
Spike Recovery Report

SDG Number: 660974

Client ID: Y12EU4RS-68B(660558002MSD)

Lab Sample ID: 1205692354

Instrument: MSD3.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate

Matrix: RS

Analysis Date: 04/04/2024 17:14

Dilution: 1

Prep Batch ID:2590877

Batch ID: 2590892

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
95-94-3	MSD 1,2,4,5-Tetrachlorobenzene	4960	0.000 U	3490	70	21-114	0	0-30
91-94-1	MSD 3,3'-Dichlorobenzidine	4960	0.000 U	471	10	8-108	3	0-30
126-73-8	MSD Tributylphosphate	4960	0.000 U	4460	90	20-143	1	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	4960	0.000 U	3190	64	17-108	2	0-30
65-85-0	MSD Benzoic acid	9910	2440	7910	55	13-125	11	0-30
91-57-6	MSD 2-Methylnaphthalene	4960	232	3650	69	15-112	1	0-30
91-20-3	MSD Naphthalene	4960	119	3410	67	14-112	1	0-30
90-12-0	MSD 1-Methylnaphthalene	4960	125	3810	74	15-118	0	0-30
84-66-2	MSD Diethylphthalate	4960	267	4390	83	26-125	1	0-30
85-01-8	MSD Phenanthrene	4960	310	4030	75	19-121	1	0-30
84-74-2	MSD Di-n-butylphthalate	4960	972	5380	89	24-125	0	0-30
85-68-7	MSD Butylbenzylphthalate	4960	1430	6510	103	19-133	5	0-30

Method Blank Summary

SDG Number: 660974

Client ID: MB for batch 2590877

Lab Sample ID: 1205692351

Column: DB-5ms

Client: PERM001

Instrument ID: MSD3.I

Prep Date: 04/04/2024 09:45

Matrix: MISC SOLID

Data File: S040424.S\s3D0406.D

Analyzed: 04/04/24 15:25

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 2590877	1205692352	S040424.S\s3D0407.D	04/04/24	1546
02 Y12EU4RS-68B(660558002MS)	1205692353	S040424.S\s3D0410.D	04/04/24	1653
03 Y12EU4RS-68B(660558002MSD)	1205692354	S040424.S\s3D0411.D	04/04/24	1714
04 12039.B4.Top Front.PFF	660974001	S040424.S\s3D0424.D	04/04/24	2151
05 12039.B4.Middle Front.PFF	660974002	S040424.S\s3D0425.D	04/04/24	2213
06 12039.B4.Bottom Front.PFF	660974003	S040424.S\s3D0426.D	04/04/24	2234
07 12040.B4.Top Back.PFF	660974004	S040424.S\s3D0427.D	04/04/24	2255
08 12040.B4.Middle Back.PFF	660974005	S040424.S\s3D0428.D	04/04/24	2316
09 12040.B4.Bottom Back.PFF	660974006	S040424.S\s3D0429.D	04/04/24	2338

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 660974

Instrument ID: MSD3.I

Injection Date/Time: 14-MAR-24 08:00

Column Description: DB-5ms

Lab File ID S031424ICAL\s3C1401.D

m/e	Ion Abundance Criteria	% Relative Abundance
68	Less than 2% of mass 69	1.5
69	Present	40.7
70	Less than 2% of mass 69	0
197	Less than 2% of mass 198	0.7
198	Base Peak or Present	90.3
199	5 - 9% of mass 198	6.7
365	Greater than 1% of Base Peak	3.1
441	Less than 150% of mass 443	87.5
442	Base Peak or Present	100
443	15 - 24% of mass 442	19.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	WBN240312-01.1	S031424ICAL\s3C1402.D	14-MAR-24 08:17
ICALMIX[A]	WBN240312-02.1	S031424ICAL\s3C1403.D	14-MAR-24 08:40
ICALMIX[A]	WBN240312-03.1	S031424ICAL\s3C1404.D	14-MAR-24 09:03
ICALMIX[A]	WBN240312-04.1	S031424ICAL\s3C1405.D	14-MAR-24 09:27
ICALMIX[A]	WBN240312-05	S031424ICAL\s3C1406.D	14-MAR-24 09:50
ICALMIX[A]	WBN240312-06	S031424ICAL\s3C1407.D	14-MAR-24 10:14
ICALMIX[A]	WBN240312-07	S031424ICAL\s3C1408.D	14-MAR-24 10:37
ICALMIX[A]	WBN240312-08	S031424ICAL\s3C1409.D	14-MAR-24 11:01
ICVMIX[A]01	WBN240312-43	S031424ICAL\s3C1410.D	14-MAR-24 11:24
ICALMIX[B,J]	WBN240201-51.1	S031424ICAL\s3C1411.D	14-MAR-24 11:48
ICALMIX[B,J]	WBN240201-52	S031424ICAL\s3C1412.D	14-MAR-24 12:09
ICALMIX[B,J]	WBN240201-53	S031424ICAL\s3C1413.D	14-MAR-24 12:30
ICALMIX[B,J]	WBN240201-54.1	S031424ICAL\s3C1414.D	14-MAR-24 12:52
ICALMIX[B,J]	WBN240201-55	S031424ICAL\s3C1415.D	14-MAR-24 13:13
ICALMIX[B,J]	WBN240201-56	S031424ICAL\s3C1416.D	14-MAR-24 13:35
ICALMIX[B,J]	WBN240201-57	S031424ICAL\s3C1417.D	14-MAR-24 13:56
ICALMIX[B,J]	WBN240201-58	S031424ICAL\s3C1418.D	14-MAR-24 14:17
ICALMIX[B,J]	WBN240201-59	S031424ICAL\s3C1419.D	14-MAR-24 14:39

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 660974

Instrument ID: MSD3.I

Injection Date/Time: 14-MAR-24 08:00

Column Description: DB-5ms

Lab File ID S031424ICAL\s3C1401.D

m/e	Ion Abundance Criteria	% Relative Abundance
68	Less than 2% of mass 69	1.5
69	Present	40.7
70	Less than 2% of mass 69	0
197	Less than 2% of mass 198	0.7
198	Base Peak or Present	90.3
199	5 - 9% of mass 198	6.7
365	Greater than 1% of Base Peak	3.1
441	Less than 150% of mass 443	87.5
442	Base Peak or Present	100
443	15 - 24% of mass 442	19.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICVMIX[B,J]02	WBN240221-20	S031424ICAL\s3C1420.D	14-MAR-24 15:00
ICALMIX[D]	WBN240227-27.1	S031424ICAL\s3C1421.D	14-MAR-24 15:22
ICALMIX[D]	WBN240227-26	S031424ICAL\s3C1422.D	14-MAR-24 15:40
ICALMIX[D]	WBN240227-25.1	S031424ICAL\s3C1423.D	14-MAR-24 15:58
ICALMIX[D]	WBN240227-24	S031424ICAL\s3C1424.D	14-MAR-24 16:17
ICALMIX[D]	WBN240227-23	S031424ICAL\s3C1425.D	14-MAR-24 16:35
ICALMIX[D]	WBN240227-22	S031424ICAL\s3C1426.D	14-MAR-24 16:54
ICALMIX[D]	WBN240227-21	S031424ICAL\s3C1427.D	14-MAR-24 17:12
ICVMIX[D]03	WBN240228-26	S031424ICAL\s3C1428.D	14-MAR-24 17:30
ICALMIX[E]	WBN240313-31.1	S031424ICAL\s3C1429.D	14-MAR-24 17:49
ICALMIX[E]	WBN240313-32	S031424ICAL\s3C1430.D	14-MAR-24 18:07
ICALMIX[E]	WBN240313-33	S031424ICAL\s3C1431.D	14-MAR-24 18:25
ICALMIX[E]	WBN240313-34	S031424ICAL\s3C1432.D	14-MAR-24 18:44
ICALMIX[E]	WBN240313-35	S031424ICAL\s3C1433.D	14-MAR-24 19:02
ICALMIX[E]	WBN240313-37	S031424ICAL\s3C1434.D	14-MAR-24 19:20
ICVMIX[E]04	WBN240228-38	S031424ICAL\s3C1435.D	14-MAR-24 19:39
CCVMIX[A]01	WBN240304-04.5	S040424.S\s3D0402.D	04-APR-24 14:04
CCVMIX[B,J]02	WBN240201-54.2	S040424.S\s3D0403.D	04-APR-24 14:27

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 660974

Instrument ID: MSD3.I

Injection Date/Time: 14-MAR-24 08:00

Column Description: DB-5ms

Lab File ID S031424ICAL\s3C1401.D

m/e	Ion Abundance Criteria	% Relative Abundance
68	Less than 2% of mass 69	1.5
69	Present	40.7
70	Less than 2% of mass 69	0
197	Less than 2% of mass 198	0.7
198	Base Peak or Present	90.3
199	5 - 9% of mass 198	6.7
365	Greater than 1% of Base Peak	3.1
441	Less than 150% of mass 443	87.5
442	Base Peak or Present	100
443	15 - 24% of mass 442	19.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[D]03	WBN240227-25.7	S040424.S\s3D0404.D	04-APR-24 14:48
CCVMIX[E]04	WBN240212-33.6	S040424.S\s3D0405.D	04-APR-24 15:07
BLK01	1205692351	S040424.S\s3D0406.D	04-APR-24 15:25
BLK01LCS	1205692352	S040424.S\s3D0407.D	04-APR-24 15:46
Y12EU4RS-68BMS	1205692353	S040424.S\s3D0410.D	04-APR-24 16:53
Y12EU4RS-68BMSD	1205692354	S040424.S\s3D0411.D	04-APR-24 17:14
12039.B4.Top Front.PFF	660974001	S040424.S\s3D0424.D	04-APR-24 21:51
12039.B4.Middle Front.PFF	660974002	S040424.S\s3D0425.D	04-APR-24 22:13
12039.B4.Bottom Front.PFF	660974003	S040424.S\s3D0426.D	04-APR-24 22:34
12040.B4.Top Back.PFF	660974004	S040424.S\s3D0427.D	04-APR-24 22:55
12040.B4.Middle Back.PFF	660974005	S040424.S\s3D0428.D	04-APR-24 23:16
12040.B4.Bottom Back.PFF	660974006	S040424.S\s3D0429.D	04-APR-24 23:38

Internal Standard

Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 660974

Instrument: MSD3.I

STD Analysis Time: 04-APR-24 14:04

GC Column: DB-5ms

Data File: S040424.S\3D0402.D

	1,4-Dichlorobenzene-d4		Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10		Chrysene-d12		Perylene-d12	
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD Upper Limit Lower Limit	67398		3.89		283317		5.3		152313		7.06	
	134796		4.39		566634		5.8		304626		7.56	
	33699		3.39		141659		4.8		76157		6.56	
Sample ID												
BLK01	74563		3.89		305218		5.3		155365		7.06	
BLK01LCS	81101		3.89		340804		5.3		176666		7.06	
Y12EU4RS-68BMS	86991		3.89		360464		5.3		188306		7.06	
Y12EU4RS-68BMSD	93827		3.89		379844		5.3		198076		7.06	
I2039.B4.Top Front.PFF	86205		3.89		350460		5.3		178437		7.06	
I2039.B4.Middle Front.PFF	87330		3.89		360916		5.3		183027		7.06	
I2039.B4.Bottom Front.PFF	86784		3.89		362709		5.3		185495		7.06	
I2040.B4.Top Back.PFF	85859		3.89		355545		5.3		181348		7.06	
I2040.B4.Middle Back.PFF	85590		3.89		351446		5.3		178524		7.06	
I2040.B4.Bottom Back.PFF	81813		3.89		339143		5.3		170990		7.06	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660974001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:51	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.24 g	Final Volume:	1 mL
Data File:	S040424.S\3D0424.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	977	ug/kg	293	977
110-86-1	Pyridine	U	977	ug/kg	293	977
62-53-3	Aniline	U	977	ug/kg	293	977
108-95-2	Phenol	U	977	ug/kg	293	977
111-44-4	bis(2-Chloroethyl) ether	U	977	ug/kg	293	977
95-57-8	2-Chlorophenol	U	977	ug/kg	293	977
541-73-1	1,3-Dichlorobenzene	U	977	ug/kg	293	977
106-46-7	1,4-Dichlorobenzene	U	977	ug/kg	293	977
95-50-1	1,2-Dichlorobenzene	J	650	ug/kg	293	977
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	977	ug/kg	293	977
100-51-6	Benzyl alcohol	U	977	ug/kg	293	977
95-48-7	o-Cresol	U	977	ug/kg	293	977
65794-96-9	m,p-Cresols	U	977	ug/kg	293	977
621-64-7	N-Nitrosodipropylamine	U	977	ug/kg	293	977
67-72-1	Hexachloroethane	U	977	ug/kg	293	977
98-95-3	Nitrobenzene	U	977	ug/kg	293	977
78-59-1	Isophorone	U	977	ug/kg	293	977
88-75-5	2-Nitrophenol	U	977	ug/kg	293	977
105-67-9	2,4-Dimethylphenol	U	977	ug/kg	293	977
111-91-1	bis(2-Chloroethoxy)methane	U	977	ug/kg	293	977
120-83-2	2,4-Dichlorophenol	U	977	ug/kg	293	977
65-85-0	Benzoic acid	J	1910	ug/kg	488	1950
106-47-8	4-Chloroaniline	U	977	ug/kg	293	977
87-68-3	Hexachlorobutadiene	U	977	ug/kg	293	977
59-50-7	4-Chloro-3-methylphenol	U	977	ug/kg	391	977
91-57-6	2-Methylnaphthalene	U	97.7	ug/kg	29.3	97.7
91-20-3	Naphthalene	U	97.7	ug/kg	29.3	97.7
90-12-0	1-Methylnaphthalene	U	97.7	ug/kg	29.3	97.7
77-47-4	Hexachlorocyclopentadiene	U	977	ug/kg	293	977
88-06-2	2,4,6-Trichlorophenol	U	977	ug/kg	293	977
95-95-4	2,4,5-Trichlorophenol	U	977	ug/kg	293	977
91-58-7	2-Chloronaphthalene	U	97.7	ug/kg	29.3	97.7
88-74-4	o-Nitroaniline	U	977	ug/kg	322	977
99-09-2	m-Nitroaniline	U	977	ug/kg	293	977
131-11-3	Dimethylphthalate	U	97.7	ug/kg	29.3	97.7
99-65-0	m-Dinitrobenzene	U	977	ug/kg	293	977
606-20-2	2,6-Dinitrotoluene	U	977	ug/kg	293	977
121-14-2	2,4-Dinitrotoluene	U	977	ug/kg	293	977

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660974001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:51	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.24 g	Final Volume:	1 mL
Data File:	S040424.S\3D0424.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	97.7	ug/kg	29.3	97.7
83-32-9	Acenaphthene	U	97.7	ug/kg	29.3	97.7
51-28-5	2,4-Dinitrophenol	U	1950	ug/kg	293	1950
132-64-9	Dibenzofuran	U	977	ug/kg	293	977
58-90-2	2,3,4,6-Tetrachlorophenol	U	977	ug/kg	293	977
84-66-2	Diethylphthalate	U	97.7	ug/kg	29.3	97.7
100-02-7	4-Nitrophenol	U	977	ug/kg	293	977
86-73-7	Fluorene	U	97.7	ug/kg	29.3	97.7
7005-72-3	4-Chlorophenylphenylether	U	977	ug/kg	293	977
100-01-6	p-Nitroaniline	U	977	ug/kg	293	977
534-52-1	2-Methyl-4,6-dinitrophenol	U	977	ug/kg	293	977
122-39-4	Diphenylamine	U	977	ug/kg	293	977
122-66-7	1,2-Diphenylhydrazine	U	977	ug/kg	293	977
101-55-3	4-Bromophenylphenylether	U	977	ug/kg	293	977
118-74-1	Hexachlorobenzene	U	977	ug/kg	293	977
87-86-5	Pentachlorophenol	U	977	ug/kg	293	977
88-85-7	Dinoseb	U	977	ug/kg	293	977
85-01-8	Phenanthrene	U	97.7	ug/kg	29.3	97.7
120-12-7	Anthracene	U	97.7	ug/kg	29.3	97.7
86-74-8	Carbazole	U	97.7	ug/kg	29.3	97.7
84-74-2	Di-n-butylphthalate	U	97.7	ug/kg	29.3	97.7
206-44-0	Fluoranthene	U	97.7	ug/kg	29.3	97.7
129-00-0	Pyrene	U	97.7	ug/kg	29.3	97.7
85-68-7	Butylbenzylphthalate	U	97.7	ug/kg	29.3	97.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	97.7	ug/kg	29.3	97.7
56-55-3	Benzo(a)anthracene	U	97.7	ug/kg	29.3	97.7
218-01-9	Chrysene	U	97.7	ug/kg	29.3	97.7
72-43-5	Methoxychlor	U	977	ug/kg	293	977
117-84-0	Di-n-octylphthalate	U	97.7	ug/kg	29.3	97.7
205-99-2	Benzo(b)fluoranthene	U	97.7	ug/kg	29.3	97.7
207-08-9	Benzo(k)fluoranthene	U	97.7	ug/kg	29.3	97.7
50-32-8	Benzo(a)pyrene	U	97.7	ug/kg	29.3	97.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	97.7	ug/kg	29.3	97.7
53-70-3	Dibenzo(a,h)anthracene	U	97.7	ug/kg	29.3	97.7
191-24-2	Benzo(ghi)perylene	U	97.7	ug/kg	29.3	97.7
123-91-1	1,4-Dioxane	U	977	ug/kg	293	977
80-62-6	Methyl methacrylate	U	977	ug/kg	293	977
97-63-2	Ethyl methacrylate	U	977	ug/kg	293	977

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660974001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:51	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.24 g	Final Volume:	1 mL
Data File:	S040424.S\3D0424.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	977	ug/kg	293	977
10595-95-6	N-Nitrosomethylethylamine	U	977	ug/kg	293	977
66-27-3	Methyl methanesulfonate	U	977	ug/kg	293	977
55-18-5	N-Nitrosodiethylamine	U	977	ug/kg	293	977
62-50-0	Ethyl Methanesulfonate	U	977	ug/kg	293	977
76-01-7	Pentachloroethane	U	977	ug/kg	293	977
930-55-2	N-Nitrosopyrrolidine	U	977	ug/kg	293	977
98-86-2	Acetophenone	U	977	ug/kg	293	977
59-89-2	N-Nitrosomorpholine	U	977	ug/kg	293	977
95-53-4	o-Toluidine	U	977	ug/kg	293	977
100-75-4	N-Nitrosopiperidine	U	977	ug/kg	293	977
122-09-8	a,a-Dimethylphenethylamine	U	977	ug/kg	342	977
87-65-0	2,6-Dichlorophenol	U	977	ug/kg	293	977
1888-71-7	Hexachloropropene	U	977	ug/kg	293	977
924-16-3	N-Nitrosodi-n-butylamine	U	977	ug/kg	293	977
94-59-7	Safrole	U	977	ug/kg	293	977
95-94-3	1,2,4,5-Tetrachlorobenzene	U	977	ug/kg	293	977
120-58-1	Isosafrole	U	977	ug/kg	293	977
130-15-4	1,4-Naphthoquinone	U	977	ug/kg	293	977
608-93-5	Pentachlorobenzene	U	977	ug/kg	293	977
134-32-7	1-Naphthylamine	U	977	ug/kg	293	977
91-59-8	2-Naphthylamine	U	977	ug/kg	293	977
99-55-8	5-Nitro-o-toluidine	U	977	ug/kg	293	977
62-44-2	Phenacetin	U	977	ug/kg	293	977
99-35-4	1,3,5-Trinitrobenzene	U	977	ug/kg	293	977
2303-16-4	Diallate	U	977	ug/kg	293	977
92-67-1	4-Aminobiphenyl	U	977	ug/kg	293	977
82-68-8	Pentachloronitrobenzene	U	977	ug/kg	293	977
23950-58-5	Pronamide	U	977	ug/kg	293	977
56-57-5	4-Nitroquinoline-1-oxide	U	977	ug/kg	293	977
91-80-5	Methapyrilene	U	977	ug/kg	293	977
465-73-6	Isodrin	U	977	ug/kg	195	977
140-57-8	Aramite	U	977	ug/kg	293	977
143-50-0	Kepone	U	977	ug/kg	293	977
60-11-7	p-(Dimethylamino)azobenzene	U	977	ug/kg	293	977
510-15-6	Chlorobenzilate	U	977	ug/kg	293	977
119-93-7	3,3'-Dimethylbenzidine	U	977	ug/kg	293	977
53-96-3	2-Acetylaminofluorene	U	977	ug/kg	293	977

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660974001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:51	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.24 g	Final Volume:	1 mL
Data File:	S040424.S\3D0424.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	977	ug/kg	293	977
57-97-6	7,12-Dimethylbenz(a)anthracene	U	977	ug/kg	293	977
56-49-5	3-Methylcholanthrene	U	977	ug/kg	293	977
126-68-1	Triethylphosphorothioate	U	977	ug/kg	293	977
297-97-2	Thionazin	U	977	ug/kg	293	977
126-73-8	Tributylphosphate	U	977	ug/kg	293	977
3689-24-5	Sulfotepp	U	977	ug/kg	293	977
298-02-2	Phorate	U	977	ug/kg	293	977
60-51-5	Dimethoate	U	977	ug/kg	293	977
298-04-4	Disulfoton	U	977	ug/kg	293	977
298-00-0	Methyl parathion	U	977	ug/kg	293	977
56-38-2	Parathion	U	977	ug/kg	293	977
52-85-7	Famphur	U	977	ug/kg	293	977
106-50-3	p-Phenylenediamine	U	48800	ug/kg	9770	48800
70-30-4	Hexachlorophene	U	48800	ug/kg	11300	48800
120-82-1	1,2,4-Trichlorobenzene	U	977	ug/kg	293	977

Data Path : C:\msdchem\1\data\S040424.S\

Data File : s3D0424.D

Acq On : 04 Apr 2024 21:51

Operator : LL2

Sample : |660974001|2590892|1|SVM|1|PERM|||

Misc : |MSD827E4_S|MISC SOLID|12039.B4.Top Front.PFF|mix[a,b,j,d,e]||

ALS Vial : 24 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 08:20:29 2024

Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Quant Title : BNA01

QLast Update : Fri Mar 15 08:40:12 2024

Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	86205	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	350460	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	178437	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.356	8.362	1.000	371781	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.683	10.683	1.000	409056	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.715	12.715	1.000	417645	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	86205	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	350460	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	178437	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.356	8.362	1.000	371781	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.683	10.683	1.000	409056	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.715	12.715	1.000	417645	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.302	1.000	350460	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.356	8.362	1.000	371781	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.683	10.683	1.000	409056	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	350460	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	178437	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.356	8.362	1.000	371781	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.683	10.683	1.000	409056	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	350460	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.715	12.715	1.000	417645	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.617	2.627	0.674	214490	75.16	ng/uL	0.00
8) Phenol-d5	99	3.484	3.486	0.897	281808	79.68	ng/uL	0.00
23) Nitrobenzene-d5	82	4.484	4.502	0.846	110588	34.42	ng/uL	-0.02
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	247090	36.46	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.757	7.773	0.928	100869	74.35	ng/uL	-0.02
79) p-Terphenyl-d14	244	9.693	9.686	1.160	382747	43.06	ng/uL	0.00
Compound	Amount	Range		Recovery				
5) 2-Fluorophenol	100.000	11 - 79		75%				
8) Phenol-d5	100.000	15 - 85		80%				
23) Nitrobenzene-d5	50.000	39 - 112		69%				
44) 2-Fluorobiphenyl	50.000	39 - 112		73%				
64) 2,4,6-Tribromophenol	100.000	37 - 132		74%				
79) p-Terphenyl-d14	50.000	24 - 129		86%				
Target Compounds								
	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
15) 1,2-Dichlorobenzene	146	4.061	4.068	1.045	22420	6.66	ng/uL	99
30) Benzoic acid	105	4.981	5.040	0.939	1254	19.53	ng/uL	92

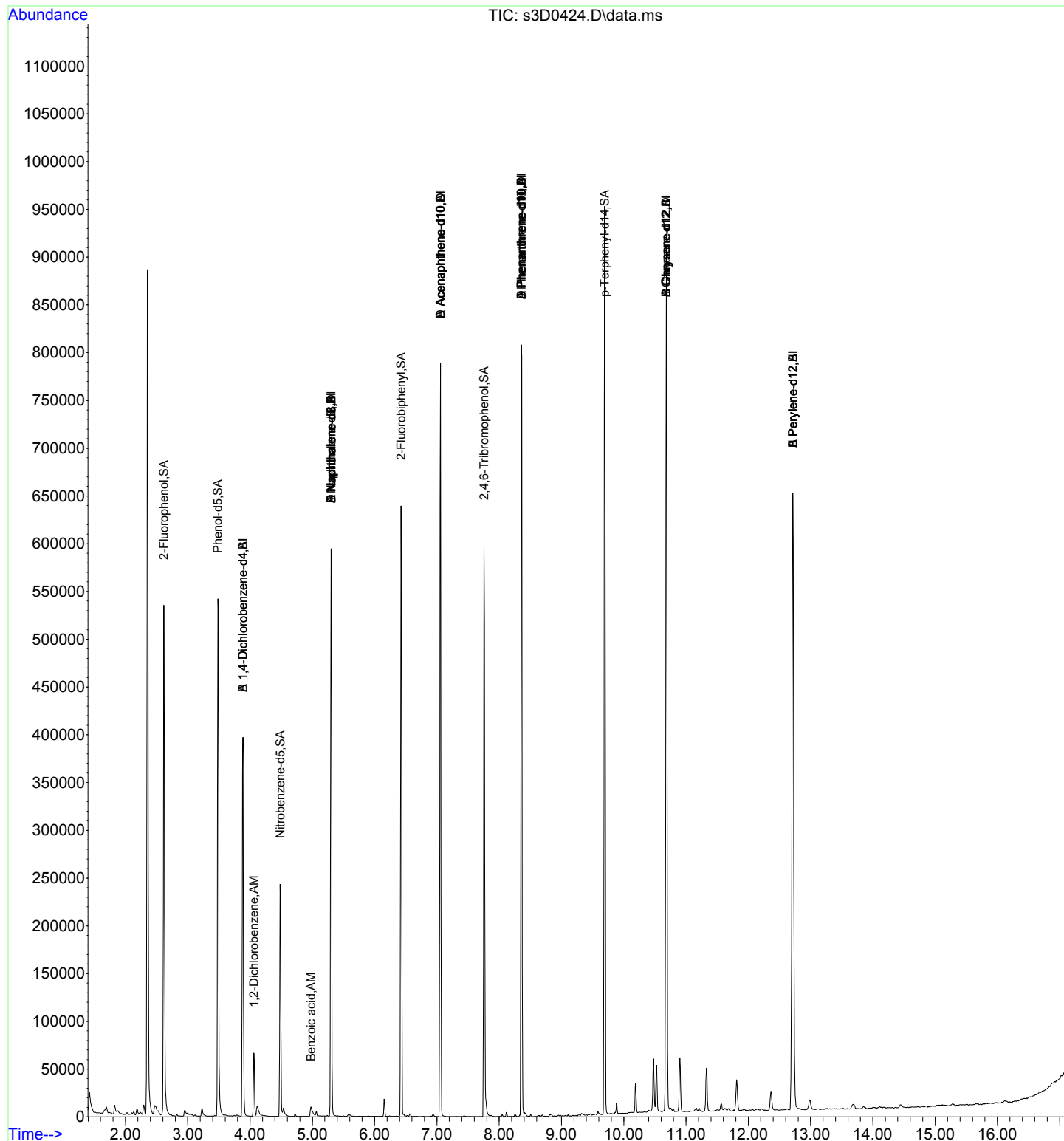
(#)=qualifier out of range (m)=manual integration (+)=signals summed

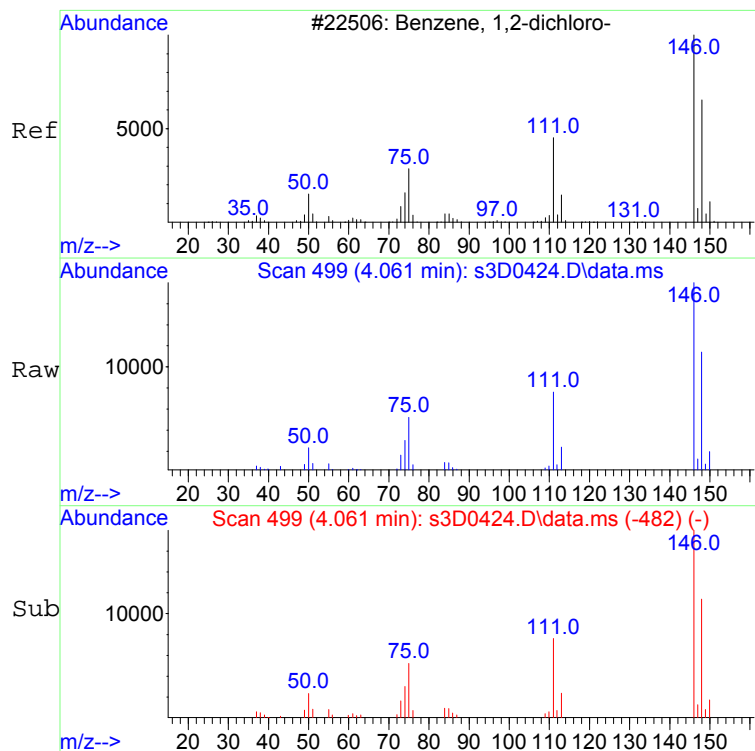
(A)=Over the calibration range (d)=deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0424.D
 Acq On : 04 Apr 2024 21:51
 Operator : LL2
 Sample : |660974001|2590892|1|SVM|1|PERM||
 Misc : |MSD827E4_S|MISC SOLID|12039.B4.Top Front.PFF|mix[a,b,j,d,e]||
 ALS Vial : 24 Sample Multiplier: 1

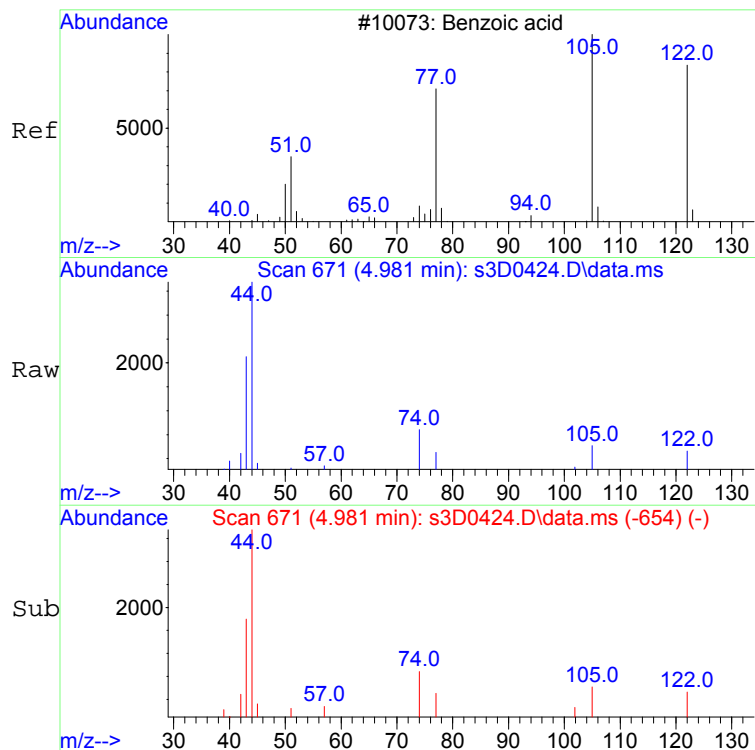
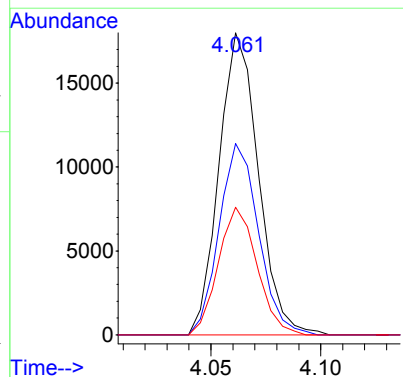
Quant Time: Apr 05 08:20:29 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration





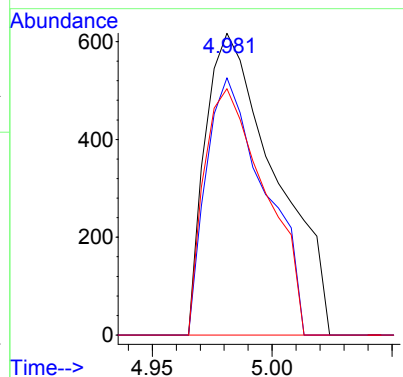
#15
1,2-Dichlorobenzene
Concen: 6.66 ng/uL
RT: 4.061 min Scan# 499
Delta R.T. -0.007 min
Lab File: s3D0424.D
Acq: 04 Apr 2024 21:51

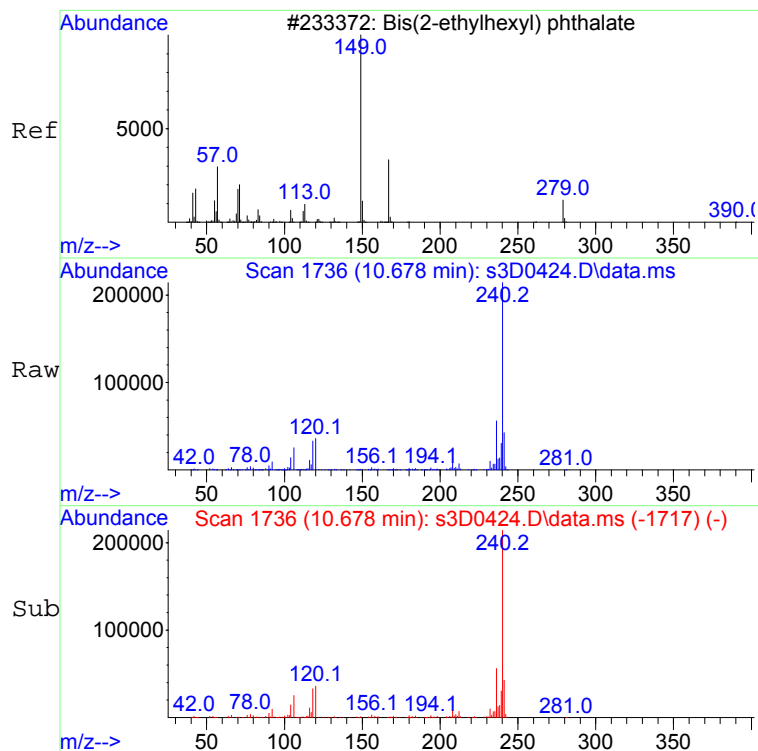
Tgt Ion	Ratio	Lower	Upper
146	100		
148	63.3	33.8	93.8
111	41.5	11.8	71.8



#30
Benzoic acid
Concen: 19.53 ng/uL
RT: 4.981 min Scan# 671
Delta R.T. -0.059 min
Lab File: s3D0424.D
Acq: 04 Apr 2024 21:51

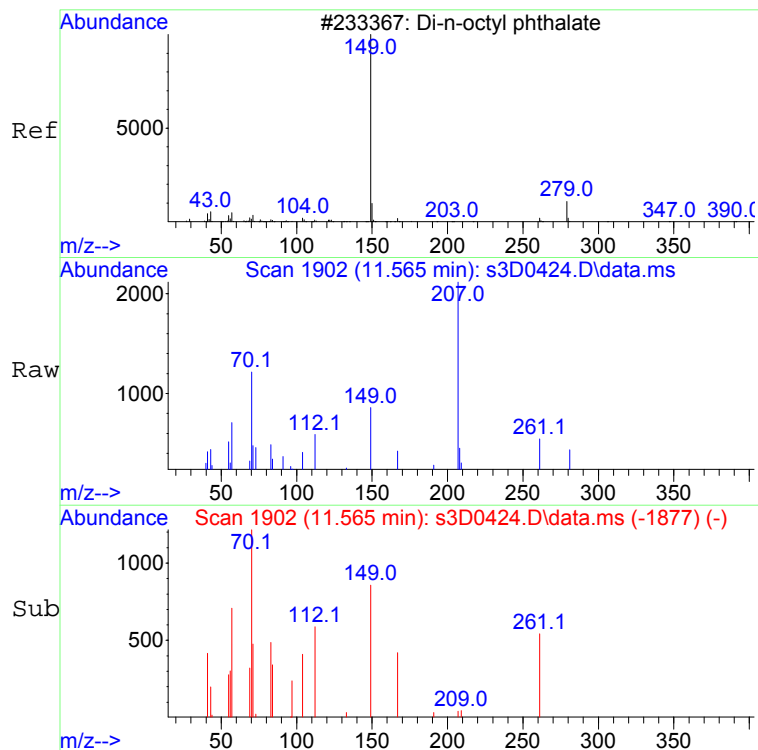
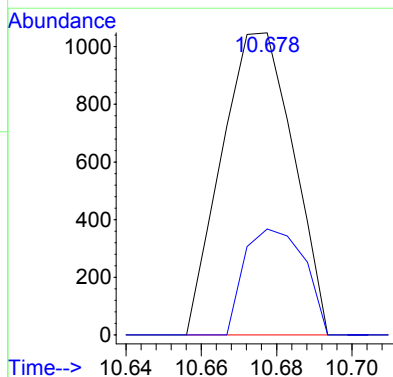
Tgt Ion	Ratio	Lower	Upper
105	100		
122	71.8	53.9	113.9
77	71.7	43.3	103.3





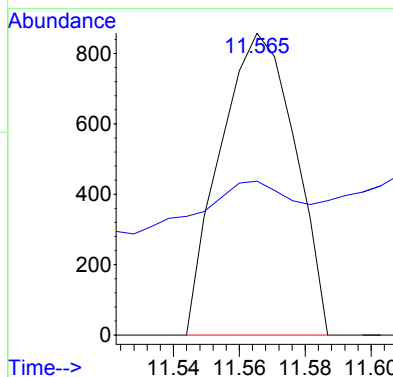
#82 BEFORE analyst DELETION
bis(2-Ethylhexyl)phthalate
Concen: 0.60 ng/uL
RT: 10.678 min Scan# 1736
Delta R.T. -0.000 min
Lab File: s3D0424.D
Acq: 04 Apr 2024 21:51

Tgt Ion:149 Resp: 1383
Ion Ratio Lower Upper
149 100
167 0.0 0.0 55.6



#87 BEFORE analyst DELETION
Di-n-octylphthalate
Concen: 0.61 ng/uL
RT: 11.565 min Scan# 1902
Delta R.T. 0.035 min
Lab File: s3D0424.D
Acq: 04 Apr 2024 21:51

Tgt Ion:149 Resp: 1345
Ion Ratio Lower Upper
149 100
43 25.9 0.0 37.4



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660974002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:13	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.26 g	Final Volume:	1 mL
Data File:	S040424.S\3D0425.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	975	ug/kg	292	975
110-86-1	Pyridine	U	975	ug/kg	292	975
62-53-3	Aniline	U	975	ug/kg	292	975
108-95-2	Phenol	U	975	ug/kg	292	975
111-44-4	bis(2-Chloroethyl) ether	U	975	ug/kg	292	975
95-57-8	2-Chlorophenol	U	975	ug/kg	292	975
541-73-1	1,3-Dichlorobenzene	U	975	ug/kg	292	975
106-46-7	1,4-Dichlorobenzene	U	975	ug/kg	292	975
95-50-1	1,2-Dichlorobenzene	U	975	ug/kg	292	975
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	975	ug/kg	292	975
100-51-6	Benzyl alcohol	U	975	ug/kg	292	975
95-48-7	o-Cresol	U	975	ug/kg	292	975
65794-96-9	m,p-Cresols	U	975	ug/kg	292	975
621-64-7	N-Nitrosodipropylamine	U	975	ug/kg	292	975
67-72-1	Hexachloroethane	U	975	ug/kg	292	975
98-95-3	Nitrobenzene	U	975	ug/kg	292	975
78-59-1	Isophorone	U	975	ug/kg	292	975
88-75-5	2-Nitrophenol	U	975	ug/kg	292	975
105-67-9	2,4-Dimethylphenol	U	975	ug/kg	292	975
111-91-1	bis(2-Chloroethoxy)methane	U	975	ug/kg	292	975
120-83-2	2,4-Dichlorophenol	U	975	ug/kg	292	975
65-85-0	Benzoic acid	U	1950	ug/kg	487	1950
106-47-8	4-Chloroaniline	U	975	ug/kg	292	975
87-68-3	Hexachlorobutadiene	U	975	ug/kg	292	975
59-50-7	4-Chloro-3-methylphenol	U	975	ug/kg	390	975
91-57-6	2-Methylnaphthalene	U	97.5	ug/kg	29.2	97.5
91-20-3	Naphthalene	U	97.5	ug/kg	29.2	97.5
90-12-0	1-Methylnaphthalene	U	97.5	ug/kg	29.2	97.5
77-47-4	Hexachlorocyclopentadiene	U	975	ug/kg	292	975
88-06-2	2,4,6-Trichlorophenol	U	975	ug/kg	292	975
95-95-4	2,4,5-Trichlorophenol	U	975	ug/kg	292	975
91-58-7	2-Chloronaphthalene	U	97.5	ug/kg	29.2	97.5
88-74-4	o-Nitroaniline	U	975	ug/kg	322	975
99-09-2	m-Nitroaniline	U	975	ug/kg	292	975
131-11-3	Dimethylphthalate	U	97.5	ug/kg	29.2	97.5
99-65-0	m-Dinitrobenzene	U	975	ug/kg	292	975
606-20-2	2,6-Dinitrotoluene	U	975	ug/kg	292	975
121-14-2	2,4-Dinitrotoluene	U	975	ug/kg	292	975

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660974002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:13	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.26 g	Final Volume:	1 mL
Data File:	S040424.S\3D0425.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	97.5	ug/kg	29.2	97.5
83-32-9	Acenaphthene	U	97.5	ug/kg	29.2	97.5
51-28-5	2,4-Dinitrophenol	U	1950	ug/kg	292	1950
132-64-9	Dibenzofuran	U	975	ug/kg	292	975
58-90-2	2,3,4,6-Tetrachlorophenol	U	975	ug/kg	292	975
84-66-2	Diethylphthalate	U	97.5	ug/kg	29.2	97.5
100-02-7	4-Nitrophenol	U	975	ug/kg	292	975
86-73-7	Fluorene	U	97.5	ug/kg	29.2	97.5
7005-72-3	4-Chlorophenylphenylether	U	975	ug/kg	292	975
100-01-6	p-Nitroaniline	U	975	ug/kg	292	975
534-52-1	2-Methyl-4,6-dinitrophenol	U	975	ug/kg	292	975
122-39-4	Diphenylamine	U	975	ug/kg	292	975
122-66-7	1,2-Diphenylhydrazine	U	975	ug/kg	292	975
101-55-3	4-Bromophenylphenylether	U	975	ug/kg	292	975
118-74-1	Hexachlorobenzene	U	975	ug/kg	292	975
87-86-5	Pentachlorophenol	U	975	ug/kg	292	975
88-85-7	Dinoseb	U	975	ug/kg	292	975
85-01-8	Phenanthrene	U	97.5	ug/kg	29.2	97.5
120-12-7	Anthracene	U	97.5	ug/kg	29.2	97.5
86-74-8	Carbazole	U	97.5	ug/kg	29.2	97.5
84-74-2	Di-n-butylphthalate	U	97.5	ug/kg	29.2	97.5
206-44-0	Fluoranthene	U	97.5	ug/kg	29.2	97.5
129-00-0	Pyrene	U	97.5	ug/kg	29.2	97.5
85-68-7	Butylbenzylphthalate	U	97.5	ug/kg	29.2	97.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	97.5	ug/kg	29.2	97.5
56-55-3	Benzo(a)anthracene	U	97.5	ug/kg	29.2	97.5
218-01-9	Chrysene	U	97.5	ug/kg	29.2	97.5
72-43-5	Methoxychlor	U	975	ug/kg	292	975
117-84-0	Di-n-octylphthalate	U	97.5	ug/kg	29.2	97.5
205-99-2	Benzo(b)fluoranthene	U	97.5	ug/kg	29.2	97.5
207-08-9	Benzo(k)fluoranthene	U	97.5	ug/kg	29.2	97.5
50-32-8	Benzo(a)pyrene	U	97.5	ug/kg	29.2	97.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	97.5	ug/kg	29.2	97.5
53-70-3	Dibenzo(a,h)anthracene	U	97.5	ug/kg	29.2	97.5
191-24-2	Benzo(ghi)perylene	U	97.5	ug/kg	29.2	97.5
123-91-1	1,4-Dioxane	U	975	ug/kg	292	975
80-62-6	Methyl methacrylate	U	975	ug/kg	292	975
97-63-2	Ethyl methacrylate	U	975	ug/kg	292	975

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660974002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:13	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.26 g	Final Volume:	1 mL
Data File:	S040424.S\3D0425.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	975	ug/kg	292	975
10595-95-6	N-Nitrosomethylethylamine	U	975	ug/kg	292	975
66-27-3	Methyl methanesulfonate	U	975	ug/kg	292	975
55-18-5	N-Nitrosodiethylamine	U	975	ug/kg	292	975
62-50-0	Ethyl Methanesulfonate	U	975	ug/kg	292	975
76-01-7	Pentachloroethane	U	975	ug/kg	292	975
930-55-2	N-Nitrosopyrrolidine	U	975	ug/kg	292	975
98-86-2	Acetophenone	U	975	ug/kg	292	975
59-89-2	N-Nitrosomorpholine	U	975	ug/kg	292	975
95-53-4	o-Toluidine	U	975	ug/kg	292	975
100-75-4	N-Nitrosopiperidine	U	975	ug/kg	292	975
122-09-8	a,a-Dimethylphenethylamine	U	975	ug/kg	341	975
87-65-0	2,6-Dichlorophenol	U	975	ug/kg	292	975
1888-71-7	Hexachloropropene	U	975	ug/kg	292	975
924-16-3	N-Nitrosodi-n-butylamine	U	975	ug/kg	292	975
94-59-7	Safrole	U	975	ug/kg	292	975
95-94-3	1,2,4,5-Tetrachlorobenzene	U	975	ug/kg	292	975
120-58-1	Isosafrole	U	975	ug/kg	292	975
130-15-4	1,4-Naphthoquinone	U	975	ug/kg	292	975
608-93-5	Pentachlorobenzene	U	975	ug/kg	292	975
134-32-7	1-Naphthylamine	U	975	ug/kg	292	975
91-59-8	2-Naphthylamine	U	975	ug/kg	292	975
99-55-8	5-Nitro-o-toluidine	U	975	ug/kg	292	975
62-44-2	Phenacetin	U	975	ug/kg	292	975
99-35-4	1,3,5-Trinitrobenzene	U	975	ug/kg	292	975
2303-16-4	Diallate	U	975	ug/kg	292	975
92-67-1	4-Aminobiphenyl	U	975	ug/kg	292	975
82-68-8	Pentachloronitrobenzene	U	975	ug/kg	292	975
23950-58-5	Pronamide	U	975	ug/kg	292	975
56-57-5	4-Nitroquinoline-1-oxide	U	975	ug/kg	292	975
91-80-5	Methapyrilene	U	975	ug/kg	292	975
465-73-6	Isodrin	U	975	ug/kg	195	975
140-57-8	Aramite	U	975	ug/kg	292	975
143-50-0	Kepone	U	975	ug/kg	292	975
60-11-7	p-(Dimethylamino)azobenzene	U	975	ug/kg	292	975
510-15-6	Chlorobenzilate	U	975	ug/kg	292	975
119-93-7	3,3'-Dimethylbenzidine	U	975	ug/kg	292	975
53-96-3	2-Acetylaminofluorene	U	975	ug/kg	292	975

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660974

Lab Sample ID: 660974002

Client ID: 12039.B4.Middle Front.PFF

Batch ID: 2590892

Run Date: 04/04/2024 22:13

Prep Date: 04/04/2024 09:45

Data File: S040424.S\3D0425.D

Date Collected: 03/30/2024 09:05

Date Received: 04/02/2024 08:50

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD3.I

Analyst: LL2

Aliquot: 10.26 g

Column: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	975	ug/kg	292	975
57-97-6	7,12-Dimethylbenz(a)anthracene	U	975	ug/kg	292	975
56-49-5	3-Methylcholanthrene	U	975	ug/kg	292	975
126-68-1	Triethylphosphorothioate	U	975	ug/kg	292	975
297-97-2	Thionazin	U	975	ug/kg	292	975
126-73-8	Tributylphosphate	U	975	ug/kg	292	975
3689-24-5	Sulfotepp	U	975	ug/kg	292	975
298-02-2	Phorate	U	975	ug/kg	292	975
60-51-5	Dimethoate	U	975	ug/kg	292	975
298-04-4	Disulfoton	U	975	ug/kg	292	975
298-00-0	Methyl parathion	U	975	ug/kg	292	975
56-38-2	Parathion	U	975	ug/kg	292	975
52-85-7	Famphur	U	975	ug/kg	292	975
106-50-3	p-Phenylenediamine	U	48700	ug/kg	9750	48700
70-30-4	Hexachlorophene	U	48700	ug/kg	11300	48700
120-82-1	1,2,4-Trichlorobenzene	U	975	ug/kg	292	975

Data Path : C:\msdchem\1\data\S040424.S\

Data File : s3D0425.D

Acq On : 04 Apr 2024 22:13

Operator : LL2

Sample : |660974002|2590892|1|SVM|1|PERM|||

Misc : |MSD827E4_S|MISC SOLID|12039.B4.Middle Front.PFF|mix[a,b,j,d,e]||

ALS Vial : 25 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 08:20:59 2024

Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Quant Title : BNA01

QLast Update : Fri Mar 15 08:40:12 2024

Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	87330	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	360916	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	183027	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.356	8.362	1.000	374332	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.683	10.683	1.000	400839	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.715	12.715	1.000	381936	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	87330	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	360916	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	183027	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.356	8.362	1.000	374332	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.683	10.683	1.000	400839	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.715	12.715	1.000	381936	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.302	1.000	360916	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.356	8.362	1.000	374332	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.683	10.683	1.000	400839	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	360916	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	183027	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.356	8.362	1.000	374332	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.683	10.683	1.000	400839	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	360916	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.715	12.715	1.000	381936	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.617	2.627	0.674	215622	74.58	ng/uL	0.00
8) Phenol-d5	99	3.489	3.486	0.898	280123	78.18	ng/uL	0.00
23) Nitrobenzene-d5	82	4.484	4.502	0.846	111304	33.64	ng/uL	-0.02
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	244934	35.23	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.757	7.773	0.928	100906	73.87	ng/uL	-0.02
79) p-Terphenyl-d14	244	9.693	9.686	1.160	376286	42.04	ng/uL	0.00
Compound	Amount	Range	Recovery					
5) 2-Fluorophenol	100.000	11 - 79	75%					
8) Phenol-d5	100.000	15 - 85	78%					
23) Nitrobenzene-d5	50.000	39 - 112	67%					
44) 2-Fluorobiphenyl	50.000	39 - 112	70%					
64) 2,4,6-Tribromophenol	100.000	37 - 132	74%					
79) p-Terphenyl-d14	50.000	24 - 129	84%					

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
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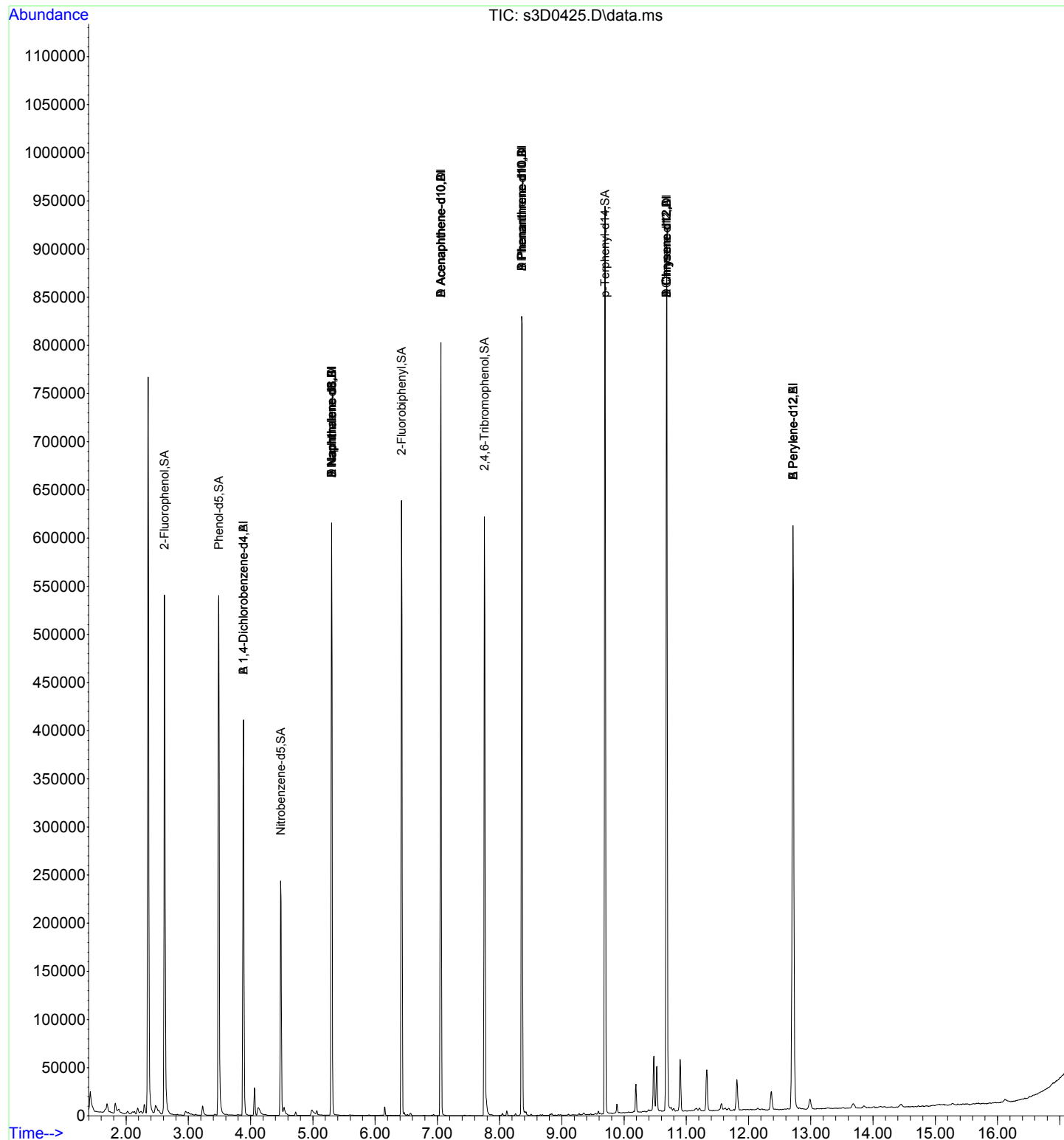
(#)= qualifier out of range (m)= manual integration (+)= signals summed

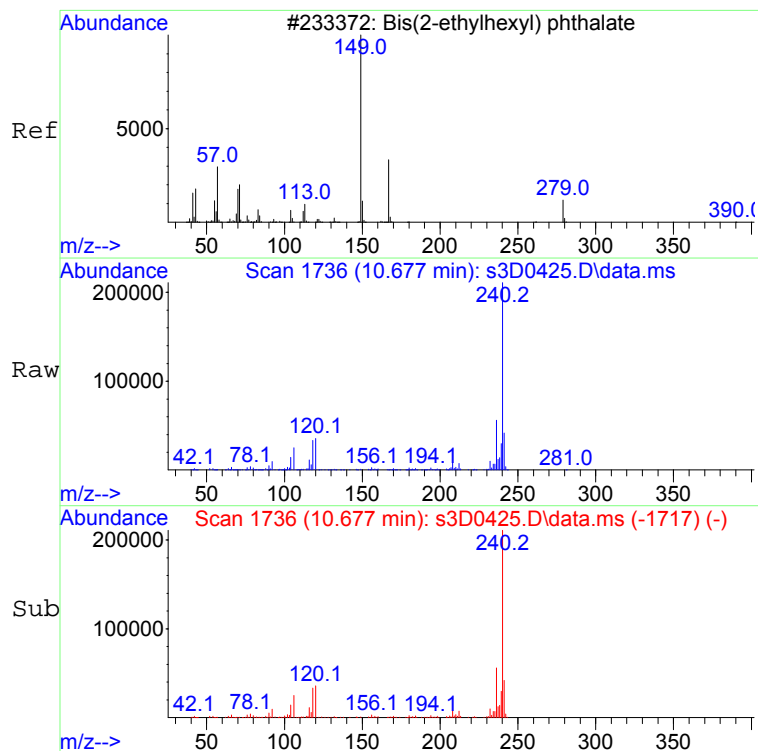
(A)= Over the calibration range (d)= deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0425.D
 Acq On : 04 Apr 2024 22:13
 Operator : LL2
 Sample : |660974002|2590892|1|SVM|1|PERM|||
 Misc : |MSD827E4_S|MISC SOLID|12039.B4.Middle Front.PFF|mix[a,b,j,d,e]||
 ALS Vial : 25 Sample Multiplier: 1

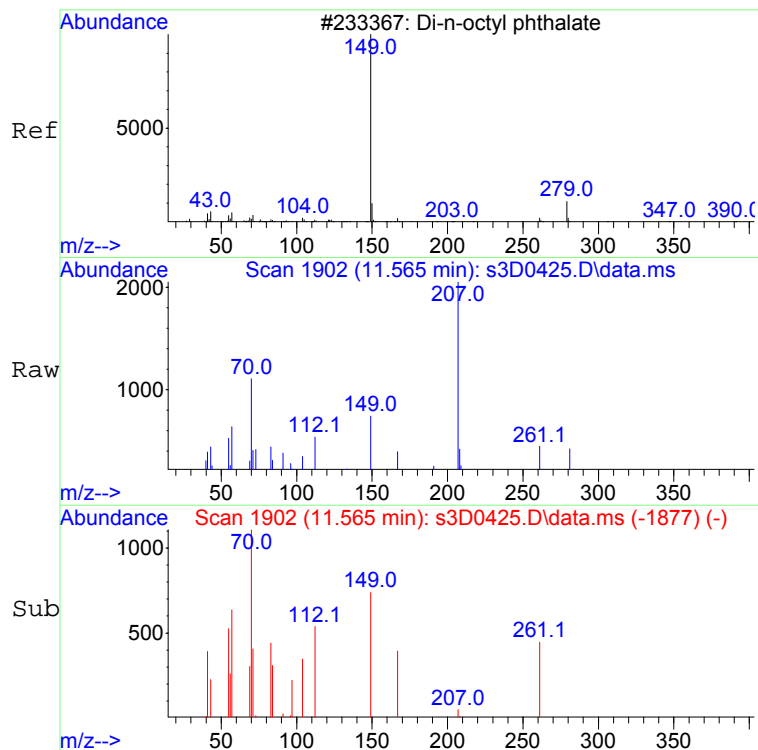
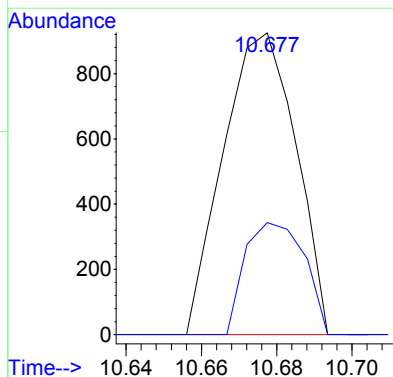
Quant Time: Apr 05 08:20:59 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration





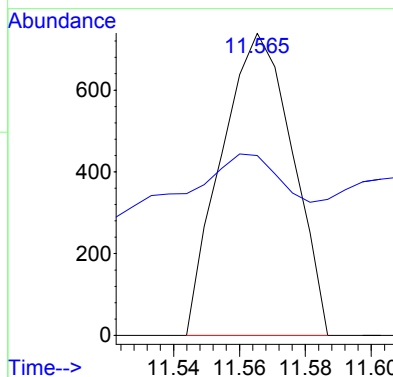
#82 BEFORE analyst DELETION
bis(2-Ethylhexyl)phthalate
Concen: 0.58 ng/uL
RT: 10.677 min Scan# 1736
Delta R.T. -0.000 min
Lab File: s3D0425.D
Acq: 04 Apr 2024 22:13

Tgt Ion:149 Resp: 1238
Ion Ratio Lower Upper
149 100
167 0.0 0.0 55.6



#87 BEFORE analyst DELETION
Di-n-octylphthalate
Concen: 0.60 ng/uL
RT: 11.565 min Scan# 1902
Delta R.T. 0.035 min
Lab File: s3D0425.D
Acq: 04 Apr 2024 22:13

Tgt Ion:149 Resp: 1104
Ion Ratio Lower Upper
149 100
43 35.1 0.0 37.4



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660974003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:34	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.22 g	Final Volume:	1 mL
Data File:	S040424.S\3D0426.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	978	ug/kg	294	978
110-86-1	Pyridine	U	978	ug/kg	294	978
62-53-3	Aniline	U	978	ug/kg	294	978
108-95-2	Phenol	U	978	ug/kg	294	978
111-44-4	bis(2-Chloroethyl) ether	U	978	ug/kg	294	978
95-57-8	2-Chlorophenol	U	978	ug/kg	294	978
541-73-1	1,3-Dichlorobenzene	U	978	ug/kg	294	978
106-46-7	1,4-Dichlorobenzene	U	978	ug/kg	294	978
95-50-1	1,2-Dichlorobenzene	U	978	ug/kg	294	978
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	978	ug/kg	294	978
100-51-6	Benzyl alcohol	U	978	ug/kg	294	978
95-48-7	o-Cresol	U	978	ug/kg	294	978
65794-96-9	m,p-Cresols	U	978	ug/kg	294	978
621-64-7	N-Nitrosodipropylamine	U	978	ug/kg	294	978
67-72-1	Hexachloroethane	U	978	ug/kg	294	978
98-95-3	Nitrobenzene	U	978	ug/kg	294	978
78-59-1	Isophorone	U	978	ug/kg	294	978
88-75-5	2-Nitrophenol	U	978	ug/kg	294	978
105-67-9	2,4-Dimethylphenol	U	978	ug/kg	294	978
111-91-1	bis(2-Chloroethoxy)methane	U	978	ug/kg	294	978
120-83-2	2,4-Dichlorophenol	U	978	ug/kg	294	978
65-85-0	Benzoic acid	U	1960	ug/kg	489	1960
106-47-8	4-Chloroaniline	U	978	ug/kg	294	978
87-68-3	Hexachlorobutadiene	U	978	ug/kg	294	978
59-50-7	4-Chloro-3-methylphenol	U	978	ug/kg	391	978
91-57-6	2-Methylnaphthalene	U	97.8	ug/kg	29.4	97.8
91-20-3	Naphthalene	U	97.8	ug/kg	29.4	97.8
90-12-0	1-Methylnaphthalene	U	97.8	ug/kg	29.4	97.8
77-47-4	Hexachlorocyclopentadiene	U	978	ug/kg	294	978
88-06-2	2,4,6-Trichlorophenol	U	978	ug/kg	294	978
95-95-4	2,4,5-Trichlorophenol	U	978	ug/kg	294	978
91-58-7	2-Chloronaphthalene	U	97.8	ug/kg	29.4	97.8
88-74-4	o-Nitroaniline	U	978	ug/kg	323	978
99-09-2	m-Nitroaniline	U	978	ug/kg	294	978
131-11-3	Dimethylphthalate	U	97.8	ug/kg	29.4	97.8
99-65-0	m-Dinitrobenzene	U	978	ug/kg	294	978
606-20-2	2,6-Dinitrotoluene	U	978	ug/kg	294	978
121-14-2	2,4-Dinitrotoluene	U	978	ug/kg	294	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660974003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:34	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.22 g	Final Volume:	1 mL
Data File:	S040424.S\3D0426.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	97.8	ug/kg	29.4	97.8
83-32-9	Acenaphthene	U	97.8	ug/kg	29.4	97.8
51-28-5	2,4-Dinitrophenol	U	1960	ug/kg	294	1960
132-64-9	Dibenzofuran	U	978	ug/kg	294	978
58-90-2	2,3,4,6-Tetrachlorophenol	U	978	ug/kg	294	978
84-66-2	Diethylphthalate	U	97.8	ug/kg	29.4	97.8
100-02-7	4-Nitrophenol	U	978	ug/kg	294	978
86-73-7	Fluorene	U	97.8	ug/kg	29.4	97.8
7005-72-3	4-Chlorophenylphenylether	U	978	ug/kg	294	978
100-01-6	p-Nitroaniline	U	978	ug/kg	294	978
534-52-1	2-Methyl-4,6-dinitrophenol	U	978	ug/kg	294	978
122-39-4	Diphenylamine	U	978	ug/kg	294	978
122-66-7	1,2-Diphenylhydrazine	U	978	ug/kg	294	978
101-55-3	4-Bromophenylphenylether	U	978	ug/kg	294	978
118-74-1	Hexachlorobenzene	U	978	ug/kg	294	978
87-86-5	Pentachlorophenol	U	978	ug/kg	294	978
88-85-7	Dinoseb	U	978	ug/kg	294	978
85-01-8	Phenanthrene	U	97.8	ug/kg	29.4	97.8
120-12-7	Anthracene	U	97.8	ug/kg	29.4	97.8
86-74-8	Carbazole	U	97.8	ug/kg	29.4	97.8
84-74-2	Di-n-butylphthalate	U	97.8	ug/kg	29.4	97.8
206-44-0	Fluoranthene	U	97.8	ug/kg	29.4	97.8
129-00-0	Pyrene	U	97.8	ug/kg	29.4	97.8
85-68-7	Butylbenzylphthalate	U	97.8	ug/kg	29.4	97.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	97.8	ug/kg	29.4	97.8
56-55-3	Benzo(a)anthracene	U	97.8	ug/kg	29.4	97.8
218-01-9	Chrysene	U	97.8	ug/kg	29.4	97.8
72-43-5	Methoxychlor	U	978	ug/kg	294	978
117-84-0	Di-n-octylphthalate	U	97.8	ug/kg	29.4	97.8
205-99-2	Benzo(b)fluoranthene	U	97.8	ug/kg	29.4	97.8
207-08-9	Benzo(k)fluoranthene	U	97.8	ug/kg	29.4	97.8
50-32-8	Benzo(a)pyrene	U	97.8	ug/kg	29.4	97.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	97.8	ug/kg	29.4	97.8
53-70-3	Dibenzo(a,h)anthracene	U	97.8	ug/kg	29.4	97.8
191-24-2	Benzo(ghi)perylene	U	97.8	ug/kg	29.4	97.8
123-91-1	1,4-Dioxane	U	978	ug/kg	294	978
80-62-6	Methyl methacrylate	U	978	ug/kg	294	978
97-63-2	Ethyl methacrylate	U	978	ug/kg	294	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660974003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:34	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.22 g	Final Volume:	1 mL
Data File:	S040424.S\3D0426.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	978	ug/kg	294	978
10595-95-6	N-Nitrosomethylethylamine	U	978	ug/kg	294	978
66-27-3	Methyl methanesulfonate	U	978	ug/kg	294	978
55-18-5	N-Nitrosodiethylamine	U	978	ug/kg	294	978
62-50-0	Ethyl Methanesulfonate	U	978	ug/kg	294	978
76-01-7	Pentachloroethane	U	978	ug/kg	294	978
930-55-2	N-Nitrosopyrrolidine	U	978	ug/kg	294	978
98-86-2	Acetophenone	U	978	ug/kg	294	978
59-89-2	N-Nitrosomorpholine	U	978	ug/kg	294	978
95-53-4	o-Toluidine	U	978	ug/kg	294	978
100-75-4	N-Nitrosopiperidine	U	978	ug/kg	294	978
122-09-8	a,a-Dimethylphenethylamine	U	978	ug/kg	342	978
87-65-0	2,6-Dichlorophenol	U	978	ug/kg	294	978
1888-71-7	Hexachloropropene	U	978	ug/kg	294	978
924-16-3	N-Nitrosodi-n-butylamine	U	978	ug/kg	294	978
94-59-7	Safrole	U	978	ug/kg	294	978
95-94-3	1,2,4,5-Tetrachlorobenzene	U	978	ug/kg	294	978
120-58-1	Isosafrole	U	978	ug/kg	294	978
130-15-4	1,4-Naphthoquinone	U	978	ug/kg	294	978
608-93-5	Pentachlorobenzene	U	978	ug/kg	294	978
134-32-7	1-Naphthylamine	U	978	ug/kg	294	978
91-59-8	2-Naphthylamine	U	978	ug/kg	294	978
99-55-8	5-Nitro-o-toluidine	U	978	ug/kg	294	978
62-44-2	Phenacetin	U	978	ug/kg	294	978
99-35-4	1,3,5-Trinitrobenzene	U	978	ug/kg	294	978
2303-16-4	Diallate	U	978	ug/kg	294	978
92-67-1	4-Aminobiphenyl	U	978	ug/kg	294	978
82-68-8	Pentachloronitrobenzene	U	978	ug/kg	294	978
23950-58-5	Pronamide	U	978	ug/kg	294	978
56-57-5	4-Nitroquinoline-1-oxide	U	978	ug/kg	294	978
91-80-5	Methapyrilene	U	978	ug/kg	294	978
465-73-6	Isodrin	U	978	ug/kg	196	978
140-57-8	Aramite	U	978	ug/kg	294	978
143-50-0	Kepone	U	978	ug/kg	294	978
60-11-7	p-(Dimethylamino)azobenzene	U	978	ug/kg	294	978
510-15-6	Chlorobenzilate	U	978	ug/kg	294	978
119-93-7	3,3'-Dimethylbenzidine	U	978	ug/kg	294	978
53-96-3	2-Acetylaminofluorene	U	978	ug/kg	294	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660974003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:34	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.22 g	Final Volume:	1 mL
Data File:	S040424.S\3D0426.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	978	ug/kg	294	978
57-97-6	7,12-Dimethylbenz(a)anthracene	U	978	ug/kg	294	978
56-49-5	3-Methylcholanthrene	U	978	ug/kg	294	978
126-68-1	Triethylphosphorothioate	U	978	ug/kg	294	978
297-97-2	Thionazin	U	978	ug/kg	294	978
126-73-8	Tributylphosphate	U	978	ug/kg	294	978
3689-24-5	Sulfotepp	U	978	ug/kg	294	978
298-02-2	Phorate	U	978	ug/kg	294	978
60-51-5	Dimethoate	U	978	ug/kg	294	978
298-04-4	Disulfoton	U	978	ug/kg	294	978
298-00-0	Methyl parathion	U	978	ug/kg	294	978
56-38-2	Parathion	U	978	ug/kg	294	978
52-85-7	Famphur	U	978	ug/kg	294	978
106-50-3	p-Phenylenediamine	U	48900	ug/kg	9780	48900
70-30-4	Hexachlorophene	U	48900	ug/kg	11400	48900
120-82-1	1,2,4-Trichlorobenzene	U	978	ug/kg	294	978

Data Path : C:\msdchem\1\data\S040424.S\

Data File : s3D0426.D

Acq On : 04 Apr 2024 22:34

Operator : LL2

Sample : |660974003|2590892|1|SVM|1|PERM|||

Misc : |MSD827E4_S|MISC SOLID|12039.B4.Bottom Front.PFF|mix[a,b,j,d,e]||

ALS Vial : 26 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 08:21:19 2024

Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Quant Title : BNA01

QLast Update : Fri Mar 15 08:40:12 2024

Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	86784	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	362709	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	185495	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.361	8.362	1.000	377668	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.683	10.683	1.000	408771	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.715	12.715	1.000	418109	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	86784	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	362709	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	185495	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.361	8.362	1.000	377668	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.683	10.683	1.000	408771	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.715	12.715	1.000	418109	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.302	1.000	362709	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.361	8.362	1.000	377668	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.683	10.683	1.000	408771	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	362709	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	185495	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.361	8.362	1.000	377668	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.683	10.683	1.000	408771	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	362709	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.715	12.715	1.000	418109	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.617	2.627	0.674	215283	74.93	ng/uL	-0.01
8) Phenol-d5	99	3.483	3.486	0.897	281131	78.96	ng/uL	0.00
23) Nitrobenzene-d5	82	4.484	4.502	0.846	111839	33.63	ng/uL	-0.02
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	243308	34.53	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.757	7.773	0.928	97501	70.75	ng/uL	-0.02
79) p-Terphenyl-d14	244	9.693	9.686	1.159	383613	42.48	ng/uL	0.00
Compound	Amount	Range	Recovery					
5) 2-Fluorophenol	100.000	11 - 79	75%					
8) Phenol-d5	100.000	15 - 85	79%					
23) Nitrobenzene-d5	50.000	39 - 112	67%					
44) 2-Fluorobiphenyl	50.000	39 - 112	69%					
64) 2,4,6-Tribromophenol	100.000	37 - 132	71%					
79) p-Terphenyl-d14	50.000	24 - 129	85%					

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
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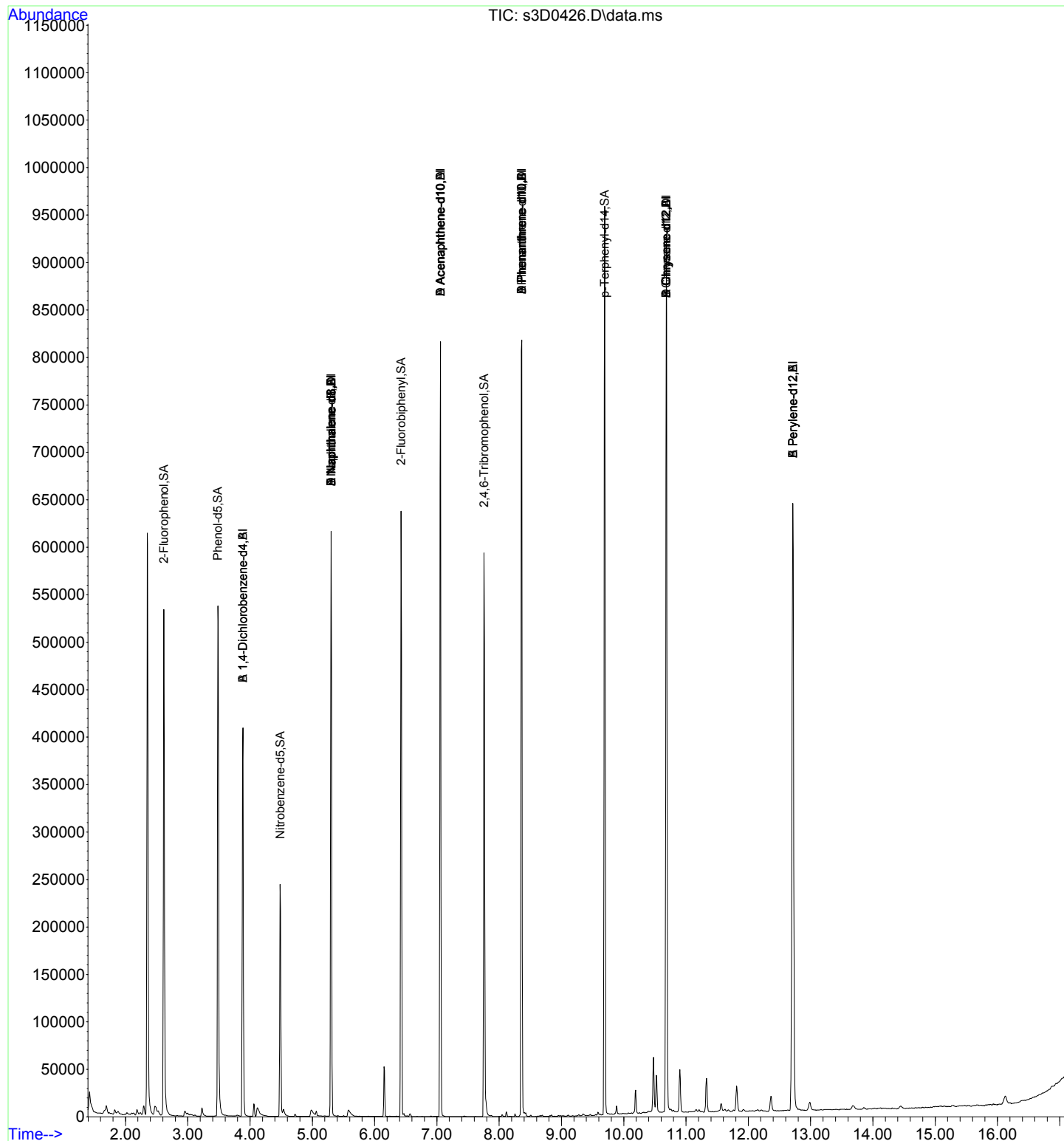
(#)= qualifier out of range (m)= manual integration (+)= signals summed

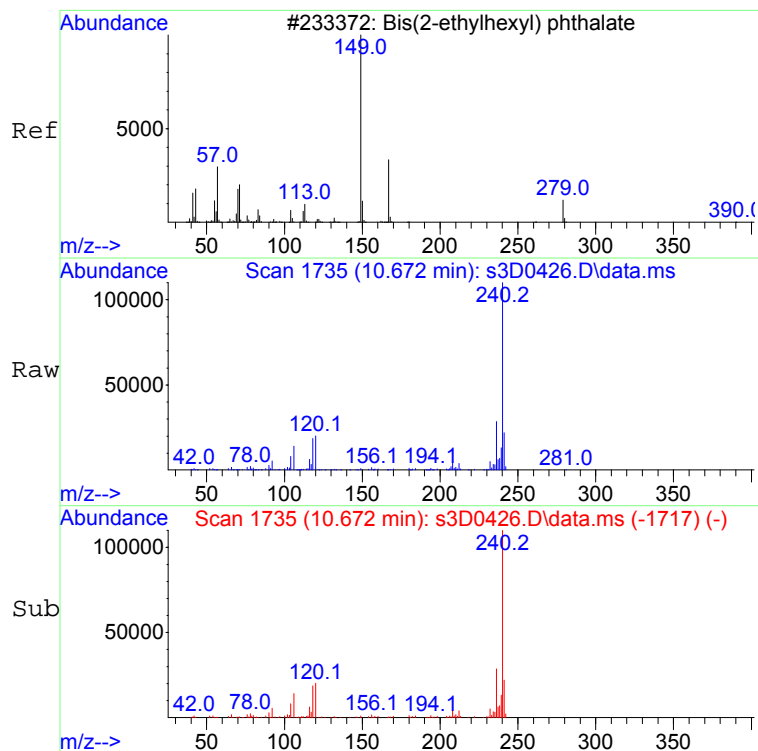
(A)= Over the calibration range (d)= deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0426.D
 Acq On : 04 Apr 2024 22:34
 Operator : LL2
 Sample : |660974003|2590892|1|SVM|1|PERM|||
 Misc : |MSD827E4_S|MISC SOLID|12039.B4.Bottom Front.PFF|mix[a,b,j,d,e]||
 ALS Vial : 26 Sample Multiplier: 1

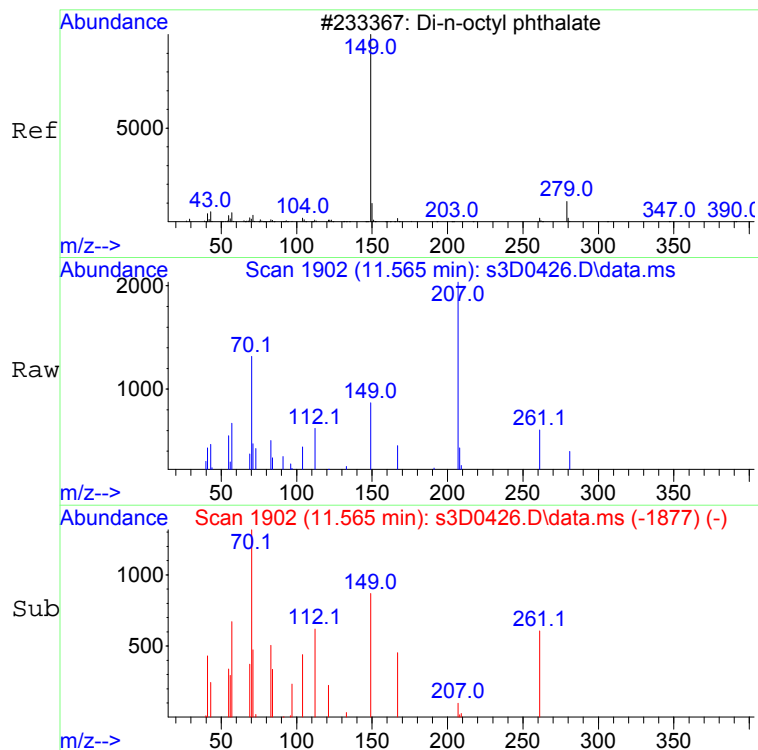
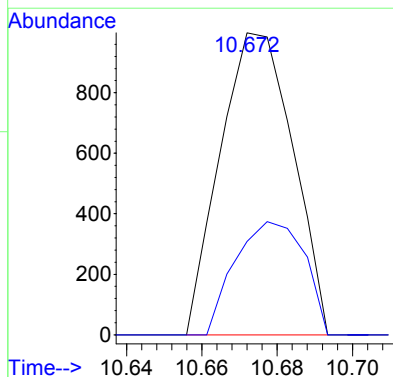
Quant Time: Apr 05 08:21:19 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration





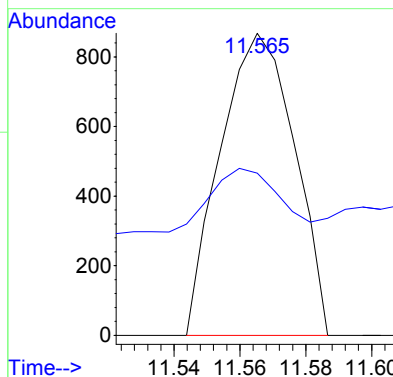
#82 BEFORE analyst DELETION
bis(2-Ethylhexyl)phthalate
Concen: 0.59 ng/uL
RT: 10.672 min Scan# 1735
Delta R.T. -0.006 min
Lab File: s3D0426.D
Acq: 04 Apr 2024 22:34

Tgt Ion:149 Resp: 1338
Ion Ratio Lower Upper
149 100
167 0.0 0.0 55.6



#87 BEFORE analyst DELETION
Di-n-octylphthalate
Concen: 0.62 ng/uL
RT: 11.565 min Scan# 1902
Delta R.T. 0.035 min
Lab File: s3D0426.D
Acq: 04 Apr 2024 22:34

Tgt Ion:149 Resp: 1352
Ion Ratio Lower Upper
149 100
43 168.1 0.0 37.4#



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660974004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:55	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.23 g	Final Volume:	1 mL
Data File:	S040424.S\3D0427.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	978	ug/kg	293	978
110-86-1	Pyridine	U	978	ug/kg	293	978
62-53-3	Aniline	U	978	ug/kg	293	978
108-95-2	Phenol	U	978	ug/kg	293	978
111-44-4	bis(2-Chloroethyl) ether	U	978	ug/kg	293	978
95-57-8	2-Chlorophenol	U	978	ug/kg	293	978
541-73-1	1,3-Dichlorobenzene	U	978	ug/kg	293	978
106-46-7	1,4-Dichlorobenzene	U	978	ug/kg	293	978
95-50-1	1,2-Dichlorobenzene	J	588	ug/kg	293	978
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	978	ug/kg	293	978
100-51-6	Benzyl alcohol	U	978	ug/kg	293	978
95-48-7	o-Cresol	U	978	ug/kg	293	978
65794-96-9	m,p-Cresols	U	978	ug/kg	293	978
621-64-7	N-Nitrosodipropylamine	U	978	ug/kg	293	978
67-72-1	Hexachloroethane	U	978	ug/kg	293	978
98-95-3	Nitrobenzene	U	978	ug/kg	293	978
78-59-1	Isophorone	U	978	ug/kg	293	978
88-75-5	2-Nitrophenol	U	978	ug/kg	293	978
105-67-9	2,4-Dimethylphenol	U	978	ug/kg	293	978
111-91-1	bis(2-Chloroethoxy)methane	U	978	ug/kg	293	978
120-83-2	2,4-Dichlorophenol	U	978	ug/kg	293	978
65-85-0	Benzoic acid	U	1960	ug/kg	489	1960
106-47-8	4-Chloroaniline	U	978	ug/kg	293	978
87-68-3	Hexachlorobutadiene	U	978	ug/kg	293	978
59-50-7	4-Chloro-3-methylphenol	U	978	ug/kg	391	978
91-57-6	2-Methylnaphthalene	U	97.8	ug/kg	29.3	97.8
91-20-3	Naphthalene	J	37.1	ug/kg	29.3	97.8
90-12-0	1-Methylnaphthalene	U	97.8	ug/kg	29.3	97.8
77-47-4	Hexachlorocyclopentadiene	U	978	ug/kg	293	978
88-06-2	2,4,6-Trichlorophenol	U	978	ug/kg	293	978
95-95-4	2,4,5-Trichlorophenol	U	978	ug/kg	293	978
91-58-7	2-Chloronaphthalene	U	97.8	ug/kg	29.3	97.8
88-74-4	o-Nitroaniline	U	978	ug/kg	323	978
99-09-2	m-Nitroaniline	U	978	ug/kg	293	978
131-11-3	Dimethylphthalate	U	97.8	ug/kg	29.3	97.8
99-65-0	m-Dinitrobenzene	U	978	ug/kg	293	978
606-20-2	2,6-Dinitrotoluene	U	978	ug/kg	293	978
121-14-2	2,4-Dinitrotoluene	U	978	ug/kg	293	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660974004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:55	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.23 g	Final Volume:	1 mL
Data File:	S040424.S\3D0427.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	97.8	ug/kg	29.3	97.8
83-32-9	Acenaphthene	U	97.8	ug/kg	29.3	97.8
51-28-5	2,4-Dinitrophenol	U	1960	ug/kg	293	1960
132-64-9	Dibenzofuran	U	978	ug/kg	293	978
58-90-2	2,3,4,6-Tetrachlorophenol	U	978	ug/kg	293	978
84-66-2	Diethylphthalate	U	97.8	ug/kg	29.3	97.8
100-02-7	4-Nitrophenol	U	978	ug/kg	293	978
86-73-7	Fluorene	U	97.8	ug/kg	29.3	97.8
7005-72-3	4-Chlorophenylphenylether	U	978	ug/kg	293	978
100-01-6	p-Nitroaniline	U	978	ug/kg	293	978
534-52-1	2-Methyl-4,6-dinitrophenol	U	978	ug/kg	293	978
122-39-4	Diphenylamine	U	978	ug/kg	293	978
122-66-7	1,2-Diphenylhydrazine	U	978	ug/kg	293	978
101-55-3	4-Bromophenylphenylether	U	978	ug/kg	293	978
118-74-1	Hexachlorobenzene	U	978	ug/kg	293	978
87-86-5	Pentachlorophenol	U	978	ug/kg	293	978
88-85-7	Dinoseb	U	978	ug/kg	293	978
85-01-8	Phenanthrene	U	97.8	ug/kg	29.3	97.8
120-12-7	Anthracene	U	97.8	ug/kg	29.3	97.8
86-74-8	Carbazole	U	97.8	ug/kg	29.3	97.8
84-74-2	Di-n-butylphthalate	U	97.8	ug/kg	29.3	97.8
206-44-0	Fluoranthene	U	97.8	ug/kg	29.3	97.8
129-00-0	Pyrene	U	97.8	ug/kg	29.3	97.8
85-68-7	Butylbenzylphthalate	U	97.8	ug/kg	29.3	97.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	97.8	ug/kg	29.3	97.8
56-55-3	Benzo(a)anthracene	U	97.8	ug/kg	29.3	97.8
218-01-9	Chrysene	U	97.8	ug/kg	29.3	97.8
72-43-5	Methoxychlor	U	978	ug/kg	293	978
117-84-0	Di-n-octylphthalate	U	97.8	ug/kg	29.3	97.8
205-99-2	Benzo(b)fluoranthene	U	97.8	ug/kg	29.3	97.8
207-08-9	Benzo(k)fluoranthene	U	97.8	ug/kg	29.3	97.8
50-32-8	Benzo(a)pyrene	U	97.8	ug/kg	29.3	97.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	97.8	ug/kg	29.3	97.8
53-70-3	Dibenzo(a,h)anthracene	U	97.8	ug/kg	29.3	97.8
191-24-2	Benzo(ghi)perylene	U	97.8	ug/kg	29.3	97.8
123-91-1	1,4-Dioxane	U	978	ug/kg	293	978
80-62-6	Methyl methacrylate	U	978	ug/kg	293	978
97-63-2	Ethyl methacrylate	U	978	ug/kg	293	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660974004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:55	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.23 g	Final Volume:	1 mL
Data File:	S040424.S\3D0427.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	978	ug/kg	293	978
10595-95-6	N-Nitrosomethylethylamine	U	978	ug/kg	293	978
66-27-3	Methyl methanesulfonate	U	978	ug/kg	293	978
55-18-5	N-Nitrosodiethylamine	U	978	ug/kg	293	978
62-50-0	Ethyl Methanesulfonate	U	978	ug/kg	293	978
76-01-7	Pentachloroethane	U	978	ug/kg	293	978
930-55-2	N-Nitrosopyrrolidine	U	978	ug/kg	293	978
98-86-2	Acetophenone	U	978	ug/kg	293	978
59-89-2	N-Nitrosomorpholine	U	978	ug/kg	293	978
95-53-4	o-Toluidine	U	978	ug/kg	293	978
100-75-4	N-Nitrosopiperidine	U	978	ug/kg	293	978
122-09-8	a,a-Dimethylphenethylamine	U	978	ug/kg	342	978
87-65-0	2,6-Dichlorophenol	U	978	ug/kg	293	978
1888-71-7	Hexachloropropene	U	978	ug/kg	293	978
924-16-3	N-Nitrosodi-n-butylamine	U	978	ug/kg	293	978
94-59-7	Safrole	U	978	ug/kg	293	978
95-94-3	1,2,4,5-Tetrachlorobenzene	U	978	ug/kg	293	978
120-58-1	Isosafrole	U	978	ug/kg	293	978
130-15-4	1,4-Naphthoquinone	U	978	ug/kg	293	978
608-93-5	Pentachlorobenzene	U	978	ug/kg	293	978
134-32-7	1-Naphthylamine	U	978	ug/kg	293	978
91-59-8	2-Naphthylamine	U	978	ug/kg	293	978
99-55-8	5-Nitro-o-toluidine	U	978	ug/kg	293	978
62-44-2	Phenacetin	U	978	ug/kg	293	978
99-35-4	1,3,5-Trinitrobenzene	U	978	ug/kg	293	978
2303-16-4	Diallate	U	978	ug/kg	293	978
92-67-1	4-Aminobiphenyl	U	978	ug/kg	293	978
82-68-8	Pentachloronitrobenzene	U	978	ug/kg	293	978
23950-58-5	Pronamide	U	978	ug/kg	293	978
56-57-5	4-Nitroquinoline-1-oxide	U	978	ug/kg	293	978
91-80-5	Methapyrilene	U	978	ug/kg	293	978
465-73-6	Isodrin	U	978	ug/kg	196	978
140-57-8	Aramite	U	978	ug/kg	293	978
143-50-0	Kepone	U	978	ug/kg	293	978
60-11-7	p-(Dimethylamino)azobenzene	U	978	ug/kg	293	978
510-15-6	Chlorobenzilate	U	978	ug/kg	293	978
119-93-7	3,3'-Dimethylbenzidine	U	978	ug/kg	293	978
53-96-3	2-Acetylaminofluorene	U	978	ug/kg	293	978

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660974004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 22:55	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.23 g	Final Volume:	1 mL
Data File:	S040424.S\3D0427.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	978	ug/kg	293	978
57-97-6	7,12-Dimethylbenz(a)anthracene	U	978	ug/kg	293	978
56-49-5	3-Methylcholanthrene	U	978	ug/kg	293	978
126-68-1	Triethylphosphorothioate	U	978	ug/kg	293	978
297-97-2	Thionazin	U	978	ug/kg	293	978
126-73-8	Tributylphosphate	U	978	ug/kg	293	978
3689-24-5	Sulfotepp	U	978	ug/kg	293	978
298-02-2	Phorate	U	978	ug/kg	293	978
60-51-5	Dimethoate	U	978	ug/kg	293	978
298-04-4	Disulfoton	U	978	ug/kg	293	978
298-00-0	Methyl parathion	U	978	ug/kg	293	978
56-38-2	Parathion	U	978	ug/kg	293	978
52-85-7	Famphur	U	978	ug/kg	293	978
106-50-3	p-Phenylenediamine	U	48900	ug/kg	9780	48900
70-30-4	Hexachlorophene	U	48900	ug/kg	11300	48900
120-82-1	1,2,4-Trichlorobenzene	U	978	ug/kg	293	978

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0427.D
 Acq On : 04 Apr 2024 22:55
 Operator : LL2
 Sample : |660974004|2590892|1|SVM|1|PERM|||
 Misc : |MSD827E4_S|MISC SOLID|12040.B4.Top Back.PFF|mix[a,b,j,d,e]||
 ALS Vial : 27 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 08:21:51 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

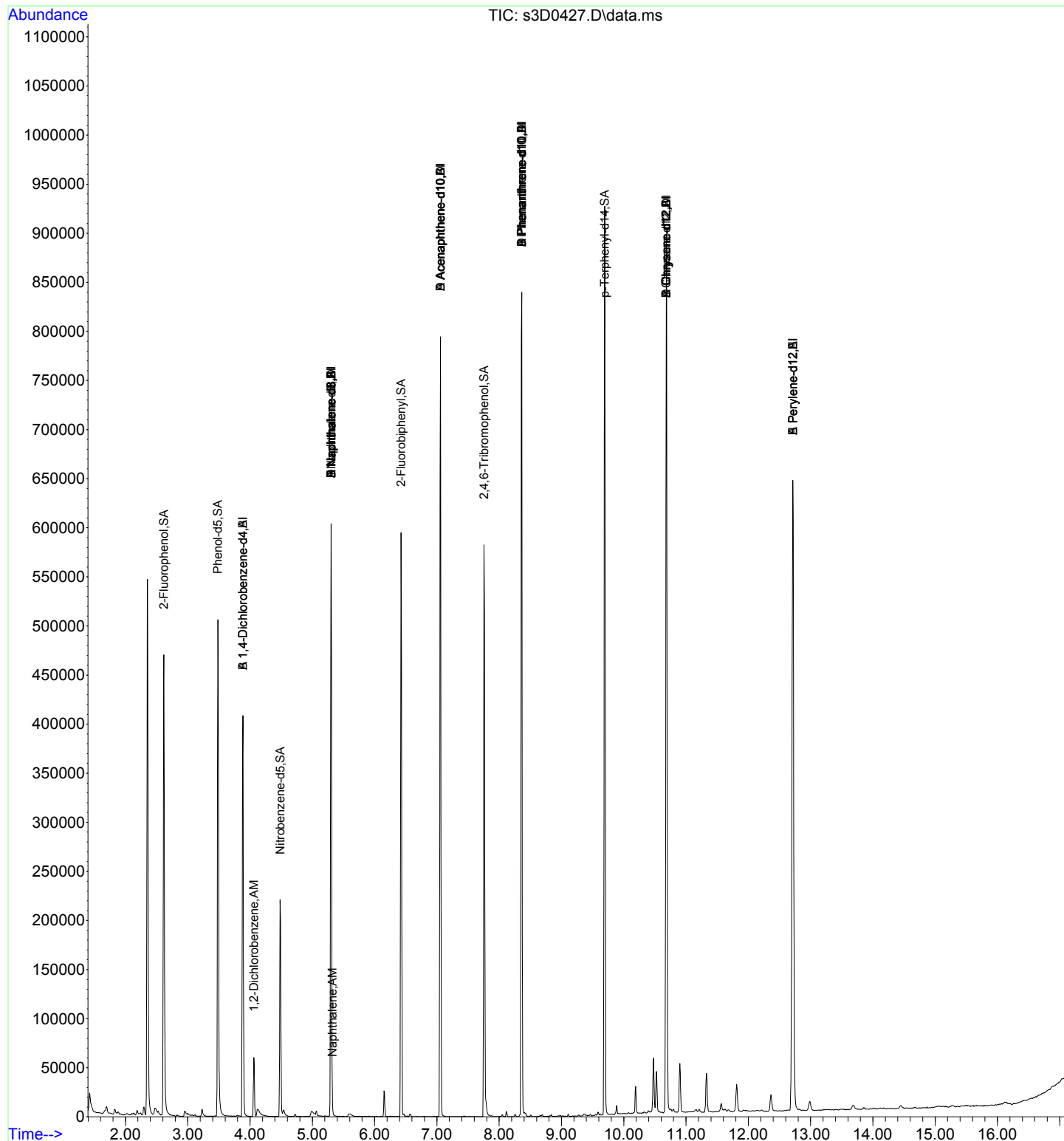
Compound		QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards									Dev(Min)
1)	A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	85859	40.00	ng/uL	0.00
22)	A Naphthalene-d8	136	5.302	5.302	1.000	355545	40.00	ng/uL	0.00
39)	A Acenaphthene-d10	164	7.056	7.057	1.000	181348	40.00	ng/uL	0.00
63)	A Phenanthrene-d10	188	8.361	8.362	1.000	377057	40.00	ng/uL	0.00
80)	A Chrysene-d12	240	10.683	10.683	1.000	408025	40.00	ng/uL	0.00
88)	A Perylene-d12	264	12.715	12.715	1.000	414538	40.00	ng/uL	0.00
96)	B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	85859	40.00	ng/uL	0.00
112)	B Naphthalene-d8	136	5.302	5.302	1.000	355545	40.00	ng/uL	0.00
120)	B Acenaphthene-d10	164	7.056	7.057	1.000	181348	40.00	ng/uL	0.00
130)	B Phenanthrene-d10	188	8.361	8.362	1.000	377057	40.00	ng/uL	0.00
143)	B Chrysene-d12	240	10.683	10.683	1.000	408025	40.00	ng/uL	0.00
149)	B Perylene-d12	264	12.715	12.715	1.000	414538	40.00	ng/uL	0.00
152)	J Naphthalene-d8	136	5.302	5.302	1.000	355545	40.00	ng/uL	0.00
154)	J Phenanthrene-d10	188	8.361	8.362	1.000	377057	40.00	ng/uL	0.00
157)	J Chrysene-d12	240	10.683	10.683	1.000	408025	40.00	ng/uL	0.00
160)	D Naphthalene-d8	136	5.302	5.302	1.000	355545	40.00	ng/uL	0.00
162)	D Acenaphthene-d10	164	7.056	7.057	1.000	181348	40.00	ng/uL	0.00
164)	D Phenanthrene-d10	188	8.361	8.362	1.000	377057	40.00	ng/uL	0.00
171)	D Chrysene-d12	240	10.683	10.683	1.000	408025	40.00	ng/uL	0.00
173)	E Naphthalene-d8	136	5.302	5.302	1.000	355545	40.00	ng/uL	0.00
175)	E Perylene-d12	264	12.715	12.715	1.000	414538	40.00	ng/uL	0.00
System Monitoring Compounds									Dev(Min)
5)	2-Fluorophenol	112	2.617	2.627	0.674	195325	68.72	ng/uL	0.00
8)	Phenol-d5	99	3.483	3.486	0.897	259922	73.79	ng/uL	0.00
23)	Nitrobenzene-d5	82	4.484	4.502	0.846	100531	30.84	ng/uL	-0.02
44)	2-Fluorobiphenyl	172	6.425	6.436	0.911	226960	32.95	ng/uL	-0.01
64)	2,4,6-Tribromophenol	330	7.757	7.773	0.928	96838	70.38	ng/uL	-0.02
79)	p-Terphenyl-d14	244	9.693	9.686	1.159	375139	41.61	ng/uL	0.00
Compound		Amount		Range		Recovery			
5)	2-Fluorophenol	100.000		11 - 79		69%			
8)	Phenol-d5	100.000		15 - 85		74%			
23)	Nitrobenzene-d5	50.000		39 - 112		62%			
44)	2-Fluorobiphenyl	50.000		39 - 112		66%			
64)	2,4,6-Tribromophenol	100.000		37 - 132		70%			
79)	p-Terphenyl-d14	50.000		24 - 129		83%			
Target Compounds		QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
15)	1,2-Dichlorobenzene	146	4.061	4.068	1.045	20184	6.02	ng/uL	98
33)	Naphthalene	128	5.323	5.328	1.004	3637	0.38	ng/uL	89

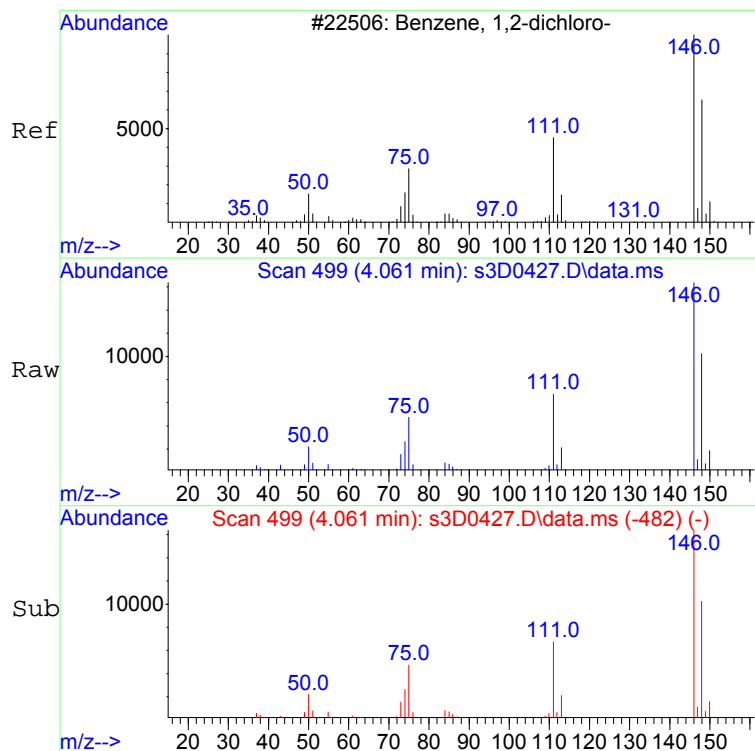
(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0427.D
 Acq On : 04 Apr 2024 22:55
 Operator : LL2
 Sample : |660974004|2590892|1|SVM|1|PERM|||
 Misc : |MSD827E4_S|MISC SOLID|12040.B4.Top Back.PFF|mix[a,b,j,d,e]||
 ALS Vial : 27 Sample Multiplier: 1

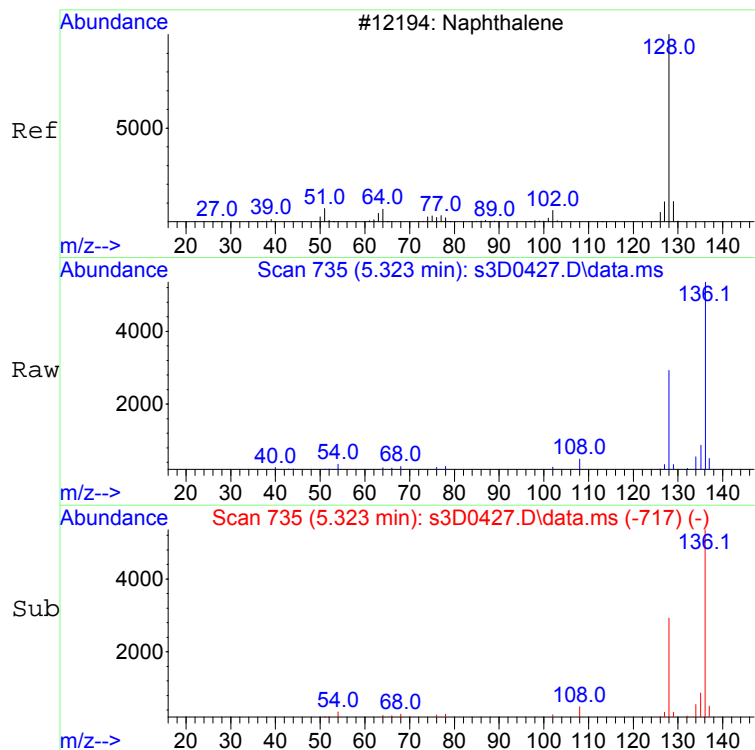
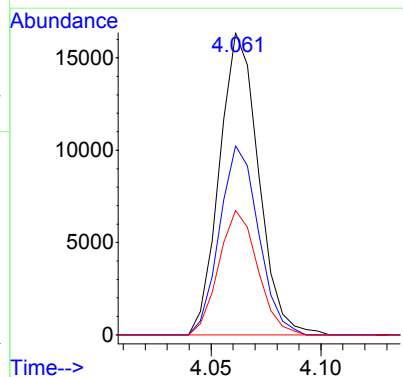
Quant Time: Apr 05 08:21:51 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration





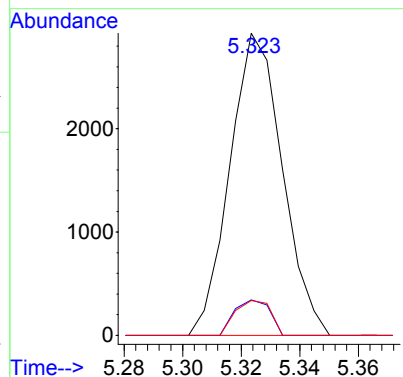
#15
1,2-Dichlorobenzene
Concen: 6.02 ng/uL
RT: 4.061 min Scan# 499
Delta R.T. -0.007 min
Lab File: s3D0427.D
Acq: 04 Apr 2024 22:55

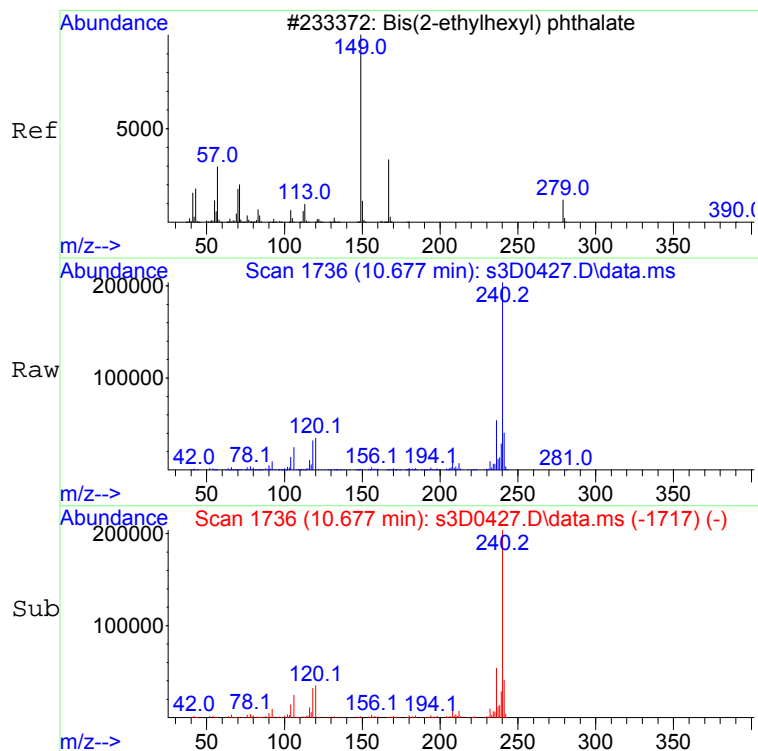
Tgt Ion	Ratio	Lower	Upper
146	100		
148	62.3	33.8	93.8
111	40.9	11.8	71.8



#33
Naphthalene
Concen: 0.38 ng/uL
RT: 5.323 min Scan# 735
Delta R.T. -0.005 min
Lab File: s3D0427.D
Acq: 04 Apr 2024 22:55

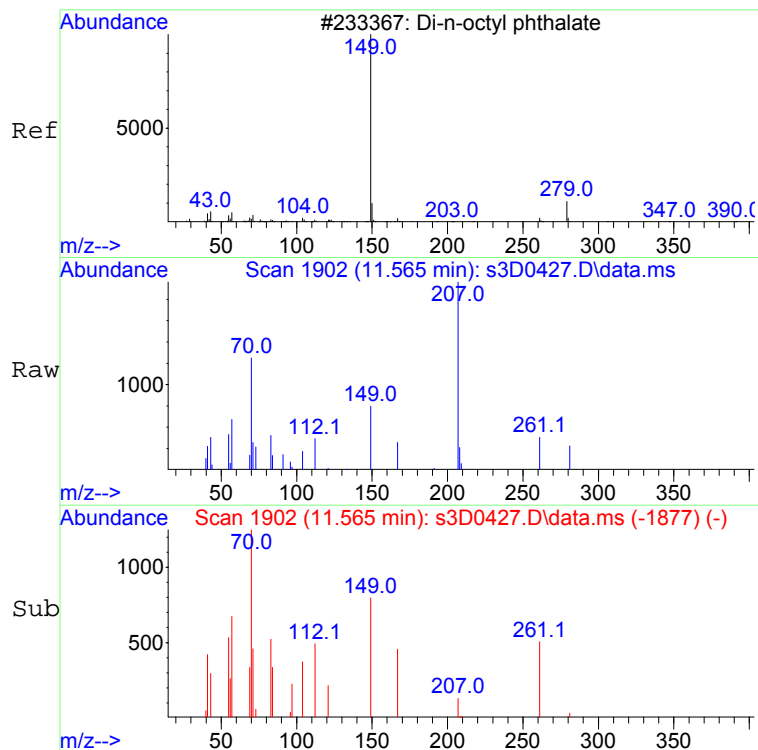
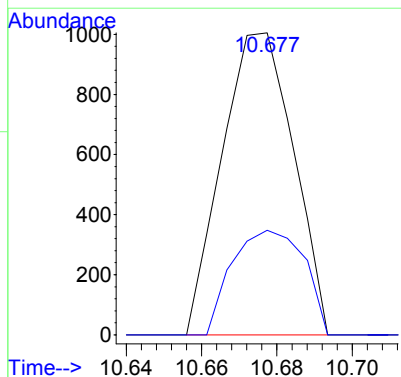
Tgt Ion	Ratio	Lower	Upper
128	100		
129	7.9	0.0	41.1
127	7.8	0.0	43.2





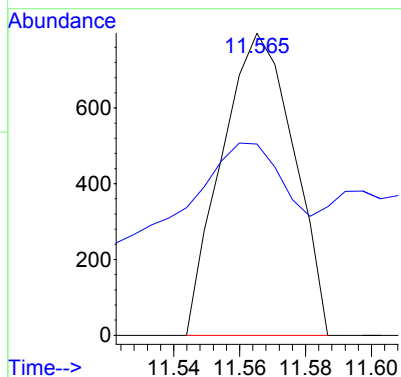
#82 BEFORE analyst DELETION
bis(2-Ethylhexyl)phthalate
Concen: 0.59 ng/uL
RT: 10.677 min Scan# 1736
Delta R.T. -0.000 min
Lab File: s3D0427.D
Acq: 04 Apr 2024 22:55

Tgt Ion:149 Resp: 1325
Ion Ratio Lower Upper
149 100
167 0.0 0.0 55.6



#87 BEFORE analyst DELETION
Di-n-octylphthalate
Concen: 0.61 ng/uL
RT: 11.565 min Scan# 1902
Delta R.T. 0.035 min
Lab File: s3D0427.D
Acq: 04 Apr 2024 22:55

Tgt Ion:149 Resp: 1202
Ion Ratio Lower Upper
149 100
43 44.3 0.0 37.4#



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660974005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 23:16	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.25 g	Final Volume:	1 mL
Data File:	S040424.S\3D0428.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	976	ug/kg	293	976
110-86-1	Pyridine	U	976	ug/kg	293	976
62-53-3	Aniline	U	976	ug/kg	293	976
108-95-2	Phenol	U	976	ug/kg	293	976
111-44-4	bis(2-Chloroethyl) ether	U	976	ug/kg	293	976
95-57-8	2-Chlorophenol	U	976	ug/kg	293	976
541-73-1	1,3-Dichlorobenzene	U	976	ug/kg	293	976
106-46-7	1,4-Dichlorobenzene	U	976	ug/kg	293	976
95-50-1	1,2-Dichlorobenzene	J	338	ug/kg	293	976
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	976	ug/kg	293	976
100-51-6	Benzyl alcohol	U	976	ug/kg	293	976
95-48-7	o-Cresol	U	976	ug/kg	293	976
65794-96-9	m,p-Cresols	U	976	ug/kg	293	976
621-64-7	N-Nitrosodipropylamine	U	976	ug/kg	293	976
67-72-1	Hexachloroethane	U	976	ug/kg	293	976
98-95-3	Nitrobenzene	U	976	ug/kg	293	976
78-59-1	Isophorone	U	976	ug/kg	293	976
88-75-5	2-Nitrophenol	U	976	ug/kg	293	976
105-67-9	2,4-Dimethylphenol	U	976	ug/kg	293	976
111-91-1	bis(2-Chloroethoxy)methane	U	976	ug/kg	293	976
120-83-2	2,4-Dichlorophenol	U	976	ug/kg	293	976
65-85-0	Benzoic acid	U	1950	ug/kg	488	1950
106-47-8	4-Chloroaniline	U	976	ug/kg	293	976
87-68-3	Hexachlorobutadiene	U	976	ug/kg	293	976
59-50-7	4-Chloro-3-methylphenol	U	976	ug/kg	390	976
91-57-6	2-Methylnaphthalene	U	97.6	ug/kg	29.3	97.6
91-20-3	Naphthalene	U	97.6	ug/kg	29.3	97.6
90-12-0	1-Methylnaphthalene	U	97.6	ug/kg	29.3	97.6
77-47-4	Hexachlorocyclopentadiene	U	976	ug/kg	293	976
88-06-2	2,4,6-Trichlorophenol	U	976	ug/kg	293	976
95-95-4	2,4,5-Trichlorophenol	U	976	ug/kg	293	976
91-58-7	2-Chloronaphthalene	U	97.6	ug/kg	29.3	97.6
88-74-4	o-Nitroaniline	U	976	ug/kg	322	976
99-09-2	m-Nitroaniline	U	976	ug/kg	293	976
131-11-3	Dimethylphthalate	U	97.6	ug/kg	29.3	97.6
99-65-0	m-Dinitrobenzene	U	976	ug/kg	293	976
606-20-2	2,6-Dinitrotoluene	U	976	ug/kg	293	976
121-14-2	2,4-Dinitrotoluene	U	976	ug/kg	293	976

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660974005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 23:16	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.25 g	Final Volume:	1 mL
Data File:	S040424.S\3D0428.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	97.6	ug/kg	29.3	97.6
83-32-9	Acenaphthene	U	97.6	ug/kg	29.3	97.6
51-28-5	2,4-Dinitrophenol	U	1950	ug/kg	293	1950
132-64-9	Dibenzofuran	U	976	ug/kg	293	976
58-90-2	2,3,4,6-Tetrachlorophenol	U	976	ug/kg	293	976
84-66-2	Diethylphthalate	U	97.6	ug/kg	29.3	97.6
100-02-7	4-Nitrophenol	U	976	ug/kg	293	976
86-73-7	Fluorene	U	97.6	ug/kg	29.3	97.6
7005-72-3	4-Chlorophenylphenylether	U	976	ug/kg	293	976
100-01-6	p-Nitroaniline	U	976	ug/kg	293	976
534-52-1	2-Methyl-4,6-dinitrophenol	U	976	ug/kg	293	976
122-39-4	Diphenylamine	U	976	ug/kg	293	976
122-66-7	1,2-Diphenylhydrazine	U	976	ug/kg	293	976
101-55-3	4-Bromophenylphenylether	U	976	ug/kg	293	976
118-74-1	Hexachlorobenzene	U	976	ug/kg	293	976
87-86-5	Pentachlorophenol	U	976	ug/kg	293	976
88-85-7	Dinoseb	U	976	ug/kg	293	976
85-01-8	Phenanthrene	U	97.6	ug/kg	29.3	97.6
120-12-7	Anthracene	U	97.6	ug/kg	29.3	97.6
86-74-8	Carbazole	U	97.6	ug/kg	29.3	97.6
84-74-2	Di-n-butylphthalate	U	97.6	ug/kg	29.3	97.6
206-44-0	Fluoranthene	U	97.6	ug/kg	29.3	97.6
129-00-0	Pyrene	U	97.6	ug/kg	29.3	97.6
85-68-7	Butylbenzylphthalate	U	97.6	ug/kg	29.3	97.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	97.6	ug/kg	29.3	97.6
56-55-3	Benzo(a)anthracene	U	97.6	ug/kg	29.3	97.6
218-01-9	Chrysene	U	97.6	ug/kg	29.3	97.6
72-43-5	Methoxychlor	U	976	ug/kg	293	976
117-84-0	Di-n-octylphthalate	U	97.6	ug/kg	29.3	97.6
205-99-2	Benzo(b)fluoranthene	U	97.6	ug/kg	29.3	97.6
207-08-9	Benzo(k)fluoranthene	U	97.6	ug/kg	29.3	97.6
50-32-8	Benzo(a)pyrene	U	97.6	ug/kg	29.3	97.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	97.6	ug/kg	29.3	97.6
53-70-3	Dibenzo(a,h)anthracene	U	97.6	ug/kg	29.3	97.6
191-24-2	Benzo(ghi)perylene	U	97.6	ug/kg	29.3	97.6
123-91-1	1,4-Dioxane	U	976	ug/kg	293	976
80-62-6	Methyl methacrylate	U	976	ug/kg	293	976
97-63-2	Ethyl methacrylate	U	976	ug/kg	293	976

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660974005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 23:16	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.25 g	Final Volume:	1 mL
Data File:	S040424.S\3D0428.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	976	ug/kg	293	976
10595-95-6	N-Nitrosomethylethylamine	U	976	ug/kg	293	976
66-27-3	Methyl methanesulfonate	U	976	ug/kg	293	976
55-18-5	N-Nitrosodiethylamine	U	976	ug/kg	293	976
62-50-0	Ethyl Methanesulfonate	U	976	ug/kg	293	976
76-01-7	Pentachloroethane	U	976	ug/kg	293	976
930-55-2	N-Nitrosopyrrolidine	U	976	ug/kg	293	976
98-86-2	Acetophenone	U	976	ug/kg	293	976
59-89-2	N-Nitrosomorpholine	U	976	ug/kg	293	976
95-53-4	o-Toluidine	U	976	ug/kg	293	976
100-75-4	N-Nitrosopiperidine	U	976	ug/kg	293	976
122-09-8	a,a-Dimethylphenethylamine	U	976	ug/kg	341	976
87-65-0	2,6-Dichlorophenol	U	976	ug/kg	293	976
1888-71-7	Hexachloropropene	U	976	ug/kg	293	976
924-16-3	N-Nitrosodi-n-butylamine	U	976	ug/kg	293	976
94-59-7	Safrole	U	976	ug/kg	293	976
95-94-3	1,2,4,5-Tetrachlorobenzene	U	976	ug/kg	293	976
120-58-1	Isosafrole	U	976	ug/kg	293	976
130-15-4	1,4-Naphthoquinone	U	976	ug/kg	293	976
608-93-5	Pentachlorobenzene	U	976	ug/kg	293	976
134-32-7	1-Naphthylamine	U	976	ug/kg	293	976
91-59-8	2-Naphthylamine	U	976	ug/kg	293	976
99-55-8	5-Nitro-o-toluidine	U	976	ug/kg	293	976
62-44-2	Phenacetin	U	976	ug/kg	293	976
99-35-4	1,3,5-Trinitrobenzene	U	976	ug/kg	293	976
2303-16-4	Diallate	U	976	ug/kg	293	976
92-67-1	4-Aminobiphenyl	U	976	ug/kg	293	976
82-68-8	Pentachloronitrobenzene	U	976	ug/kg	293	976
23950-58-5	Pronamide	U	976	ug/kg	293	976
56-57-5	4-Nitroquinoline-1-oxide	U	976	ug/kg	293	976
91-80-5	Methapyrilene	U	976	ug/kg	293	976
465-73-6	Isodrin	U	976	ug/kg	195	976
140-57-8	Aramite	U	976	ug/kg	293	976
143-50-0	Kepone	U	976	ug/kg	293	976
60-11-7	p-(Dimethylamino)azobenzene	U	976	ug/kg	293	976
510-15-6	Chlorobenzilate	U	976	ug/kg	293	976
119-93-7	3,3'-Dimethylbenzidine	U	976	ug/kg	293	976
53-96-3	2-Acetylaminofluorene	U	976	ug/kg	293	976

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660974005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 23:16	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.25 g	Final Volume:	1 mL
Data File:	S040424.S\3D0428.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	976	ug/kg	293	976
57-97-6	7,12-Dimethylbenz(a)anthracene	U	976	ug/kg	293	976
56-49-5	3-Methylcholanthrene	U	976	ug/kg	293	976
126-68-1	Triethylphosphorothioate	U	976	ug/kg	293	976
297-97-2	Thionazin	U	976	ug/kg	293	976
126-73-8	Tributylphosphate	U	976	ug/kg	293	976
3689-24-5	Sulfotepp	U	976	ug/kg	293	976
298-02-2	Phorate	U	976	ug/kg	293	976
60-51-5	Dimethoate	U	976	ug/kg	293	976
298-04-4	Disulfoton	U	976	ug/kg	293	976
298-00-0	Methyl parathion	U	976	ug/kg	293	976
56-38-2	Parathion	U	976	ug/kg	293	976
52-85-7	Famphur	U	976	ug/kg	293	976
106-50-3	p-Phenylenediamine	U	48800	ug/kg	9760	48800
70-30-4	Hexachlorophene	U	48800	ug/kg	11300	48800
120-82-1	1,2,4-Trichlorobenzene	U	976	ug/kg	293	976

Data Path : C:\msdchem\1\data\S040424.S\

Data File : s3D0428.D

Acq On : 04 Apr 2024 23:16

Operator : LL2

Sample : |660974005|2590892|1|SVM|1|PERM|||

Misc : |MSD827E4_S|MISC SOLID|12040.B4.Middle Back.PFF|mix[a,b,j,d,e]||

ALS Vial : 28 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 08:22:24 2024

Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Quant Title : BNA01

QLast Update : Fri Mar 15 08:40:12 2024

Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	85590	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	351446	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	178524	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.356	8.362	1.000	364690	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.688	10.683	1.000	396879	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.715	12.715	1.000	397010	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	85590	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	351446	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	178524	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.356	8.362	1.000	364690	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.688	10.683	1.000	396879	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.715	12.715	1.000	397010	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.302	1.000	351446	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.356	8.362	1.000	364690	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.688	10.683	1.000	396879	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	351446	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	178524	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.356	8.362	1.000	364690	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.688	10.683	1.000	396879	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	351446	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.715	12.715	1.000	397008	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.617	2.627	0.674	193091	68.15	ng/uL	-0.01
8) Phenol-d5	99	3.483	3.486	0.897	253311	72.14	ng/uL	0.00
23) Nitrobenzene-d5	82	4.484	4.502	0.846	99287	30.81	ng/uL	-0.02
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	221338	32.64	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.757	7.773	0.928	95771	71.97	ng/uL	-0.02
79) p-Terphenyl-d14	244	9.693	9.686	1.160	362626	41.59	ng/uL	0.00
Compound	Amount	Range		Recovery				
5) 2-Fluorophenol	100.000	11 - 79		68%				
8) Phenol-d5	100.000	15 - 85		72%				
23) Nitrobenzene-d5	50.000	39 - 112		62%				
44) 2-Fluorobiphenyl	50.000	39 - 112		65%				
64) 2,4,6-Tribromophenol	100.000	37 - 132		72%				
79) p-Terphenyl-d14	50.000	24 - 129		83%				
Target Compounds								
15) 1,2-Dichlorobenzene	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
	146	4.061	4.068	1.045	11554	3.46	ng/uL	99

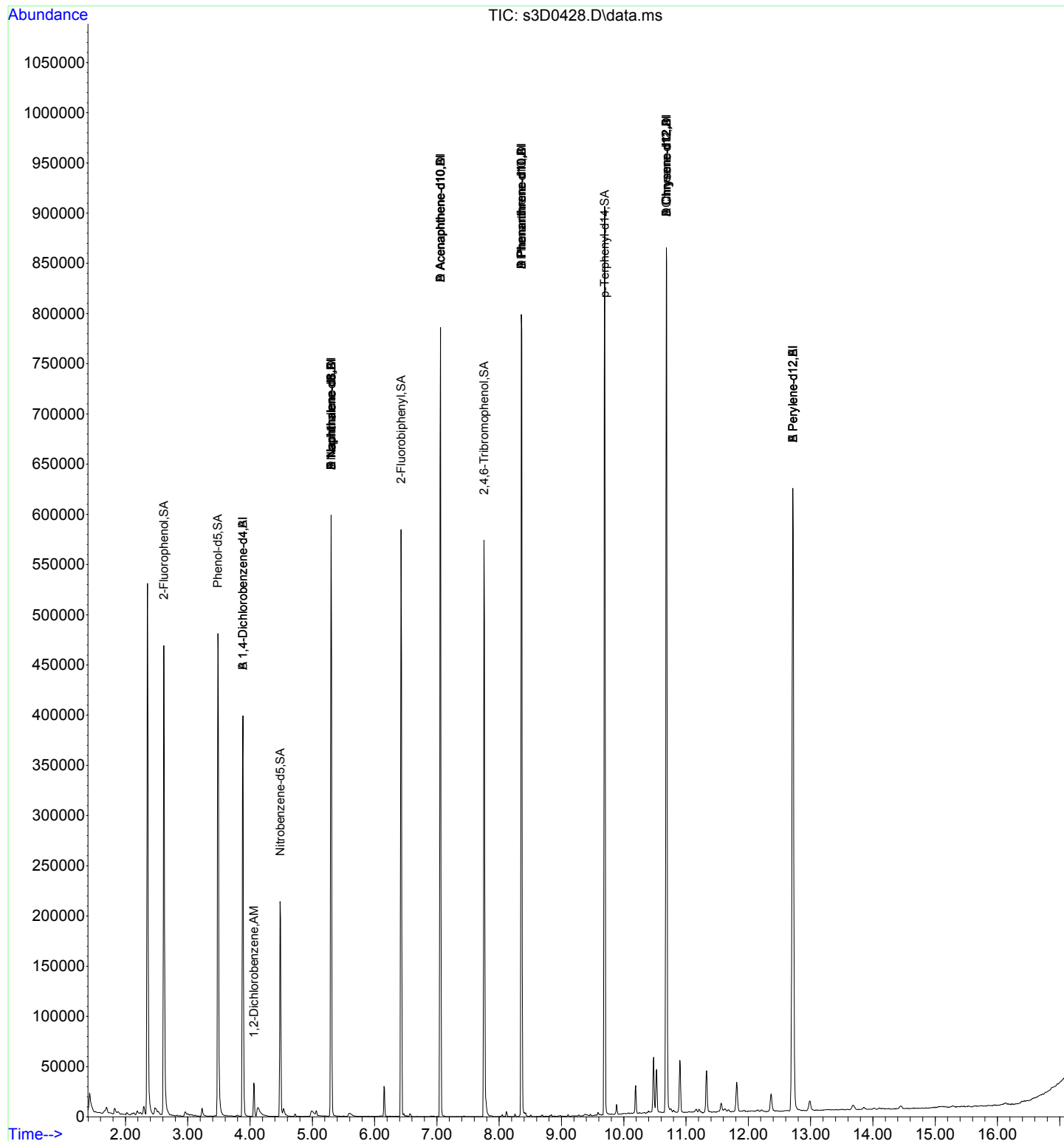
(#)= qualifier out of range (m)= manual integration (+)= signals summed

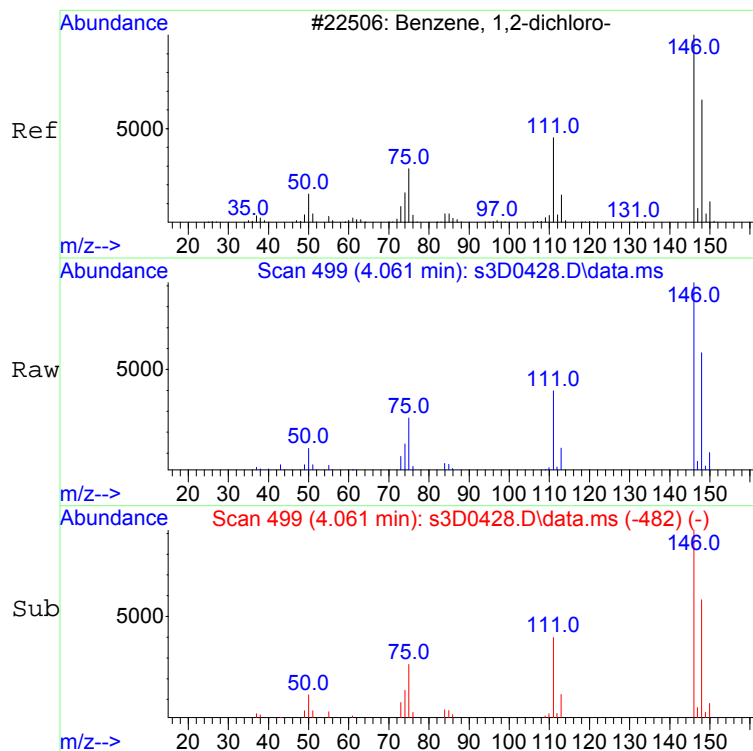
(A)= Over the calibration range (d)= deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0428.D
 Acq On : 04 Apr 2024 23:16
 Operator : LL2
 Sample : |660974005|2590892|1|SVM|1|PERM||
 Misc : |MSD827E4_S|MISC SOLID|12040.B4.Middle Back.PFF|mix[a,b,j,d,e]||
 ALS Vial : 28 Sample Multiplier: 1

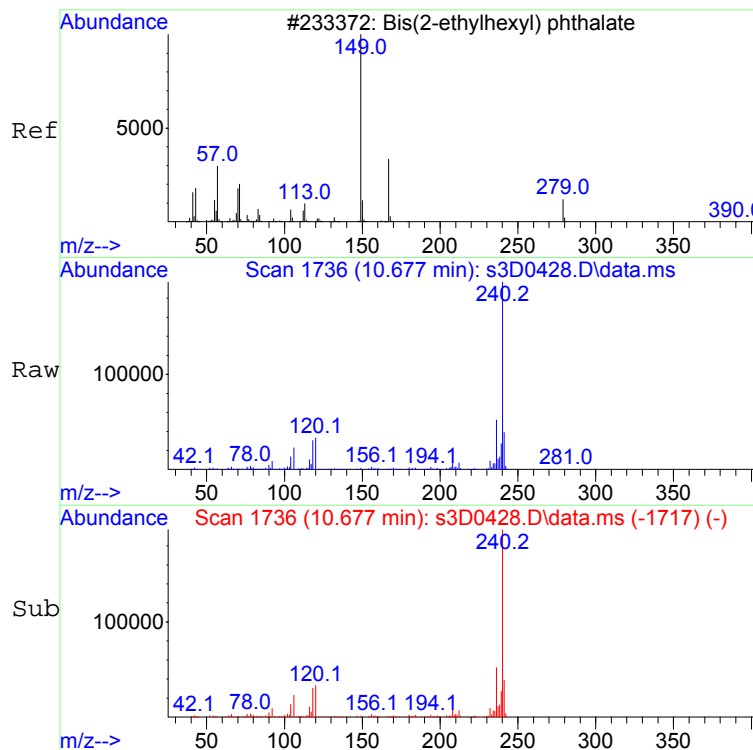
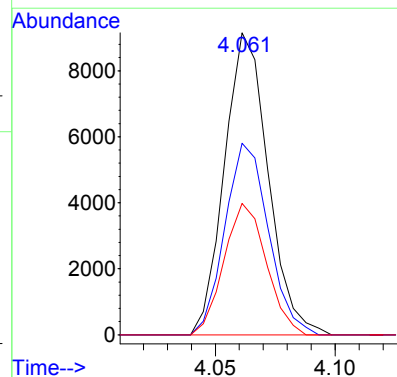
Quant Time: Apr 05 08:22:24 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration





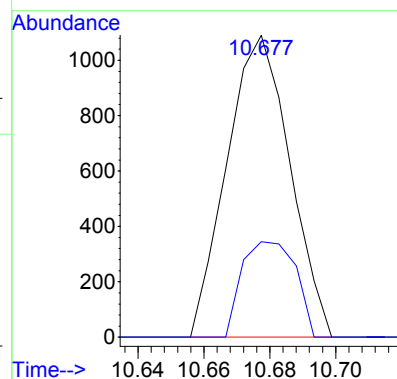
#15
1,2-Dichlorobenzene
Concen: 3.46 ng/uL
RT: 4.061 min Scan# 499
Delta R.T. -0.007 min
Lab File: s3D0428.D
Acq: 04 Apr 2024 23:16

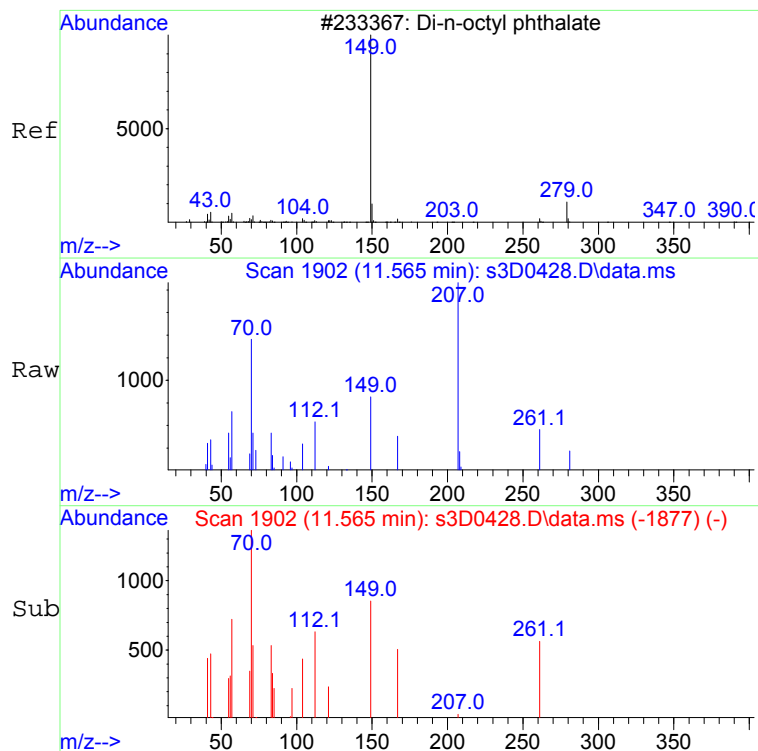
Tgt Ion	Ratio	Lower	Upper
146	100		
148	63.2	33.8	93.8
111	42.1	11.8	71.8



#82 BEFORE analyst DELETION
bis(2-Ethylhexyl)phthalate
Concen: 0.61 ng/uL
RT: 10.677 min Scan# 1736
Delta R.T. -0.000 min
Lab File: s3D0428.D
Acq: 04 Apr 2024 23:16

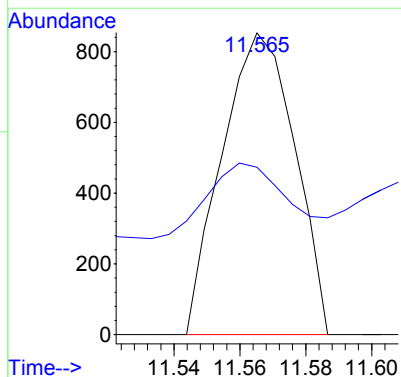
Tgt Ion	Ratio	Lower	Upper
149	100		
167	0.0	0.0	55.6





#87 BEFORE analyst DELETION
Di-n-octylphthalate
Concen: 0.61 ng/uL
RT: 11.565 min Scan# 1902
Delta R.T. 0.035 min
Lab File: s3D0428.D
Acq: 04 Apr 2024 23:16

Tgt Ion:149 Resp: 1303
Ion Ratio Lower Upper
149 100
43 55.8 0.0 37.4#



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660974006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 23:38	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.93 g	Final Volume:	1 mL
Data File:	S040424.S\3D0429.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	915	ug/kg	274	915
110-86-1	Pyridine	U	915	ug/kg	274	915
62-53-3	Aniline	U	915	ug/kg	274	915
108-95-2	Phenol	U	915	ug/kg	274	915
111-44-4	bis(2-Chloroethyl) ether	U	915	ug/kg	274	915
95-57-8	2-Chlorophenol	U	915	ug/kg	274	915
541-73-1	1,3-Dichlorobenzene	U	915	ug/kg	274	915
106-46-7	1,4-Dichlorobenzene	U	915	ug/kg	274	915
95-50-1	1,2-Dichlorobenzene	U	915	ug/kg	274	915
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	915	ug/kg	274	915
100-51-6	Benzyl alcohol	U	915	ug/kg	274	915
95-48-7	o-Cresol	U	915	ug/kg	274	915
65794-96-9	m,p-Cresols	U	915	ug/kg	274	915
621-64-7	N-Nitrosodipropylamine	U	915	ug/kg	274	915
67-72-1	Hexachloroethane	U	915	ug/kg	274	915
98-95-3	Nitrobenzene	U	915	ug/kg	274	915
78-59-1	Isophorone	U	915	ug/kg	274	915
88-75-5	2-Nitrophenol	U	915	ug/kg	274	915
105-67-9	2,4-Dimethylphenol	U	915	ug/kg	274	915
111-91-1	bis(2-Chloroethoxy)methane	U	915	ug/kg	274	915
120-83-2	2,4-Dichlorophenol	U	915	ug/kg	274	915
65-85-0	Benzoic acid	U	1830	ug/kg	457	1830
106-47-8	4-Chloroaniline	U	915	ug/kg	274	915
87-68-3	Hexachlorobutadiene	U	915	ug/kg	274	915
59-50-7	4-Chloro-3-methylphenol	U	915	ug/kg	366	915
91-57-6	2-Methylnaphthalene	U	91.5	ug/kg	27.4	91.5
91-20-3	Naphthalene	U	91.5	ug/kg	27.4	91.5
90-12-0	1-Methylnaphthalene	U	91.5	ug/kg	27.4	91.5
77-47-4	Hexachlorocyclopentadiene	U	915	ug/kg	274	915
88-06-2	2,4,6-Trichlorophenol	U	915	ug/kg	274	915
95-95-4	2,4,5-Trichlorophenol	U	915	ug/kg	274	915
91-58-7	2-Chloronaphthalene	U	91.5	ug/kg	27.4	91.5
88-74-4	o-Nitroaniline	U	915	ug/kg	302	915
99-09-2	m-Nitroaniline	U	915	ug/kg	274	915
131-11-3	Dimethylphthalate	U	91.5	ug/kg	27.4	91.5
99-65-0	m-Dinitrobenzene	U	915	ug/kg	274	915
606-20-2	2,6-Dinitrotoluene	U	915	ug/kg	274	915
121-14-2	2,4-Dinitrotoluene	U	915	ug/kg	274	915

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660974006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 23:38	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.93 g	Final Volume:	1 mL
Data File:	S040424.S\3D0429.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	91.5	ug/kg	27.4	91.5
83-32-9	Acenaphthene	U	91.5	ug/kg	27.4	91.5
51-28-5	2,4-Dinitrophenol	U	1830	ug/kg	274	1830
132-64-9	Dibenzofuran	U	915	ug/kg	274	915
58-90-2	2,3,4,6-Tetrachlorophenol	U	915	ug/kg	274	915
84-66-2	Diethylphthalate	U	91.5	ug/kg	27.4	91.5
100-02-7	4-Nitrophenol	U	915	ug/kg	274	915
86-73-7	Fluorene	U	91.5	ug/kg	27.4	91.5
7005-72-3	4-Chlorophenylphenylether	U	915	ug/kg	274	915
100-01-6	p-Nitroaniline	U	915	ug/kg	274	915
534-52-1	2-Methyl-4,6-dinitrophenol	U	915	ug/kg	274	915
122-39-4	Diphenylamine	U	915	ug/kg	274	915
122-66-7	1,2-Diphenylhydrazine	U	915	ug/kg	274	915
101-55-3	4-Bromophenylphenylether	U	915	ug/kg	274	915
118-74-1	Hexachlorobenzene	U	915	ug/kg	274	915
87-86-5	Pentachlorophenol	U	915	ug/kg	274	915
88-85-7	Dinoseb	U	915	ug/kg	274	915
85-01-8	Phenanthrene	U	91.5	ug/kg	27.4	91.5
120-12-7	Anthracene	U	91.5	ug/kg	27.4	91.5
86-74-8	Carbazole	U	91.5	ug/kg	27.4	91.5
84-74-2	Di-n-butylphthalate	U	91.5	ug/kg	27.4	91.5
206-44-0	Fluoranthene	U	91.5	ug/kg	27.4	91.5
129-00-0	Pyrene	U	91.5	ug/kg	27.4	91.5
85-68-7	Butylbenzylphthalate	U	91.5	ug/kg	27.4	91.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	91.5	ug/kg	27.4	91.5
56-55-3	Benzo(a)anthracene	U	91.5	ug/kg	27.4	91.5
218-01-9	Chrysene	U	91.5	ug/kg	27.4	91.5
72-43-5	Methoxychlor	U	915	ug/kg	274	915
117-84-0	Di-n-octylphthalate	U	91.5	ug/kg	27.4	91.5
205-99-2	Benzo(b)fluoranthene	U	91.5	ug/kg	27.4	91.5
207-08-9	Benzo(k)fluoranthene	U	91.5	ug/kg	27.4	91.5
50-32-8	Benzo(a)pyrene	U	91.5	ug/kg	27.4	91.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	91.5	ug/kg	27.4	91.5
53-70-3	Dibenzo(a,h)anthracene	U	91.5	ug/kg	27.4	91.5
191-24-2	Benzo(ghi)perylene	U	91.5	ug/kg	27.4	91.5
123-91-1	1,4-Dioxane	U	915	ug/kg	274	915
80-62-6	Methyl methacrylate	U	915	ug/kg	274	915
97-63-2	Ethyl methacrylate	U	915	ug/kg	274	915

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660974006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 23:38	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.93 g	Final Volume:	1 mL
Data File:	S040424.S\3D0429.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	915	ug/kg	274	915
10595-95-6	N-Nitrosomethylethylamine	U	915	ug/kg	274	915
66-27-3	Methyl methanesulfonate	U	915	ug/kg	274	915
55-18-5	N-Nitrosodiethylamine	U	915	ug/kg	274	915
62-50-0	Ethyl Methanesulfonate	U	915	ug/kg	274	915
76-01-7	Pentachloroethane	U	915	ug/kg	274	915
930-55-2	N-Nitrosopyrrolidine	U	915	ug/kg	274	915
98-86-2	Acetophenone	U	915	ug/kg	274	915
59-89-2	N-Nitrosomorpholine	U	915	ug/kg	274	915
95-53-4	o-Toluidine	U	915	ug/kg	274	915
100-75-4	N-Nitrosopiperidine	U	915	ug/kg	274	915
122-09-8	a,a-Dimethylphenethylamine	U	915	ug/kg	320	915
87-65-0	2,6-Dichlorophenol	U	915	ug/kg	274	915
1888-71-7	Hexachloropropene	U	915	ug/kg	274	915
924-16-3	N-Nitrosodi-n-butylamine	U	915	ug/kg	274	915
94-59-7	Safrole	U	915	ug/kg	274	915
95-94-3	1,2,4,5-Tetrachlorobenzene	U	915	ug/kg	274	915
120-58-1	Isosafrole	U	915	ug/kg	274	915
130-15-4	1,4-Naphthoquinone	U	915	ug/kg	274	915
608-93-5	Pentachlorobenzene	U	915	ug/kg	274	915
134-32-7	1-Naphthylamine	U	915	ug/kg	274	915
91-59-8	2-Naphthylamine	U	915	ug/kg	274	915
99-55-8	5-Nitro-o-toluidine	U	915	ug/kg	274	915
62-44-2	Phenacetin	U	915	ug/kg	274	915
99-35-4	1,3,5-Trinitrobenzene	U	915	ug/kg	274	915
2303-16-4	Diallate	U	915	ug/kg	274	915
92-67-1	4-Aminobiphenyl	U	915	ug/kg	274	915
82-68-8	Pentachloronitrobenzene	U	915	ug/kg	274	915
23950-58-5	Pronamide	U	915	ug/kg	274	915
56-57-5	4-Nitroquinoline-1-oxide	U	915	ug/kg	274	915
91-80-5	Methapyrilene	U	915	ug/kg	274	915
465-73-6	Isodrin	U	915	ug/kg	183	915
140-57-8	Aramite	U	915	ug/kg	274	915
143-50-0	Kepone	U	915	ug/kg	274	915
60-11-7	p-(Dimethylamino)azobenzene	U	915	ug/kg	274	915
510-15-6	Chlorobenzilate	U	915	ug/kg	274	915
119-93-7	3,3'-Dimethylbenzidine	U	915	ug/kg	274	915
53-96-3	2-Acetylaminofluorene	U	915	ug/kg	274	915

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660974006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.PFF	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 23:38	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.93 g	Final Volume:	1 mL
Data File:	S040424.S\3D0429.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	915	ug/kg	274	915
57-97-6	7,12-Dimethylbenz(a)anthracene	U	915	ug/kg	274	915
56-49-5	3-Methylcholanthrene	U	915	ug/kg	274	915
126-68-1	Triethylphosphorothioate	U	915	ug/kg	274	915
297-97-2	Thionazin	U	915	ug/kg	274	915
126-73-8	Tributylphosphate	U	915	ug/kg	274	915
3689-24-5	Sulfotepp	U	915	ug/kg	274	915
298-02-2	Phorate	U	915	ug/kg	274	915
60-51-5	Dimethoate	U	915	ug/kg	274	915
298-04-4	Disulfoton	U	915	ug/kg	274	915
298-00-0	Methyl parathion	U	915	ug/kg	274	915
56-38-2	Parathion	U	915	ug/kg	274	915
52-85-7	Famphur	U	915	ug/kg	274	915
106-50-3	p-Phenylenediamine	U	45700	ug/kg	9150	45700
70-30-4	Hexachlorophene	U	45700	ug/kg	10600	45700
120-82-1	1,2,4-Trichlorobenzene	U	915	ug/kg	274	915

Data Path : C:\msdchem\1\data\S040424.S\

Data File : s3D0429.D

Acq On : 04 Apr 2024 23:38

Operator : LL2

Sample : |660974006|2590892|1|SVM|1|PERM|||

Misc : |MSD827E4_S|MISC SOLID|12040.B4.Bottom Back.PFF|mix[a,b,j,d,e]||

ALS Vial : 29 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 08:22:48 2024

Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Quant Title : BNA01

QLast Update : Fri Mar 15 08:40:12 2024

Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	81813	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	339143	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	170990	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.361	8.362	1.000	358377	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.683	10.683	1.000	388404	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.715	12.715	1.000	398836	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	81813	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	339143	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	170990	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.361	8.362	1.000	358377	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.683	10.683	1.000	388404	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.715	12.715	1.000	398836	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.302	1.000	339143	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.361	8.362	1.000	358377	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.683	10.683	1.000	388404	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	339143	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	170990	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.361	8.362	1.000	358377	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.683	10.683	1.000	388404	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	339143	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.715	12.715	1.000	398836	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.617	2.627	0.674	202380	74.72	ng/uL	-0.01
8) Phenol-d5	99	3.483	3.486	0.897	265806	79.19	ng/uL	0.00
23) Nitrobenzene-d5	82	4.484	4.502	0.846	105299	33.87	ng/uL	-0.02
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	231009	35.57	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.762	7.773	0.928	97638	74.66	ng/uL	-0.01
79) p-Terphenyl-d14	244	9.693	9.686	1.159	368900	43.05	ng/uL	0.00
Compound	Amount	Range	Recovery					
5) 2-Fluorophenol	100.000	11 - 79	75%					
8) Phenol-d5	100.000	15 - 85	79%					
23) Nitrobenzene-d5	50.000	39 - 112	68%					
44) 2-Fluorobiphenyl	50.000	39 - 112	71%					
64) 2,4,6-Tribromophenol	100.000	37 - 132	75%					
79) p-Terphenyl-d14	50.000	24 - 129	86%					

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
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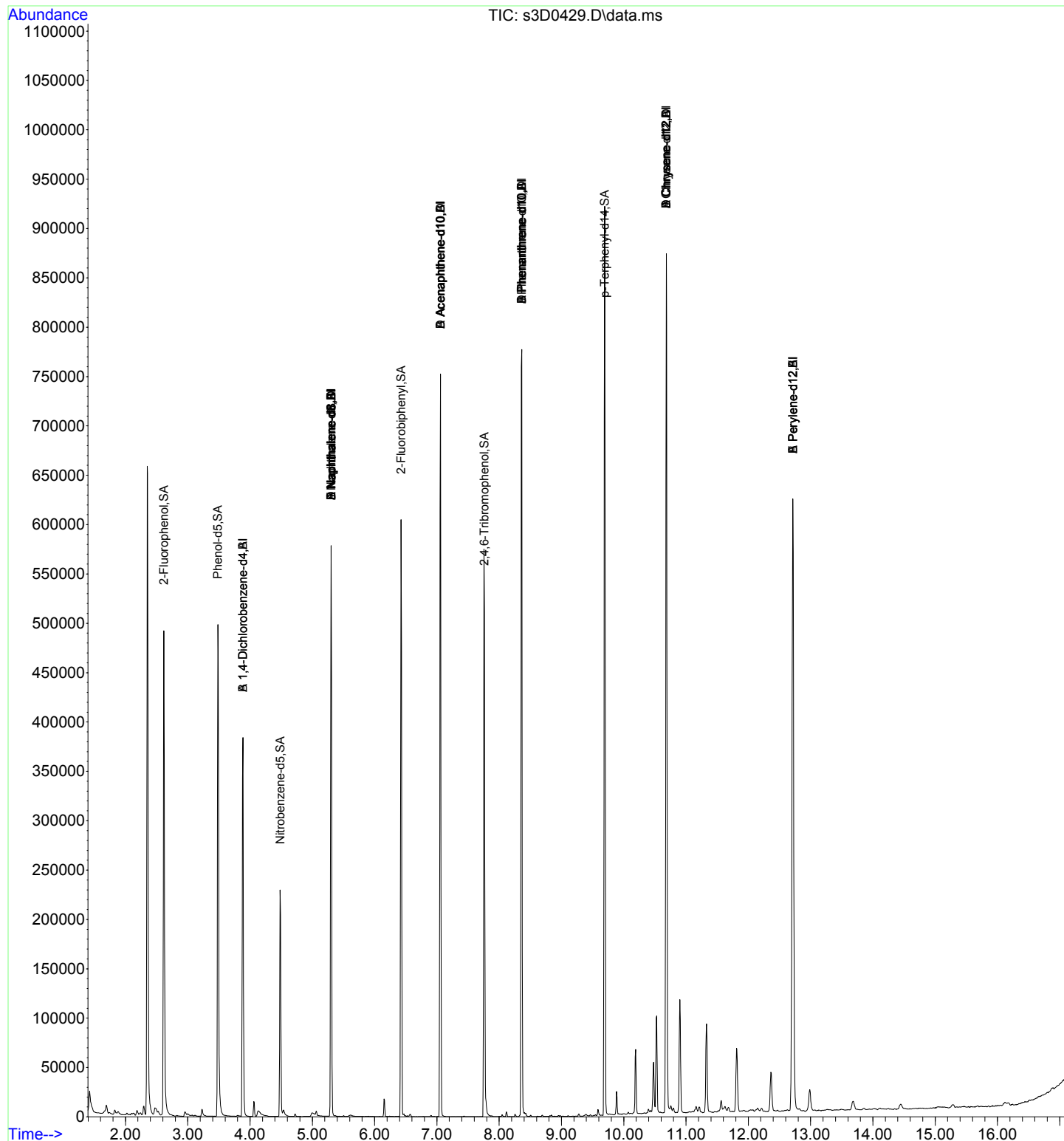
(#)= qualifier out of range (m)= manual integration (+)= signals summed

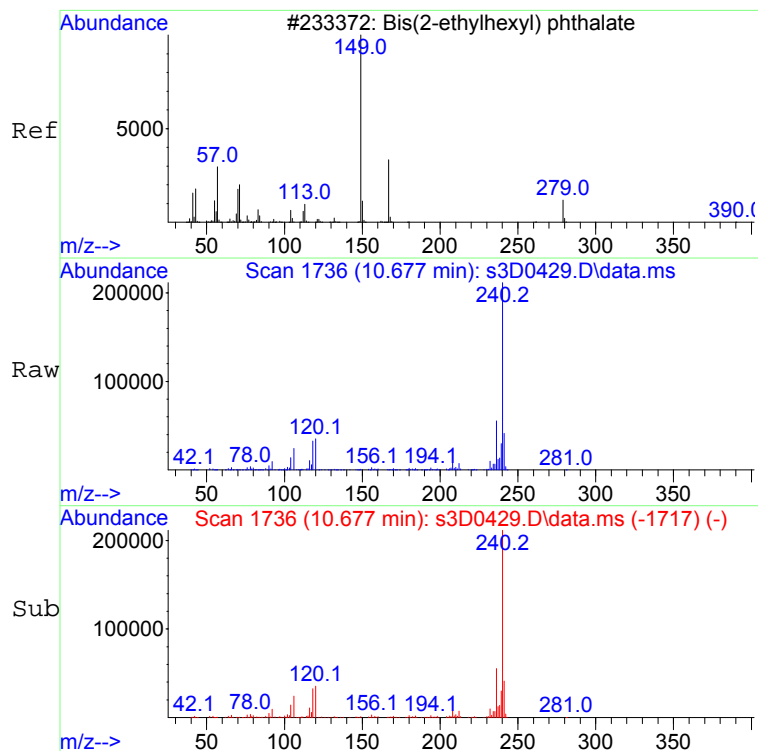
(A)= Over the calibration range (d)= deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0429.D
 Acq On : 04 Apr 2024 23:38
 Operator : LL2
 Sample : |660974006|2590892|1|SVM|1|PERM||
 Misc : |MSD827E4_S|MISC SOLID|12040.B4.Bottom Back.PFF|mix[a,b,j,d,e]||
 ALS Vial : 29 Sample Multiplier: 1

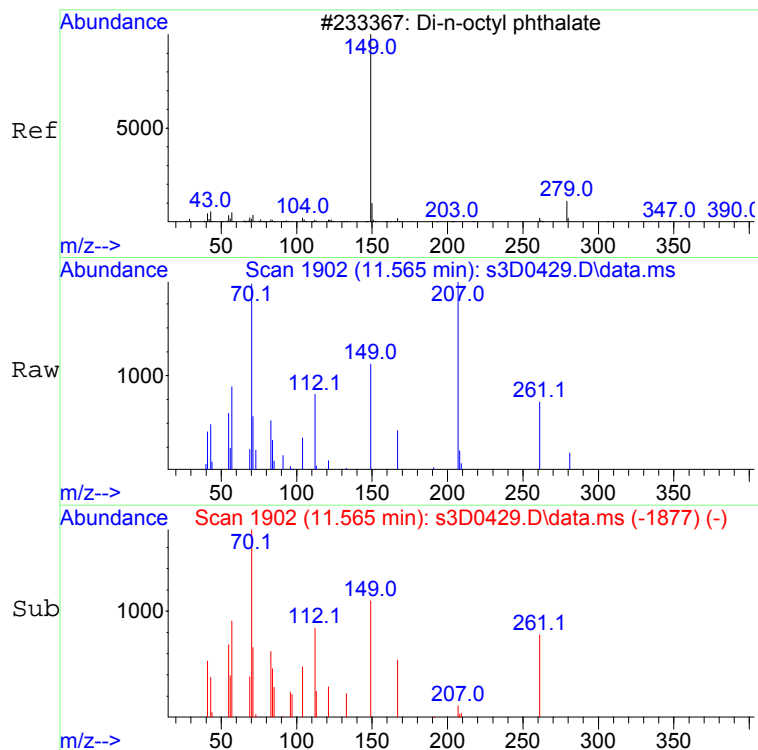
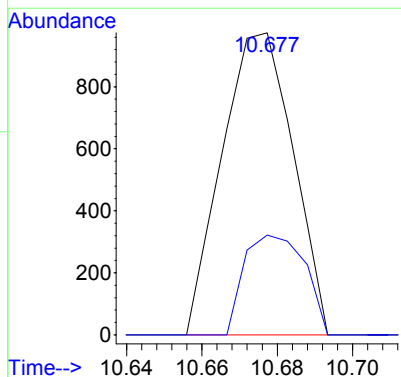
Quant Time: Apr 05 08:22:48 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration





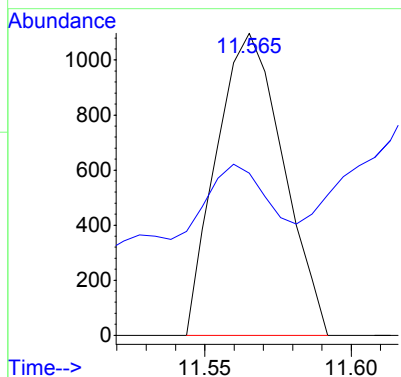
#82 BEFORE analyst DELETION
bis(2-Ethylhexyl)phthalate
Concen: 0.59 ng/uL
RT: 10.677 min Scan# 1736
Delta R.T. -0.000 min
Lab File: s3D0429.D
Acq: 04 Apr 2024 23:38

Tgt Ion:149 Resp: 1277
Ion Ratio Lower Upper
149 100
167 0.0 0.0 55.6



#87 BEFORE analyst DELETION
Di-n-octylphthalate
Concen: 0.65 ng/uL
RT: 11.565 min Scan# 1902
Delta R.T. 0.035 min
Lab File: s3D0429.D
Acq: 04 Apr 2024 23:38

Tgt Ion:149 Resp: 1734
Ion Ratio Lower Upper
149 100
43 57.1 0.0 37.4#



Standards

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)										
Naphthalene-d8 (INTERNAL STANDARD)										
Acenaphthene-d10 (INTERNAL STANDARD)										
Phenanthrene-d10 (INTERNAL STANDARD)										
Chrysene-d12 (INTERNAL STANDARD)										
Perylene-d12 (INTERNAL STANDARD)										
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120	30	60
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120	30	60
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120	30	60
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120	30	60
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120	30	60
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120	30	60
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120	30	60
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120	30	60
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120	30	60
Pyridine		10	20	40	50	80	100	120	30	60
Aniline		10	20	40	50	80	100	120	30	60
Phenol		10	20	40	50	80	100	120	30	60
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120	30	60
2-Chlorophenol		10	20	40	50	80	100	120	30	60
n-Decane		10	20	40	50	80	100	120	30	60
1,3-Dichlorobenzene		10	20	40	50	80	100	120	30	60
1,4-Dichlorobenzene		10	20	40	50	80	100	120	30	60
Benzyl Alcohol		10	20	40	50	80	100	120	30	60
1,2-Dichlorobenzene		10	20	40	50	80	100	120	30	60
bis(2-Chloro-1-methylethyl)ether		10	20	40	50	80	100	120	30	60
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120	30	60
N-Nitrosodipropylamine		10	20	40	50	80	100	120	30	60
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120	30	60
Hexachloroethane		10	20	40	50	80	100	120	30	60
Nitrobenzene		10	20	40	50	80	100	120	30	60
Isophorone		10	20	40	50	80	100	120	30	60
2-Nitrophenol		10	20	40	50	80	100	120	30	60
2,4-Dimethylphenol		10	20	40	50	80	100	120	30	60
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120	30	60
2,4-Dichlorophenol		10	20	40	50	80	100	120	30	60
Benzoic Acid			20	40	50	80	100	120	30	60
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120	30	60
Naphthalene	1	10	20	40	50	80	100	120	30	60
alpha-Terpineol		10	20	40	50	80	100	120	30	60
4-Chloroaniline		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Hexachlorobutadiene		10	20	40	50	80	100	120	30	60
4-Chloro-3-methylphenol		10	20	40	50	80	100	120	30	60
2-Methylnaphthalene	1	10	20	40	50	80	100	120	30	60
1-Methylnaphthalene	1	10	20	40	50	80	100	120	30	60
Hexachlorocyclopentadiene		10	20	40	50	80	100	120	30	60
2,3-Dichloroaniline		10	20	40	50	80	100	120	30	60
2,4,6-Trichlorophenol		10	20	40	50	80	100	120	30	60
2,4,5-Trichlorophenol		10	20	40	50	80	100	120	30	60
2-Chloronaphthalene	1	10	20	40	50	80	100	120	30	60
o-Nitroaniline		10	20	40	50	80	100	120	30	60
m-Nitroaniline		10	20	40	50	80	100	120	30	60
Dimethylphthalate	1**	10	20	40	50	80	100	120	30	60
2,6-Dinitrotoluene		10	20	40	50	80	100	120	30	60
Acenaphthylene	1	10	20	40	50	80	100	120	30	60
Acenaphthene	1	10	20	40	50	80	100	120	30	60
2,4-Dinitrophenol			20	40	50	80	100	120	30	60
Dibenzofuran		10	20	40	50	80	100	120	30	60
2,4-Dinitrotoluene		10	20	40	50	80	100	120	30	60
Diethylphthalate	1**	10	20	40	50	80	100	120	30	60
4-Nitrophenol		10	20	40	50	80	100	120	30	60
Fluorene	1	10	20	40	50	80	100	120	30	60
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120	30	60
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120	30	60
p-Nitroaniline		10	20	40	50	80	100	120	30	60
Diphenylamine		10	20	40	50	80	100	120	30	60
1,2-Diphenylhydrazine		10	20	40	50	80	100	120	30	60
4-Bromophenyl phenyether		10	20	40	50	80	100	120	30	60
Hexachlorobenzene		10	20	40	50	80	100	120	30	60
Pentachlorophenol		10	20	40	50	80	100	120	30	60
n-Octadecane		10	20	40	50	80	100	120	30	60
Phenanthrene	1	10	20	40	50	80	100	120	30	60
Anthracene	1	10	20	40	50	80	100	120	30	60
Di-n-butylphthalate	1**	10	20	40	50	80	100	120	30	60
Fluoranthene	1	10	20	40	50	80	100	120	30	60
Pyrene	1	10	20	40	50	80	100	120	30	60
Butylbenzylphthalate	1**	10	20	40	50	80	100	120	30	60
Benzo(a)anthracene	1	10	20	40	50	80	100	120	30	60
Chrysene	1	10	20	40	50	80	100	120	30	60
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120	30	60
Di-n-octylphthalate	1**	10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120	30	60
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120	30	60
Benzo(a)pyrene	1	10	20	40	50	80	100	120	30	60
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120	30	60
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120	30	60
Benzo(ghi)perylene	1	10	20	40	50	80	100	120	30	60
m-Dinitrobenzene		10	20	40	50	80	100	120	30	60
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120	30	60
Dinoseb		10	20	40	50	80	100	120	30	60
Carbazole	1	10	20	40	50	80	100	120	30	60
p-Benzoquinone		10	20	40	50	80	100	120	30	60
Methoxychlor		10	20	40	50	80	100	120	30	60
p-Toluidine		10	20	40	50	80	100	120	30	60
m-Toluidine		10	20	40	50	80	10	120	30	60
1,4-Dinitrobenzene		10	20	40	50	80	100	120	30	60
2-Ethoxyethanol		10	20	40	50	80	100	120	30	60
Phthalic anhydride		10	20	40	50	80	100	120	30	60
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120	30	60
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Benzaldehyde		10	20	40	50	80	100	120	30	60
Acetophenone		10	20	40	50	80	100	120	30	60
Caprolactam		10	20	40	50	80	100	120	30	60
1,1'-Biphenyl		10	20	40	50	80	100	120	30	60
Atrazine		10	20	40	50	80	100	120	30	60
Benzidine		10	20	40	50	80	100	120	30	60
3,3'-Dichlorobenzidine		10	20	40	50	80	100	120	30	60
1,4-Dioxane		10	20	40	50	80	100	120	30	60
Methyl methacrylate		10	20	40	50	80	100	120	30	60
Ethyl methacrylate		10	20	40	50	80	100	120	30	60
2-Picoline		10	20	40	50	80	100	120	30	60
N-Nitrosomethylethylamine		10	20	40	50	80	100	120	30	60
2-Butoxyethanol		10	20	40	50	80	100	120	30	60
Methyl methanesulfonate		10	20	40	50	80	100	120	30	60
N-Nitrosodiethylamine		10	20	40	50	80	100	120	30	60
Ethyl methanesulfonate		10	20	40	50	80	100	120	30	60
Pentachloroethane		10	20	40	50	80	100	120	30	60
N-Nitrosopyrrolidine		10	20	40	50	80	100	120	30	60
N-Nitrosomorpholine		10	20	40	50	80	100	120	30	60
o-Toluidine		10	20	40	50	80	100	120	30	60
N-Nitrosopiperidine		10	20	40	50	80	100	120	30	60
a,a-Dimethylphenethylamine		10	20	40	50	80	100	120	30	60
2,6-Dichlorophenol		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Hexachloropropene		10	20	40	50	80	100	120	30	60
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120	30	60
Safrole		10	20	40	50	80	100	120	30	60
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120	30	60
Isosafrole		10	20	40	50	80	100	120	30	60
1,4-Naphthoquinone		10	20	40	50	80	100	120	30	60
Pentachlorobenzene		10	20	40	50	80	100	120	30	60
1-Naphthylamine		10	20	40	50	80	100	120	30	60
2-Naphthylamine		10	20	40	50	80	100	120	30	60
5-Nitro-o-toluidine		10	20	40	50	80	100	120	30	60
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120	30	60
Phenacetin		10	20	40	50	80	100	120	30	60
Diallate		10	20	40	50	80	100	120	30	60
cis-Diallate		1.5	3	6	7.5	12	15	18	4.5	9
trans-Diallate		8.5	17	34	42	68	85	102	25.5	51
4-Aminobiphenyl		10	20	40	50	80	100	120	30	60
Pentachloronitrobenzene		10	20	40	50	80	100	120	30	60
Pronamide		10	20	40	50	80	100	120	30	60
4-Nitroquinoline-1-oxide		10	20	40	50	80	100	120	30	60
Methapyrilene		10	20	40	50	80	100	120	30	60
Isodrin		10	20	40	50	80	100	120	30	60
Aramite		10	20	40	50	80	100	120	30	60
Kepone		10	20	40	50	80	100	120	30	60
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120	30	60
Chlorobenzilate		10	20	40	50	80	100	120	30	60
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120	30	60
2-Acetylaminofluorene		10	20	40	50	80	100	120	30	60
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120	30	60
3-Methylcholanthrene		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Hexachlorophene		500	1000	1250	1500	1750	2000			
p-Phenylenediamine		500	1000	1250	1500	1750	2000			

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
bis(Chloromethyl)ether		10	20	40	50	80	100	120	30	60
Tributylphosphate		10	20	40	50	80	100	120	30	60
Triethylphosphorothioate		10	20	40	50	80	100	120	30	60
Thionazin		10	20	40	50	80	100	120	30	60
Sulfotepp		10	20	40	50	80	100	120	30	60
Phorate		10	20	40	50	80	100	120	30	60
Dimethoate		10	20	40	50	80	100	120	30	60
Disulfoton		10	20	40	50	80	100	120	30	60
Methyl parathion		10	20	40	50	80	100	120	30	60
Famphur		10	20	40	50	80	100	120	30	60
Parathion		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
bis(Chloromethyl)ether		10	20	40	50	80	100	120	30	60
4-Chlorothiophenol		10	20	40	50	80	100	120	30	60
4-Chlorothioanisole		10	20	40	50	80	100	120	30	60
Phthalic acid		10	20	40	50	80	100	120	30	60
Hydroxymethyl phthalimide		10	20	40	50	80	100	120	30	60
Diphenyl sulfide		10	20	40	50	80	100	120	30	60
Diphenyl disulfide		10	20	40	50	80	100	120	30	60
Phenyl sulfone		10	20	40	50	80	100	120	30	60
Octachlorostyrene		10	20	40	50	80	100	120	30	60
Thiophenol		10	20	40	50	80	100	120	30	60
2,2'-Dichlorobenzil		10	20	40	50	80	100	120	30	60
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120	30	60
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120	30	60

All values are mg/L without the prep factor.

Indicates the calibration verification concentration level used

* Usual calibration levels using SCAN methodology

** This analyte included in this level at special client request.

EPA 522								
Calibration Standard Concentration Levels#								
	Level 1	Level 2	Level 3	Level 4	Level 5	ICV	CCV	
Tetrahydrofuran-d8 (INTERNAL STANDARD)								
1,4-Dioxane-d8 (SURROGATE)	50	100	200	400	500	200	See Method	
1,4-Dioxane	50	100	200	400	500	200	See Method	

All values are ug/L without the prep factor.

Usual calibration levels using SIM methodology

SW846 8270SIM										
Calibration Standard Concentration Levels*										
MEGASIM analytes (A)	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6#	Level 7	Level 8	Level 9	Level 10
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)										
Naphthalene-d8 (INTERNAL STANDARD)										
Acenaphthene-d10 (INTERNAL STANDARD)										
Phenanthrene-d10 (INTERNAL STANDARD)										
Chrysene-d12 (INTERNAL STANDARD)										
Perylene-d12 (INTERNAL STANDARD)										
5-alpha-Androstane (SURROGATE)	\$0.1	0.2	0.5	1	2	5	10	20		
\$N-Methyl-N-nitrosomethylamine		0.2	0.5	1	2	5	10	20		
\$bis(2-Chloroethyl)ether	0.1	0.2	0.5	1	2	5	10	20		
\$N-Nitrosodipropylamine	0.1	0.2	0.5	1	2	5	10	20		
Naphthalene	\$0.1	0.2	0.5	1	2	5	10	20		
2-Methylnaphthalene	\$0.1	0.2	0.5	1	2	5	10	20		
1-Methylnaphthalene	\$0.1	0.2	0.5	1	2	5	10	20		
2-Chloronaphthalene	\$0.1	0.2	0.5	1	2	5	10	20		
Acenaphthylene	\$0.1	0.2	0.5	1	2	5	10	20		
Acenaphthene	\$0.1	0.2	0.5	1	2	5	10	20		
Fluorene	\$0.1	0.2	0.5	1	2	5	10	20		
Phenanthrene	\$0.1	0.2	0.5	1	2	5	10	20		
Anthracene	\$0.1	0.2	0.5	1	2	5	10	20		
Fluoranthene	\$0.1	0.2	0.5	1	2	5	10	20		
Pyrene	\$0.1	0.2	0.5	1	2	5	10	20		
Benzo(a)anthracene	\$0.1	0.2	0.5	1	2	5	10	20		
Chrysene	\$0.1	0.2	0.5	1	2	5	10	20		
Benzo(b)fluoranthene	\$0.1	0.2	0.5	1	2	5	10	20		
Benzo(k)fluoranthene	\$0.1	0.2	0.5	1	2	5	10	20		
Benzo(a)pyrene	\$0.1	0.2	0.5	1	2	5	10	20		
Indeno-(1,2,3-cd)pyrene	\$0.1	0.2	0.5	1	2	5	10	20		
Dibenzo(a,h)anthracene	\$0.1	0.2	0.5	1	2	5	10	20		
Benzo(ghi)perylene	\$0.1	0.2	0.5	1	2	5	10	20		

\$ By special request - Not for regulatory purposes

SW846 8270SIM										
Calibration Standard Concentration Levels*										
APSIM analytes (A)	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6#	Level 7	Level 8	Level 9	Level 10
\$N-Nitrosodimethylamine	0.1	0.2	0.5	1	2	5	10	20		
\$N-Nitrosopyrrolidine	0.1	0.2	0.5	1	2	5	10	20		
\$N-Nitrosodi-n-butylamine	0.1	0.2	0.5	1	2	5	10	20		
\$Benzidine			2.5	5	10	25	50	100		
\$3,3'-Dichlorobenzidine	0.1	0.2	0.5	1	2	5	10	20		

\$ By special request - Not for regulatory purposes

All values are mg/L without prep factor.

indicates the calibrator verification concentration level used.

* Usual calibration levels using SIM methodology
(10/16/Full list)

Calibration History Report MSD3

GEL Laboratories, LLC

Method File : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Last Update : Fri Mar 15 08:40:12 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

04/05/2024

Cal Lvl:1 Amt:0.00 Last Updated with: C:\msdchem\1\data\S031424ICAL\s3C1402.D

Injection Date	Mix	Calibration File
14 Mar 2024 08:17	A	C:\msdchem\1\data\S031424ICAL\s3C1402.D

04/09/2024

Cal Lvl:2 Amt:10.00 Last Updated with: C:\msdchem\1\data\S031424ICAL\s3C1429.D

Injection Date	Mix	Calibration File
14 Mar 2024 08:40	A	C:\msdchem\1\data\S031424ICAL\s3C1403.D
14 Mar 2024 11:48	B	C:\msdchem\1\data\S031424ICAL\s3C1411.D
14 Mar 2024 15:22	D	C:\msdchem\1\data\S031424ICAL\s3C1421.D
14 Mar 2024 11:48	J	C:\msdchem\1\data\S031424ICAL\s3C1411.D
14 Mar 2024 17:49	E	C:\msdchem\1\data\S031424ICAL\s3C1429.D

Cal Lvl:3 Amt:20.00 Last Updated with: C:\msdchem\1\data\S031424ICAL\s3C1430.D

Injection Date	Mix	Calibration File
14 Mar 2024 09:03	A	C:\msdchem\1\data\S031424ICAL\s3C1404.D
14 Mar 2024 12:09	B	C:\msdchem\1\data\S031424ICAL\s3C1412.D
14 Mar 2024 15:40	D	C:\msdchem\1\data\S031424ICAL\s3C1422.D
14 Mar 2024 12:09	J	C:\msdchem\1\data\S031424ICAL\s3C1412.D
14 Mar 2024 18:07	E	C:\msdchem\1\data\S031424ICAL\s3C1430.D

Cal Lvl:4 Amt:40.00 Last Updated with: C:\msdchem\1\data\S031424ICAL\s3C1431.D

Injection Date	Mix	Calibration File
14 Mar 2024 09:27	A	C:\msdchem\1\data\S031424ICAL\s3C1405.D
14 Mar 2024 12:52	B	C:\msdchem\1\data\S031424ICAL\s3C1414.D
14 Mar 2024 15:58	D	C:\msdchem\1\data\S031424ICAL\s3C1423.D
14 Mar 2024 12:52	J	C:\msdchem\1\data\S031424ICAL\s3C1414.D
14 Mar 2024 18:25	E	C:\msdchem\1\data\S031424ICAL\s3C1431.D

Cal Lvl:5 Amt:50.00 Last Updated with: C:\msdchem\1\data\S031424ICAL\s3C1432.D

Injection Date	Mix	Calibration File
14 Mar 2024 09:50	A	C:\msdchem\1\data\S031424ICAL\s3C1406.D
14 Mar 2024 13:13	B	C:\msdchem\1\data\S031424ICAL\s3C1415.D
14 Mar 2024 16:17	D	C:\msdchem\1\data\S031424ICAL\s3C1424.D
14 Mar 2024 13:13	J	C:\msdchem\1\data\S031424ICAL\s3C1415.D
14 Mar 2024 18:44	E	C:\msdchem\1\data\S031424ICAL\s3C1432.D

Cal Lvl:6 Amt:80.00 Last Updated with: C:\msdchem\1\data\S031424ICAL\s3C1433.D

Injection Date	Mix	Calibration File
14 Mar 2024 10:14	A	C:\msdchem\1\data\S031424ICAL\s3C1407.D
14 Mar 2024 13:56	B	C:\msdchem\1\data\S031424ICAL\s3C1417.D
14 Mar 2024 16:35	D	C:\msdchem\1\data\S031424ICAL\s3C1425.D
14 Mar 2024 13:56	J	C:\msdchem\1\data\S031424ICAL\s3C1417.D
14 Mar 2024 19:02	E	C:\msdchem\1\data\S031424ICAL\s3C1433.D

Cal Lvl:7 Amt:100.00 Last Updated with: C:\msdchem\1\data\S031424ICAL\s3C1434.D

Injection Date	Mix	Calibration File
14 Mar 2024 10:37	A	C:\msdchem\1\data\S031424ICAL\s3C1408.D
14 Mar 2024 14:17	B	C:\msdchem\1\data\S031424ICAL\s3C1418.D

Calibration History Report MSD3

GEL Laboratories, LLC

Method File : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Last Update : Fri Mar 15 08:40:12 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

14 Mar 2024 16:54	D	C:\msdchem\1\data\S031424ICAL\s3C1426.D
14 Mar 2024 14:17	J	C:\msdchem\1\data\S031424ICAL\s3C1418.D
14 Mar 2024 19:20	E	C:\msdchem\1\data\S031424ICAL\s3C1434.D

Cal Lvl:8 Amt:120.00 Last Updated with: C:\msdchem\1\data\S031424ICAL\s3C1427.D

Injection Date	Mix	Calibration File
14 Mar 2024 11:01	A	C:\msdchem\1\data\S031424ICAL\s3C1409.D
14 Mar 2024 14:39	B	C:\msdchem\1\data\S031424ICAL\s3C1419.D
14 Mar 2024 17:12	D	C:\msdchem\1\data\S031424ICAL\s3C1427.D
14 Mar 2024 14:39	J	C:\msdchem\1\data\S031424ICAL\s3C1419.D

Cal Lvl:9 Amt:30.00 Last Updated with: C:\msdchem\1\data\S031424ICAL\s3C1413.D

Injection Date	Mix	Calibration File
14 Mar 2024 12:30	B	C:\msdchem\1\data\S031424ICAL\s3C1413.D
14 Mar 2024 12:30	J	C:\msdchem\1\data\S031424ICAL\s3C1413.D

Cal Lvl:10 Amt:60.00 Last Updated with: C:\msdchem\1\data\S031424ICAL\s3C1416.D

Injection Date	Mix	Calibration File
14 Mar 2024 13:35	B	C:\msdchem\1\data\S031424ICAL\s3C1416.D
14 Mar 2024 13:35	J	C:\msdchem\1\data\S031424ICAL\s3C1416.D

MSD3_8270_031424.m Fri Apr 05 07:47:26 2024

Response Factor Report MSD3

GEL Laboratories, LLC

Method File : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Last Update : Fri Mar 15 08:40:12 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

04/05/2024

04/09/2024

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound ml	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
2)A	2-Ethoxyethanol		0.7138268	0.6031951 0.7340772	0.6793460	0.6833655	0.6878225	0.7115303	0.6876	AVRG		6.1218
3)AM	N-Methyl-N-nitrosomethyl -0.0087 0.8486 0.00		904 201938	18415 245418	36992	77614	95831	162956		1/x^2 LINR	#	0.9993
4)AM	Pyridine		1.2762565	1.0862177 1.2979077	1.1150472	1.1478921	1.2700748	1.2397332	1.2047	AVRG		7.1575
5)SA	2-Fluorophenol		1.3456989	1.2574869 1.3854553	1.2836044	1.2982665	1.3381560	1.3606670	1.3242	AVRG		3.4483
6)A	p-Benzoquinone		0.6412309	0.4833618 0.6794506	0.5558764	0.6052803	0.6280225	0.6472899	0.6058	AVRG		10.9454
7)AM	Aniline		1.9464894	1.9106338 2.0084250	1.9247148	1.9171736	1.9557415	1.9549359	1.9454	AVRG		1.7054
8)SA	Phenol-d5		1.6684026	1.5636853 1.7113569	1.5818683	1.6289541	1.6653208	1.6682705	1.6411	AVRG		3.2104
9)AMC	Phenol		1.7292556	1.5829791 1.7781601	1.6508724	1.6861036	1.7425946	1.7505003	1.7029	AVRG		3.9806
10)AM	bis(2-Chloroethyl) ether		1.4015556	1.3792709 1.4442265	1.4092042	1.3955508	1.4359181	1.4356851	1.4145	AVRG		1.7286
11)AM	2-Chlorophenol		1.4773006	1.4061125 1.5197833	1.4317151	1.4575800	1.4862451	1.4927883	1.4674	AVRG		2.6347
12)AM	n-Decane		1.2367587	1.2300092 1.2744442	1.2361668	1.2341917	1.2565006	1.2617996	1.2471	AVRG		1.3645
13)AM	1,3-Dichlorobenzene		1.6057404	1.6123226 1.6623041	1.5872050	1.6092756	1.6283577	1.6237333	1.6184	AVRG		1.4510
14)AMC	1,4-Dichlorobenzene		1.6170605	1.6441679 1.6693750	1.6207408	1.6267699	1.6508878	1.6475028	1.6395	AVRG		1.1480
15)AM	1,2-Dichlorobenzene		1.5442913	1.5485471 1.6061912	1.5501773	1.5452434	1.5638256	1.5716544	1.5614	AVRG		1.4230
16)AM	bis(2-Chloro-1-methyleth		1.6541108	1.6545992 1.7009132	1.6564727	1.6550571	1.6894458	1.6922582	1.6718	AVRG		1.2692

Response Factor Report MSD3

GEL Laboratories, LLC

Method File : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Last Update : Fri Mar 15 08:40:12 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound ml	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
17)AM	Benzyl alcohol		0.9287061	0.8546925 0.9643207	0.9031592	0.9224155	0.9463189	0.9324917	0.9217	AVRG		3.8159
18)AM	o-Cresol		1.1323921	1.1129745 1.1691606	1.0988393	1.1159718	1.1450417	1.1411426	1.1308	AVRG		2.0874
19)AM	m,p-Cresols		1.3434332	1.2956080 1.3969994	1.3068181	1.3191276	1.3671797	1.3507196	1.3400	AVRG		2.6598
20)AMP	N-Nitrosodipropylamine		0.9970453	0.9405604 1.0362010	0.9827929	0.9842956	1.0111051	1.0065784	0.9941	AVRG		2.9944
21)AM	Hexachloroethane		0.6494272	0.6505603 0.6686496	0.6517399	0.6410573	0.6657743	0.6583230	0.6551	AVRG		1.4868
23)SA	Nitrobenzene-d5		0.3734198	0.3470750 0.3780806	0.3647722	0.3649314	0.3666707	0.3721048	0.3667	AVRG		2.7175
24)AM	Nitrobenzene		0.3670792	0.3508811 0.3713071	0.3616209	0.3641992	0.3651726	0.3690558	0.3642	AVRG		1.8330
25)AM	Isophorone		0.6670896	0.6317403 0.6834512	0.6579774	0.6676750	0.6639497	0.6716795	0.6634	AVRG		2.4108
26)AMC	2-Nitrophenol		0.1945271	0.1605439 0.1982654	0.1756269	0.1815131	0.1850015	0.1922955	0.1840	AVRG		7.0547
27)AM	2,4-Dimethylphenol		0.2612371	0.2467417 0.2668324	0.2585241	0.2576392	0.2544774	0.2617646	0.2582	AVRG		2.4600
28)AM	bis(2-Chloroethoxy)metha		0.4450283	0.4255337 0.4489907	0.4426529	0.4434492	0.4402269	0.4441395	0.4414	AVRG		1.6982
29)AMC	2,4-Dichlorophenol		0.3011175	0.2742725 0.3050234	0.2892410	0.2921268	0.2936901	0.2970903	0.2932	AVRG		3.3902
30)AM	Benzoic acid -0.1352 0.2841 0.00		214045	276759	13495	52084	74003	155158		LINR	#	0.9937
31)AM	1,2,4-Trichlorobenzene		0.3263079	0.3244603 0.3347861	0.3274464	0.3245863	0.3243002	0.3298623	0.3274	AVRG		1.1696
32)AM	alpha-Terpineol		0.2778973	0.2586041 0.2830268	0.2706283	0.2752277	0.2761767	0.2805086	0.2746	AVRG		2.9412

Response Factor Report MSD3

GEL Laboratories, LLC

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Last Update : Fri Mar 15 08:40:12 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound ml	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
33)AM	Naphthalene		1.0663913 1.0560699	1.0742958 1.0691795	1.0737996	1.0554565	1.0505651	1.0624351	1.0635	AVRG		0.8347
34)AM	4-Chloroaniline		0.4393761	0.4202897 0.4459604	0.4377700	0.4364400	0.4381123	0.4416937	0.4371	AVRG		1.8428
35)AMC	Hexachlorobutadiene		0.1814474	0.1806317 0.1865086	0.1814841	0.1801903	0.1800870	0.1826306	0.1819	AVRG		1.2287
36)AMC	4-Chloro-3-methylphenol		0.3025137	0.2693669 0.3088789	0.2873870	0.2925945	0.2977101	0.3011312	0.2942	AVRG		4.4110
37)AM	2-Methylnaphthalene		0.6258331 0.7058490	0.6808603 0.7155169	0.6998519	0.7025394	0.6965278	0.7149779	0.6927	AVRG		4.2135
38)AM	1-Methylnaphthalene		0.6081542 0.6402503	0.6291606 0.6549072	0.6535733	0.6337913	0.6387412	0.6466538	0.6382	AVRG		2.3656
40)AMP	Hexachlorocyclopentadien		0.3722075	0.2781142 0.3842901	0.3070530	0.3399396	0.3478941	0.3668749	0.3423	AVRG		11.0979
41)AM	2,3-Dichloroaniline		0.7494670	0.7108204 0.7587325	0.7340775	0.7432786	0.7377885	0.7508034	0.7407	AVRG		2.1030
42)AMC	2,4,6-Trichlorophenol		0.4484614	0.4003627 0.4494349	0.4206299	0.4343556	0.4341088	0.4440853	0.4331	AVRG		4.0583
43)AM	2,4,5-Trichlorophenol		0.4602300	0.4101003 0.4688491	0.4356918	0.4374953	0.4404375	0.4530761	0.4437	AVRG		4.3507
44)SA	2-Fluorobiphenyl		1.5240498	1.5202470 1.5400103	1.5279347	1.5136786	1.4969233	1.5126444	1.5194	AVRG		0.8926
45)AM	2-Chloronaphthalene		1.1942881 1.3199905	1.3171832 1.3302977	1.3388256	1.3207210	1.3085906	1.3110451	1.3051	AVRG		3.5125
46)AM	o-Nitroaniline		0.3729504	0.3182520 0.3759293	0.3453205	0.3586545	0.3615101	0.3752877	0.3583	AVRG		5.8067
47)A	1,4-Dinitrobenzene		0.2143140	0.1625590 0.2145339	0.1835055	0.1941417	0.1979632	0.2088296	0.1965	AVRG		9.5706
48)AM	m-Nitroaniline		0.3950427	0.3562306 0.4067028	0.3862616	0.3896819	0.3924525	0.3995238	0.3894	AVRG		4.1316

Response Factor Report MSD3

GEL Laboratories, LLC

Method File : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Last Update : Fri Mar 15 08:40:12 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound ml	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
49)AM	Dimethylphthalate		1.2552645 1.4961044	1.4918116 1.5037861	1.5103996	1.4991910	1.4740938	1.4934856	1.4655	AVRG		5.8415
50)A	m-Dinitrobenzene		0.2358959	0.1966080 0.2422965	0.2187427	0.2250887	0.2314551	0.2361174	0.2266	AVRG		6.7662
51)AM	2,6-Dinitrotoluene		0.3353382	0.3019723 0.3408579	0.3240311	0.3293417	0.3252409	0.3350770	0.3274	AVRG		3.8823
52)AM	2,4-Dinitrotoluene		0.4649719	0.3959366 0.4789672	0.4261221	0.4451731	0.4479011	0.4589250	0.4454	AVRG		6.1601
53)AM	Acenaphthylene		1.6761440 2.0633740	2.0207706 2.0689848	2.0893798	2.0648568	2.0422260	2.0545996	2.0100	AVRG		6.7861
54)AMC	Acenaphthene		1.1633744 1.2468656	1.2140860 1.2533216	1.2354199	1.2271889	1.2264216	1.2525692	1.2274	AVRG		2.3905
55)AMP	2,4-Dinitrophenol -0.0553 0.1936 0.00		80659	104349	7979	23993	33044	62406		1/x^2 LINR	#	0.9961
56)AM	Dibenzofuran		1.8434740	1.8941175 1.8703734	1.9074674	1.8726867	1.8380588	1.8504656	1.8681	AVRG		1.3947
57)A	2,3,4,6-Tetrachloropheno		0.3799018	0.3280975 0.3916873	0.3666544	0.3720438	0.3767556	0.3784799	0.3705	AVRG		5.4596
58)AM	Diethylphthalate		1.2810732 1.5567758	1.5125174 1.5745973	1.5663915	1.5538250	1.5429821	1.5603875	1.5186	AVRG		6.4384
59)AMP	4-Nitrophenol -0.0166 0.1857 0.00		83490	5688 105490	13258	30721	39284	67865		1/x^2 LINR		0.9990
60)AM	Fluorene		1.2782371 1.5179663	1.4850320 1.5153823	1.5202589	1.5191543	1.5012742	1.5217253	1.4824	AVRG		5.6284
61)AM	4-Chlorophenylphenylethe		0.6988974	0.6924680 0.7007056	0.7020710	0.7088758	0.6972242	0.7003107	0.7001	AVRG		0.7125
62)AM	p-Nitroaniline		0.4098736	0.3569431 0.4081949	0.3913194	0.3989884	0.4005224	0.4058685	0.3960	AVRG		4.6285
64)SA	2,4,6-Tribromophenol		0.1515896	0.1309011 0.1573381	0.1396205	0.1454842	0.1454239	0.1513971	0.1460	AVRG		5.9868

Response Factor Report MSD3

GEL Laboratories, LLC

Method File : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Last Update : Fri Mar 15 08:40:12 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound m1	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
65)AM	2-Methyl-4,6-dinitrophen	-0.0143 0.1313 0.00	115992	6974 145745	17113	41000	53064	92271		1/x^2 LINR	#	0.9983
66)AMC	Diphenylamine		0.6440166	0.6291376 0.6476005	0.6535304	0.6498064	0.6397863	0.6543000	0.6455	AVRG		1.3675
67)AM	1,2-Diphenylhydrazine		0.7632615	0.7693514 0.7660396	0.7871555	0.7855950	0.7848047	0.7775545	0.7763	AVRG		1.2900
68)AM	4-Bromophenylphenylether		0.2228455	0.2130467 0.2288783	0.2166258	0.2143968	0.2165372	0.2239058	0.2195	AVRG		2.6522
69)AM	Hexachlorobenzene		0.2660756	0.2638606 0.2722923	0.2677632	0.2627347	0.2630507	0.2697323	0.2665	AVRG		1.3600
70)AMC	Pentachlorophenol	-0.0162 0.1632 0.00	144363	9181 183742	22062	51449	65889	114589		1/x^2 LINR	#	0.9981
71)AM	n-Octadecane		0.4992794	0.4596615 0.5052116	0.4861499	0.4936991	0.4968942	0.5046734	0.4922	AVRG		3.2065
72)A	Dinoseb	-0.0262 0.2008 0.00	174088	10461 220263	24798	59714	77214	136401		1/x LINR	#	0.9976
73)AM	Phenanthrene		1.1132286 1.0992805	1.1337606 1.1045219	1.1253701	1.1007323	1.0964579	1.1098847	1.1104	AVRG		1.1909
74)AM	Anthracene		0.9917028 1.1286561	1.1316466 1.1192391	1.1534948	1.1245683	1.1168975	1.1449806	1.1139	AVRG		4.5713
75)AM	Carbazole		0.8111000 1.0429903	1.0335458 1.0437435	1.0640770	1.0487755	1.0487324	1.0533427	1.0183	AVRG		8.2665
76)AM	Di-n-butylphthalate		0.9302803 1.3510352	1.2630261 1.3728326	1.3490627	1.3689712	1.3573316	1.3722661	1.2956	AVRG		11.7233
77)AMC	Fluoranthene		0.9840800 1.1891543	1.1469675 1.1914501	1.1804854	1.1874427	1.1828194	1.2014229	1.1580	AVRG		6.2216
78)AM	Pyrene		1.0348012 1.2461607	1.2173526 1.2485340	1.2545899	1.2376190	1.2401697	1.2608624	1.2175	AVRG		6.1572
79)SA	p-Terphenyl-d14		0.9615938	0.9336204 0.9614505	0.9552427	0.9571553	0.9554828	0.9703738	0.9564	AVRG		1.1840

Response Factor Report MSD3

GEL Laboratories, LLC

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Last Update : Fri Mar 15 08:40:12 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound ml	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
81)AM	Butylbenzylphthalate		2188	45995	98892	214428	270798	451974		1/x^2		
-0.0064	0.5899	0.00	559568	699966						LINR	#	0.9981
82)AM	bis(2-Ethylhexyl)phthala		3367	77302	162492	348242	428564	719465		1/x^2		
-0.0107	0.9456	0.00	878260	1082548						LINR	#	0.9996
83)AM	Benzo(a)anthracene		1.1166975	1.2080112	1.2207004	1.2056893	1.2028017	1.2004878				
			1.1896017	1.1934679					1.1922	AVRG		2.6778
84)AM	Chrysene		1.1398848	1.1425049	1.1231508	1.1299361	1.0660007	1.0914337				
			1.1046922	1.1094953					1.1134	AVRG		2.3365
85)A	Methoxychlor			0.6330037	0.6872045	0.7299716	0.7217916	0.7493634				
			0.7646004	0.7685159					0.7221	AVRG		6.6711
86)A	Methylenebis(2-chloroani			0.2001171	0.2153279	0.2236057	0.2221303	0.2270040				
			0.2297380	0.2344749					0.2218	AVRG		5.0954
87)AMC	Di-n-octylphthalate		4623	108234	238809	533902	673597	1135068		1/x^2		
-0.0192	1.4654	0.00	1418015	1759896						LINR	#	0.9961
89)AM	Benzo(b)fluoranthene		0.9411444	1.0849347	1.1046787	1.1452725	1.1243853	1.1559992				
			1.1973552	1.1748759					1.1161	AVRG		7.1262
90)AM	Benzo(k)fluoranthene		0.8854267	1.1481643	1.1863667	1.1503019	1.1582831	1.1673721				
			1.1062619	1.1612903					1.1204	AVRG		8.7150
91)AMC	Benzo(a)pyrene		0.7818645	1.0064203	1.0436376	1.0530834	1.0609793	1.0844650				
			1.0766022	1.0925737					1.0250	AVRG		9.9399
92)AM	Indeno(1,2,3-cd)pyrene		0.8616559	1.0385162	1.0736040	1.0932160	1.1086444	1.1529388				
			1.1676426	1.1779528					1.0843	AVRG		9.4107
93)AM	Dibenzo(a,h)anthracene		0.7970052	1.0282968	1.0767652	1.0929896	1.0906051	1.1155260				
			1.1195304	1.1335250					1.0568	AVRG		10.3922
94)AM	Benzo(ghi)perylene		0.8403075	1.0167281	1.0483370	1.0566654	1.0645628	1.0772708				
			1.0714838	1.0845643					1.0325	AVRG		7.7900
95)A	Dibenzo(a,e)pyrene			0.8972809	0.9240888	0.9378713	0.9445029	0.9603136				
			0.9656400	0.9742935					0.9434	AVRG		2.8266
97)BM	1,4-Dioxane			0.5312377	0.5334479	0.5205163	0.5239012	0.5258061				
			0.5142825	0.5178806	0.5013775	0.5167870			0.5206	AVRG		1.8569

Response Factor Report MSD3

GEL Laboratories, LLC

Method File : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Last Update : Fri Mar 15 08:40:12 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound ml	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
98)B	Methyl methacrylate		0.6960247	0.7241575 0.7090814	0.7031566 0.6764579	0.7030378 0.7049539	0.7090584	0.7150695	0.7046	AVRG		1.8791
99)B	Ethyl methacrylate		1.0891052	1.1007978 1.1152492	1.0818196 1.0438106	1.1053920 1.1012721	1.1120400	1.1143095	1.0960	AVRG		2.0591
100)B	2-Picoline		1.4232556	1.3647818 1.4587310	1.3756608 1.3561840	1.4171025 1.4202094	1.4316435	1.4504774	1.4109	AVRG		2.6192
101)B	N-Nitrosomethylethylamin		0.5550819	0.5284911 0.5721176	0.5402136 0.5272128	0.5573966 0.5621441	0.5636689	0.5651712	0.5524	AVRG		2.9750
102)B	Methyl methanesulfonate		0.6752015	0.6939879 0.6850561	0.6922575 0.6663290	0.6919130 0.6925020	0.7050938	0.6927539	0.6883	AVRG		1.6607
103)B	N-Nitrosodiethylamine		0.5854830	0.5605790 0.6013147	0.5614898 0.5459174	0.5787747 0.5871480	0.5847510	0.5953298	0.5779	AVRG		3.1406
104)B	2-Butoxyethanol		1.3021980	1.1607446 1.3474374	1.1951835 1.1862221	1.2699630 1.2972902	1.2882281	1.3239395	1.2635	AVRG		5.2492
105)B	Ethyl methanesulfonate		1.0327956	1.0077604 1.0596040	1.0246046 0.9953948	1.0343048 1.0506704	1.0460395	1.0631050	1.0349	AVRG		2.2104
106)BM	Benzaldehyde		1.0063252	1.0415486 0.9973661	1.0565188 1.0066175	1.0568188 1.0473887	1.0570314	1.0472175	1.0352	AVRG		2.3696
107)B	Pentachloroethane		0.5504790	0.5399573 0.5648431	0.5389736 0.5200551	0.5481717 0.5494546	0.5511902	0.5568971	0.5467	AVRG		2.3251
108)BM	N-Nitrosopyrrolidine		0.6520693	0.5655491 0.6739219	0.6137011 0.5987224	0.6308635 0.6509455	0.6485173	0.6573431	0.6324	AVRG		5.3891
109)BM	Acetophenone		1.9078357	1.8538170 1.9424442	1.8765636 1.8167626	1.9125585 1.9083419	1.9314323	1.9375416	1.8986	AVRG		2.2097
110)B	N-Nitrosomorpholine		0.6120408	0.5757510 0.6265018	0.5983205 0.5820571	0.6056270 0.6201344	0.6195467	0.6228507	0.6070	AVRG		3.0057
111)B	o-Toluidine		2.1143128	2.0762087 2.1684045	2.1051406 2.0297653	2.1324990 2.1477293	2.1632870	2.1653876	2.1225	AVRG		2.2009
113)B	N-Nitrosopiperidine		0.1680536	0.1554972 0.1700206	0.1581965 0.1544277	0.1647663 0.1689705	0.1670321	0.1688914	0.1640	AVRG		3.7881

Response Factor Report MSD3

GEL Laboratories, LLC

Method File : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Last Update : Fri Mar 15 08:40:12 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound ml	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
114)B	a,a-Dimethylphenethylami		0.7654208	0.5705702 0.7784352	0.6477931 0.6326337	0.6940524 0.7441812	0.7227605	0.7417569	0.6997	AVRG		9.9393
115)BM	2,6-Dichlorophenol		0.2796495	0.2543874 0.2833143	0.2630812 0.2535756	0.2708378 0.2813562	0.2765316	0.2789366	0.2713	AVRG		4.2605
116)B	Hexachloropropene		0.2024780	0.1862285 0.2045348	0.1867229 0.1838538	0.1953459 0.2025107	0.1990873	0.2029531	0.1960	AVRG		4.2101
117)BM	Caprolactam		0.0900934	0.0717287 0.0916666	0.0777857 0.0773476	0.0836804 0.0888194	0.0860240	0.0883245	0.0839	AVRG		8.1613
118)B	N-Nitrosodi-n-butylamine		0.1539745	0.1426259 0.1537712	0.1468374 0.1435004	0.1487236 0.1555048	0.1526799	0.1536474	0.1501	AVRG		3.2363
119)B	Safrole		0.2541972	0.2360284 0.2566037	0.2415606 0.2337494	0.2472748 0.2526670	0.2507905	0.2544964	0.2475	AVRG		3.4113
121)B	1,2,4,5-Tetrachlorobenze		0.6336753	0.6146752 0.6335458	0.6024878 0.5888750	0.6179900 0.6202148	0.6247402	0.6331658	0.6188	AVRG		2.4651
122)BM	1,1-Biphenyl		1.6259127	1.6099353 1.6338906	1.5902444 1.5503871	1.6228633 1.6325769	1.6294727	1.6369227	1.6147	AVRG		1.7447
123)B	Isosafrole		0.5414495	0.5053373 0.5517684	0.5061924 0.4984133	0.5314678 0.5301098	0.5279060	0.5341270	0.5252	AVRG		3.4284
124)B	1,4-Naphthoquinone		0.5146386	0.4146450 0.5009004	0.4475239 0.4621946	0.5028937 0.5213434	0.5152572	0.5167497	0.4885	AVRG		7.7493
125)B	Pentachlorobenzene		0.5708254	0.5480359 0.5771374	0.5442215 0.5323883	0.5556356 0.5676227	0.5597557	0.5612591	0.5574	AVRG		2.5249
126)B	1-Naphthylamine		1.4053486	1.3185171 1.4285522	1.3297576 1.3221013	1.3838828 1.4026487	1.4100716	1.3971759	1.3776	AVRG		3.0724
127)B	2-Naphthylamine		1.4395950	1.3421662 1.4635845	1.3714276 1.3539413	1.4332517 1.4403844	1.4413753	1.4209964	1.4119	AVRG		3.1194
128)B	5-Nitro-o-toluidine		0.4190232	0.3333090 0.4322790	0.3615209 0.3666199	0.3951744 0.4146092	0.4078270	0.4125967	0.3937	AVRG		8.3004
129)B	Tributylphosphate		1.9306651	1.6720648 1.9534409	1.7290685 1.7470981	1.8389775 1.9141433	1.8915331	1.8873289	1.8405	AVRG		5.4544

Response Factor Report MSD3

GEL Laboratories, LLC

Method File : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Last Update : Fri Mar 15 08:40:12 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound m1	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
131)B	1,3,5-Trinitrobenzene		0.1772829	0.1277733 0.1823343	0.1446622 0.1471268	0.1614198 0.1749362	0.1684881	0.1727560	0.1619	AVRG		11.2773
132)B	Phenacetin		0.3795152	0.3363297 0.3963388	0.3545129 0.3573580	0.3788126 0.3896443	0.3889817	0.3934501	0.3750	AVRG		5.5514
133)B	Diallate		0.2250308	0.2176000 0.2332265	0.2178529 0.2119068	0.2281001 0.2258571	0.2276453	0.2272430	0.2238	AVRG		2.9761
134)B	Cis Diallate		0.2647421	0.2560000 0.2743841	0.2562975 0.2493022	0.2683531 0.2657143	0.2678179	0.2673447	0.2633	AVRG		2.9761
135)B	Trans Diallate		0.5190213	0.5138546 0.5324542	0.5030589 0.4838758	0.5267628 0.5198213	0.5274727	0.5244930	0.5168	AVRG		2.9131
136)BM	Atrazine		0.1993802	0.1954166 0.2066266	0.1985487 0.1919125	0.2051184 0.2057350	0.2040581	0.2058492	0.2014	AVRG		2.6321
137)B	4-Aminobiphenyl		0.8730858	0.8269308 0.9025883	0.8472883 0.8244808	0.8913672 0.8899193	0.8793007	0.8882811	0.8692	AVRG		3.3499
138)B	Pentachloronitrobenzene		0.0904068	0.0816230 0.0930114	0.0811708 0.0819073	0.0882144 0.0902658	0.0899193	0.0912962	0.0875	AVRG		5.3142
139)B	Pronamide		0.3635966	0.3319574 0.3727840	0.3449744 0.3356056	0.3636998 0.3656398	0.3633470	0.3668045	0.3565	AVRG		4.1792
140)B	4-Nitroquinoline-1-oxide		0.0332267	0.0228278 0.0302501	0.0340721 0.0347764	0.0383643 0.0367583	0.0374018	0.0339827	0.0335	AVRG		14.0026
141)B	Methapyrilene		0.4044705	0.3606187 0.4079961	0.3929105 0.3913756	0.4267842 0.4296412	0.4257384	0.4147462	0.4060	AVRG		5.4434
142)B	Isodrin		0.1293290	0.1245861 0.1340855	0.1240493 0.1205191	0.1299905 0.1294571	0.1303713	0.1293867	0.1280	AVRG		3.2177
144)B	Aramite		0.0570765	0.0477099 0.0582870	0.0477162 0.0484260	0.0537869 0.0557979	0.0542850	0.0570736	0.0534	AVRG		8.0341
145)B	Kepone		0.1276033	0.1093918 0.1311696	0.1155608 0.1161975	0.1260252 0.1291646	0.1271608	0.1294579	0.1235	AVRG		6.2604
146)B	p-(Dimethylamino)azobenz		0.2202284	0.1823315 0.2258105	0.1953261 0.1977341	0.2127065 0.2191605	0.2164620	0.2216983	0.2102	AVRG		7.0486

Response Factor Report MSD3

GEL Laboratories, LLC

Method File : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Last Update : Fri Mar 15 08:40:12 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound ml	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
147)B	Chlorobenzilate		0.3428757	0.3113360 0.3501153	0.3173805 0.3109489	0.3310605 0.3365045	0.3345994	0.3455120	0.3311	AVRG		4.4463
148)B	2-Acetylaminofluorene		0.5061282	0.3775257 0.5215440	0.4211155 0.4276389	0.4693243 0.4911237	0.4818684	0.4980499	0.4660	AVRG		10.1586
150)B	7,12-Dimethylbenz(a)anth		0.4992497	0.4384558 0.5082334	0.4496986 0.4448477	0.4780631 0.4923974	0.4907161	0.4966084	0.4776	AVRG		5.5116
151)B	3-Methylcholanthrene		0.1315379	0.1103965 0.1360741	0.1161753 0.1159190	0.1249154 0.1290039	0.1277600	0.1316896	0.1248	AVRG		6.9787
153)J	Sulfolane		0.1051892	0.1064955 0.1057229	0.1043815 0.0990193	0.1044401 0.1064170	0.1057167	0.1050481	0.1047	AVRG		2.1633
155)J	Prometon		0.1766379	0.1596562 0.1839777	0.1675211 0.1622797	0.1754066 0.1780243	0.1782732	0.1782092	0.1733	AVRG		4.7475
156)JM	Benzidine		0.7813930	0.6816685 0.8003622	0.7373526 0.7271048	0.7793953 0.8115223	0.7902318	0.7846208	0.7660	AVRG		5.4710
158)J	3,3'-Dimethylbenzidine		0.7877730	0.7149765 0.7764372	0.7423262 0.7359554	0.7842676 0.7923269	0.7891617	0.7878424	0.7679	AVRG		3.7567
159)JM	3,3'-Dichlorobenzidine		0.4851935	0.4242208 0.4907964	0.4394293 0.4348388	0.4653626 0.4777018	0.4746514	0.4799843	0.4636	AVRG		5.2622
161)D	Triethylphosphorothioate		0.1676695	0.1624718 0.1718602	0.1601465	0.1600972	0.1630802	0.1643948	0.1642	AVRG		2.5860
163)D	Thionazine		0.2580015	0.2283007 0.2628576	0.2254159	0.2356052	0.2419634	0.2483016	0.2429	AVRG		5.8903
165)D	Sulfotepp		0.1223028	0.1129595 0.1245563	0.1087785	0.1150274	0.1156466	0.1203836	0.1171	AVRG		4.7581
166)D	Phorate		0.4723934	0.4506067 0.4770087	0.4457803	0.4671870	0.4727720	0.4795635	0.4665	AVRG		2.8190
167)D	Dimethoate		0.3119895	0.2680835 0.3206313	0.2702314	0.2936707	0.2954608	0.3082547	0.2955	AVRG		6.8524
168)D	Disulfoton		0.4241115	0.4257736 0.4251401	0.4110141	0.4198500	0.4190344	0.4245020	0.4213	AVRG		1.2481

Response Factor Report MSD3

GEL Laboratories, LLC

Method File : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Last Update : Fri Mar 15 08:40:12 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound m1	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
169)D	Methyl parathion		0.2636994	0.1905112 0.2706747	0.2013827	0.2302690	0.2306100	0.2513381	0.2341	AVRG		12.9445
170)D	Parathion		0.0796148	0.0567126 0.0825659	0.0629745	0.0714584	0.0711583	0.0772631	0.0717	AVRG		12.8973
172)D	Famphur		0.5137749	0.4369699 0.5164557	0.4362495	0.4676399	0.4889660	0.5004747	0.4801	AVRG		7.0576
174)E	p-Phenylenediamine		0.5178280	0.5218964	0.5102575	0.5126325	0.5141689	0.5190356	0.5160	AVRG		0.8447
176)E	Hexachlorophene			242514	400922	561272	705790	979365		1/x LINR	#	0.9983
	-1.2957 0.1569 0.00		975546									

(#) = Out of Range (\$) = Individual RF Out of Range

AVRG = Average, LINR = Linear Regression, $1/x$ = the inverse of concentration, $1/x^2$ = the inverse square of concentration

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1402.D
 Acq On : 14 Mar 2024 08:17
 Operator : LL2
 Sample : |WBN240312-01.1|ICAL|1|SVM|1|M-1
 Misc : |MIX[A]
 ALS Vial : 2 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:46:03 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	71800	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.318	5.324	1.000	282823	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	141038	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	272864	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	258763	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	264189	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.318	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.318	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.318	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.318	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.622	2.622	0.672	1518	0.64	ng/uL	0.00
8) Phenol-d5	99	3.494	3.494	0.896	2060	0.70	ng/uL	0.00
23) Nitrobenzene-d5	82	4.505	4.505	0.847	2088	0.81	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.447	6.447	0.912	5044	0.94	ng/uL	0.00
64) 2,4,6-Tribromophenol	330	7.778	7.779	0.928	583	0.59	ng/uL	0.00
79) p-Terphenyl-d14	244	9.709	9.709	1.159	5404	0.83	ng/uL	0.00

Target Compounds								
3) N-Methyl-N-nitrosometh...	74	1.654	1.644	0.424	904	1.00	ng/uL#	84
33) Naphthalene	128	5.345	5.345	1.005	7540	1.00	ng/uL	99
37) 2-Methylnaphthalene	142	6.078	6.078	1.143	4425	0.90	ng/uL	97
38) 1-Methylnaphthalene	142	6.174	6.179	1.161	4300	0.95	ng/uL	97
45) 2-Chloronaphthalene	162	6.554	6.559	0.927	4211	0.92	ng/uL	98
49) Dimethylphthalate	163	6.826	6.832	0.965	4426	0.86	ng/uL#	96
53) Acenaphthylene	152	6.944	6.944	0.982	5910	0.83	ng/uL	98
54) Acenaphthene	154	7.105	7.105	1.005	4102	0.95	ng/uL	96
58) Diethylphthalate	149	7.463	7.468	1.055	4517	0.84	ng/uL	95
60) Fluorene	166	7.565	7.565	1.070	4507	0.86	ng/uL#	95
73) Phenanthrene	178	8.399	8.399	1.003	7594	1.00	ng/uL	97
74) Anthracene	178	8.442	8.442	1.008	6765	0.89	ng/uL	96
75) Carbazole	167	8.575	8.576	1.024	5533	0.80	ng/uL	97
76) Di-n-butylphthalate	149	8.859	8.859	1.057	6346	0.72	ng/uL	95
77) Fluoranthene	202	9.399	9.399	1.122	6713	0.85	ng/uL	95
78) Pyrene	202	9.592	9.592	1.145	7059	0.85	ng/uL	96
81) Butylbenzylphthalate	149	10.121	10.121	0.946	2188	1.01	ng/uL	93
82) bis(2-Ethylhexyl)phtha...	149	10.693	10.699	0.999	3367	1.00	ng/uL	100
83) Benzo(a)anthracene	228	10.693	10.694	0.999	7224	0.94	ng/uL	98
84) Chrysene	228	10.731	10.736	1.002	7374	1.02	ng/uL	97
87) Di-n-octylphthalate	149	11.533	11.533	1.077	4623	1.01	ng/uL	95
89) Benzo(b)fluoranthene	252	12.116	12.122	0.951	6216	0.84	ng/uL	97
90) Benzo(k)fluoranthene	252	12.159	12.164	0.954	5848	0.79	ng/uL	99
91) Benzo(a)pyrene	252	12.646	12.651	0.992	5164	0.76	ng/uL	92

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1402.D
Acq On : 14 Mar 2024 08:17
Operator : LL2
Sample : |WBN240312-01.1|ICAL|1|SVM|1|M-1
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 08:46:03 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

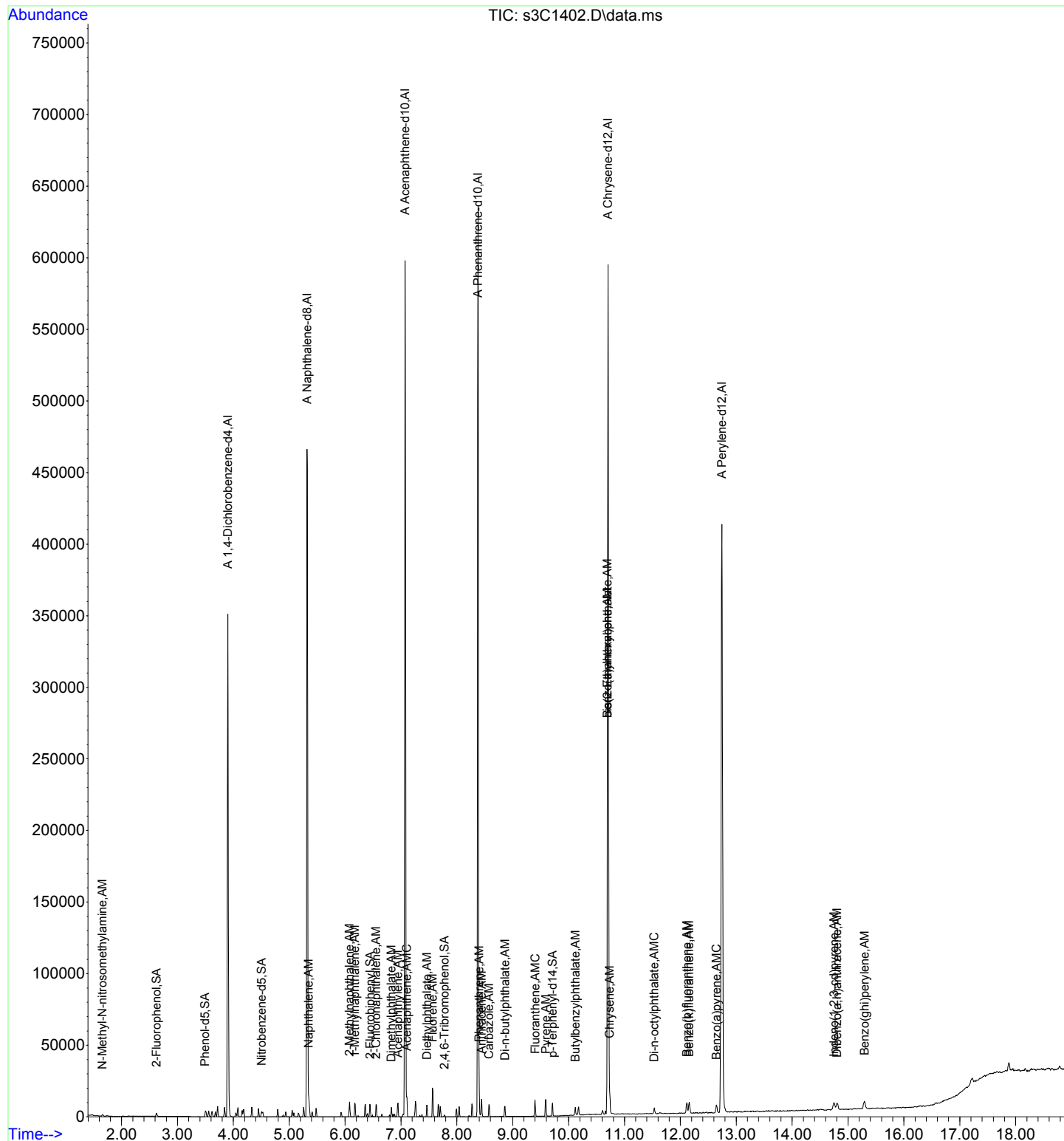
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
92) Indeno(1,2,3-cd)pyrene	276	14.748	14.764	1.157	5691	0.79	ng/uL
93) Dibenzo(a,h)anthracene	278	14.807	14.817	1.162	5264	0.75	ng/uL
94) Benzo(ghi)perylene	276	15.293	15.309	1.200	5550	0.81	ng/uL

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1402.D
 Acq On : 14 Mar 2024 08:17
 Operator : LL2
 Sample : WBN240312-01.1 | ICAL | 1 | SVM | 1 | M-1
 Misc : MIX[A]
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 08:46:03 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1403.D
 Acq On : 14 Mar 2024 08:40
 Operator : LL2
 Sample : |WBN240312-02.1|ICAL|1|SVM|1|M-2
 Misc : |MIX[A]
 ALS Vial : 3 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:47:37 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	94331	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	378339	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.073	7.078	1.000	185262	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	359508	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	356851	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	361666	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.622	2.622	0.672	29655	9.50	ng/uL	0.00
8) Phenol-d5	99	3.494	3.494	0.896	36876	9.53	ng/uL	0.00
23) Nitrobenzene-d5	82	4.505	4.505	0.846	32828	9.46	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.447	6.447	0.912	70411	10.01	ng/uL	0.00
64) 2,4,6-Tribromophenol	330	7.779	7.779	0.928	11765	8.97	ng/uL	0.00
79) p-Terphenyl-d14	244	9.709	9.709	1.159	83911	9.76	ng/uL	0.00

Target Compounds								
2) 2-Ethoxyethanol	59	1.467	1.462	0.376	14225	8.77	ng/uL	93
3) N-Methyl-N-nitrosometh...	74	1.649	1.644	0.423	18415	9.61	ng/uL	98
4) Pyridine	79	1.692	1.686	0.434	25616	9.02	ng/uL	96
6) p-Benzoquinone	54	3.088	3.088	0.792	11399	7.98	ng/uL	98
7) Aniline	93	3.558	3.559	0.912	45058	9.82	ng/uL	97
9) Phenol	94	3.505	3.510	0.899	37331	9.30	ng/uL	99
10) bis(2-Chloroethyl) ether	93	3.617	3.617	0.927	32527	9.75	ng/uL	100
11) 2-Chlorophenol	128	3.676	3.676	0.942	33160	9.58	ng/uL	99
12) n-Decane	43	3.719	3.719	0.953	29007	9.86	ng/uL	99
13) 1,3-Dichlorobenzene	146	3.842	3.842	0.985	38023	9.96	ng/uL	100
14) 1,4-Dichlorobenzene	146	3.922	3.922	1.005	38774	10.03	ng/uL	97
15) 1,2-Dichlorobenzene	146	4.083	4.083	1.047	36519	9.92	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.184	4.190	1.073	39020	9.90	ng/uL	99
17) Benzyl alcohol	108	4.040	4.040	1.036	20156	9.27	ng/uL	99
18) o-Cresol	107	4.158	4.158	1.066	26247	9.84	ng/uL	96
19) m,p-Cresols	108	4.329	4.329	1.110	30554	9.67	ng/uL	98
20) N-Nitrosodipropylamine	70	4.334	4.334	1.111	22181	9.46	ng/uL	99
21) Hexachloroethane	117	4.452	4.452	1.141	15342	9.93	ng/uL	98
24) Nitrobenzene	77	4.527	4.527	0.850	33188	9.63	ng/uL	98
25) Isophorone	82	4.794	4.799	0.901	59753	9.52	ng/uL	99
26) 2-Nitrophenol	139	4.890	4.890	0.919	15185	8.73	ng/uL	99
27) 2,4-Dimethylphenol	122	4.938	4.938	0.928	23338	9.56	ng/uL	98
28) bis(2-Chloroethoxy)met...	93	5.051	5.056	0.949	40249	9.64	ng/uL	98
29) 2,4-Dichlorophenol	162	5.163	5.163	0.970	25942	9.35	ng/uL	98

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1403.D
Acq On : 14 Mar 2024 08:40
Operator : LL2
Sample : |WBN240312-02.1|ICAL|1|SVM|1|M-2
Misc : |MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 15 08:47:37 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
30)	Benzoic acid	105	5.008	5.035	0.941	2257	19.87	ng/uL	84
31)	1,2,4-Trichlorobenzene	180	5.259	5.259	0.988	30689	9.91	ng/uL	99
32)	alpha-Terpineol	59	5.361	5.361	1.007	24460	9.42	ng/uL	98
33)	Naphthalene	128	5.345	5.345	1.004	101612	10.10	ng/uL	99
34)	4-Chloroaniline	127	5.409	5.409	1.016	39753	9.62	ng/uL	99
35)	Hexachlorobutadiene	225	5.484	5.484	1.030	17085	9.93	ng/uL	99
36)	4-Chloro-3-methylphenol	107	5.928	5.928	1.114	25478	9.16	ng/uL	100
37)	2-Methylnaphthalene	142	6.078	6.078	1.142	64399	9.83	ng/uL	100
38)	1-Methylnaphthalene	142	6.174	6.179	1.160	59509	9.86	ng/uL	100
40)	Hexachlorocyclopentadiene	237	6.233	6.233	0.881	12881	8.12	ng/uL	97
41)	2,3-Dichloroaniline	161	6.356	6.361	0.899	32922	9.60	ng/uL	99
42)	2,4,6-Trichlorophenol	196	6.361	6.361	0.899	18543	9.24	ng/uL	98
43)	2,4,5-Trichlorophenol	196	6.393	6.393	0.904	18994	9.24	ng/uL	98
45)	2-Chloronaphthalene	162	6.554	6.559	0.927	61006	10.09	ng/uL	99
46)	o-Nitroaniline	65	6.655	6.655	0.941	14740	8.88	ng/uL	96
47)	1,4-Dinitrobenzene	168	6.794	6.794	0.961	7529	8.27	ng/uL	99
48)	m-Nitroaniline	138	7.035	7.040	0.995	16499	9.15	ng/uL	100
49)	Dimethylphthalate	163	6.832	6.832	0.966	69094	10.18	ng/uL	99
50)	m-Dinitrobenzene	168	6.859	6.859	0.970	9106	8.68	ng/uL	91
51)	2,6-Dinitrotoluene	165	6.885	6.891	0.974	13986	9.22	ng/uL	96
52)	2,4-Dinitrotoluene	165	7.249	7.249	1.025	18338	8.89	ng/uL	95
53)	Acenaphthylene	152	6.944	6.944	0.982	93593	10.05	ng/uL	100
54)	Acenaphthene	154	7.105	7.105	1.005	56231	9.89	ng/uL	98
55)	2,4-Dinitrophenol	184	7.142	7.137	1.010	2092	13.76	ng/uL	97
56)	Dibenzofuran	168	7.260	7.260	1.026	87727	10.14	ng/uL	100
57)	2,3,4,6-Tetrachlorophenol	232	7.372	7.372	1.042	15196	8.86	ng/uL	99
58)	Diethylphthalate	149	7.463	7.468	1.055	70053	9.96	ng/uL	100
59)	4-Nitrophenol	109	7.190	7.190	1.017	5688	10.18	ng/uL	97
60)	Fluorene	166	7.565	7.565	1.070	68780	10.02	ng/uL	100
61)	4-Chlorophenylphenylether	204	7.565	7.570	1.070	32072	9.89	ng/uL	98
62)	p-Nitroaniline	138	7.581	7.586	1.072	16532	9.01	ng/uL	99
65)	2-Methyl-4,6-dinitroph...	198	7.607	7.613	0.908	6974	10.26	ng/uL	97
66)	Diphenylamine	169	7.666	7.672	0.915	56545	9.75	ng/uL	99
67)	1,2-Diphenylhydrazine	77	7.704	7.704	0.920	69147	9.91	ng/uL	99
68)	4-Bromophenylphenylether	248	7.993	7.993	0.954	19148	9.71	ng/uL	99
69)	Hexachlorobenzene	284	8.041	8.041	0.960	23715	9.90	ng/uL	99
70)	Pentachlorophenol	266	8.212	8.212	0.980	9181	10.23	ng/uL	99
71)	n-Octadecane	57	8.271	8.271	0.987	41313	9.34	ng/uL	99
72)	Dinoseb	211	8.362	8.362	0.998	10461	11.01	ng/uL	96
73)	Phenanthrene	178	8.399	8.399	1.003	101899	10.21	ng/uL	99
74)	Anthracene	178	8.442	8.442	1.008	101709	10.16	ng/uL	99
75)	Carbazole	167	8.576	8.576	1.024	92892	10.15	ng/uL	99
76)	Di-n-butylphthalate	149	8.859	8.859	1.057	113517	9.75	ng/uL	99
77)	Fluoranthene	202	9.399	9.399	1.122	103086	9.90	ng/uL	99
78)	Pyrene	202	9.592	9.592	1.145	109412	10.00	ng/uL	99
81)	Butylbenzylphthalate	149	10.121	10.121	0.946	45995	9.18	ng/uL	99
82)	bis(2-Ethylhexyl)phtha...	149	10.694	10.699	0.999	77302	9.62	ng/uL	98
83)	Benzo(a)anthracene	228	10.694	10.694	0.999	107770	10.13	ng/uL	99
84)	Chrysene	228	10.736	10.736	1.003	101926	10.26	ng/uL	99
85)	Methoxychlor	227	10.608	10.608	0.991	56472	8.77	ng/uL	100
86)	Methylenebis(2-chloroa...	231	10.661	10.661	0.996	17853	9.02	ng/uL	99
87)	Di-n-octylphthalate	149	11.533	11.533	1.077	108234	8.80	ng/uL	99
89)	Benzo(b)fluoranthene	252	12.116	12.122	0.951	98096	9.72	ng/uL	100
90)	Benzo(k)fluoranthene	252	12.159	12.164	0.954	103813	10.25	ng/uL	99
91)	Benzo(a)pyrene	252	12.646	12.651	0.992	90997	9.82	ng/uL	98
92)	Indeno(1,2,3-cd)pyrene	276	14.753	14.764	1.158	93899	9.58	ng/uL	98
93)	Dibenzo(a,h)anthracene	278	14.807	14.817	1.162	92975	9.73	ng/uL	100

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1403.D
Acq On : 14 Mar 2024 08:40
Operator : LL2
Sample : |WBN240312-02.1|ICAL|1|SVM|1|M-2
Misc : |MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 15 08:47:37 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
94) Benzo(ghi)perylene	276	15.293	15.309	1.200	91929	9.85	ng/uL
95) Dibenzo(a,e)pyrene	302	17.877	17.887	1.403	81129	9.51	ng/uL

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

```
Data Path   : C:\msdchem\1\data\S031424ICAL\  
Data File   : s3C1403.D  
Acq On      : 14 Mar 2024   08:40  
Operator    : LL2  
Sample      : |WBN240312-02.1|ICAL|1|SVM|1|M-2  
Misc        : |MIX[A]  
ALS Vial    : 3      Sample Multiplier: 1
```

[illegible]

03/15/2024

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1404.D
 Acq On : 14 Mar 2024 09:03
 Operator : LL2
 Sample : |WBN240312-03.1|ICAL|1|SVM|1|M-3
 Misc : |MIX[A]
 ALS Vial : 4 Sample Multiplier: 1

03/18/2024

Quant Time: Mar 15 08:48:19 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	91067	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	359216	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.078	7.078	1.000	179526	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	350937	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	353461	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.747	12.747	1.000	353663	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.747	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.747	12.758	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.622	2.622	0.672	58447	19.39	ng/uL	0.00
8) Phenol-d5	99	3.494	3.494	0.896	72028	19.28	ng/uL	0.00
23) Nitrobenzene-d5	82	4.505	4.505	0.846	65516	19.89	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.447	6.447	0.911	137152	20.11	ng/uL	0.00
64) 2,4,6-Tribromophenol	330	7.779	7.779	0.928	24499	19.13	ng/uL	0.00
79) p-Terphenyl-d14	244	9.709	9.709	1.159	167615	19.98	ng/uL	0.00

Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	1.462	1.462	0.375	30933	19.76	ng/uL	97
3) N-Methyl-N-nitrosometh...	74	1.644	1.644	0.421	36992	19.56	ng/uL	99
4) Pyridine	79	1.686	1.686	0.432	50772	18.51	ng/uL	98
6) p-Benzoquinone	54	3.088	3.088	0.792	25311	18.35	ng/uL	99
7) Aniline	93	3.558	3.559	0.912	87639	19.79	ng/uL	99
9) Phenol	94	3.505	3.510	0.899	75170	19.39	ng/uL	99
10) bis(2-Chloroethyl) ether	93	3.617	3.617	0.927	64166	19.93	ng/uL	99
11) 2-Chlorophenol	128	3.676	3.676	0.942	65191	19.51	ng/uL	99
12) n-Decane	43	3.719	3.719	0.953	56287	19.82	ng/uL	100
13) 1,3-Dichlorobenzene	146	3.842	3.842	0.985	72271	19.61	ng/uL	99
14) 1,4-Dichlorobenzene	146	3.922	3.922	1.005	73798	19.77	ng/uL	99
15) 1,2-Dichlorobenzene	146	4.083	4.083	1.047	70585	19.86	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.184	4.190	1.073	75425	19.82	ng/uL	99
17) Benzyl alcohol	108	4.040	4.040	1.036	41124	19.60	ng/uL	99
18) o-Cresol	107	4.157	4.158	1.066	50034	19.43	ng/uL	99
19) m,p-Cresols	108	4.329	4.329	1.110	59504	19.50	ng/uL	98
20) N-Nitrosodipropylamine	70	4.334	4.334	1.111	44750	19.77	ng/uL	100
21) Hexachloroethane	117	4.452	4.452	1.141	29676	19.90	ng/uL	99
24) Nitrobenzene	77	4.527	4.527	0.850	64950	19.86	ng/uL	99
25) Isophorone	82	4.794	4.799	0.901	118178	19.84	ng/uL	99
26) 2-Nitrophenol	139	4.890	4.890	0.919	31544	19.09	ng/uL	100
27) 2,4-Dimethylphenol	122	4.938	4.938	0.928	46433	20.03	ng/uL	99
28) bis(2-Chloroethoxy)met...	93	5.051	5.056	0.949	79504	20.06	ng/uL	98
29) 2,4-Dichlorophenol	162	5.163	5.163	0.970	51950	19.73	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1404.D
Acq On : 14 Mar 2024 09:03
Operator : LL2
Sample : |WBN240312-03.1|ICAL|1|SVM|1|M-3
Misc : |MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 15 08:48:19 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
30)	Benzoic acid	105	5.013	5.035	0.942	13495	24.32	ng/uL	95
31)	1,2,4-Trichlorobenzene	180	5.259	5.259	0.988	58812	20.00	ng/uL	100
32)	alpha-Terpineol	59	5.361	5.361	1.007	48607	19.71	ng/uL	100
33)	Naphthalene	128	5.345	5.345	1.004	192863	20.19	ng/uL	100
34)	4-Chloroaniline	127	5.409	5.409	1.016	78627	20.03	ng/uL	100
35)	Hexachlorobutadiene	225	5.484	5.484	1.030	32596	19.96	ng/uL	99
36)	4-Chloro-3-methylphenol	107	5.928	5.928	1.114	51617	19.54	ng/uL	99
37)	2-Methylnaphthalene	142	6.078	6.078	1.142	125699	20.21	ng/uL	100
38)	1-Methylnaphthalene	142	6.179	6.179	1.161	117387	20.48	ng/uL	98
40)	Hexachlorocyclopentadiene	237	6.233	6.233	0.881	27562	17.94	ng/uL	100
41)	2,3-Dichloroaniline	161	6.356	6.361	0.898	65893	19.82	ng/uL	99
42)	2,4,6-Trichlorophenol	196	6.361	6.361	0.899	37757	19.43	ng/uL	100
43)	2,4,5-Trichlorophenol	196	6.393	6.393	0.903	39109	19.64	ng/uL	98
45)	2-Chloronaphthalene	162	6.559	6.559	0.927	120177	20.52	ng/uL	99
46)	o-Nitroaniline	65	6.655	6.655	0.940	30997	19.28	ng/uL	98
47)	1,4-Dinitrobenzene	168	6.794	6.794	0.960	16472	18.67	ng/uL	99
48)	m-Nitroaniline	138	7.035	7.040	0.994	34672	19.84	ng/uL	97
49)	Dimethylphthalate	163	6.832	6.832	0.965	135578	20.61	ng/uL	100
50)	m-Dinitrobenzene	168	6.859	6.859	0.969	19635	19.31	ng/uL	95
51)	2,6-Dinitrotoluene	165	6.885	6.891	0.973	29086	19.79	ng/uL	98
52)	2,4-Dinitrotoluene	165	7.249	7.249	1.024	38250	19.13	ng/uL	98
53)	Acenaphthylene	152	6.944	6.944	0.981	187549	20.79	ng/uL	100
54)	Acenaphthene	154	7.105	7.105	1.004	110895	20.13	ng/uL	99
55)	2,4-Dinitrophenol	184	7.137	7.137	1.008	7979	20.61	ng/uL	97
56)	Dibenzofuran	168	7.260	7.260	1.026	171220	20.42	ng/uL	99
57)	2,3,4,6-Tetrachlorophenol	232	7.372	7.372	1.042	32912	19.79	ng/uL	99
58)	Diethylphthalate	149	7.463	7.468	1.054	140604	20.63	ng/uL	99
59)	4-Nitrophenol	109	7.190	7.190	1.016	13258	19.48	ng/uL	99
60)	Fluorene	166	7.565	7.565	1.069	136463	20.51	ng/uL	100
61)	4-Chlorophenylphenylether	204	7.565	7.570	1.069	63020	20.06	ng/uL	98
62)	p-Nitroaniline	138	7.581	7.586	1.071	35126	19.77	ng/uL	99
65)	2-Methyl-4,6-dinitroph...	198	7.607	7.613	0.908	17113	19.20	ng/uL	97
66)	Diphenylamine	169	7.672	7.672	0.916	114674	20.25	ng/uL	99
67)	1,2-Diphenylhydrazine	77	7.704	7.704	0.920	138121	20.28	ng/uL	99
68)	4-Bromophenylphenylether	248	7.992	7.993	0.954	38011	19.74	ng/uL	100
69)	Hexachlorobenzene	284	8.041	8.041	0.960	46984	20.09	ng/uL	99
70)	Pentachlorophenol	266	8.212	8.212	0.980	22062	19.38	ng/uL	98
71)	n-Octadecane	57	8.271	8.271	0.987	85304	19.75	ng/uL	99
72)	Dinoseb	211	8.362	8.362	0.998	24798	19.29	ng/uL	99
73)	Phenanthrene	178	8.399	8.399	1.003	197467	20.27	ng/uL	100
74)	Anthracene	178	8.442	8.442	1.008	202402	20.71	ng/uL	98
75)	Carbazole	167	8.575	8.576	1.024	186712	20.90	ng/uL	99
76)	Di-n-butylphthalate	149	8.859	8.859	1.057	236718	20.83	ng/uL	99
77)	Fluoranthene	202	9.399	9.399	1.122	207138	20.39	ng/uL	99
78)	Pyrene	202	9.592	9.592	1.145	220141	20.61	ng/uL	99
81)	Butylbenzylphthalate	149	10.121	10.121	0.946	98892	19.41	ng/uL	100
82)	bis(2-Ethylhexyl)phtha...	149	10.694	10.699	0.999	162492	19.90	ng/uL	100
83)	Benzo(a)anthracene	228	10.694	10.694	0.999	215735	20.48	ng/uL	99
84)	Chrysene	228	10.736	10.736	1.003	198495	20.18	ng/uL	100
85)	Methoxychlor	227	10.608	10.608	0.991	121450	19.03	ng/uL	100
86)	Methylenebis(2-chloroa...	231	10.661	10.661	0.996	38055	19.42	ng/uL	100
87)	Di-n-octylphthalate	149	11.533	11.533	1.077	238809	18.97	ng/uL	100
89)	Benzo(b)fluoranthene	252	12.116	12.122	0.950	195342	19.80	ng/uL	100
90)	Benzo(k)fluoranthene	252	12.159	12.164	0.954	209787	21.18	ng/uL	100
91)	Benzo(a)pyrene	252	12.646	12.651	0.992	184548	20.36	ng/uL	100
92)	Indeno(1,2,3-cd)pyrene	276	14.759	14.764	1.158	189847	19.80	ng/uL	100
93)	Dibenzo(a,h)anthracene	278	14.812	14.817	1.162	190406	20.38	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1404.D
Acq On : 14 Mar 2024 09:03
Operator : LL2
Sample : |WBN240312-03.1|ICAL|1|SVM|1|M-3
Misc : |MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 15 08:48:19 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

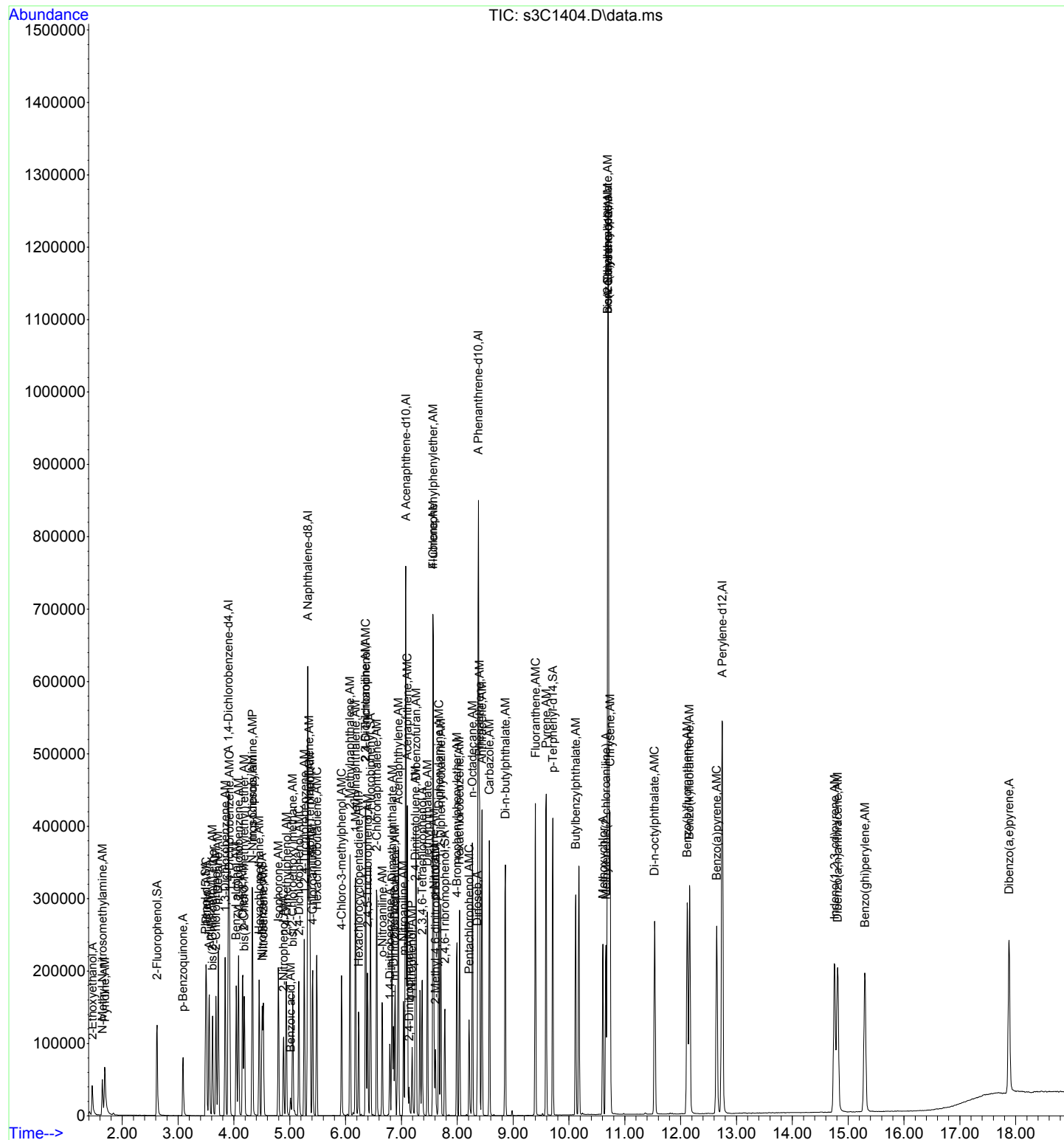
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
94) Benzo(ghi)perylene	276	15.299	15.309	1.200	185379	20.31	ng/uL 100
95) Dibenzo(a,e)pyrene	302	17.882	17.887	1.403	163408	19.59	ng/uL 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

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Data Path   : C:\msdchem\1\data\S031424ICAL\  
Data File   : s3C1404.D  
Acq On      : 14 Mar 2024   09:03  
Operator    : LL2  
Sample      : |WBN240312-03.1|ICAL|1|SVM|1|M-3  
MISC        : |MIX[A]  
ALS Vial    : 4      Sample Multiplier: 1
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Quant Time: Mar 15 08:48:19 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1405.D
 Acq On : 14 Mar 2024 09:27
 Operator : LL2
 Sample : |WBN240312-04.1|ICAL|1|SVM|1|M-4
 Misc : |MIX[A]
 ALS Vial : 5 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:53:02 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.906	3.906	1.000	93859	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	374221	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.078	7.078	1.000	186642	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	363359	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.710	10.710	1.000	366480	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.747	12.747	1.000	371020	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.906	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.710	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.747	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.710	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.710	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.747	12.758	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.622	2.622	0.671	121854	39.22	ng/uL	0.00
8) Phenol-d5	99	3.494	3.494	0.895	152892	39.70	ng/uL	0.00
23) Nitrobenzene-d5	82	4.505	4.505	0.846	136565	39.80	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.447	6.447	0.911	282516	39.85	ng/uL	0.00
64) 2,4,6-Tribromophenol	330	7.779	7.779	0.928	52863	39.87	ng/uL	0.00
79) p-Terphenyl-d14	244	9.709	9.709	1.159	347791	40.03	ng/uL	0.00

Target Compounds								
2) 2-Ethoxyethanol	59	1.462	1.462	0.374	64140	39.75	ng/uL	100
3) N-Methyl-N-nitrosometh...	74	1.644	1.644	0.421	77614	39.39	ng/uL	100
4) Pyridine	79	1.686	1.686	0.432	107740	38.11	ng/uL	100
6) p-Benzoquinone	54	3.088	3.088	0.790	56811	39.97	ng/uL	100
7) Aniline	93	3.559	3.559	0.911	179944	39.42	ng/uL	100
9) Phenol	94	3.510	3.510	0.899	158256	39.60	ng/uL	100
10) bis(2-Chloroethyl) ether	93	3.617	3.617	0.926	130985	39.46	ng/uL	100
11) 2-Chlorophenol	128	3.676	3.676	0.941	136807	39.73	ng/uL	100
12) n-Decane	43	3.719	3.719	0.952	115840	39.59	ng/uL	100
13) 1,3-Dichlorobenzene	146	3.842	3.842	0.984	151045	39.77	ng/uL	100
14) 1,4-Dichlorobenzene	146	3.922	3.922	1.004	152687	39.69	ng/uL	100
15) 1,2-Dichlorobenzene	146	4.083	4.083	1.045	145035	39.59	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.190	4.190	1.073	155342	39.60	ng/uL	100
17) Benzyl alcohol	108	4.040	4.040	1.034	86577	40.03	ng/uL	100
18) o-Cresol	107	4.158	4.158	1.064	104744	39.48	ng/uL	100
19) m,p-Cresols	108	4.329	4.329	1.108	123812	39.38	ng/uL	100
20) N-Nitrosodipropylamine	70	4.334	4.334	1.110	92385	39.61	ng/uL	100
21) Hexachloroethane	117	4.452	4.452	1.140	60169	39.14	ng/uL	100
24) Nitrobenzene	77	4.527	4.527	0.850	136291	40.00	ng/uL	100
25) Isophorone	82	4.799	4.799	0.902	249858	40.26	ng/uL	100
26) 2-Nitrophenol	139	4.890	4.890	0.919	67926	39.47	ng/uL	100
27) 2,4-Dimethylphenol	122	4.938	4.938	0.928	96414	39.92	ng/uL	100
28) bis(2-Chloroethoxy)met...	93	5.056	5.056	0.950	165948	40.18	ng/uL	100
29) 2,4-Dichlorophenol	162	5.163	5.163	0.970	109320	39.85	ng/uL	100

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1405.D
Acq On : 14 Mar 2024 09:27
Operator : LL2
Sample : |WBN240312-04.1|ICAL|1|SVM|1|M-4
Misc : |MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 08:53:02 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
30)	Benzoic acid	105	5.035	5.035	0.946	52084	38.62	ng/uL	100
31)	1,2,4-Trichlorobenzene	180	5.259	5.259	0.988	121467	39.66	ng/uL	100
32)	alpha-Terpineol	59	5.361	5.361	1.007	102996	40.09	ng/uL	100
33)	Naphthalene	128	5.345	5.345	1.004	394974	39.70	ng/uL	100
34)	4-Chloroaniline	127	5.409	5.409	1.016	163325	39.94	ng/uL	100
35)	Hexachlorobutadiene	225	5.484	5.484	1.030	67431	39.63	ng/uL	100
36)	4-Chloro-3-methylphenol	107	5.928	5.928	1.114	109495	39.78	ng/uL	100
37)	2-Methylnaphthalene	142	6.078	6.078	1.142	262905	40.57	ng/uL	100
38)	1-Methylnaphthalene	142	6.179	6.179	1.161	237178	39.73	ng/uL	100
40)	Hexachlorocyclopentadiene	237	6.233	6.233	0.881	63447	39.72	ng/uL	100
41)	2,3-Dichloroaniline	161	6.361	6.361	0.899	138727	40.14	ng/uL	100
42)	2,4,6-Trichlorophenol	196	6.361	6.361	0.899	81069	40.12	ng/uL	100
43)	2,4,5-Trichlorophenol	196	6.393	6.393	0.903	81655	39.44	ng/uL	100
45)	2-Chloronaphthalene	162	6.559	6.559	0.927	246502	40.48	ng/uL	100
46)	o-Nitroaniline	65	6.655	6.655	0.940	66940	40.04	ng/uL	100
47)	1,4-Dinitrobenzene	168	6.794	6.794	0.960	36235	39.51	ng/uL	100
48)	m-Nitroaniline	138	7.040	7.040	0.995	72731	40.03	ng/uL	100
49)	Dimethylphthalate	163	6.832	6.832	0.965	279812	40.92	ng/uL	100
50)	m-Dinitrobenzene	168	6.859	6.859	0.969	42011	39.73	ng/uL	100
51)	2,6-Dinitrotoluene	165	6.891	6.891	0.974	61469	40.24	ng/uL	100
52)	2,4-Dinitrotoluene	165	7.249	7.249	1.024	83088	39.98	ng/uL	100
53)	Acenaphthylene	152	6.944	6.944	0.981	385389	41.09	ng/uL	100
54)	Acenaphthene	154	7.105	7.105	1.004	229045	39.99	ng/uL	100
55)	2,4-Dinitrophenol	184	7.137	7.137	1.008	23993	37.99	ng/uL	100
56)	Dibenzofuran	168	7.260	7.260	1.026	349522	40.10	ng/uL	100
57)	2,3,4,6-Tetrachlorophenol	232	7.372	7.372	1.042	69439	40.16	ng/uL	100
58)	Diethylphthalate	149	7.468	7.468	1.055	290009	40.93	ng/uL	100
59)	4-Nitrophenol	109	7.190	7.190	1.016	30721	39.02	ng/uL	100
60)	Fluorene	166	7.565	7.565	1.069	283538	40.99	ng/uL	100
61)	4-Chlorophenylphenylether	204	7.570	7.570	1.070	132306	40.50	ng/uL	100
62)	p-Nitroaniline	138	7.586	7.586	1.072	74468	40.31	ng/uL	100
65)	2-Methyl-4,6-dinitroph...	198	7.613	7.613	0.909	41000	38.73	ng/uL	100
66)	Diphenylamine	169	7.672	7.672	0.916	236113	40.27	ng/uL	100
67)	1,2-Diphenylhydrazine	77	7.704	7.704	0.920	285453	40.48	ng/uL	100
68)	4-Bromophenylphenylether	248	7.993	7.993	0.954	77903	39.08	ng/uL	100
69)	Hexachlorobenzene	284	8.041	8.041	0.960	95467	39.43	ng/uL	100
70)	Pentachlorophenol	266	8.212	8.212	0.980	51449	38.68	ng/uL	100
71)	n-Octadecane	57	8.271	8.271	0.987	179390	40.12	ng/uL	100
72)	Dinoseb	211	8.362	8.362	0.998	59714	37.96	ng/uL	100
73)	Phenanthrene	178	8.399	8.399	1.003	399961	39.65	ng/uL	100
74)	Anthracene	178	8.442	8.442	1.008	408622	40.38	ng/uL	100
75)	Carbazole	167	8.576	8.576	1.024	381082	41.20	ng/uL	100
76)	Di-n-butylphthalate	149	8.859	8.859	1.057	497428	42.27	ng/uL	100
77)	Fluoranthene	202	9.399	9.399	1.122	431468	41.02	ng/uL	100
78)	Pyrene	202	9.592	9.592	1.145	449700	40.66	ng/uL	100
81)	Butylbenzylphthalate	149	10.121	10.121	0.945	214428	40.11	ng/uL	100
82)	bis(2-Ethylhexyl)phtha...	149	10.699	10.699	0.999	348242	40.65	ng/uL	100
83)	Benzo(a)anthracene	228	10.694	10.694	0.999	441861	40.45	ng/uL	100
84)	Chrysene	228	10.736	10.736	1.002	414099	40.59	ng/uL	100
85)	Methoxychlor	227	10.608	10.608	0.991	267520	40.44	ng/uL	100
86)	Methylenebis(2-chloroa...	231	10.661	10.661	0.996	81947	40.33	ng/uL	100
87)	Di-n-octylphthalate	149	11.533	11.533	1.077	533902	40.29	ng/uL	100
89)	Benzo(b)fluoranthene	252	12.122	12.122	0.951	424919	41.05	ng/uL	100
90)	Benzo(k)fluoranthene	252	12.164	12.164	0.954	426785	41.07	ng/uL	100
91)	Benzo(a)pyrene	252	12.651	12.651	0.992	390715	41.10	ng/uL	100
92)	Indeno(1,2,3-cd)pyrene	276	14.764	14.764	1.158	405605	40.33	ng/uL	100
93)	Dibenzo(a,h)anthracene	278	14.817	14.817	1.162	405521	41.37	ng/uL	100

Quantitation Report

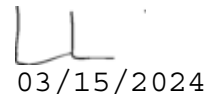
Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1405.D
Acq On : 14 Mar 2024 09:27
Operator : LL2
Sample : |WBN240312-04.1|ICAL|1|SVM|1|M-4
Misc : |MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 08:53:02 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

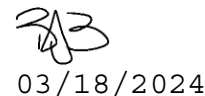
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
94) Benzo(ghi)perylene	276	15.309	15.309	1.201	392044	40.94	ng/uL 100
95) Dibenzo(a,e)pyrene	302	17.887	17.887	1.403	347969	39.76	ng/uL 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

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Data Path   : C:\msdchem\1\data\S031424ICAL\  
Data File   : s3C1405.D  
Acq On      : 14 Mar 2024   09:27  
Operator    : LL2  
Sample      : |WBN240312-04.1|ICAL|1|SVM|1|M-4  
Misc        : |MIX[A]  
ALS Vial    : 5      Sample Multiplier: 1
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Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1406.D
 Acq On : 14 Mar 2024 09:50
 Operator : LL2
 Sample : |WBN240312-05|ICAL|1|SVM|1|M-5
 Misc : |MIX[A]
 ALS Vial : 6 Sample Multiplier: 1



03/18/2024

Quant Time: Mar 15 08:39:37 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:37 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.906	3.906	1.000	91291	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	371145	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.078	7.078	1.000	186075	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	363060	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.709	10.710	1.000	373208	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.747	12.747	1.000	374160	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.906	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.709	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.747	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.709	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.709	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.747	12.758	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.622	2.622	0.671	152702	50.53	ng/uL	0.00
8) Phenol-d5	99	3.494	3.494	0.895	190036	50.74	ng/uL	0.00
23) Nitrobenzene-d5	82	4.505	4.505	0.846	170110	49.99	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.447	6.447	0.911	348175	49.26	ng/uL	0.00
64) 2,4,6-Tribromophenol	330	7.778	7.779	0.928	65997	49.81	ng/uL	0.00
79) p-Terphenyl-d14	244	9.709	9.709	1.159	433622	49.95	ng/uL	0.00

Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	1.462	1.462	0.374	78490	50.02	ng/uL	99
3) N-Methyl-N-nitrosometh...	74	1.643	1.644	0.421	95831	49.89	ng/uL	99
4) Pyridine	79	1.681	1.686	0.430	144933	52.71	ng/uL	99
6) p-Benzoquinone	54	3.088	3.088	0.790	71666	51.84	ng/uL	99
7) Aniline	93	3.558	3.559	0.911	223177	50.26	ng/uL	99
9) Phenol	94	3.510	3.510	0.899	198854	51.16	ng/uL	100
10) bis(2-Chloroethyl) ether	93	3.617	3.617	0.926	163858	50.76	ng/uL	99
11) 2-Chlorophenol	128	3.676	3.676	0.941	169601	50.64	ng/uL	100
12) n-Decane	43	3.719	3.719	0.952	143384	50.38	ng/uL	100
13) 1,3-Dichlorobenzene	146	3.842	3.842	0.984	185818	50.31	ng/uL	99
14) 1,4-Dichlorobenzene	146	3.922	3.922	1.004	188389	50.35	ng/uL	99
15) 1,2-Dichlorobenzene	146	4.082	4.083	1.045	178454	50.08	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.189	4.190	1.073	192789	50.53	ng/uL	100
17) Benzyl alcohol	108	4.045	4.040	1.036	107988	51.33	ng/uL	100
18) o-Cresol	107	4.157	4.158	1.064	130665	50.63	ng/uL	99
19) m,p-Cresols	108	4.328	4.329	1.108	156014	51.01	ng/uL	98
20) N-Nitrosodipropylamine	70	4.334	4.334	1.110	115381	50.86	ng/uL	100
21) Hexachloroethane	117	4.451	4.452	1.140	75974	50.82	ng/uL	99
24) Nitrobenzene	77	4.526	4.527	0.850	169415	50.14	ng/uL	100
25) Isophorone	82	4.799	4.799	0.902	308027	50.04	ng/uL	99
26) 2-Nitrophenol	139	4.890	4.890	0.919	85828	50.28	ng/uL	100
27) 2,4-Dimethylphenol	122	4.938	4.938	0.928	118060	49.28	ng/uL	98
28) bis(2-Chloroethoxy)met...	93	5.056	5.056	0.950	204235	49.86	ng/uL	99
29) 2,4-Dichlorophenol	162	5.163	5.163	0.970	136252	50.08	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1406.D
Acq On : 14 Mar 2024 09:50
Operator : LL2
Sample : |WBN240312-05|ICAL|1|SVM|1|M-5
Misc : |MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 08:39:37 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:37 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
30)	Benzoic acid	105	5.040	5.035	0.947	74003	47.10	ng/uL	100
31)	1,2,4-Trichlorobenzene	180	5.259	5.259	0.988	150453	49.53	ng/uL	99
32)	alpha-Terpineol	59	5.361	5.361	1.007	128127	50.29	ng/uL	99
33)	Naphthalene	128	5.345	5.345	1.004	487390	49.39	ng/uL	100
34)	4-Chloroaniline	127	5.409	5.409	1.016	203254	50.12	ng/uL	100
35)	Hexachlorobutadiene	225	5.484	5.484	1.030	83548	49.51	ng/uL	99
36)	4-Chloro-3-methylphenol	107	5.928	5.928	1.114	138117	50.59	ng/uL	99
37)	2-Methylnaphthalene	142	6.077	6.078	1.142	323141	50.27	ng/uL	100
38)	1-Methylnaphthalene	142	6.179	6.179	1.161	296332	50.05	ng/uL	99
40)	Hexachlorocyclopentadiene	237	6.233	6.233	0.881	80918	50.81	ng/uL	100
41)	2,3-Dichloroaniline	161	6.361	6.361	0.899	171605	49.80	ng/uL	99
42)	2,4,6-Trichlorophenol	196	6.361	6.361	0.899	100971	50.12	ng/uL	99
43)	2,4,5-Trichlorophenol	196	6.393	6.393	0.903	102443	49.63	ng/uL	99
45)	2-Chloronaphthalene	162	6.559	6.559	0.927	304370	50.13	ng/uL	100
46)	o-Nitroaniline	65	6.655	6.655	0.940	84085	50.45	ng/uL	99
47)	1,4-Dinitrobenzene	168	6.794	6.794	0.960	46045	50.36	ng/uL	99
48)	m-Nitroaniline	138	7.040	7.040	0.995	91282	50.39	ng/uL	99
49)	Dimethylphthalate	163	6.837	6.832	0.966	342865	50.29	ng/uL	100
50)	m-Dinitrobenzene	168	6.858	6.859	0.969	53835	51.07	ng/uL	98
51)	2,6-Dinitrotoluene	165	6.890	6.891	0.974	75649	49.67	ng/uL	99
52)	2,4-Dinitrotoluene	165	7.254	7.249	1.025	104179	50.28	ng/uL	99
53)	Acenaphthylene	152	6.949	6.944	0.982	475009	50.80	ng/uL	100
54)	Acenaphthene	154	7.104	7.105	1.004	285258	49.96	ng/uL	100
55)	2,4-Dinitrophenol	184	7.136	7.137	1.008	33044	48.12	ng/uL	99
56)	Dibenzofuran	168	7.265	7.260	1.026	427521	49.20	ng/uL	100
57)	2,3,4,6-Tetrachlorophenol	232	7.372	7.372	1.042	87631	50.84	ng/uL	99
58)	Diethylphthalate	149	7.468	7.468	1.055	358888	50.80	ng/uL	100
59)	4-Nitrophenol	109	7.190	7.190	1.016	39284	49.05	ng/uL	100
60)	Fluorene	166	7.570	7.565	1.070	349187	50.64	ng/uL	99
61)	4-Chlorophenylphenylether	204	7.570	7.570	1.070	162170	49.80	ng/uL	99
62)	p-Nitroaniline	138	7.586	7.586	1.072	93159	50.58	ng/uL	99
65)	2-Methyl-4,6-dinitroph...	198	7.613	7.613	0.909	53064	48.88	ng/uL	98
66)	Diphenylamine	169	7.671	7.672	0.916	290351	49.56	ng/uL	99
67)	1,2-Diphenylhydrazine	77	7.703	7.704	0.920	356164	50.55	ng/uL	100
68)	4-Bromophenylphenylether	248	7.992	7.993	0.954	98270	49.33	ng/uL	99
69)	Hexachlorobenzene	284	8.040	8.041	0.960	119379	49.35	ng/uL	100
70)	Pentachlorophenol	266	8.212	8.212	0.980	65889	48.46	ng/uL	99
71)	n-Octadecane	57	8.270	8.271	0.987	225503	50.47	ng/uL	99
72)	Dinoseb	211	8.367	8.362	0.999	77214	47.59	ng/uL	100
73)	Phenanthrene	178	8.399	8.399	1.003	497600	49.37	ng/uL	100
74)	Anthracene	178	8.442	8.442	1.008	506876	50.13	ng/uL	100
75)	Carbazole	167	8.575	8.576	1.024	475941	51.49	ng/uL	100
76)	Di-n-butylphthalate	149	8.859	8.859	1.057	615991	52.38	ng/uL	100
77)	Fluoranthene	202	9.399	9.399	1.122	536793	51.07	ng/uL	100
78)	Pyrene	202	9.592	9.592	1.145	562820	50.93	ng/uL	100
81)	Butylbenzylphthalate	149	10.121	10.121	0.945	270798	49.64	ng/uL	100
82)	bis(2-Ethylhexyl)phtha...	149	10.699	10.699	0.999	428564	49.03	ng/uL	99
83)	Benzo(a)anthracene	228	10.699	10.694	0.999	561119	50.45	ng/uL	99
84)	Chrysene	228	10.736	10.736	1.002	497300	47.87	ng/uL	100
85)	Methoxychlor	227	10.608	10.608	0.991	336723	49.98	ng/uL	100
86)	Methylenebis(2-chloroa...	231	10.661	10.661	0.996	103626	50.08	ng/uL	100
87)	Di-n-octylphthalate	149	11.538	11.533	1.077	673597	49.79	ng/uL	100
89)	Benzo(b)fluoranthene	252	12.121	12.122	0.951	525875	50.37	ng/uL	100
90)	Benzo(k)fluoranthene	252	12.164	12.164	0.954	541729	51.69	ng/uL	100
91)	Benzo(a)pyrene	252	12.651	12.651	0.992	496220	51.76	ng/uL	99
92)	Indeno(1,2,3-cd)pyrene	276	14.769	14.764	1.159	518513	51.12	ng/uL	100
93)	Dibenzo(a,h)anthracene	278	14.823	14.817	1.163	510076	51.60	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1406.D
Acq On : 14 Mar 2024 09:50
Operator : LL2
Sample : |WBN240312-05|ICAL|1|SVM|1|M-5
Misc : |MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 08:39:37 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:37 2024
Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
94) Benzo(ghi)perylene	276	15.315	15.309	1.201	497896	51.55	ng/uL
95) Dibenzo(a,e)pyrene	302	17.893	17.887	1.404	441744	50.06	ng/uL

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1407.D
 Acq On : 14 Mar 2024 10:14
 Operator : LL2
 Sample : |WBN240312-06|ICAL|1|SVM|1|M-6
 Misc : |MIX[A]
 ALS Vial : 7 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:44 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:43 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.906	3.906	1.000	93944	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	375534	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.078	7.078	1.000	188582	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	366011	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.710	10.710	1.000	376978	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.747	12.747	1.000	378707	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.906	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.710	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.747	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.710	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.710	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.747	12.758	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.622	2.622	0.671	255653	82.20	ng/uL	0.00
8) Phenol-d5	99	3.500	3.494	0.896	313448	81.32	ng/uL	0.00
23) Nitrobenzene-d5	82	4.510	4.505	0.847	279476	81.17	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.447	6.447	0.911	570515	79.65	ng/uL	0.00
64) 2,4,6-Tribromophenol	330	7.779	7.779	0.928	110826	82.98	ng/uL	0.00
79) p-Terphenyl-d14	244	9.709	9.709	1.159	710335	81.17	ng/uL	0.00

Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	1.456	1.462	0.373	133688	82.78	ng/uL	98
3) N-Methyl-N-nitrosometh...	74	1.638	1.644	0.419	162956	82.17	ng/uL	100
4) Pyridine	79	1.681	1.686	0.430	232931	82.32	ng/uL	98
6) p-Benzoquinone	54	3.088	3.088	0.790	121618	85.48	ng/uL	99
7) Aniline	93	3.558	3.559	0.911	367309	80.39	ng/uL	99
9) Phenol	94	3.510	3.510	0.899	328898	82.24	ng/uL	99
10) bis(2-Chloroethyl) ether	93	3.617	3.617	0.926	269748	81.20	ng/uL	99
11) 2-Chlorophenol	128	3.681	3.676	0.942	280477	81.39	ng/uL	100
12) n-Decane	43	3.719	3.719	0.952	237077	80.94	ng/uL	100
13) 1,3-Dichlorobenzene	146	3.842	3.842	0.984	305080	80.26	ng/uL	99
14) 1,4-Dichlorobenzene	146	3.922	3.922	1.004	309546	80.39	ng/uL	99
15) 1,2-Dichlorobenzene	146	4.083	4.083	1.045	295295	80.52	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.190	4.190	1.073	317955	80.98	ng/uL	100
17) Benzyl alcohol	108	4.045	4.040	1.036	175204	80.93	ng/uL	97
18) o-Cresol	107	4.157	4.158	1.064	214407	80.73	ng/uL	100
19) m,p-Cresols	108	4.334	4.329	1.110	253784	80.64	ng/uL	99
20) N-Nitrosodipropylamine	70	4.339	4.334	1.111	189124	81.01	ng/uL	100
21) Hexachloroethane	117	4.452	4.452	1.140	123691	80.40	ng/uL	100
24) Nitrobenzene	77	4.532	4.527	0.851	277186	81.07	ng/uL	99
25) Isophorone	82	4.799	4.799	0.902	504477	81.00	ng/uL	99
26) 2-Nitrophenol	139	4.890	4.890	0.919	144427	83.62	ng/uL	99
27) 2,4-Dimethylphenol	122	4.938	4.938	0.928	196603	81.11	ng/uL	100
28) bis(2-Chloroethoxy)met...	93	5.056	5.056	0.950	333579	80.49	ng/uL	98
29) 2,4-Dichlorophenol	162	5.163	5.163	0.970	223135	81.06	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1407.D
Acq On : 14 Mar 2024 10:14
Operator : LL2
Sample : |WBN240312-06|ICAL|1|SVM|1|M-6
Misc : |MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 15 08:39:44 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:43 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
30)	Benzoic acid	105	5.061	5.035	0.951	155158	77.19	ng/uL	99
31)	1,2,4-Trichlorobenzene	180	5.259	5.259	0.988	247749	80.60	ng/uL	100
32)	alpha-Terpineol	59	5.366	5.361	1.008	210681	81.73	ng/uL	100
33)	Naphthalene	128	5.350	5.345	1.005	797961	79.92	ng/uL	100
34)	4-Chloroaniline	127	5.414	5.409	1.017	331742	80.84	ng/uL	99
35)	Hexachlorobutadiene	225	5.484	5.484	1.030	137168	80.34	ng/uL	99
36)	4-Chloro-3-methylphenol	107	5.928	5.928	1.114	226170	81.88	ng/uL	100
37)	2-Methylnaphthalene	142	6.083	6.078	1.143	536997	82.57	ng/uL	99
38)	1-Methylnaphthalene	142	6.179	6.179	1.161	485681	81.07	ng/uL	99
40)	Hexachlorocyclopentadiene	237	6.233	6.233	0.881	138372	85.73	ng/uL	99
41)	2,3-Dichloroaniline	161	6.361	6.361	0.899	283176	81.09	ng/uL	100
42)	2,4,6-Trichlorophenol	196	6.361	6.361	0.899	167493	82.04	ng/uL	99
43)	2,4,5-Trichlorophenol	196	6.393	6.393	0.903	170884	81.69	ng/uL	99
45)	2-Chloronaphthalene	162	6.559	6.559	0.927	494479	80.36	ng/uL	99
46)	o-Nitroaniline	65	6.661	6.655	0.941	141545	83.80	ng/uL	99
47)	1,4-Dinitrobenzene	168	6.794	6.794	0.960	78763	85.00	ng/uL	97
48)	m-Nitroaniline	138	7.046	7.040	0.995	150686	82.08	ng/uL	99
49)	Dimethylphthalate	163	6.837	6.832	0.966	563289	81.53	ng/uL	100
50)	m-Dinitrobenzene	168	6.864	6.859	0.970	89055	83.36	ng/uL	96
51)	2,6-Dinitrotoluene	165	6.891	6.891	0.974	126379	81.87	ng/uL	99
52)	2,4-Dinitrotoluene	165	7.254	7.249	1.025	173090	82.42	ng/uL	98
53)	Acenaphthylene	152	6.949	6.944	0.982	774921	81.77	ng/uL	99
54)	Acenaphthene	154	7.110	7.105	1.005	472424	81.64	ng/uL	99
55)	2,4-Dinitrophenol	184	7.137	7.137	1.008	62406	79.81	ng/uL	98
56)	Dibenzofuran	168	7.265	7.260	1.026	697929	79.25	ng/uL	100
57)	2,3,4,6-Tetrachlorophenol	232	7.372	7.372	1.042	142749	81.72	ng/uL	100
58)	Diethylphthalate	149	7.474	7.468	1.056	588522	82.20	ng/uL	100
59)	4-Nitrophenol	109	7.196	7.190	1.017	67865	81.09	ng/uL	99
60)	Fluorene	166	7.570	7.565	1.070	573940	82.12	ng/uL	99
61)	4-Chlorophenylphenylether	204	7.570	7.570	1.070	264132	80.03	ng/uL	98
62)	p-Nitroaniline	138	7.591	7.586	1.073	153079	82.00	ng/uL	99
65)	2-Methyl-4,6-dinitroph...	198	7.613	7.613	0.909	92271	81.15	ng/uL	97
66)	Diphenylamine	169	7.672	7.672	0.916	478962	81.10	ng/uL	99
67)	1,2-Diphenylhydrazine	77	7.709	7.704	0.920	569187	80.13	ng/uL	99
68)	4-Bromophenylphenylether	248	7.992	7.993	0.954	163904	81.62	ng/uL	98
69)	Hexachlorobenzene	284	8.046	8.041	0.960	197450	80.97	ng/uL	99
70)	Pentachlorophenol	266	8.212	8.212	0.980	114589	80.71	ng/uL	99
71)	n-Octadecane	57	8.271	8.271	0.987	369432	82.02	ng/uL	99
72)	Dinoseb	211	8.367	8.362	0.999	136401	79.46	ng/uL	100
73)	Phenanthrene	178	8.399	8.399	1.003	812460	79.96	ng/uL	99
74)	Anthracene	178	8.442	8.442	1.008	838151	82.23	ng/uL	100
75)	Carbazole	167	8.581	8.576	1.024	771070	82.75	ng/uL	100
76)	Di-n-butylphthalate	149	8.859	8.859	1.057	1004529	84.73	ng/uL	100
77)	Fluoranthene	202	9.399	9.399	1.122	879468	83.00	ng/uL	100
78)	Pyrene	202	9.592	9.592	1.145	922979	82.85	ng/uL	99
81)	Butylbenzylphthalate	149	10.121	10.121	0.945	451974	81.74	ng/uL	100
82)	bis(2-Ethylhexyl)phtha...	149	10.699	10.699	0.999	719465	81.19	ng/uL	99
83)	Benzo(a)anthracene	228	10.699	10.694	0.999	905115	80.56	ng/uL	99
84)	Chrysene	228	10.742	10.736	1.003	822893	78.42	ng/uL	99
85)	Methoxychlor	227	10.608	10.608	0.991	564987	83.02	ng/uL	99
86)	Methylenebis(2-chloroa...	231	10.667	10.661	0.996	171151	81.89	ng/uL	99
87)	Di-n-octylphthalate	149	11.539	11.533	1.077	1135068	82.72	ng/uL	100
89)	Benzo(b)fluoranthene	252	12.127	12.122	0.951	875570	82.86	ng/uL	100
90)	Benzo(k)fluoranthene	252	12.175	12.164	0.955	884184	83.35	ng/uL	100
91)	Benzo(a)pyrene	252	12.656	12.651	0.993	821389	84.65	ng/uL	100
92)	Indeno(1,2,3-cd)pyrene	276	14.775	14.764	1.159	873252	85.07	ng/uL	99
93)	Dibenzo(a,h)anthracene	278	14.833	14.817	1.164	844915	84.45	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1407.D
Acq On : 14 Mar 2024 10:14
Operator : LL2
Sample : |WBN240312-06|ICAL|1|SVM|1|M-6
Misc : |MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 15 08:39:44 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:43 2024
Response via : Initial Calibration

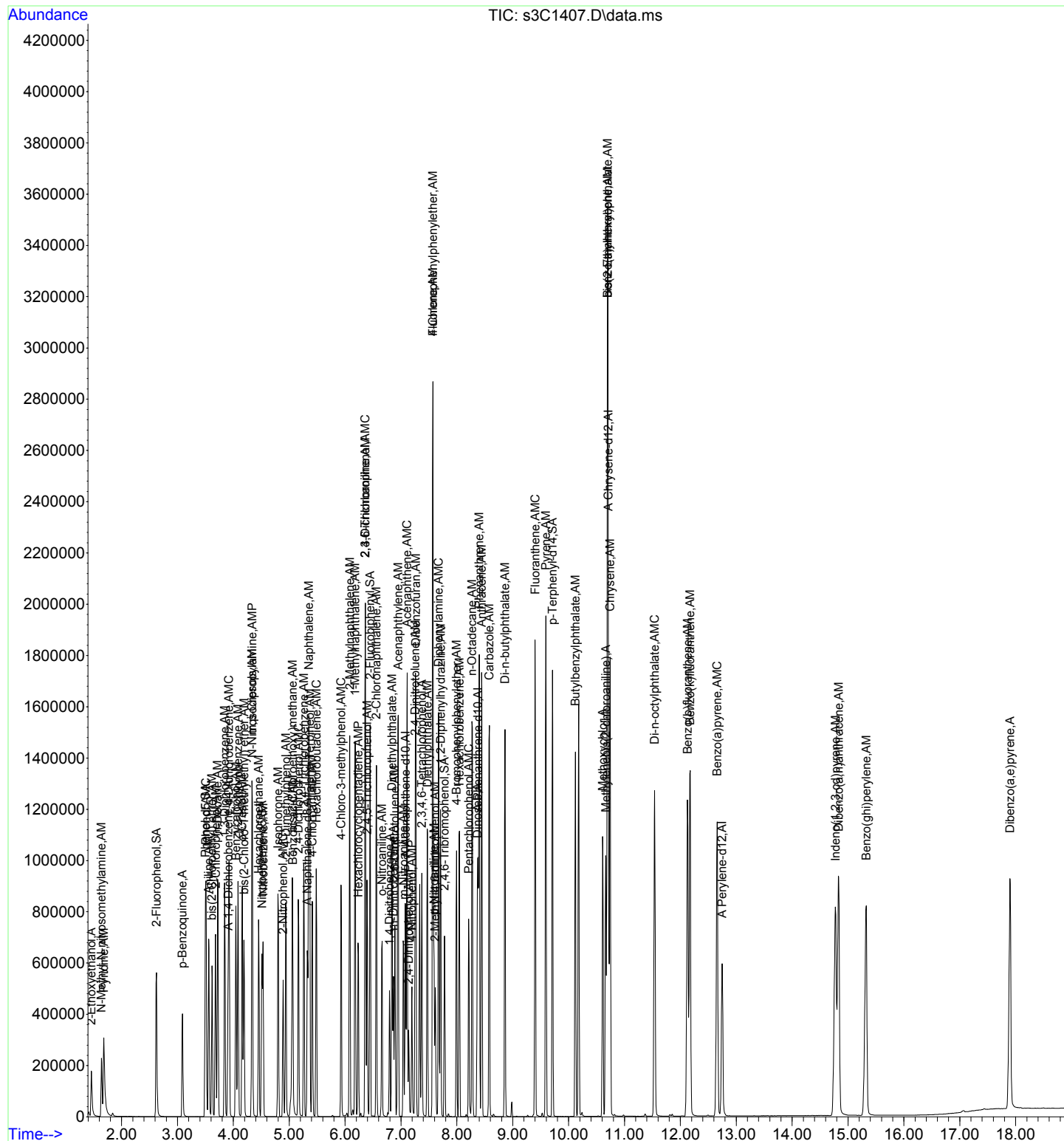
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
94) Benzo(ghi)perylene	276	15.325	15.309	1.202	815940	83.47	ng/uL
95) Dibenzo(a,e)pyrene	302	17.898	17.887	1.404	727355	81.43	ng/uL

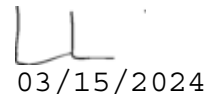
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

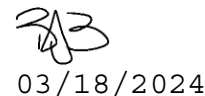
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Data Path : C:\msdchem\1\data\S031424ICAL\  
Data File : s3C1407.D  
Acq On    : 14 Mar 2024   10:14  
Operator  : LL2  
Sample    : |WBN240312-06|ICAL|1|SVM|1|M-6  
Misc      : |MIX[A]  
ALS Vial  : 7      Sample Multiplier: 1
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Quant Time: Mar 15 08:39:44 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:43 2024
Response via : Initial Calibration





Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1408.D
 Acq On : 14 Mar 2024 10:37
 Operator : LL2
 Sample : |WBN240312-07|ICAL|1|SVM|1|M-7
 Misc : |MIX[A]
 ALS Vial : 8 Sample Multiplier: 1



Quant Time: Mar 15 08:39:50 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:50 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.906	3.906	1.000	94628	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	373587	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.078	7.078	1.000	185748	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	363608	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.715	10.710	1.000	369292	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.747	12.747	1.000	378399	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.906	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.715	10.704	1.000	0m	40.00	ng/uL	0.01
149) B Perylene-d12	264	12.747	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.715	10.704	1.000	0m	40.00	ng/uL	0.01
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.715	10.704	1.000	0m	40.00	ng/uL	0.01
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.747	12.758	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.622	2.622	0.671	318352	101.62	ng/uL	0.00
8) Phenol-d5	99	3.500	3.494	0.896	394694	101.66	ng/uL	0.00
23) Nitrobenzene-d5	82	4.510	4.505	0.847	348762	101.83	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.447	6.447	0.911	707723	100.31	ng/uL	0.00
64) 2,4,6-Tribromophenol	330	7.778	7.779	0.928	137798	103.85	ng/uL	0.00
79) p-Terphenyl-d14	244	9.709	9.709	1.159	874108	100.54	ng/uL	0.00

Target Compounds								
2) 2-Ethoxyethanol	59	1.456	1.462	0.373	168870	103.82	ng/uL	97
3) N-Methyl-N-nitrosometh...	74	1.638	1.644	0.419	201938	101.00	ng/uL	99
4) Pyridine	79	1.681	1.686	0.430	301924	105.94	ng/uL	99
6) p-Benzoquinone	54	3.088	3.088	0.790	151696	105.85	ng/uL	99
7) Aniline	93	3.564	3.559	0.912	460481	100.05	ng/uL	99
9) Phenol	94	3.510	3.510	0.899	409090	101.55	ng/uL	99
10) bis(2-Chloroethyl) ether	93	3.623	3.617	0.927	331566	99.09	ng/uL	100
11) 2-Chlorophenol	128	3.681	3.676	0.942	349485	100.68	ng/uL	100
12) n-Decane	43	3.719	3.719	0.952	292580	99.17	ng/uL	99
13) 1,3-Dichlorobenzene	146	3.842	3.842	0.984	379870	99.22	ng/uL	99
14) 1,4-Dichlorobenzene	146	3.922	3.922	1.004	382548	98.63	ng/uL	99
15) 1,2-Dichlorobenzene	146	4.083	4.083	1.045	365333	98.90	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.190	4.190	1.073	391313	98.94	ng/uL	100
17) Benzyl alcohol	108	4.045	4.040	1.036	219704	100.76	ng/uL	97
18) o-Cresol	107	4.157	4.158	1.064	267890	100.14	ng/uL	99
19) m,p-Cresols	108	4.334	4.329	1.110	317816	100.26	ng/uL	98
20) N-Nitrosodipropylamine	70	4.339	4.334	1.111	235871	100.30	ng/uL	99
21) Hexachloroethane	117	4.452	4.452	1.140	153635	99.14	ng/uL	99
24) Nitrobenzene	77	4.532	4.527	0.851	342840	100.79	ng/uL	99
25) Isophorone	82	4.805	4.799	0.903	623040	100.56	ng/uL	99
26) 2-Nitrophenol	139	4.890	4.890	0.919	181682	105.74	ng/uL	99
27) 2,4-Dimethylphenol	122	4.938	4.938	0.928	243987	101.19	ng/uL	99
28) bis(2-Chloroethoxy)met...	93	5.056	5.056	0.950	415642	100.81	ng/uL	98
29) 2,4-Dichlorophenol	162	5.163	5.163	0.970	281234	102.69	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1408.D
Acq On : 14 Mar 2024 10:37
Operator : LL2
Sample : |WBN240312-07|ICAL|1|SVM|1|M-7
Misc : |MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 15 08:39:50 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:50 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
30)	Benzoic acid	105	5.077	5.035	0.954	214045	99.69	ng/uL	99
31)	1,2,4-Trichlorobenzene	180	5.265	5.259	0.989	304761	99.67	ng/uL	100
32)	alpha-Terpineol	59	5.366	5.361	1.008	259547	101.21	ng/uL	100
33)	Naphthalene	128	5.350	5.345	1.005	986335	99.30	ng/uL	100
34)	4-Chloroaniline	127	5.414	5.409	1.017	410363	100.52	ng/uL	100
35)	Hexachlorobutadiene	225	5.484	5.484	1.030	169466	99.78	ng/uL	99
36)	4-Chloro-3-methylphenol	107	5.928	5.928	1.114	282538	102.82	ng/uL	99
37)	2-Methylnaphthalene	142	6.083	6.078	1.143	659240	101.89	ng/uL	100
38)	1-Methylnaphthalene	142	6.179	6.179	1.161	597973	100.33	ng/uL	100
40)	Hexachlorocyclopentadiene	237	6.233	6.233	0.881	172842	108.72	ng/uL	99
41)	2,3-Dichloroaniline	161	6.361	6.361	0.899	348030	101.18	ng/uL	99
42)	2,4,6-Trichlorophenol	196	6.361	6.361	0.899	208252	103.56	ng/uL	99
43)	2,4,5-Trichlorophenol	196	6.393	6.393	0.903	213717	103.73	ng/uL	100
45)	2-Chloronaphthalene	162	6.559	6.559	0.927	612964	101.14	ng/uL	99
46)	o-Nitroaniline	65	6.661	6.655	0.941	173187	104.10	ng/uL	100
47)	1,4-Dinitrobenzene	168	6.800	6.794	0.961	99521	109.04	ng/uL	97
48)	m-Nitroaniline	138	7.046	7.040	0.995	183446	101.45	ng/uL	99
49)	Dimethylphthalate	163	6.837	6.832	0.966	694746	102.09	ng/uL	99
50)	m-Dinitrobenzene	168	6.864	6.859	0.970	109543	104.10	ng/uL	95
51)	2,6-Dinitrotoluene	165	6.891	6.891	0.974	155721	102.42	ng/uL	99
52)	2,4-Dinitrotoluene	165	7.254	7.249	1.025	215919	104.39	ng/uL	97
53)	Acenaphthylene	152	6.949	6.944	0.982	958169	102.65	ng/uL	99
54)	Acenaphthene	154	7.110	7.105	1.005	579007	101.59	ng/uL	99
55)	2,4-Dinitrophenol	184	7.142	7.137	1.009	80659	101.16	ng/uL	98
56)	Dibenzofuran	168	7.265	7.260	1.026	856054	98.68	ng/uL	100
57)	2,3,4,6-Tetrachlorophenol	232	7.372	7.372	1.042	176415	102.53	ng/uL	99
58)	Diethylphthalate	149	7.474	7.468	1.056	722920	102.52	ng/uL	100
59)	4-Nitrophenol	109	7.195	7.190	1.017	83490	100.39	ng/uL	98
60)	Fluorene	166	7.570	7.565	1.070	704898	102.40	ng/uL	100
61)	4-Chlorophenylphenylether	204	7.570	7.570	1.070	324547	99.83	ng/uL	98
62)	p-Nitroaniline	138	7.591	7.586	1.073	190333	103.51	ng/uL	99
65)	2-Methyl-4,6-dinitroph...	198	7.618	7.613	0.909	115992	101.54	ng/uL	97
66)	Diphenylamine	169	7.677	7.672	0.916	585424	99.78	ng/uL	99
67)	1,2-Diphenylhydrazine	77	7.709	7.704	0.920	693820	98.33	ng/uL	98
68)	4-Bromophenylphenylether	248	7.992	7.993	0.954	202571	101.54	ng/uL	98
69)	Hexachlorobenzene	284	8.046	8.041	0.960	241868	99.84	ng/uL	99
70)	Pentachlorophenol	266	8.212	8.212	0.980	144363	101.29	ng/uL	98
71)	n-Octadecane	57	8.271	8.271	0.987	453855	101.43	ng/uL	99
72)	Dinoseb	211	8.367	8.362	0.999	174088	100.61	ng/uL	99
73)	Phenanthrene	178	8.399	8.399	1.003	999268	99.00	ng/uL	99
74)	Anthracene	178	8.447	8.442	1.008	1025971	101.32	ng/uL	100
75)	Carbazole	167	8.581	8.576	1.024	948099	102.43	ng/uL	100
76)	Di-n-butylphthalate	149	8.859	8.859	1.057	1228118	104.28	ng/uL	100
77)	Fluoranthene	202	9.399	9.399	1.122	1080965	102.69	ng/uL	99
78)	Pyrene	202	9.592	9.592	1.145	1132785	102.35	ng/uL	99
81)	Butylbenzylphthalate	149	10.121	10.121	0.945	559568	103.18	ng/uL	100
82)	bis(2-Ethylhexyl)phtha...	149	10.699	10.699	0.999	878260	101.06	ng/uL	98
83)	Benzo(a)anthracene	228	10.699	10.694	0.999	1098276	99.78	ng/uL	100
84)	Chrysene	228	10.742	10.736	1.002	1019885	99.22	ng/uL	99
85)	Methoxychlor	227	10.613	10.608	0.991	705902	105.89	ng/uL	99
86)	Methylenebis(2-chloroa...	231	10.667	10.661	0.996	212101	103.59	ng/uL	99
87)	Di-n-octylphthalate	149	11.539	11.533	1.077	1418015	105.34	ng/uL	100
89)	Benzo(b)fluoranthene	252	12.127	12.122	0.951	1132695	107.28	ng/uL	99
90)	Benzo(k)fluoranthene	252	12.175	12.164	0.955	1046521	98.74	ng/uL	98
91)	Benzo(a)pyrene	252	12.662	12.651	0.993	1018463	105.04	ng/uL	100
92)	Indeno(1,2,3-cd)pyrene	276	14.780	14.764	1.159	1104587	107.69	ng/uL	99
93)	Dibenzo(a,h)anthracene	278	14.839	14.817	1.164	1059073	105.94	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1408.D
Acq On : 14 Mar 2024 10:37
Operator : LL2
Sample : |WBN240312-07|ICAL|1|SVM|1|M-7
Misc : |MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 15 08:39:50 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:50 2024
Response via : Initial Calibration

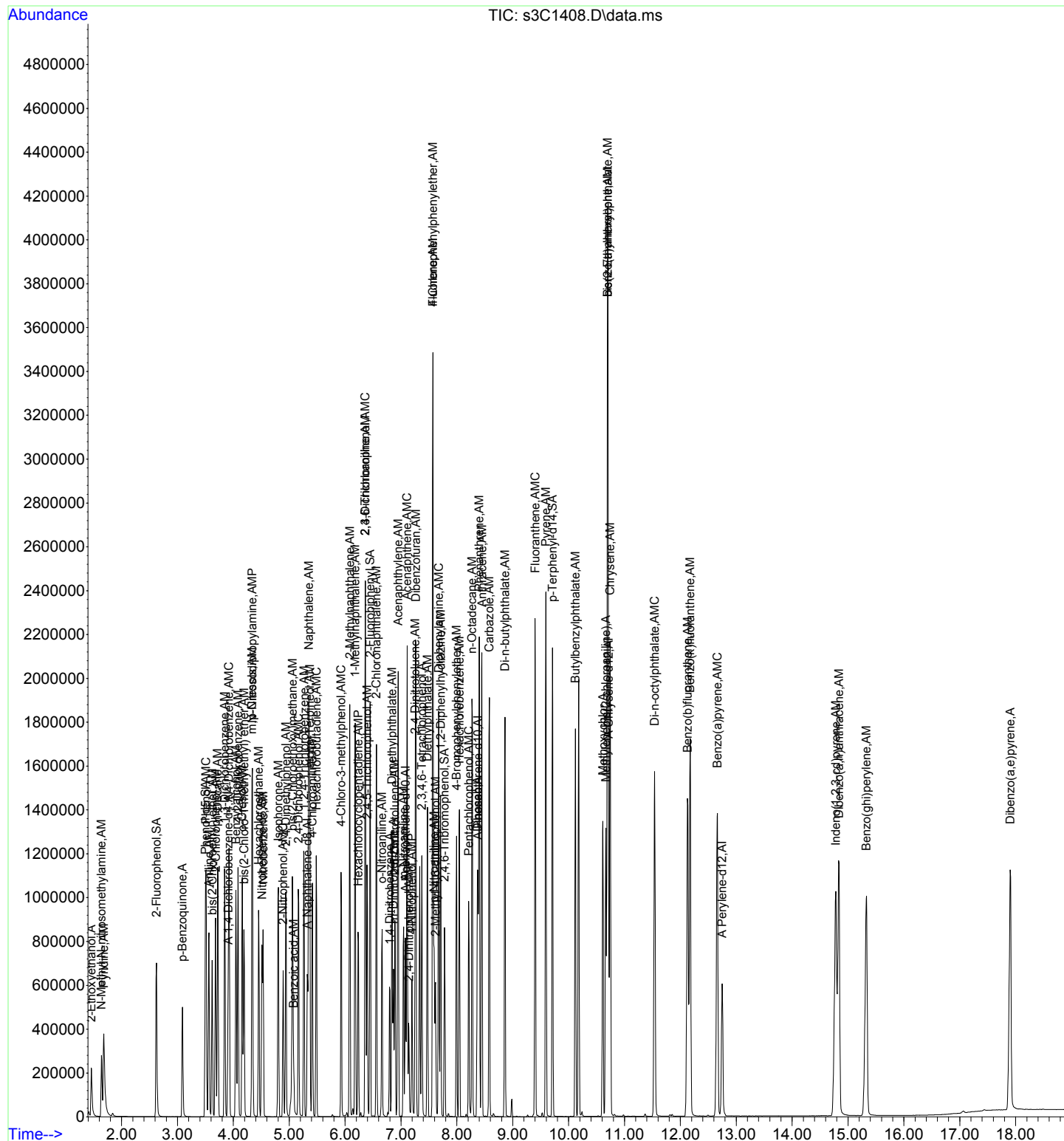
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
94) Benzo(ghi)perylene	276	15.331	15.309	1.203	1013621	103.78	ng/uL
95) Dibenzo(a,e)pyrene	302	17.903	17.887	1.404	913493	102.35	ng/uL

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

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Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1408.D
Acq On    : 14 Mar 2024  10:37
Operator  : LL2
Sample    : |WBN240312-07|ICAL|1|SVM|1|M-7
Misc      : |MIX[A]
ALS Vial  : 8      Sample Multiplier: 1
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Quant Time: Mar 15 08:39:50 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:50 2024
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1409.D
 Acq On : 14 Mar 2024 11:01
 Operator : LL2
 Sample : |WBN240312-08|ICAL|1|SVM|1|M-8
 Misc : |MIX[A]
 ALS Vial : 9 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:40:04 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:03 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.906	3.906	1.000	93294	40.00	ng/uL	# 0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	374451	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.078	7.078	1.000	188539	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	369205	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.715	10.710	1.000	376488	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.747	12.747	1.000	383716	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.906	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.715	10.704	1.000	0m	40.00	ng/uL	0.01
149) B Perylene-d12	264	12.747	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.715	10.704	1.000	0m	40.00	ng/uL	0.01
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.715	10.704	1.000	0m	40.00	ng/uL	0.01
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.747	12.758	1.000	0m	40.00	ng/uL	-0.01
System Monitoring Compounds								
5) 2-Fluorophenol	112	2.622	2.622	0.671	387764	125.55	ng/uL	0.00 A
8) Phenol-d5	99	3.499	3.494	0.896	478978	125.14	ng/uL	0.00 A
23) Nitrobenzene-d5	82	4.510	4.505	0.847	424718	123.72	ng/uL	0.00 A
44) 2-Fluorobiphenyl	172	6.447	6.447	0.911	871056	121.63	ng/uL	0.00 A
64) 2,4,6-Tribromophenol	330	7.784	7.779	0.929	174270	129.35	ng/uL	0.00 A
79) p-Terphenyl-d14	244	9.709	9.709	1.159	1064917	120.63	ng/uL	0.00 A
Target Compounds								
2) 2-Ethoxyethanol	59	1.462	1.462	0.374	205455	128.11	ng/uL	98 A
3) N-Methyl-N-nitrosometh...	74	1.638	1.644	0.419	245418	124.40	ng/uL	100 A
4) Pyridine	79	1.681	1.686	0.430	363261	129.28	ng/uL	99 A
6) p-Benzoquinone	54	3.088	3.088	0.790	190166	134.59	ng/uL	98 A
7) Aniline	93	3.564	3.559	0.912	562122	123.88	ng/uL	99 A
9) Phenol	94	3.515	3.510	0.900	497675	125.30	ng/uL	100 A
10) bis(2-Chloroethyl) ether	93	3.622	3.617	0.927	404213	122.52	ng/uL	100 A
11) 2-Chlorophenol	128	3.681	3.676	0.942	425360	124.29	ng/uL	99 A
12) n-Decane	43	3.724	3.719	0.953	356694	122.63	ng/uL	99 A
13) 1,3-Dichlorobenzene	146	3.847	3.842	0.985	465249	123.25	ng/uL	100 A
14) 1,4-Dichlorobenzene	146	3.922	3.922	1.004	467228	122.19	ng/uL	100 A
15) 1,2-Dichlorobenzene	146	4.082	4.083	1.045	449544	123.44	ng/uL	100 A
16) bis(2-Chloro-1-methyle...	45	4.189	4.190	1.073	476055	122.09	ng/uL	99 A
17) Benzyl alcohol	108	4.045	4.040	1.036	269896	125.54	ng/uL	98 A
18) o-Cresol	107	4.157	4.158	1.064	327227	124.07	ng/uL	99 A
19) m,p-Cresols	108	4.339	4.329	1.111	390995	125.11	ng/uL	97 A
20) N-Nitrosodipropylamine	70	4.345	4.334	1.112	290014	125.08	ng/uL	99 A
21) Hexachloroethane	117	4.452	4.452	1.140	187143	122.49	ng/uL	100 A
24) Nitrobenzene	77	4.532	4.527	0.851	417109	122.35	ng/uL	98 A
25) Isophorone	82	4.805	4.799	0.903	767757	123.63	ng/uL	99 A
26) 2-Nitrophenol	139	4.890	4.890	0.919	222722	129.33	ng/uL	99 A
27) 2,4-Dimethylphenol	122	4.944	4.938	0.929	299747	124.02	ng/uL	100 A
28) bis(2-Chloroethoxy)met...	93	5.056	5.056	0.950	504375	122.05	ng/uL	98 A
29) 2,4-Dichlorophenol	162	5.168	5.163	0.971	342649	124.83	ng/uL	99 A

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1409.D
Acq On : 14 Mar 2024 11:01
Operator : LL2
Sample : |WBN240312-08|ICAL|1|SVM|1|M-8
Misc : |MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 15 08:40:04 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:03 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
30)	Benzoic acid	105	5.088	5.035	0.956	276759	123.08	ng/uL	97 A
31)	1,2,4-Trichlorobenzene	180	5.264	5.259	0.989	376083	122.71	ng/uL	100 A
32)	alpha-Terpineol	59	5.366	5.361	1.008	317939	123.69	ng/uL	100 A
33)	Naphthalene	128	5.350	5.345	1.005	1201066	120.64	ng/uL	99 A
34)	4-Chloroaniline	127	5.414	5.409	1.017	500971	122.43	ng/uL	100 A
35)	Hexachlorobutadiene	225	5.484	5.484	1.030	209515	123.07	ng/uL	99 A
36)	4-Chloro-3-methylphenol	107	5.928	5.928	1.114	346980	125.98	ng/uL	99 A
37)	2-Methylnaphthalene	142	6.083	6.078	1.143	803778	123.94	ng/uL	100 A
38)	1-Methylnaphthalene	142	6.179	6.179	1.161	735692	123.15	ng/uL	99 A
40)	Hexachlorocyclopentadiene	237	6.238	6.233	0.881	217361	134.71	ng/uL	100 A
41)	2,3-Dichloroaniline	161	6.361	6.361	0.899	429152	122.92	ng/uL	99 A
42)	2,4,6-Trichlorophenol	196	6.361	6.361	0.899	254208	124.54	ng/uL	100 A
43)	2,4,5-Trichlorophenol	196	6.393	6.393	0.903	265189	126.80	ng/uL	100 A
45)	2-Chloronaphthalene	162	6.559	6.559	0.927	752439	122.32	ng/uL	99 A
46)	o-Nitroaniline	65	6.660	6.655	0.941	212632	125.91	ng/uL	99 A
47)	1,4-Dinitrobenzene	168	6.800	6.794	0.961	121344	130.98	ng/uL	98 A
48)	m-Nitroaniline	138	7.046	7.040	0.995	230038	125.33	ng/uL	99 A
49)	Dimethylphthalate	163	6.842	6.832	0.967	850567	123.13	ng/uL	99 A
50)	m-Dinitrobenzene	168	6.869	6.859	0.971	137047	128.31	ng/uL	94 A
51)	2,6-Dinitrotoluene	165	6.896	6.891	0.974	192795	124.93	ng/uL	98 A
52)	2,4-Dinitrotoluene	165	7.260	7.249	1.026	270912	129.04	ng/uL	95 A
53)	Acenaphthylene	152	6.949	6.944	0.982	1170253	123.52	ng/uL	99 A
54)	Acenaphthene	154	7.110	7.105	1.005	708900	122.53	ng/uL	99 A
55)	2,4-Dinitrophenol	184	7.142	7.137	1.009	104349	125.79	ng/uL	97 A
56)	Dibenzofuran	168	7.265	7.260	1.026	1057915	120.15	ng/uL	100 A
57)	2,3,4,6-Tetrachlorophenol	232	7.372	7.372	1.042	221545	126.86	ng/uL	98 A
58)	Diethylphthalate	149	7.473	7.468	1.056	890619	124.43	ng/uL	100 A
59)	4-Nitrophenol	109	7.195	7.190	1.017	105490	124.09	ng/uL	97 A
60)	Fluorene	166	7.570	7.565	1.070	857126	122.67	ng/uL	100 A
61)	4-Chlorophenylphenylether	204	7.570	7.570	1.070	396331	120.11	ng/uL	97 A
62)	p-Nitroaniline	138	7.596	7.586	1.073	230882	123.71	ng/uL	100 A
65)	2-Methyl-4,6-dinitroph...	198	7.618	7.613	0.909	145745	124.62	ng/uL	98 A
66)	Diphenylamine	169	7.677	7.672	0.916	717292	120.40	ng/uL	99 A
67)	1,2-Diphenylhydrazine	77	7.709	7.704	0.920	848477	118.42	ng/uL	98
68)	4-Bromophenylphenylether	248	7.992	7.993	0.954	253509	125.15	ng/uL	97 A
69)	Hexachlorobenzene	284	8.046	8.041	0.960	301595	122.61	ng/uL	99 A
70)	Pentachlorophenol	266	8.212	8.212	0.980	183742	125.96	ng/uL	98 A
71)	n-Octadecane	57	8.276	8.271	0.988	559580	123.17	ng/uL	98 A
72)	Dinoseb	211	8.367	8.362	0.999	220263	124.08	ng/uL	99 A
73)	Phenanthrene	178	8.399	8.399	1.003	1223385	119.36	ng/uL	98
74)	Anthracene	178	8.447	8.442	1.008	1239686	120.58	ng/uL	99 A
75)	Carbazole	167	8.581	8.576	1.024	1156066	123.00	ng/uL	99 A
76)	Di-n-butylphthalate	149	8.859	8.859	1.057	1520570	127.15	ng/uL	100 A
77)	Fluoranthene	202	9.404	9.399	1.123	1319668	123.47	ng/uL	99 A
78)	Pyrene	202	9.592	9.592	1.145	1382895	123.06	ng/uL	98 A
81)	Butylbenzylphthalate	149	10.121	10.121	0.945	699966	126.51	ng/uL	99 A
82)	bis(2-Ethylhexyl)phtha...	149	10.699	10.699	0.999	1082548	122.09	ng/uL	98 A
83)	Benzo(a)anthracene	228	10.699	10.694	0.999	1347979	120.13	ng/uL	100 A
84)	Chrysene	228	10.747	10.736	1.003	1253135	119.58	ng/uL	98
85)	Methoxychlor	227	10.613	10.608	0.991	868011	127.72	ng/uL	99 A
86)	Methylenebis(2-chloroa...	231	10.667	10.661	0.996	264831	126.87	ng/uL	99 A
87)	Di-n-octylphthalate	149	11.538	11.533	1.077	1759896	128.13	ng/uL	100 A
89)	Benzo(b)fluoranthene	252	12.132	12.122	0.952	1352456	126.32	ng/uL	99 A
90)	Benzo(k)fluoranthene	252	12.180	12.164	0.956	1336817	124.38	ng/uL	99 A
91)	Benzo(a)pyrene	252	12.662	12.651	0.993	1257714	127.92	ng/uL	100 A
92)	Indeno(1,2,3-cd)pyrene	276	14.785	14.764	1.160	1355998	130.37	ng/uL	99 A
93)	Dibenzo(a,h)anthracene	278	14.844	14.817	1.164	1304855	128.71	ng/uL	99 A

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1409.D
Acq On : 14 Mar 2024 11:01
Operator : LL2
Sample : |WBN240312-08|ICAL|1|SVM|1|M-8
Misc : |MIX[A]
ALS Vial : 9 Sample Multiplier: 1

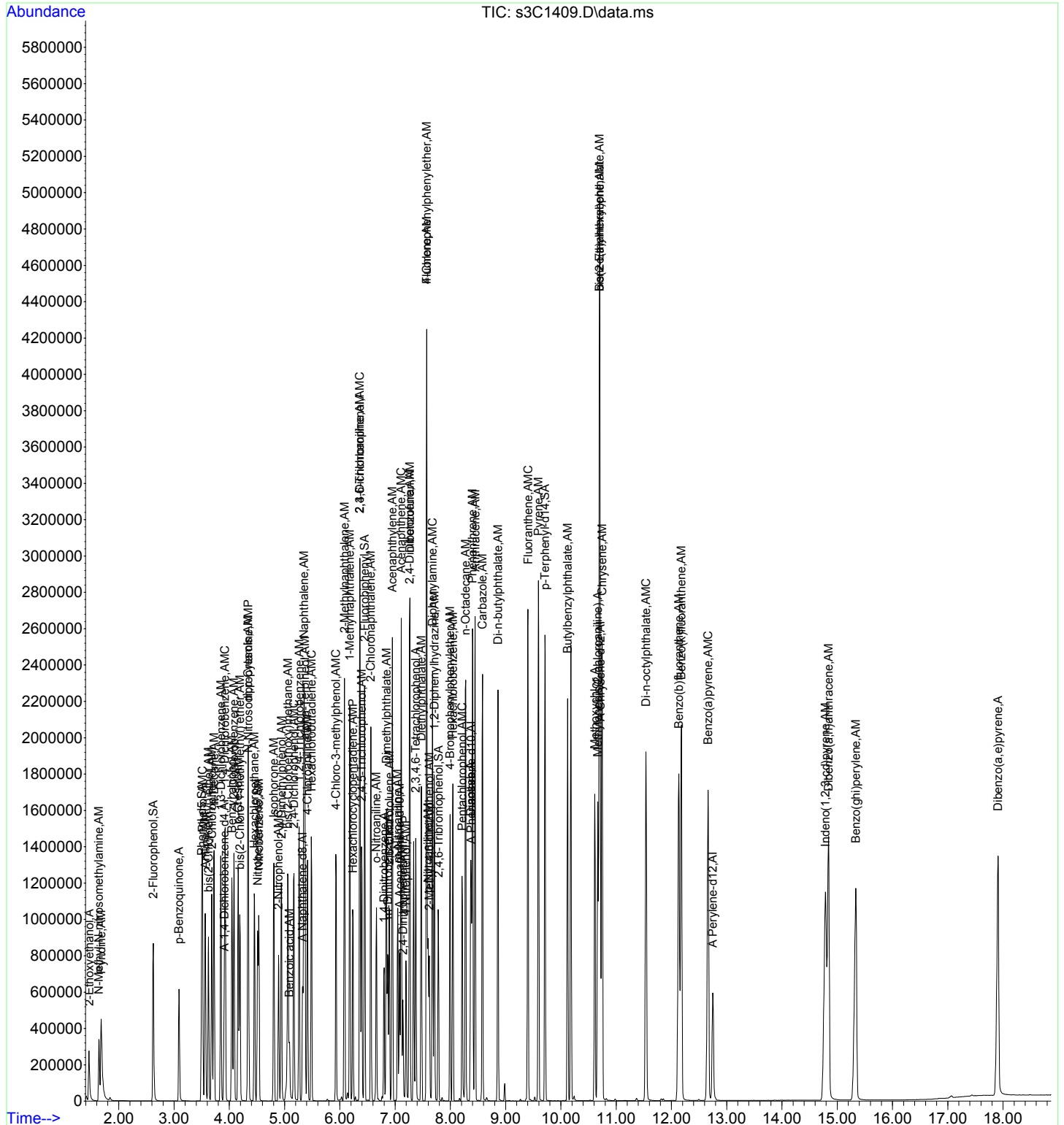
Quant Time: Mar 15 08:40:04 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:03 2024
Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
94) Benzo(ghi)perylene	276	15.336	15.309	1.203	1248494	126.05	ng/uL
95) Dibenzo(a,e)pyrene	302	17.909	17.887	1.405	1121556	123.93	ng/uL

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

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Data Path   : C:\msdchem\1\data\S031424ICAL\
Data File  : s3C1409.D
Acq On     : 14 Mar 2024   11:01
Operator   : LL2
Sample     : |WBN240312-08|ICAL|1|SVM|1|M-8
Misc      : |MIX[A]
ALS Vial   : 9      Sample Multiplier: 1
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Quant Time: Mar 15 08:40:04 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:03 2024
Response via : Initial Calibration



Continuing Calibration Summary

Instrument ID: MSD3.I
Data File: S031424ICAL\S3C1410.D
Lab Sample ID WBN240312-43
Quant Type ISTD

Client SDG: 660974
Injection Date: 14-MAR-24 11:24
Init. Cal. Date(s) 14-MAR-24 08:17 - 14-MAR-24 19:20
Method: S031424ICAL\MSD3_8270_031424.m
Method Update: 15-MAR-24 08:40

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S2-Fluorophenol	1.3242	1.29411		.01		-2.27232	20		Averaged
SPhenol-d5	1.6411	1.60104		.01		-2.44105	20		Averaged
SNitrobenzene-d5	0.3667	0.37351		.01		1.8571	20		Averaged
S2-Fluorobiphenyl	1.5194	1.51018		.01		-0.60682	20		Averaged
S2,4,6-Tribromophenol	0.146	0.14886		.01		1.9589	20		Averaged
Sp-Terphenyl-d14	0.9564	0.98849		.01		3.35529	20		Averaged
N-Methyl-N-nitrosomethylami	40	40.92	40			2.3	20		Linear
Pyridine	1.2047	1.6134		.01		33.92546	20	*	Averaged
Phenol	1.7029	1.76926		.8		3.89688	20		Averaged
Aniline	1.9454	2.27965		.01		17.18156	20		Averaged
bis(2-Chloroethyl) ether	1.4145	1.38238		.7		-2.27077	20		Averaged
2-Chlorophenol	1.4674	1.51978		.8		3.56958	20		Averaged
1,3-Dichlorobenzene	1.6184	1.60995		.01		-0.52212	20		Averaged
1,4-Dichlorobenzene	1.6395	1.6414		.01		0.11589	20		Averaged
Benzyl alcohol	0.9217	0.97783		.01		6.08983	20		Averaged
1,2-Dichlorobenzene	1.5614	1.56904		.01		0.4893	20		Averaged
o-Cresol	1.1308	1.18424		.7		4.72586	20		Averaged
bis(2-Chloro-1-methylethyl)eth	1.6718	1.43168		.01		-14.36296	20		Averaged
N-Nitrosodipropylamine	0.9941	0.93403		.05		-6.04265	20		Averaged
m,p-Cresols	1.34	1.40274		.6		4.68209	20		Averaged
Hexachloroethane	0.6551	0.66522		.3		1.5448	20		Averaged
Nitrobenzene	0.3642	0.36274		.2		-0.40088	20		Averaged
Isophorone	0.6634	0.58906		.4		-11.20591	20		Averaged
2-Nitrophenol	0.184	0.19341		.1		5.11413	20		Averaged
2,4-Dimethylphenol	0.2582	0.31151		.2		20.64679	20	*	Averaged
Benzoic acid	40	38.56	40			-3.6	20		Linear
bis(2-Chloroethoxy)methane	0.4414	0.44862		.3		1.6357	20		Averaged
2,4-Dichlorophenol	0.2932	0.30562		.2		4.23602	20		Averaged
1,2,4-Trichlorobenzene	0.3274	0.33252		.01		1.56384	20		Averaged
Naphthalene	1.0635	1.07165		.7		0.76634	20		Averaged
4-Chloroaniline	0.4371	0.44478		.01		1.75704	20		Averaged
Hexachlorobutadiene	0.1819	0.18025		.01		-0.90709	20		Averaged
4-Chloro-3-methylphenol	0.2942	0.30629		.2		4.10945	20		Averaged
2-Methylnaphthalene	0.6927	0.71047		.4		2.56532	20		Averaged
1-Methylnaphthalene	0.6382	0.69682		.01		9.18521	20		Averaged
Hexachlorocyclopentadiene	0.3423	0.37702		.05		10.14315	20		Averaged
2,4,6-Trichlorophenol	0.4331	0.44771		.2		3.37335	20		Averaged

Continuing Calibration Summary

Instrument ID: MSD3.I

Injection Date: 14-MAR-24 11:24

Data File: S031424ICAL\S3C1410.D

Init. Cal. Date(s) 14-MAR-24 08:17 14-MAR-24 19:20

Lab Sample ID WBN240312-43

Method: S031424ICAL\MSD3_8270_031424.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
2,4,5-Trichlorophenol	0.4437	0.42593		.2		-4.00496	20		Averaged
2-Chloronaphthalene	1.3051	1.29394		.8		-0.85511	20		Averaged
o-Nitroaniline	0.3583	0.37298		.01		4.09713	20		Averaged
Dimethylphthalate	1.4655	1.42536		.01		-2.739	20		Averaged
m-Dinitrobenzene	0.2266	0.24971		.01		10.19859	20		Averaged
2,6-Dinitrotoluene	0.3274	0.32356		.2		-1.17288	20		Averaged
Acenaphthylene	2.01	2.07257		.9		3.11294	20		Averaged
m-Nitroaniline	0.3894	0.39161		.01		0.56754	20		Averaged
Acenaphthene	1.2274	1.17259		.9		-4.46554	20		Averaged
2,4-Dinitrophenol	40	40.95	40			2.375	20		Linear
4-Nitrophenol	40	40.03	40			0.075	20		Linear
2,4-Dinitrotoluene	0.4454	0.44586		.2		0.10328	20		Averaged
Dibenzofuran	1.8681	1.89522		.8		1.45174	20		Averaged
2,3,4,6-Tetrachlorophenol	0.3705	0.3536		.01		-4.5614	20		Averaged
Diethylphthalate	1.5186	1.53153		.01		0.85144	20		Averaged
4-Chlorophenylphenylether	0.7001	0.69036		.4		-1.39123	20		Averaged
Fluorene	1.4824	1.48016		.9		-0.15111	20		Averaged
p-Nitroaniline	0.396	0.40816		.01		3.07071	20		Averaged
2-Methyl-4,6-dinitrophenol	40	40.88	40			2.2	20		Linear
Diphenylamine	0.6455	0.6738		.01		4.3842	20		Averaged
1,2-Diphenylhydrazine	0.7763	0.76478		.01		-1.48396	20		Averaged
4-Bromophenylphenylether	0.2195	0.2136		.1		-2.68793	20		Averaged
Hexachlorobenzene	0.2665	0.26466		.1		-0.69043	20		Averaged
Pentachlorophenol	40	38.85	40			-2.875	20		Linear
Dinoseb	40	40.72	40			1.8	20		Linear
Phenanthrene	1.1104	1.1199		.7		0.85555	20		Averaged
Anthracene	1.1139	1.10829		.7		-0.50364	20		Averaged
Carbazole	1.0183	1.07327		.01		5.39821	20		Averaged
Di-n-butylphthalate	1.2956	1.38667		.01		7.02918	20		Averaged
Fluoranthene	1.158	1.19019		.6		2.77979	20		Averaged
Pyrene	1.2175	1.23892		.6		1.75934	20		Averaged
Butylbenzylphthalate	40	39.33	40			-1.675	20		Linear
Methoxychlor	0.7221	0.74433		.01		3.07852	20		Averaged
Benzo(a)anthracene	1.1922	1.1935		.8		0.10904	20		Averaged
bis(2-Ethylhexyl)phthalate	40	38.01	40			-4.975	20		Linear
Chrysene	1.1134	1.09892		.7		-1.30052	20		Averaged
Di-n-octylphthalate	40	39.2	40			-2	20		Linear

Continuing Calibration Summary

Instrument ID: MSD3.I

Injection Date: 14-MAR-24 11:24

Data File: S031424ICAL\s3C1410.D

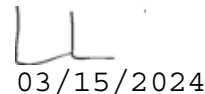
Init. Cal. Date(s) 14-MAR-24 08:17 14-MAR-24 19:20

Lab Sample ID WBN240312-43

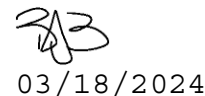
Method: S031424ICAL\MSD3_8270_031424.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Benzo(b)fluoranthene	1.1161	1.15879		.7		3.82493	20		Averaged
Benzo(k)fluoranthene	1.1204	1.06526		.7		-4.92146	20		Averaged
Benzo(a)pyrene	1.025	1.03427		.7		0.90439	20		Averaged
Indeno(1,2,3-cd)pyrene	1.0843	1.04576		.5		-3.55437	20		Averaged
Dibenzo(a,h)anthracene	1.0568	1.09228		.4		3.35731	20		Averaged
Benzo(ghi)perylene	1.0325	1.10077		.5		6.61211	20		Averaged



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1410.D
 Acq On : 14 Mar 2024 11:24
 Operator : LL2
 Sample : |WBN240312-43|ICV|1|SVM|1|M-ICV
 Misc : |MIX[A]
 ALS Vial : 10 Sample Multiplier: 1



Quant Time: Mar 15 08:49:42 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	88282	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	354045	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.078	7.078	1.000	179651	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	348786	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.710	10.710	1.000	355692	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	360330	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	88282	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	354045	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.078	7.073	1.000	179651	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	348786	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.710	10.704	1.000	355692	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	360330	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	354045	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	348786	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.710	10.704	1.000	355692	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	354045	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.078	7.073	1.000	179651	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	348786	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.710	10.704	1.000	355692	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	354045	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	360330	40.00	ng/uL	-0.02

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.622	2.622	0.672	114247	39.09	ng/uL	0.00
8) Phenol-d5	99	3.494	3.494	0.896	141343	39.02	ng/uL	0.00
23) Nitrobenzene-d5	82	4.505	4.505	0.846	132238	40.74	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.447	6.447	0.911	271306	39.76	ng/uL	0.00
64) 2,4,6-Tribromophenol	330	7.779	7.779	0.928	51919	40.79	ng/uL	0.00
79) p-Terphenyl-d14	244	9.709	9.709	1.159	344771	41.34	ng/uL	0.00

Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	1.462	1.462	0.375	65170	42.94	ng/uL	98
3) N-Methyl-N-nitrosometh...	74	1.644	1.644	0.421	75874	40.92	ng/uL	99
4) Pyridine	79	1.681	1.686	0.431	142434	53.57	ng/uL	99
7) Aniline	93	3.559	3.559	0.912	201252	46.87	ng/uL	99
9) Phenol	94	3.510	3.510	0.900	156194	41.56	ng/uL	100
10) bis(2-Chloroethyl) ether	93	3.617	3.617	0.927	122039	39.09	ng/uL	99
11) 2-Chlorophenol	128	3.676	3.676	0.942	134169	41.43	ng/uL	99
12) n-Decane	43	3.719	3.719	0.953	119251	43.33	ng/uL	99
13) 1,3-Dichlorobenzene	146	3.842	3.842	0.985	142130	39.79	ng/uL	99
14) 1,4-Dichlorobenzene	146	3.922	3.922	1.005	144906	40.05	ng/uL	99
15) 1,2-Dichlorobenzene	146	4.083	4.083	1.047	138518	40.20	ng/uL	99
16) bis(2-Chloro-1-methyle...	45	4.190	4.190	1.074	126392	34.25	ng/uL	93
17) Benzyl alcohol	108	4.040	4.040	1.036	86325	42.43	ng/uL	98
18) o-Cresol	107	4.158	4.158	1.066	104547	41.89	ng/uL	99
19) m,p-Cresols	108	4.329	4.329	1.110	123837	41.87	ng/uL	92
20) N-Nitrosodipropylamine	70	4.334	4.334	1.111	82458	37.58	ng/uL	99
21) Hexachloroethane	117	4.452	4.452	1.141	58727	40.62	ng/uL	99
24) Nitrobenzene	77	4.527	4.527	0.850	128428	39.84	ng/uL	100
25) Isophorone	82	4.799	4.799	0.902	208555	35.52	ng/uL	99
26) 2-Nitrophenol	139	4.890	4.890	0.919	68475	42.05	ng/uL	98
27) 2,4-Dimethylphenol	122	4.938	4.938	0.928	110288	48.26	ng/uL	99
28) bis(2-Chloroethoxy)met...	93	5.056	5.056	0.950	158830	40.65	ng/uL	99
29) 2,4-Dichlorophenol	162	5.163	5.163	0.970	108203	41.69	ng/uL	100
30) Benzoic acid	105	5.029	5.035	0.945	49108	38.56	ng/uL	98

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1410.D
Acq On : 14 Mar 2024 11:24
Operator : LL2
Sample : |WBN240312-43|ICV|1|SVM|1|M-ICV
Misc : |MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 15 08:49:42 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
31)	1,2,4-Trichlorobenzene	180	5.259	5.259	0.988	117726	40.63	ng/uL	99
32)	alpha-Terpineol	59	5.361	5.361	1.007	94165	38.75	ng/uL	100
33)	Naphthalene	128	5.345	5.345	1.004	379411	40.31	ng/uL	100
34)	4-Chloroaniline	127	5.409	5.409	1.016	157472	40.70	ng/uL	99
35)	Hexachlorobutadiene	225	5.484	5.484	1.030	63818	39.65	ng/uL	99
36)	4-Chloro-3-methylphenol	107	5.928	5.928	1.114	108439	41.64	ng/uL	100
37)	2-Methylnaphthalene	142	6.078	6.078	1.142	251540	41.02	ng/uL	99
38)	1-Methylnaphthalene	142	6.179	6.179	1.161	246704	43.68	ng/uL	100
40)	Hexachlorocyclopentadiene	237	6.233	6.233	0.881	67732	44.05	ng/uL	100
41)	2,3-Dichloroaniline	161	6.361	6.361	0.899	140383	42.20	ng/uL	99
42)	2,4,6-Trichlorophenol	196	6.361	6.361	0.899	80432	41.35	ng/uL	99
43)	2,4,5-Trichlorophenol	196	6.393	6.393	0.903	76519	38.40	ng/uL	99
45)	2-Chloronaphthalene	162	6.559	6.559	0.927	232457	39.66	ng/uL	100
46)	o-Nitroaniline	65	6.655	6.655	0.940	67007	41.64	ng/uL	99
47)	1,4-Dinitrobenzene	168	6.794	6.794	0.960	37186	42.12	ng/uL	99
48)	m-Nitroaniline	138	7.040	7.040	0.995	70353	40.23	ng/uL	99
49)	Dimethylphthalate	163	6.832	6.832	0.965	256067	38.90	ng/uL	100
50)	m-Dinitrobenzene	168	6.859	6.859	0.969	44860	44.08	ng/uL	97
51)	2,6-Dinitrotoluene	165	6.885	6.891	0.973	58127	39.53	ng/uL	99
52)	2,4-Dinitrotoluene	165	7.249	7.249	1.024	80100	40.04	ng/uL	99
53)	Acenaphthylene	152	6.944	6.944	0.981	372339	41.24	ng/uL	100
54)	Acenaphthene	154	7.105	7.105	1.004	210657	38.21	ng/uL	99
55)	2,4-Dinitrophenol	184	7.137	7.137	1.008	25666	40.95	ng/uL	99
56)	Dibenzofuran	168	7.260	7.260	1.026	340478	40.58	ng/uL	100
57)	2,3,4,6-Tetrachlorophenol	232	7.372	7.372	1.042	63525	38.17	ng/uL	99
58)	Diethylphthalate	149	7.468	7.468	1.055	275140	40.34	ng/uL	100
59)	4-Nitrophenol	109	7.190	7.190	1.016	30406	40.03	ng/uL	99
60)	Fluorene	166	7.565	7.565	1.069	265913	39.94	ng/uL	99
61)	4-Chlorophenylphenylether	204	7.565	7.570	1.069	124023	39.44	ng/uL	99
62)	p-Nitroaniline	138	7.581	7.586	1.071	73326	41.23	ng/uL	100
65)	2-Methyl-4,6-dinitroph...	198	7.613	7.613	0.909	41823	40.88	ng/uL	97
66)	Diphenylamine	169	7.672	7.672	0.916	235012	41.76	ng/uL	99
67)	1,2-Diphenylhydrazine	77	7.704	7.704	0.920	266746	39.41	ng/uL	99
68)	4-Bromophenylphenylether	248	7.993	7.993	0.954	74501	38.93	ng/uL	99
69)	Hexachlorobenzene	284	8.041	8.041	0.960	92311	39.72	ng/uL	100
70)	Pentachlorophenol	266	8.212	8.212	0.980	49627	38.85	ng/uL	99
71)	n-Octadecane	57	8.271	8.271	0.987	175681	40.93	ng/uL	99
72)	Dinoseb	211	8.362	8.362	0.998	62153	40.72	ng/uL	99
73)	Phenanthrene	178	8.399	8.399	1.003	390605	40.34	ng/uL	100
74)	Anthracene	178	8.442	8.442	1.008	386556	39.80	ng/uL	100
75)	Carbazole	167	8.576	8.576	1.024	374340	42.16	ng/uL	100
76)	Di-n-butylphthalate	149	8.859	8.859	1.057	483651	42.81	ng/uL	100
77)	Fluoranthene	202	9.399	9.399	1.122	415123	41.11	ng/uL	99
78)	Pyrene	202	9.592	9.592	1.145	432119	40.70	ng/uL	100
81)	Butylbenzylphthalate	149	10.121	10.121	0.945	204021	39.33	ng/uL	99
82)	bis(2-Ethylhexyl)phtha...	149	10.694	10.699	0.999	315830	38.01	ng/uL	99
83)	Benzo(a)anthracene	228	10.694	10.694	0.999	424517	40.04	ng/uL	99
84)	Chrysene	228	10.736	10.736	1.002	390878	39.48	ng/uL	99
85)	Methoxychlor	227	10.608	10.608	0.991	264754	41.23	ng/uL	99
86)	Methylenebis(2-chloroa...	231	10.662	10.661	0.996	83310	42.25	ng/uL	99
87)	Di-n-octylphthalate	149	11.533	11.533	1.077	503938	39.20	ng/uL	100
89)	Benzo(b)fluoranthene	252	12.122	12.122	0.951	417546	41.53	ng/uL	100
90)	Benzo(k)fluoranthene	252	12.164	12.164	0.955	383846	38.03	ng/uL	100
91)	Benzo(a)pyrene	252	12.651	12.651	0.993	372679	40.36	ng/uL	99
92)	Indeno(1,2,3-cd)pyrene	276	14.764	14.764	1.159	376819	38.58	ng/uL	100
93)	Dibenzo(a,h)anthracene	278	14.817	14.817	1.163	393580	41.34	ng/uL	100
94)	Benzo(ghi)perylene	276	15.304	15.309	1.201	396639	42.65	ng/uL	100

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1410.D
Acq On : 14 Mar 2024 11:24
Operator : LL2
Sample : |WBN240312-43|ICV|1|SVM|1|M-ICV
Misc : |MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 15 08:49:42 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
95) Dibenzo(a,e)pyrene	302	17.887	17.887	1.404	364711	42.91	ng/uL

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

```
Data Path   : C:\msdchem\1\data\S031424ICAL\  
Data File  : s3C1410.D  
Acq On     : 14 Mar 2024   11:24  
Operator   : LL2  
Sample     : |WBN240312-43|ICV|1|SVM|1|M-ICV  
Misc       : |MIX[A]  
ALS Vial   : 10      Sample Multiplier: 1
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[illegible]

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1411.D
 Acq On : 14 Mar 2024 11:48
 Operator : LL2
 Sample : |WBN240201-51.1|ICAL|1|SVM|1|APX-2
 Misc : |MIX[B,J]
 ALS Vial : 11 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:19 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:19 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	91748	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	360804	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	178273	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	347647	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	338965	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	339902	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	360804	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	347647	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	338965	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
97) 1,4-Dioxane	88	1.467	1.467	0.376	12185	10.20	ng/uL	98
98) Methyl methacrylate	69	1.456	1.456	0.373	16610	10.28	ng/uL	99
99) Ethyl methacrylate	69	1.922	1.922	0.493	25249	10.04	ng/uL	97
100) 2-Picoline	93	2.189	2.179	0.561	31304	9.67	ng/uL	99
101) N-Nitrosomethylethylamine	88	2.248	2.243	0.576	12122	9.57	ng/uL	96
102) Methyl methanesulfonate	80	2.489	2.489	0.638	15918	10.08	ng/uL	98
103) N-Nitrosodiethylamine	102	2.836	2.836	0.727	12858	9.70	ng/uL	98
104) 2-Butoxyethanol	57	2.895	2.895	0.742	26624	9.19	ng/uL	99
105) Ethyl methanesulfonate	79	3.109	3.109	0.797	23115	9.74	ng/uL	99
106) Benzaldehyde	77	3.457	3.457	0.886	23890	10.06	ng/uL	100
107) Pentachloroethane	167	3.612	3.612	0.926	12385	9.88	ng/uL	99
108) N-Nitrosopyrrolidine	100	4.307	4.313	1.104	12972	8.94	ng/uL	96
109) Acetophenone	105	4.334	4.334	1.111	42521	9.76	ng/uL	98
110) N-Nitrosomorpholine	56	4.355	4.355	1.117	13206	9.49	ng/uL	100
111) o-Toluidine	106	4.371	4.377	1.121	47622	9.78	ng/uL	98
113) N-Nitrosopiperidine	114	4.698	4.698	0.882	14026	9.48	ng/uL	97
114) a,a-Dimethylphenethyla...	58	5.131	5.126	0.964	51466	8.15	ng/uL	100
115) 2,6-Dichlorophenol	162	5.414	5.414	1.017	22946	9.38	ng/uL	100
116) Hexachloropropene	213	5.441	5.441	1.022	16798	9.50	ng/uL	100
117) Caprolactam	113	5.751	5.757	1.080	6470	8.55	ng/uL	85
118) N-Nitrosodi-n-butylamine	57	5.773	5.778	1.084	12865	9.50	ng/uL#	75
119) Safrole	162	5.997	5.997	1.127	21290	9.54	ng/uL	99
121) 1,2,4,5-Tetrachloroben...	216	6.243	6.244	0.883	27395	9.93	ng/uL	100
122) 1,1-Biphenyl	154	6.538	6.543	0.924	71752	9.97	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1411.D
Acq On : 14 Mar 2024 11:48
Operator : LL2
Sample : |WBN240201-51.1|ICAL|1|SVM|1|APX-2
Misc : |MIX[B,J]
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 15 08:39:19 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:19 2024
Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
123) Isosafrole	162	6.506	6.506	0.920	22522	9.62	ng/uL	99
124) 1,4-Naphthoquinone	158	6.730	6.730	0.952	18480	8.49	ng/uL	98
125) Pentachlorobenzene	250	7.222	7.222	1.021	24425	9.83	ng/uL	100
126) 1-Naphthylamine	143	7.329	7.329	1.036	58764	9.57	ng/uL	99
127) 2-Naphthylamine	143	7.404	7.404	1.047	59818	9.51	ng/uL	99
128) 5-Nitro-o-toluidine	152	7.575	7.575	1.071	14855	8.47	ng/uL	97
129) Tributylphosphate	99	7.650	7.650	1.082	74521	9.08	ng/uL	99
131) 1,3,5-Trinitrobenzene	75	7.902	7.902	0.943	11105	7.89	ng/uL	98
132) Phenacetin	108	7.928	7.934	0.946	29231	8.97	ng/uL	98
133) Diallate	86	7.918	7.918	0.945	18912	9.72	ng/uL	98
134) Cis Diallate	86	7.918	7.918	0.945	18912	8.26	ng/uL	98
136) Atrazine	200	8.126	8.132	0.970	16984	9.70	ng/uL	98
137) 4-Aminobiphenyl	169	8.212	8.217	0.980	71870	9.51	ng/uL	99
138) Pentachloronitrobenzene	237	8.217	8.217	0.981	7094	9.32	ng/uL	99
139) Pronamide	173	8.255	8.260	0.985	28851	9.31	ng/uL	99
140) 4-Nitroquinoline-1-oxide	128	9.046	9.046	1.080	1984	6.81	ng/uL	92
141) Methapyrilene	97	9.105	9.105	1.087	31342	8.88	ng/uL	99
142) Isodrin	193	9.271	9.271	1.107	10828	9.74	ng/uL	99
144) Aramite	185	9.683	9.683	0.905	4043	8.94	ng/uL	97
145) Kepone	272	10.169	10.169	0.950	9270	8.86	ng/uL	98
146) p-(Dimethylamino)azobe...	225	9.827	9.827	0.918	15451	8.68	ng/uL	98
147) Chlorobenzilate	251	9.859	9.859	0.921	26383	9.40	ng/uL	99
148) 2-Acetylaminofluorene	181	10.351	10.357	0.967	31992	8.10	ng/uL	99
150) 7,12-Dimethylbenz(a)an...	256	12.106	12.106	0.950	37258	9.18	ng/uL	100
151) 3-Methylcholanthrene	269	13.261	13.266	1.041	9381	8.84	ng/uL	98
153) Sulfolane	56	5.420	5.425	1.018	9606	10.17	ng/uL	96
155) Prometon	210	8.067	8.073	0.963	13876	9.21	ng/uL	98
156) Benzydine	184	9.506	9.506	1.135	59245	8.90	ng/uL	99
158) 3,3'-Dimethylbenzidine	212	10.116	10.116	0.945	60588	9.31	ng/uL	99
159) 3,3'-Dichlorobenzidine	252	10.656	10.656	0.996	35949	9.15	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1412.D
 Acq On : 14 Mar 2024 12:09
 Operator : LL2
 Sample : |WBN240201-52|ICAL|1|SVM|1|APX-3
 Misc : |MIX[B,J]
 ALS Vial : 12 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:26 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:25 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	91934	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	365697	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	184017	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	360647	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	358201	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	359543	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	365697	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	360647	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	358201	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
97) 1,4-Dioxane	88	1.467	1.467	0.376	24521	20.49	ng/uL	98
98) Methyl methacrylate	69	1.456	1.456	0.373	32322	19.96	ng/uL	99
99) Ethyl methacrylate	69	1.922	1.922	0.493	49728	19.74	ng/uL	98
100) 2-Picoline	93	2.184	2.179	0.560	63235	19.50	ng/uL	99
101) N-Nitrosomethylethylamine	88	2.243	2.243	0.575	24832	19.56	ng/uL	97
102) Methyl methanesulfonate	80	2.489	2.489	0.638	31821	20.11	ng/uL	99
103) N-Nitrosodiethylamine	102	2.836	2.836	0.727	25810	19.43	ng/uL	98
104) 2-Butoxyethanol	57	2.895	2.895	0.742	54939	18.92	ng/uL	99
105) Ethyl methanesulfonate	79	3.109	3.109	0.797	47098	19.80	ng/uL	100
106) Benzaldehyde	77	3.457	3.457	0.886	48565	20.41	ng/uL	99
107) Pentachloroethane	167	3.612	3.612	0.926	24775	19.72	ng/uL	99
108) N-Nitrosopyrrolidine	100	4.307	4.313	1.104	28210	19.41	ng/uL	99
109) Acetophenone	105	4.334	4.334	1.111	86260	19.77	ng/uL	99
110) N-Nitrosomorpholine	56	4.355	4.355	1.117	27503	19.71	ng/uL	98
111) o-Toluidine	106	4.371	4.377	1.121	96767	19.84	ng/uL	100
113) N-Nitrosopiperidine	114	4.698	4.698	0.882	28926	19.29	ng/uL	98
114) a,a-Dimethylphenethyla...	58	5.131	5.126	0.964	118448	18.52	ng/uL	99
115) 2,6-Dichlorophenol	162	5.414	5.414	1.017	48104	19.39	ng/uL	100
116) Hexachloropropene	213	5.441	5.441	1.022	34142	19.06	ng/uL	99
117) Caprolactam	113	5.751	5.757	1.080	14223	18.53	ng/uL	96
118) N-Nitrosodi-n-butylamine	57	5.773	5.778	1.084	26849	19.56	ng/uL	89
119) Safrole	162	5.997	5.997	1.127	44169	19.52	ng/uL	100
121) 1,2,4,5-Tetrachloroben...	216	6.243	6.244	0.883	55434	19.47	ng/uL	100
122) 1,1-Biphenyl	154	6.538	6.543	0.924	146316	19.70	ng/uL	100

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1412.D
Acq On : 14 Mar 2024 12:09
Operator : LL2
Sample : |WBN240201-52|ICAL|1|SVM|1|APX-3
Misc : |MIX[B,J]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 15 08:39:26 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:25 2024
Response via : Initial Calibration

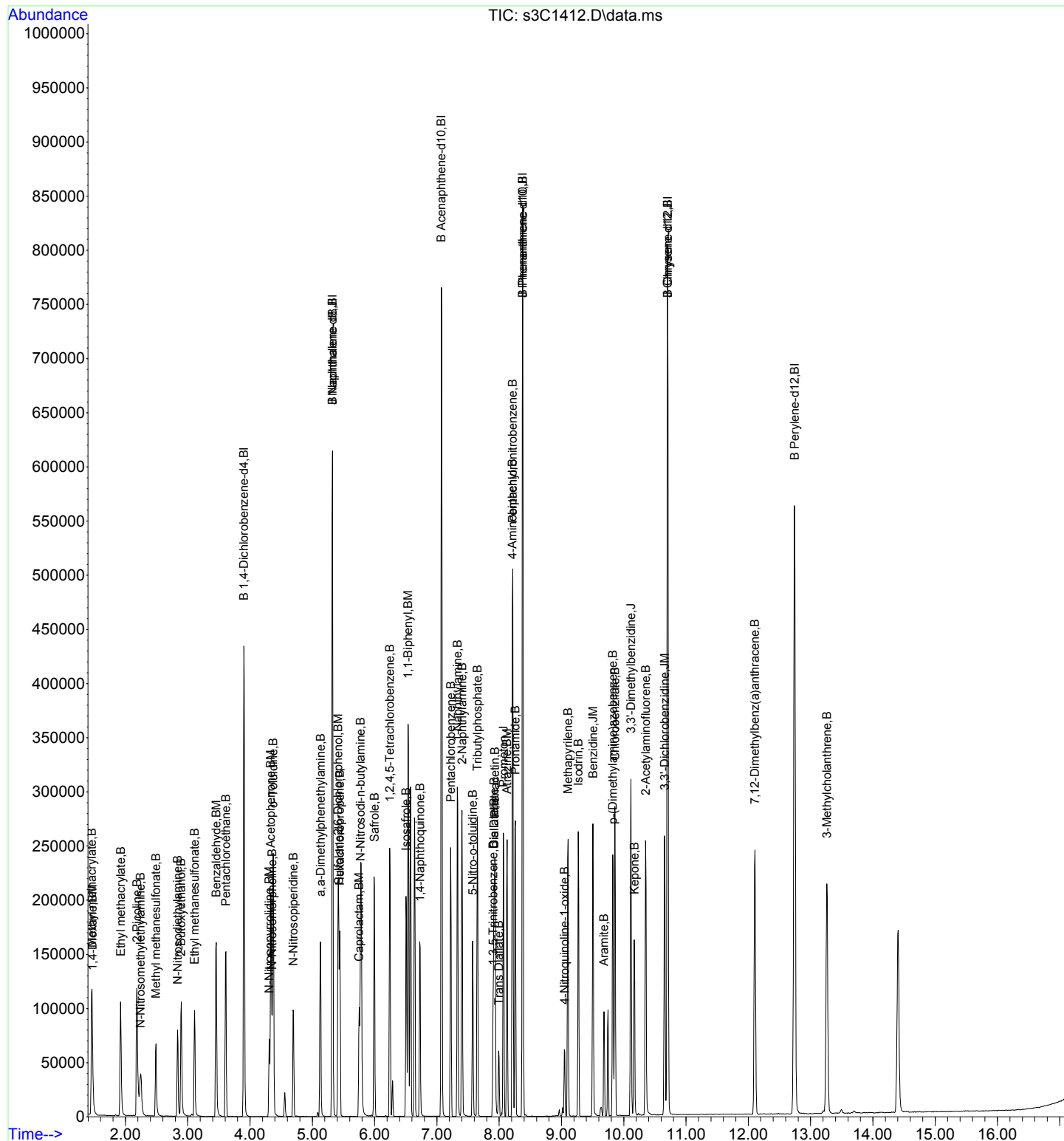
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
123) Isosafrole	162	6.505	6.506	0.920	46574	19.28	ng/uL	100
124) 1,4-Naphthoquinone	158	6.730	6.730	0.952	41176	18.32	ng/uL	100
125) Pentachlorobenzene	250	7.222	7.222	1.021	50073	19.53	ng/uL	99
126) 1-Naphthylamine	143	7.329	7.329	1.036	122349	19.31	ng/uL	99
127) 2-Naphthylamine	143	7.404	7.404	1.047	126183	19.43	ng/uL	99
128) 5-Nitro-o-toluidine	152	7.575	7.575	1.071	33263	18.37	ng/uL	99
129) Tributylphosphate	99	7.650	7.650	1.082	159089	18.79	ng/uL	100
131) 1,3,5-Trinitrobenzene	75	7.901	7.902	0.943	26086	17.87	ng/uL	98
132) Phenacetin	108	7.934	7.934	0.947	63927	18.91	ng/uL	98
133) Diallate	86	7.917	7.918	0.945	39284	19.47	ng/uL	99
134) Cis Diallate	86	7.917	7.918	0.945	39284	16.55	ng/uL	99
135) Trans Diallate	86	7.992	7.993	0.954	13607	2.92	ng/uL	98
136) Atrazine	200	8.126	8.132	0.970	35803	19.72	ng/uL	99
137) 4-Aminobiphenyl	169	8.212	8.217	0.980	152786	19.49	ng/uL	100
138) Pentachloronitrobenzene	237	8.217	8.217	0.981	14637	18.55	ng/uL	99
139) Pronamide	173	8.260	8.260	0.986	62207	19.35	ng/uL	99
140) 4-Nitroquinoline-1-oxide	128	9.046	9.046	1.080	6144	20.33	ng/uL	90
141) Methapyrilene	97	9.105	9.105	1.087	70851	19.35	ng/uL	99
142) Isodrin	193	9.271	9.271	1.107	22369	19.39	ng/uL	99
144) Aramite	185	9.683	9.683	0.905	8546	17.89	ng/uL	95
145) Kepone	272	10.169	10.169	0.950	20697	18.71	ng/uL	99
146) p-(Dimethylamino)azobe...	225	9.827	9.827	0.918	34983	18.59	ng/uL	98
147) Chlorobenzilate	251	9.859	9.859	0.921	56843	19.17	ng/uL	99
148) 2-Acetylaminofluorene	181	10.351	10.357	0.967	75422	18.07	ng/uL	100
150) 7,12-Dimethylbenz(a)an...	256	12.105	12.106	0.950	80843	18.83	ng/uL	100
151) 3-Methylcholanthrene	269	13.261	13.266	1.041	20885	18.61	ng/uL	99
153) Sulfolane	56	5.425	5.425	1.019	19086	19.94	ng/uL	99
155) Prometon	210	8.067	8.073	0.963	30208	19.33	ng/uL	99
156) Benzidine	184	9.506	9.506	1.135	132962	19.25	ng/uL	99
158) 3,3'-Dimethylbenzidine	212	10.116	10.116	0.945	132951	19.33	ng/uL	100
159) 3,3'-Dichlorobenzidine	252	10.656	10.656	0.996	78702	18.96	ng/uL	100

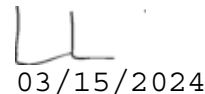
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

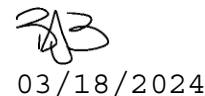
Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1412.D
Acq On : 14 Mar 2024 12:09
Operator : LL2
Sample : |WBN240201-52|ICAL|1|SVM|1|APX-3
Misc : |MIX[B,J]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 15 08:39:26 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:25 2024
Response via : Initial Calibration





Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1413.D
 Acq On : 14 Mar 2024 12:30
 Operator : LL2
 Sample : |WBN240201-53|ICAL|1|SVM|1|APX-9
 Misc : |MIX[B,J]
 ALS Vial : 13 Sample Multiplier: 1



Quant Time: Mar 15 08:40:09 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:09 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	98728	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	393755	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	196105	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	388309	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	384449	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	385729	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	393755	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	388309	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	384449	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	

Target Compounds								
97) 1,4-Dioxane	88	1.467	1.467	0.376	37125	28.89	ng/uL	QValue
98) Methyl methacrylate	69	1.456	1.456	0.373	50089	28.80	ng/uL	99
99) Ethyl methacrylate	69	1.922	1.922	0.493	77290	28.57	ng/uL	99
100) 2-Picoline	93	2.178	2.179	0.558	100420	28.84	ng/uL	99
101) N-Nitrosomethylethylamine	88	2.243	2.243	0.575	39038	28.63	ng/uL	99
102) Methyl methanesulfonate	80	2.489	2.489	0.638	49339	29.04	ng/uL	99
103) N-Nitrosodiethylamine	102	2.836	2.836	0.727	40423	28.34	ng/uL	98
104) 2-Butoxyethanol	57	2.895	2.895	0.742	87835	28.17	ng/uL	100
105) Ethyl methanesulfonate	79	3.109	3.109	0.797	73705	28.85	ng/uL	99
106) Benzaldehyde	77	3.457	3.457	0.886	74536	29.17	ng/uL	100
107) Pentachloroethane	167	3.612	3.612	0.926	38508	28.54	ng/uL	99
108) N-Nitrosopyrrolidine	100	4.307	4.313	1.104	44333	28.40	ng/uL	99
109) Acetophenone	105	4.334	4.334	1.111	134524	28.71	ng/uL	100
110) N-Nitrosomorpholine	56	4.355	4.355	1.117	43099	28.77	ng/uL	99
111) o-Toluidine	106	4.371	4.377	1.121	150296	28.69	ng/uL	99
113) N-Nitrosopiperidine	114	4.698	4.698	0.882	45605	28.25	ng/uL	99
114) a,a-Dimethylphenethyla...	58	5.131	5.126	0.964	186827	27.12	ng/uL	100
115) 2,6-Dichlorophenol	162	5.414	5.414	1.017	74885	28.04	ng/uL	100
116) Hexachloropropene	213	5.441	5.441	1.022	54295	28.15	ng/uL	100
117) Caprolactam	113	5.757	5.757	1.081	22842	27.64	ng/uL	99
118) N-Nitrosodi-n-butylamine	57	5.773	5.778	1.084	42378	28.67	ng/uL	98
119) Safrole	162	5.997	5.997	1.127	69030	28.33	ng/uL	99
121) 1,2,4,5-Tetrachloroben...	216	6.243	6.244	0.883	86611	28.55	ng/uL	99
122) 1,1-Biphenyl	154	6.537	6.543	0.924	228029	28.81	ng/uL	100

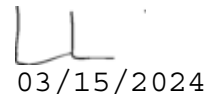
Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1413.D
Acq On : 14 Mar 2024 12:30
Operator : LL2
Sample : |WBN240201-53|ICAL|1|SVM|1|APX-9
Misc : |MIX[B,J]
ALS Vial : 13 Sample Multiplier: 1

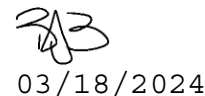
Quant Time: Mar 15 08:40:09 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:09 2024
Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
123) Isosafrole	162	6.505	6.506	0.920	73306	28.47	ng/uL	100
124) 1,4-Naphthoquinone	158	6.730	6.730	0.952	67979	28.39	ng/uL	99
125) Pentachlorobenzene	250	7.222	7.222	1.021	78303	28.65	ng/uL	100
126) 1-Naphthylamine	143	7.329	7.329	1.036	194453	28.79	ng/uL	100
127) 2-Naphthylamine	143	7.404	7.404	1.047	199136	28.77	ng/uL	100
128) 5-Nitro-o-toluidine	152	7.575	7.575	1.071	53922	27.94	ng/uL	99
129) Tributylphosphate	99	7.650	7.650	1.082	256961	28.48	ng/uL	99
131) 1,3,5-Trinitrobenzene	75	7.901	7.902	0.943	42848	27.27	ng/uL	99
132) Phenacetin	108	7.934	7.934	0.947	104074	28.59	ng/uL	97
133) Diallate	86	7.917	7.918	0.945	61714	28.40	ng/uL	100
134) Cis Diallate	86	7.917	7.918	0.945	61714	24.14	ng/uL	99
135) Trans Diallate	86	7.992	7.993	0.954	21138	4.21	ng/uL	97
136) Atrazine	200	8.126	8.132	0.970	55891	28.59	ng/uL	98
137) 4-Aminobiphenyl	169	8.212	8.217	0.980	240115	28.45	ng/uL	100
138) Pentachloronitrobenzene	237	8.217	8.217	0.981	23854	28.07	ng/uL	99
139) Pronamide	173	8.260	8.260	0.986	97739	28.24	ng/uL	100
140) 4-Nitroquinoline-1-oxide	128	9.046	9.046	1.080	10128	31.13	ng/uL	99
141) Methapyrilene	97	9.105	9.105	1.087	113981	28.92	ng/uL	100
142) Isodrin	193	9.271	9.271	1.107	35099	28.25	ng/uL	99
144) Aramite	185	9.682	9.683	0.905	13963	27.23	ng/uL	97
145) Kepone	272	10.169	10.169	0.950	33504	28.22	ng/uL	99
146) p-(Dimethylamino)azobe...	225	9.827	9.827	0.918	57014	28.23	ng/uL	99
147) Chlorobenzilate	251	9.859	9.859	0.921	89658	28.17	ng/uL	99
148) 2-Acetylaminofluorene	181	10.351	10.357	0.967	123304	27.53	ng/uL	100
150) 7,12-Dimethylbenz(a)an...	256	12.105	12.106	0.950	128693	27.94	ng/uL	100
151) 3-Methylcholanthrene	269	13.266	13.266	1.041	33535	27.86	ng/uL	99
153) Sulfolane	56	5.425	5.425	1.019	29242	28.37	ng/uL	99
155) Prometon	210	8.073	8.073	0.964	47261	28.09	ng/uL	100
156) Benzidine	184	9.506	9.506	1.135	211756	28.48	ng/uL	99
158) 3,3'-Dimethylbenzidine	212	10.116	10.116	0.945	212203	28.75	ng/uL	100
159) 3,3'-Dichlorobenzidine	252	10.656	10.656	0.996	125380	28.14	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1414.D
 Acq On : 14 Mar 2024 12:52
 Operator : LL2
 Sample : |WBN240201-54.1|ICAL|1|SVM|1|APX-4
 Misc : |MIX[B,J]
 ALS Vial : 14 Sample Multiplier: 1



Quant Time: Mar 15 08:39:32 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:32 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.073	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	102114	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	407037	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.073	7.073	1.000	201301	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	385436	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	384685	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	386974	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	407037	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	385436	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	384685	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
97) 1,4-Dioxane	88	1.467	1.467	0.376	53152	39.99	ng/uL	100
98) Methyl methacrylate	69	1.456	1.456	0.373	71790	39.91	ng/uL	100
99) Ethyl methacrylate	69	1.922	1.922	0.493	112876	40.34	ng/uL	100
100) 2-Picoline	93	2.179	2.179	0.558	144706	40.18	ng/uL	100
101) N-Nitrosomethylethylamine	88	2.243	2.243	0.575	56918	40.36	ng/uL	100
102) Methyl methanesulfonate	80	2.489	2.489	0.638	70654	40.21	ng/uL	100
103) N-Nitrosodiethylamine	102	2.836	2.836	0.727	59101	40.06	ng/uL	100
104) 2-Butoxyethanol	57	2.895	2.895	0.742	129681	40.21	ng/uL	100
105) Ethyl methanesulfonate	79	3.109	3.109	0.797	105617	39.98	ng/uL	100
106) Benzaldehyde	77	3.457	3.457	0.886	107916	40.84	ng/uL	100
107) Pentachloroethane	167	3.612	3.612	0.926	55976	40.11	ng/uL	100
108) N-Nitrosopyrrolidine	100	4.313	4.313	1.106	64420	39.90	ng/uL	100
109) Acetophenone	105	4.334	4.334	1.111	195299	40.29	ng/uL	100
110) N-Nitrosomorpholine	56	4.355	4.355	1.117	61843	39.91	ng/uL	100
111) o-Toluidine	106	4.377	4.377	1.122	217758	40.19	ng/uL	100
113) N-Nitrosopiperidine	114	4.698	4.698	0.882	67066	40.19	ng/uL	100
114) a,a-Dimethylphenethyla...	58	5.126	5.126	0.963	282505	39.68	ng/uL	100
115) 2,6-Dichlorophenol	162	5.414	5.414	1.017	110241	39.93	ng/uL	100
116) Hexachloropropene	213	5.441	5.441	1.022	79513	39.87	ng/uL	100
117) Caprolactam	113	5.757	5.757	1.081	34061	39.88	ng/uL	100
118) N-Nitrosodi-n-butylamine	57	5.778	5.778	1.085	60536	39.62	ng/uL	100
119) Safrole	162	5.997	5.997	1.127	100650	39.97	ng/uL	100
121) 1,2,4,5-Tetrachloroben...	216	6.244	6.244	0.883	124402	39.95	ng/uL	100
122) 1,1-Biphenyl	154	6.543	6.543	0.925	326684	40.20	ng/uL	100

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1414.D
Acq On : 14 Mar 2024 12:52
Operator : LL2
Sample : |WBN240201-54.1|ICAL|1|SVM|1|APX-4
Misc : |MIX[B,J]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 15 08:39:32 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:32 2024
Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
123) Isosafrole	162	6.506	6.506	0.920	106985	40.48	ng/uL 100
124) 1,4-Naphthoquinone	158	6.730	6.730	0.952	101233	41.18	ng/uL 100
125) Pentachlorobenzene	250	7.222	7.222	1.021	111850	39.87	ng/uL 100
126) 1-Naphthylamine	143	7.329	7.329	1.036	278577	40.18	ng/uL 100
127) 2-Naphthylamine	143	7.404	7.404	1.047	288515	40.61	ng/uL 100
128) 5-Nitro-o-toluidine	152	7.575	7.575	1.071	79549	40.15	ng/uL 100
129) Tributylphosphate	99	7.650	7.650	1.082	370188	39.97	ng/uL 100
131) 1,3,5-Trinitrobenzene	75	7.902	7.902	0.943	62217	39.89	ng/uL 100
132) Phenacetin	108	7.934	7.934	0.947	146008	40.41	ng/uL 100
133) Diallate	86	7.918	7.918	0.945	87918	40.76	ng/uL 100
134) Cis Diallate	86	7.918	7.918	0.945	87918	34.65	ng/uL 100
135) Trans Diallate	86	7.993	7.993	0.954	30455	6.12	ng/uL 100
136) Atrazine	200	8.132	8.132	0.971	79060	40.74	ng/uL 100
137) 4-Aminobiphenyl	169	8.217	8.217	0.981	343565	41.02	ng/uL 100
138) Pentachloronitrobenzene	237	8.217	8.217	0.981	34001	40.31	ng/uL 100
139) Pronamide	173	8.260	8.260	0.986	140183	40.81	ng/uL 100
140) 4-Nitroquinoline-1-oxide	128	9.046	9.046	1.080	14787	45.78	ng/uL 100
141) Methapyrilene	97	9.105	9.105	1.087	164498	42.04	ng/uL 100
142) Isodrin	193	9.271	9.271	1.107	50103	40.63	ng/uL 100
144) Aramite	185	9.683	9.683	0.905	20691	40.33	ng/uL 100
145) Kepone	272	10.169	10.169	0.950	48480	40.81	ng/uL 100
146) p-(Dimethylamino)azobe...	225	9.827	9.827	0.918	81825	40.48	ng/uL 100
147) Chlorobenzilate	251	9.859	9.859	0.921	127354	39.99	ng/uL 100
148) 2-Acetylaminofluorene	181	10.357	10.357	0.968	180542	40.28	ng/uL 100
150) 7,12-Dimethylbenz(a)an...	256	12.106	12.106	0.950	184998	40.04	ng/uL 100
151) 3-Methylcholanthrene	269	13.266	13.266	1.041	48339	40.03	ng/uL 100
153) Sulfolane	56	5.425	5.425	1.019	42511	39.90	ng/uL 100
155) Prometon	210	8.073	8.073	0.964	67608	40.48	ng/uL 100
156) Benzidine	184	9.506	9.506	1.135	300407	40.70	ng/uL 100
158) 3,3'-Dimethylbenzidine	212	10.116	10.116	0.945	301696	40.85	ng/uL 100
159) 3,3'-Dichlorobenzidine	252	10.656	10.656	0.996	179018	40.15	ng/uL 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

```
Data Path : C:\msdchem\1\data\S031424ICAL\  
Data File : s3C1414.D  
Acq On    : 14 Mar 2024   12:52  
Operator  : LL2  
Sample    : |WBN240201-54.1|ICAL|1|SVM|1|APX-4  
Misc      : |MIX[B,J]  
ALS Vial  : 14      Sample Multiplier: 1
```

The chromatogram displays a series of peaks over a 16-minute period. The y-axis represents Abundance, ranging from 0 to 1,400,000. The x-axis represents Time in minutes, ranging from 2.00 to 16.00. Numerous peaks are labeled with their corresponding chemical names, such as 1,4-Dioxane, Ethyl methacrylate, N-Nitrosodimethylamine, and many others. The peaks vary in height, with some reaching near the maximum abundance shown on the scale.

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1415.D
 Acq On : 14 Mar 2024 13:13
 Operator : LL2
 Sample : |WBN240201-55|ICAL|1|SVM|1|APX-5
 Misc : |MIX[B,J]
 ALS Vial : 15 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:39 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:38 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	98472	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	394420	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	194865	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	378206	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	376443	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	375673	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	394420	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	378206	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	376443	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
97) 1,4-Dioxane	88	1.467	1.467	0.376	64487	50.32	ng/uL	99
98) Methyl methacrylate	69	1.456	1.456	0.373	87278	50.32	ng/uL	100
99) Ethyl methacrylate	69	1.922	1.922	0.493	136881	50.73	ng/uL	99
100) 2-Picoline	93	2.178	2.179	0.558	176221	50.74	ng/uL	100
101) N-Nitrosomethylethylamine	88	2.243	2.243	0.575	69382	51.02	ng/uL	97
102) Methyl methanesulfonate	80	2.489	2.489	0.638	86790	51.22	ng/uL	98
103) N-Nitrosodiethylamine	102	2.836	2.836	0.727	71977	50.60	ng/uL	99
104) 2-Butoxyethanol	57	2.895	2.895	0.742	158568	50.98	ng/uL	100
105) Ethyl methanesulfonate	79	3.109	3.109	0.797	128757	50.54	ng/uL	100
106) Benzaldehyde	77	3.457	3.457	0.886	130110	51.05	ng/uL	99
107) Pentachloroethane	167	3.612	3.612	0.926	67846	50.41	ng/uL	98
108) N-Nitrosopyrrolidine	100	4.312	4.313	1.106	79826	51.27	ng/uL	99
109) Acetophenone	105	4.339	4.334	1.112	237740	50.86	ng/uL	99
110) N-Nitrosomorpholine	56	4.355	4.355	1.117	76260	51.04	ng/uL	98
111) o-Toluidine	106	4.377	4.377	1.122	266279	50.96	ng/uL	99
113) N-Nitrosopiperidine	114	4.698	4.698	0.882	82351	50.93	ng/uL	100
114) a,a-Dimethylphenethyla...	58	5.131	5.126	0.964	356339	51.65	ng/uL	100
115) 2,6-Dichlorophenol	162	5.414	5.414	1.017	136337	50.96	ng/uL	100
116) Hexachloropropene	213	5.441	5.441	1.022	98155	50.80	ng/uL	99
117) Caprolactam	113	5.762	5.757	1.082	42412	51.24	ng/uL	99
118) N-Nitrosodi-n-butylamine	57	5.778	5.778	1.085	75275	50.85	ng/uL	99
119) Safrole	162	5.997	5.997	1.127	123646	50.67	ng/uL	100
121) 1,2,4,5-Tetrachloroben...	216	6.243	6.244	0.883	152175	50.48	ng/uL	100
122) 1,1-Biphenyl	154	6.543	6.543	0.925	396909	50.46	ng/uL	100

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1415.D
Acq On : 14 Mar 2024 13:13
Operator : LL2
Sample : |WBN240201-55|ICAL|1|SVM|1|APX-5
Misc : |MIX[B,J]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 15 08:39:39 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:38 2024
Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
123) Isosafrole	162	6.511	6.506	0.921	128588	50.26	ng/uL	99
124) 1,4-Naphthoquinone	158	6.730	6.730	0.952	125507	52.74	ng/uL	99
125) Pentachlorobenzene	250	7.222	7.222	1.021	136346	50.21	ng/uL	99
126) 1-Naphthylamine	143	7.334	7.329	1.037	343467	51.18	ng/uL	99
127) 2-Naphthylamine	143	7.404	7.404	1.047	351092	51.05	ng/uL	100
128) 5-Nitro-o-toluidine	152	7.575	7.575	1.071	99339	51.80	ng/uL	99
129) Tributylphosphate	99	7.650	7.650	1.082	460742	51.39	ng/uL	100
131) 1,3,5-Trinitrobenzene	75	7.901	7.902	0.943	79654	52.05	ng/uL	100
132) Phenacetin	108	7.939	7.934	0.948	183894	51.87	ng/uL	99
133) Diallate	86	7.917	7.918	0.945	107621	50.85	ng/uL	99
134) Cis Diallate	86	7.917	7.918	0.945	107621	43.22	ng/uL	100
135) Trans Diallate	86	7.992	7.993	0.954	37405	7.66	ng/uL	100
136) Atrazine	200	8.131	8.132	0.971	96470	50.66	ng/uL	99
137) 4-Aminobiphenyl	169	8.217	8.217	0.981	415696	50.58	ng/uL	99
138) Pentachloronitrobenzene	237	8.222	8.217	0.981	42510	51.36	ng/uL	99
139) Pronamide	173	8.260	8.260	0.986	171775	50.96	ng/uL	99
140) 4-Nitroquinoline-1-oxide	128	9.051	9.046	1.080	17682	55.79	ng/uL	99
141) Methapyrilene	97	9.105	9.105	1.087	201271	52.43	ng/uL	100
142) Isodrin	193	9.271	9.271	1.107	61634	50.94	ng/uL	100
144) Aramite	185	9.683	9.683	0.905	25544	50.88	ng/uL	99
145) Kepone	272	10.175	10.169	0.951	59836	51.47	ng/uL	100
146) p-(Dimethylamino)azobe...	225	9.827	9.827	0.918	101857	51.50	ng/uL	98
147) Chlorobenzilate	251	9.859	9.859	0.921	157447	50.52	ng/uL	100
148) 2-Acetylaminofluorene	181	10.356	10.357	0.968	226745	51.70	ng/uL	100
150) 7,12-Dimethylbenz(a)an...	256	12.111	12.106	0.950	230436	51.37	ng/uL	100
151) 3-Methylcholanthrene	269	13.271	13.266	1.042	59995	51.17	ng/uL	99
153) Sulfolane	56	5.430	5.425	1.020	52121	50.48	ng/uL	99
155) Prometon	210	8.073	8.073	0.964	84280	51.43	ng/uL	98
156) Benzidine	184	9.506	9.506	1.135	373588	51.58	ng/uL	100
158) 3,3'-Dimethylbenzidine	212	10.116	10.116	0.945	371343	51.38	ng/uL	100
159) 3,3'-Dichlorobenzidine	252	10.661	10.656	0.996	223349	51.19	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1416.D
 Acq On : 14 Mar 2024 13:35
 Operator : LL2
 Sample : |WBN240201-56|ICAL|1|SVM|1|APX-10
 Misc : |MIX[B,J]
 ALS Vial : 16 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:40:10 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:10 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.073	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.747	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	106650	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	421762	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.073	7.073	1.000	212478	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	412116	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	415093	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.747	12.742	1.000	421853	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	421762	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	412116	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	415093	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.747	12.758	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
97) 1,4-Dioxane	88	1.467	1.467	0.376	82673	59.56	ng/uL	99
98) Methyl methacrylate	69	1.456	1.456	0.373	112775	60.03	ng/uL	100
99) Ethyl methacrylate	69	1.922	1.922	0.493	176176	60.29	ng/uL	100
100) 2-Picoline	93	2.179	2.179	0.558	227198	60.40	ng/uL	100
101) N-Nitrosomethylethylamine	88	2.243	2.243	0.575	89929	61.06	ng/uL	98
102) Methyl methanesulfonate	80	2.489	2.489	0.638	110783	60.36	ng/uL	99
103) N-Nitrosodiethylamine	102	2.836	2.836	0.727	93929	60.96	ng/uL	99
104) 2-Butoxyethanol	57	2.895	2.895	0.742	207534	61.61	ng/uL	100
105) Ethyl methanesulfonate	79	3.109	3.109	0.797	168081	60.91	ng/uL	100
106) Benzaldehyde	77	3.457	3.457	0.886	167556	60.71	ng/uL	99
107) Pentachloroethane	167	3.612	3.612	0.926	87899	60.31	ng/uL	100
108) N-Nitrosopyrrolidine	100	4.313	4.313	1.106	104135	61.76	ng/uL	100
109) Acetophenone	105	4.339	4.334	1.112	305287	60.31	ng/uL	98
110) N-Nitrosomorpholine	56	4.361	4.355	1.118	99206	61.30	ng/uL	99
111) o-Toluidine	106	4.377	4.377	1.122	343583	60.71	ng/uL	99
113) N-Nitrosopiperidine	114	4.698	4.698	0.882	106898	61.82	ng/uL	100
114) a,a-Dimethylphenethyla...	58	5.131	5.126	0.964	470801	63.81	ng/uL	100
115) 2,6-Dichlorophenol	162	5.414	5.414	1.017	177998	62.22	ng/uL	100
116) Hexachloropropene	213	5.441	5.441	1.022	128117	62.00	ng/uL	100
117) Caprolactam	113	5.767	5.757	1.083	56191	63.49	ng/uL	99
118) N-Nitrosodi-n-butylamine	57	5.778	5.778	1.085	98379	62.14	ng/uL	99
119) Safrole	162	5.997	5.997	1.127	159848	61.26	ng/uL	100
121) 1,2,4,5-Tetrachloroben...	216	6.244	6.244	0.883	197673	60.14	ng/uL	99
122) 1,1-Biphenyl	154	6.543	6.543	0.925	520330	60.66	ng/uL	100

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1416.D
Acq On : 14 Mar 2024 13:35
Operator : LL2
Sample : |WBN240201-56|ICAL|1|SVM|1|APX-10
Misc : |MIX[B,J]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 15 08:40:10 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:10 2024
Response via : Initial Calibration

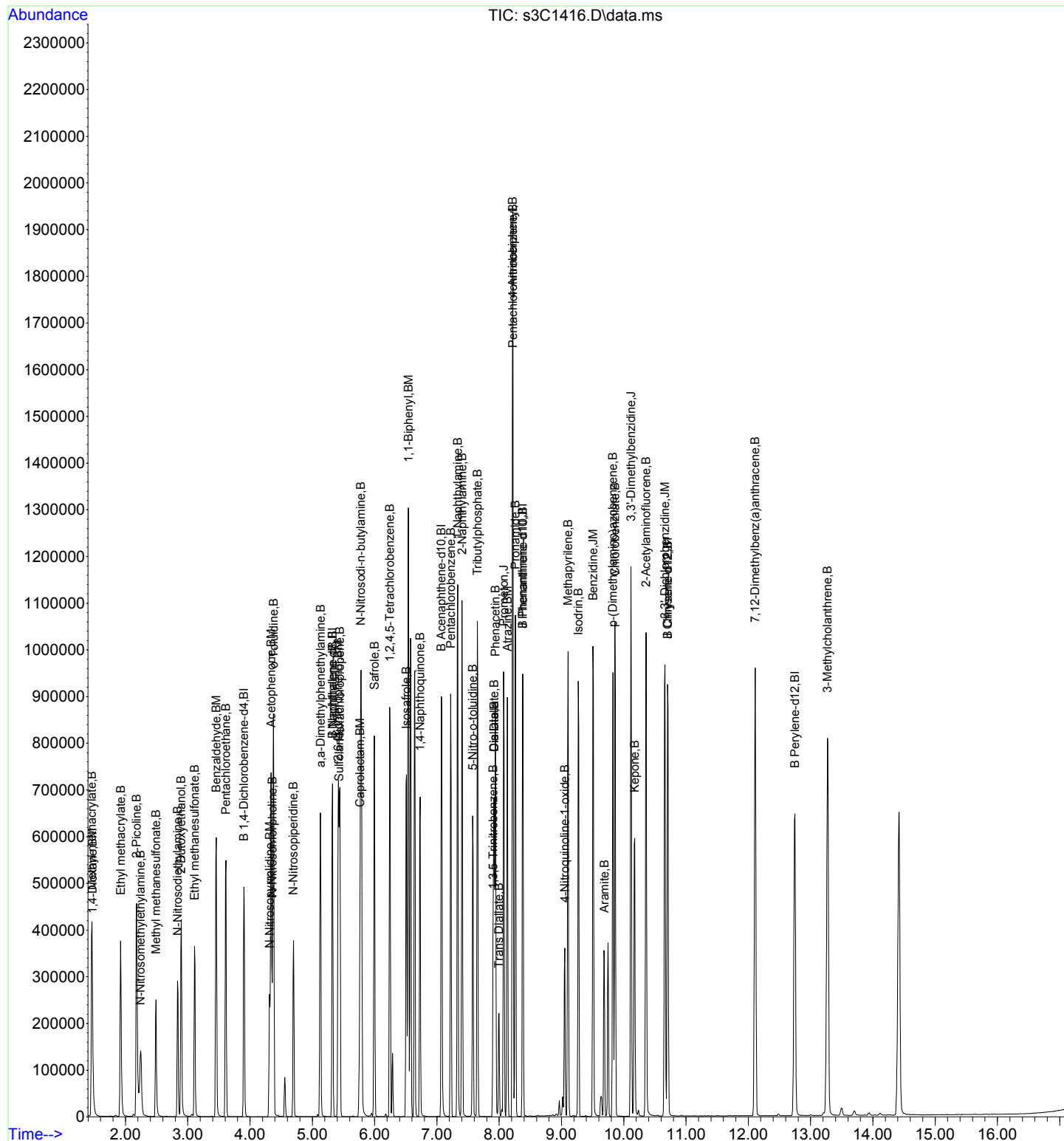
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
123) Isosafrole	162	6.511	6.506	0.921	168955	60.56	ng/uL 100
124) 1,4-Naphthoquinone	158	6.730	6.730	0.952	166161	64.04	ng/uL 99
125) Pentachlorobenzene	250	7.222	7.222	1.021	180911	61.10	ng/uL 100
126) 1-Naphthylamine	143	7.335	7.329	1.037	447048	61.09	ng/uL 100
127) 2-Naphthylamine	143	7.404	7.404	1.047	459075	61.21	ng/uL 100
128) 5-Nitro-o-toluidine	152	7.575	7.575	1.071	132143	63.19	ng/uL 99
129) Tributylphosphate	99	7.650	7.650	1.082	610070	62.40	ng/uL 100
131) 1,3,5-Trinitrobenzene	75	7.902	7.902	0.943	108141	64.85	ng/uL 99
132) Phenacetin	108	7.939	7.934	0.948	240868	62.34	ng/uL 99
133) Diallate	86	7.918	7.918	0.945	139619	60.54	ng/uL 85
134) Cis Diallate	86	7.918	7.918	0.945	139619	51.46	ng/uL 86
135) Trans Diallate	86	7.993	7.993	0.954	48201	9.05	ng/uL 98
136) Atrazine	200	8.132	8.132	0.971	127180	61.29	ng/uL 99
137) 4-Aminobiphenyl	169	8.217	8.217	0.981	550125	61.43	ng/uL 100
138) Pentachloronitrobenzene	237	8.223	8.217	0.981	55800	61.87	ng/uL 99
139) Pronamide	173	8.260	8.260	0.986	226029	61.54	ng/uL 98
140) 4-Nitroquinoline-1-oxide	128	9.052	9.046	1.080	22723	65.80	ng/uL 97
141) Methapyrilene	97	9.105	9.105	1.087	265593	63.49	ng/uL 100
142) Isodrin	193	9.271	9.271	1.107	80027	60.69	ng/uL 99
144) Aramite	185	9.688	9.683	0.905	34742	62.75	ng/uL 99
145) Kepone	272	10.175	10.169	0.951	80423	62.74	ng/uL 100
146) p-(Dimethylamino)azobe...	225	9.827	9.827	0.918	136458	62.57	ng/uL 99
147) Chlorobenzilate	251	9.859	9.859	0.921	209521	60.97	ng/uL 100
148) 2-Acetylaminofluorene	181	10.357	10.357	0.968	305793	63.23	ng/uL 99
150) 7,12-Dimethylbenz(a)an...	256	12.111	12.106	0.950	311579	61.86	ng/uL 100
151) 3-Methylcholanthrene	269	13.272	13.266	1.041	81631	62.01	ng/uL 99
153) Sulfolane	56	5.431	5.425	1.020	67324	60.98	ng/uL 99
155) Prometon	210	8.073	8.073	0.964	110050	61.62	ng/uL 99
156) Benzidine	184	9.506	9.506	1.135	501662	63.57	ng/uL 100
158) 3,3'-Dimethylbenzidine	212	10.116	10.116	0.945	493334	61.91	ng/uL 100
159) 3,3'-Dichlorobenzidine	252	10.661	10.656	0.996	297436	61.83	ng/uL 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1416.D
Acq On : 14 Mar 2024 13:35
Operator : LL2
Sample : WBN240201-56 | ICAL | 1 | SVM | 1 | APX-10
Misc : MIX[B,J]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 15 08:40:10 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:10 2024
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1417.D
 Acq On : 14 Mar 2024 13:56
 Operator : LL2
 Sample : |WBN240201-57|ICAL|1|SVM|1|APX-6
 Misc : |MIX[B,J]
 ALS Vial : 17 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:45 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:45 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	106719	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	425448	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	211079	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	404721	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	397662	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	402321	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	425448	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	404721	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	397662	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
97) 1,4-Dioxane	88	1.462	1.467	0.375	112227	80.80	ng/uL	100
98) Methyl methacrylate	69	1.456	1.456	0.373	152623	81.19	ng/uL	99
99) Ethyl methacrylate	69	1.922	1.922	0.493	237836	81.34	ng/uL	100
100) 2-Picoline	93	2.173	2.179	0.557	309587	82.24	ng/uL	99
101) N-Nitrosomethylethylamine	88	2.243	2.243	0.575	120629	81.85	ng/uL	98
102) Methyl methanesulfonate	80	2.489	2.489	0.638	147860	80.51	ng/uL	99
103) N-Nitrosodiethylamine	102	2.836	2.836	0.727	127066	82.42	ng/uL	99
104) 2-Butoxyethanol	57	2.895	2.895	0.742	282579	83.83	ng/uL	99
105) Ethyl methanesulfonate	79	3.109	3.109	0.797	226907	82.18	ng/uL	100
106) Benzaldehyde	77	3.457	3.457	0.886	223516	80.93	ng/uL	100
107) Pentachloroethane	167	3.612	3.612	0.926	118863	81.50	ng/uL	100
108) N-Nitrosopyrrolidine	100	4.313	4.313	1.106	140302	83.15	ng/uL	100
109) Acetophenone	105	4.339	4.334	1.112	413545	81.64	ng/uL	99
110) N-Nitrosomorpholine	56	4.361	4.355	1.118	132940	82.09	ng/uL	99
111) o-Toluidine	106	4.377	4.377	1.122	462176	81.62	ng/uL	99
113) N-Nitrosopiperidine	114	4.698	4.698	0.882	143709	82.39	ng/uL	99
114) a,a-Dimethylphenethyla...	58	5.131	5.126	0.964	631158	84.80	ng/uL	100
115) 2,6-Dichlorophenol	162	5.420	5.414	1.018	237346	82.25	ng/uL	99
116) Hexachloropropene	213	5.441	5.441	1.022	172692	82.85	ng/uL	99
117) Caprolactam	113	5.773	5.757	1.084	75155	84.18	ng/uL	98
118) N-Nitrosodi-n-butylamine	57	5.778	5.778	1.085	130738	81.87	ng/uL	99
119) Safrole	162	5.997	5.997	1.127	216550	82.27	ng/uL	100
121) 1,2,4,5-Tetrachloroben...	216	6.243	6.244	0.883	267296	81.85	ng/uL	100
122) 1,1-Biphenyl	154	6.543	6.543	0.925	691040	81.10	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1417.D
Acq On : 14 Mar 2024 13:56
Operator : LL2
Sample : |WBN240201-57|ICAL|1|SVM|1|APX-6
Misc : |MIX[B,J]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 15 08:39:45 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:45 2024
Response via : Initial Calibration

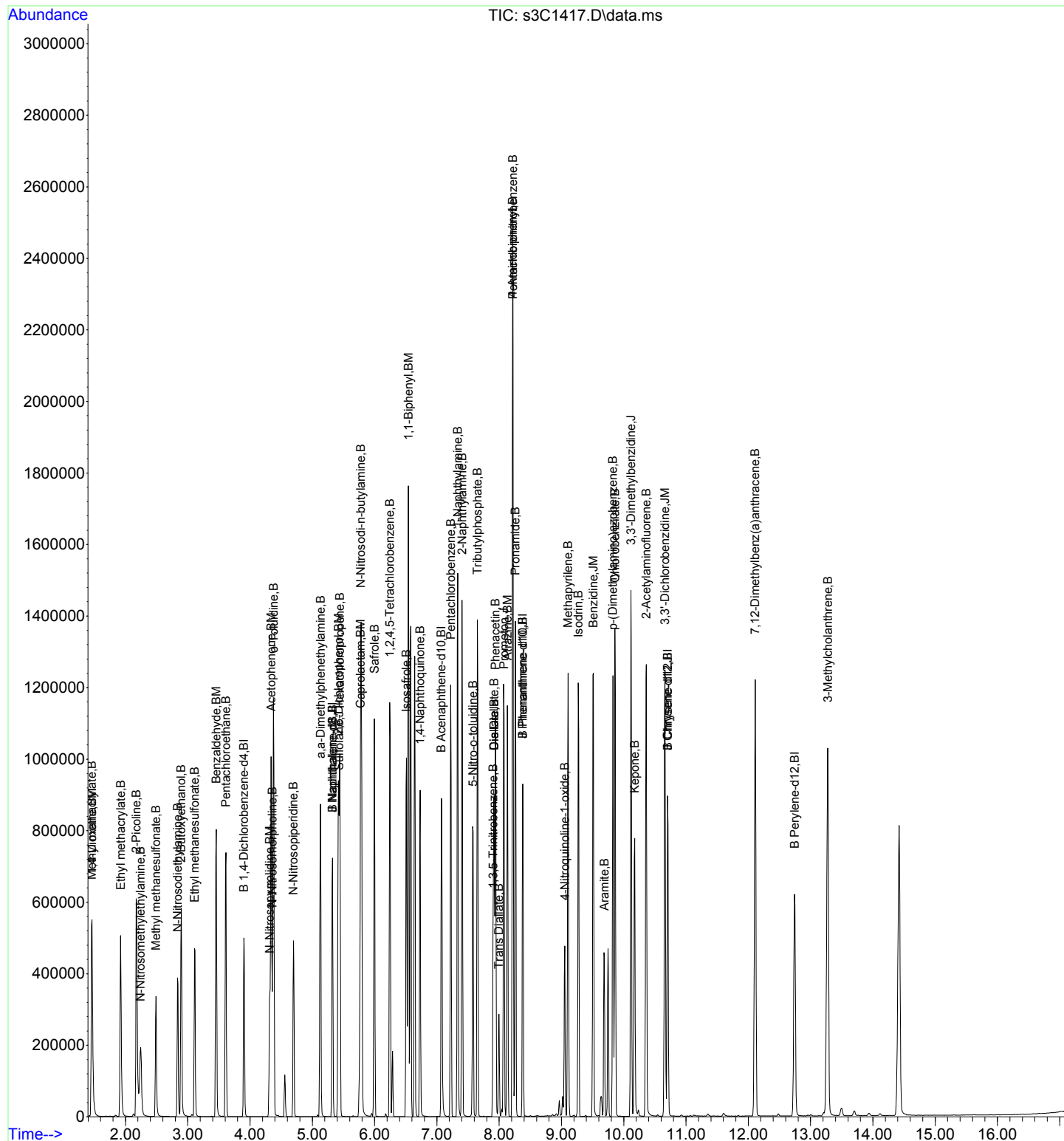
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
123) Isosafrole	162	6.511	6.506	0.921	225486	81.36	ng/uL	99
124) 1,4-Naphthoquinone	158	6.730	6.730	0.952	218150	84.63	ng/uL	98
125) Pentachlorobenzene	250	7.222	7.222	1.021	236940	80.55	ng/uL	99
126) 1-Naphthylamine	143	7.335	7.329	1.037	589829	81.14	ng/uL	100
127) 2-Naphthylamine	143	7.404	7.404	1.047	599885	80.52	ng/uL	100
128) 5-Nitro-o-toluidine	152	7.581	7.575	1.072	174181	83.85	ng/uL	98
129) Tributylphosphate	99	7.650	7.650	1.082	796751	82.04	ng/uL	99
131) 1,3,5-Trinitrobenzene	75	7.902	7.902	0.943	139836	85.38	ng/uL	99
132) Phenacetin	108	7.939	7.934	0.948	318475	83.94	ng/uL	100
133) Diallate	86	7.918	7.918	0.945	183940	81.22	ng/uL	83
134) Cis Diallate	86	7.918	7.918	0.945	183940	69.04	ng/uL	84
135) Trans Diallate	86	7.992	7.993	0.954	63682	12.18	ng/uL	99
136) Atrazine	200	8.132	8.132	0.971	166623	81.77	ng/uL	98
137) 4-Aminobiphenyl	169	8.217	8.217	0.981	719012	81.75	ng/uL	99
138) Pentachloronitrobenzene	237	8.222	8.217	0.981	73899	83.44	ng/uL	98
139) Pronamide	173	8.260	8.260	0.986	296907	82.31	ng/uL	99
140) 4-Nitroquinoline-1-oxide	128	9.051	9.046	1.080	27507	81.11	ng/uL	97
141) Methapyrilene	97	9.105	9.105	1.087	335713	81.72	ng/uL	100
142) Isodrin	193	9.271	9.271	1.107	104731	80.88	ng/uL	99
144) Aramite	185	9.688	9.683	0.905	45392	85.58	ng/uL	98
145) Kepone	272	10.175	10.169	0.951	102961	83.84	ng/uL	100
146) p-(Dimethylamino)azobe...	225	9.827	9.827	0.918	176322	84.39	ng/uL	98
147) Chlorobenzilate	251	9.859	9.859	0.921	274794	83.47	ng/uL	98
148) 2-Acetylaminofluorene	181	10.362	10.357	0.968	396111	85.50	ng/uL	100
150) 7,12-Dimethylbenz(a)an...	256	12.111	12.106	0.950	399592	83.19	ng/uL	99
151) 3-Methylcholanthrene	269	13.277	13.266	1.042	105963	84.40	ng/uL	100
153) Sulfolane	56	5.430	5.425	1.020	89385	80.25	ng/uL	99
155) Prometon	210	8.078	8.073	0.964	144250	82.25	ng/uL	99
156) Benzidine	184	9.511	9.506	1.135	635105	81.95	ng/uL	100
158) 3,3'-Dimethylbenzidine	212	10.116	10.116	0.945	626590	82.08	ng/uL	99
159) 3,3'-Dichlorobenzidine	252	10.661	10.656	0.996	381743	82.83	ng/uL	100

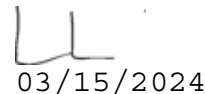
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

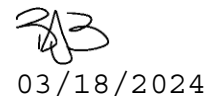
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Data Path   : C:\msdchem\1\data\S031424ICAL\  
Data File   : s3C1417.D  
Acq On      : 14 Mar 2024   13:56  
Operator    : LL2  
Sample      : |WBN240201-57|ICAL|1|SVM|1|APX-6  
Misc        : |MIX[B,J]  
ALS Vial    : 17      Sample Multiplier: 1
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Quant Time: Mar 15 08:39:45 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:45 2024
Response via : Initial Calibration





Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1418.D
 Acq On : 14 Mar 2024 14:17
 Operator : LL2
 Sample : |WBN240201-58|ICAL|1|SVM|1|APX-7
 Misc : |MIX[B,J]
 ALS Vial : 18 Sample Multiplier: 1



Quant Time: Mar 15 08:39:58 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:57 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.747	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	105325	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	415822	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	206632	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	405589	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	401209	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.747	12.742	1.000	408509	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	415822	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	405589	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	401209	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.747	12.758	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	

Target Compounds								
97) 1,4-Dioxane	88	1.462	1.467	0.375	135417	98.79	ng/uL	QValue
98) Methyl methacrylate	69	1.456	1.456	0.373	183272	98.79	ng/uL	100
99) Ethyl methacrylate	69	1.922	1.922	0.493	286775	99.37	ng/uL	99
100) 2-Picoline	93	2.173	2.179	0.557	374761	100.88	ng/uL	100
101) N-Nitrosomethylethylamine	88	2.243	2.243	0.575	146160	100.49	ng/uL	98
102) Methyl methanesulfonate	80	2.489	2.489	0.638	177789	98.09	ng/uL	99
103) N-Nitrosodiethylamine	102	2.842	2.836	0.729	154165	101.32	ng/uL	99
104) 2-Butoxyethanol	57	2.895	2.895	0.742	342885	103.07	ng/uL	99
105) Ethyl methanesulfonate	79	3.114	3.109	0.798	271948	99.79	ng/uL	100
106) Benzaldehyde	77	3.457	3.457	0.886	264978	97.21	ng/uL	100
107) Pentachloroethane	167	3.612	3.612	0.926	144948	100.70	ng/uL	100
108) N-Nitrosopyrrolidine	100	4.318	4.313	1.107	171698	103.11	ng/uL	100
109) Acetophenone	105	4.339	4.334	1.112	502357	100.49	ng/uL	99
110) N-Nitrosomorpholine	56	4.366	4.355	1.119	161158	100.83	ng/uL	99
111) o-Toluidine	106	4.377	4.377	1.122	556725	99.61	ng/uL	99
113) N-Nitrosopiperidine	114	4.703	4.698	0.883	174701	102.48	ng/uL	99
114) a,a-Dimethylphenethyla...	58	5.131	5.126	0.964	795697	109.39	ng/uL	100
115) 2,6-Dichlorophenol	162	5.420	5.414	1.018	290711	103.08	ng/uL	100
116) Hexachloropropene	213	5.441	5.441	1.022	210487	103.32	ng/uL	99
117) Caprolactam	113	5.778	5.757	1.085	93657	107.33	ng/uL	97
118) N-Nitrosodi-n-butylamine	57	5.778	5.778	1.085	160065	102.55	ng/uL	99
119) Safrole	162	5.997	5.997	1.127	264252	102.71	ng/uL	100
121) 1,2,4,5-Tetrachloroben...	216	6.249	6.244	0.884	327344	102.40	ng/uL	100
122) 1,1-Biphenyl	154	6.543	6.543	0.925	839914	100.70	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1418.D
Acq On : 14 Mar 2024 14:17
Operator : LL2
Sample : |WBN240201-58|ICAL|1|SVM|1|APX-7
Misc : |MIX[B,J]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 15 08:39:58 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:57 2024
Response via : Initial Calibration

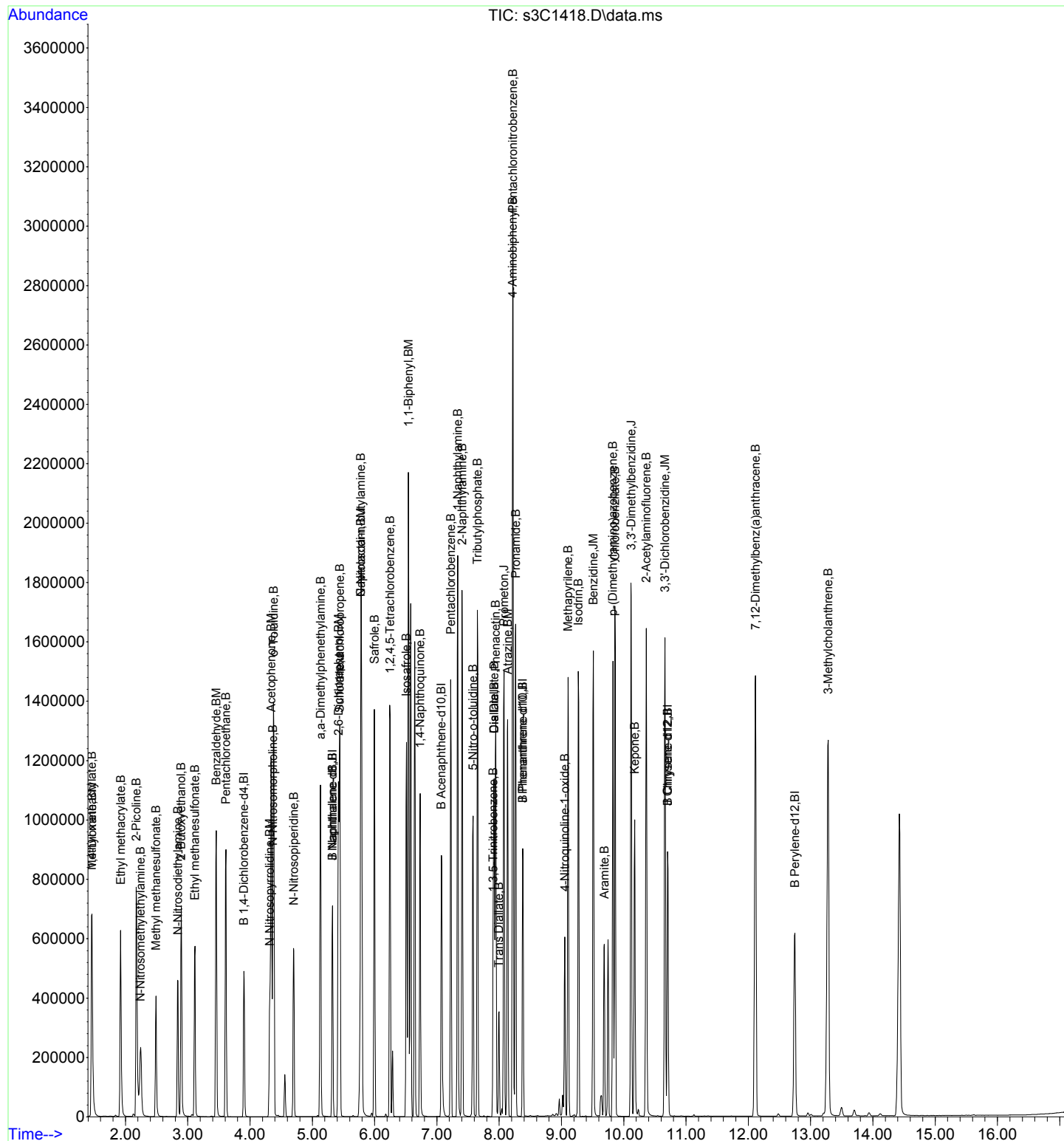
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
123) Isosafrole	162	6.511	6.506	0.921	279702	103.09	ng/uL	100
124) 1,4-Naphthoquinone	158	6.730	6.730	0.952	265852	105.36	ng/uL	99
125) Pentachlorobenzene	250	7.222	7.222	1.021	294877	102.40	ng/uL	99
126) 1-Naphthylamine	143	7.335	7.329	1.037	725975	102.02	ng/uL	100
127) 2-Naphthylamine	143	7.404	7.404	1.047	743666	101.96	ng/uL	100
128) 5-Nitro-o-toluidine	152	7.581	7.575	1.072	216459	106.44	ng/uL	99
129) Tributylphosphate	99	7.650	7.650	1.082	997343	104.90	ng/uL	99
131) 1,3,5-Trinitrobenzene	75	7.901	7.902	0.943	179760	109.53	ng/uL	98
132) Phenacetin	108	7.944	7.934	0.948	384818	101.21	ng/uL	99
133) Diallate	86	7.918	7.918	0.945	228175	100.54	ng/uL#	79
134) Cis Diallate	86	7.918	7.918	0.945	228175	85.46	ng/uL	81
135) Trans Diallate	86	7.992	7.993	0.954	78941	15.07	ng/uL	98
136) Atrazine	200	8.137	8.132	0.971	202166	98.99	ng/uL	99
137) 4-Aminobiphenyl	169	8.217	8.217	0.981	885285	100.44	ng/uL	99
138) Pentachloronitrobenzene	237	8.222	8.217	0.981	91670	103.28	ng/uL	99
139) Pronamide	173	8.265	8.260	0.987	368677	101.99	ng/uL	99
140) 4-Nitroquinoline-1-oxide	128	9.051	9.046	1.080	33691	99.13	ng/uL	97
141) Methapyrilene	97	9.105	9.105	1.087	410122	99.62	ng/uL	99
142) Isodrin	193	9.271	9.271	1.107	131136	101.06	ng/uL	98
144) Aramite	185	9.688	9.683	0.905	57249	106.98	ng/uL	99
145) Kepone	272	10.175	10.169	0.951	127989	103.30	ng/uL	99
146) p-(Dimethylamino)azobe...	225	9.827	9.827	0.918	220894	104.79	ng/uL	98
147) Chlorobenzilate	251	9.859	9.859	0.921	343912	103.54	ng/uL	99
148) 2-Acetylaminofluorene	181	10.362	10.357	0.968	507658	108.60	ng/uL	99
150) 7,12-Dimethylbenz(a)an...	256	12.116	12.106	0.950	509870	104.54	ng/uL	99
151) 3-Methylcholanthrene	269	13.282	13.266	1.042	134336	105.37	ng/uL	99
153) Sulfolane	56	5.436	5.425	1.021	109350	100.45	ng/uL	99
155) Prometon	210	8.078	8.073	0.964	179106	101.91	ng/uL	98
156) Benzidine	184	9.511	9.506	1.135	792311	102.01	ng/uL	100
158) 3,3'-Dimethylbenzidine	212	10.121	10.116	0.946	790154	102.59	ng/uL	99
159) 3,3'-Dichlorobenzidine	252	10.661	10.656	0.996	486660	104.66	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

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Data Path   : C:\msdchem\1\data\S031424ICAL\  
Data File   : s3C1418.D  
Acq On      : 14 Mar 2024   14:17  
Operator    : LL2  
Sample      : |WBN240201-58|ICAL|1|SVM|1|APX-7  
Misc        : |MIX[B,J]  
ALS Vial    : 18      Sample Multiplier: 1
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Quant Time: Mar 15 08:39:58 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:57 2024
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1419.D
 Acq On : 14 Mar 2024 14:39
 Operator : LL2
 Sample : |WBN240201-59|ICAL|1|SVM|1|APX-8
 Misc : |MIX[B,J]
 ALS Vial : 19 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:40:05 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:05 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.073	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.383	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.747	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	104154	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	416775	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.073	7.073	1.000	207865	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.383	8.378	1.000	399976	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	402634	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.747	12.742	1.000	408662	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	416775	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.383	8.378	1.000	399976	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	402634	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.383	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.747	12.758	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	

Target Compounds								
97) 1,4-Dioxane	88	1.462	1.467	0.375	161818	119.38	ng/uL	99
98) Methyl methacrylate	69	1.456	1.456	0.373	221561	120.77	ng/uL	99 A
99) Ethyl methacrylate	69	1.922	1.922	0.493	348473	122.11	ng/uL	100 A
100) 2-Picoline	93	2.173	2.179	0.557	455798	124.07	ng/uL	100 A
101) N-Nitrosomethylethylamine	88	2.243	2.243	0.575	178765	124.29	ng/uL	99 A
102) Methyl methanesulfonate	80	2.489	2.489	0.638	214054	119.43	ng/uL	99
103) N-Nitrosodiethylamine	102	2.842	2.836	0.729	187888	124.87	ng/uL	100 A
104) 2-Butoxyethanol	57	2.895	2.895	0.742	421023	127.98	ng/uL	99 A
105) Ethyl methanesulfonate	79	3.115	3.109	0.798	331086	122.86	ng/uL	99 A
106) Benzaldehyde	77	3.457	3.457	0.886	311639	115.61	ng/uL	99
107) Pentachloroethane	167	3.612	3.612	0.926	176492	123.99	ng/uL	99 A
108) N-Nitrosopyrrolidine	100	4.318	4.313	1.107	210575	127.88	ng/uL	99 A
109) Acetophenone	105	4.339	4.334	1.112	606940	122.77	ng/uL	99 A
110) N-Nitrosomorpholine	56	4.366	4.355	1.119	195758	123.86	ng/uL	100 A
111) o-Toluidine	106	4.382	4.377	1.123	677544	122.59	ng/uL	99 A
113) N-Nitrosopiperidine	114	4.703	4.698	0.883	212581	124.42	ng/uL	99 A
114) a,a-Dimethylphenethyla...	58	5.131	5.126	0.964	973297	133.50	ng/uL	100 A
115) 2,6-Dichlorophenol	162	5.420	5.414	1.018	354235	125.32	ng/uL	99 A
116) Hexachloropropene	213	5.441	5.441	1.022	255735	125.25	ng/uL	99 A
117) Caprolactam	113	5.784	5.757	1.086	114613	131.04	ng/uL	96 A
118) N-Nitrosodi-n-butylamine	57	5.784	5.778	1.086	192264	122.90	ng/uL	98 A
119) Safrole	162	5.997	5.997	1.127	320838	124.42	ng/uL	100 A
121) 1,2,4,5-Tetrachloroben...	216	6.249	6.244	0.884	395076	122.86	ng/uL	100 A
122) 1,1-Biphenyl	154	6.543	6.543	0.925	1018886	121.43	ng/uL	99 A

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1419.D
Acq On : 14 Mar 2024 14:39
Operator : LL2
Sample : |WBN240201-59|ICAL|1|SVM|1|APX-8
Misc : |MIX[B,J]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 15 08:40:05 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:05 2024
Response via : Initial Calibration

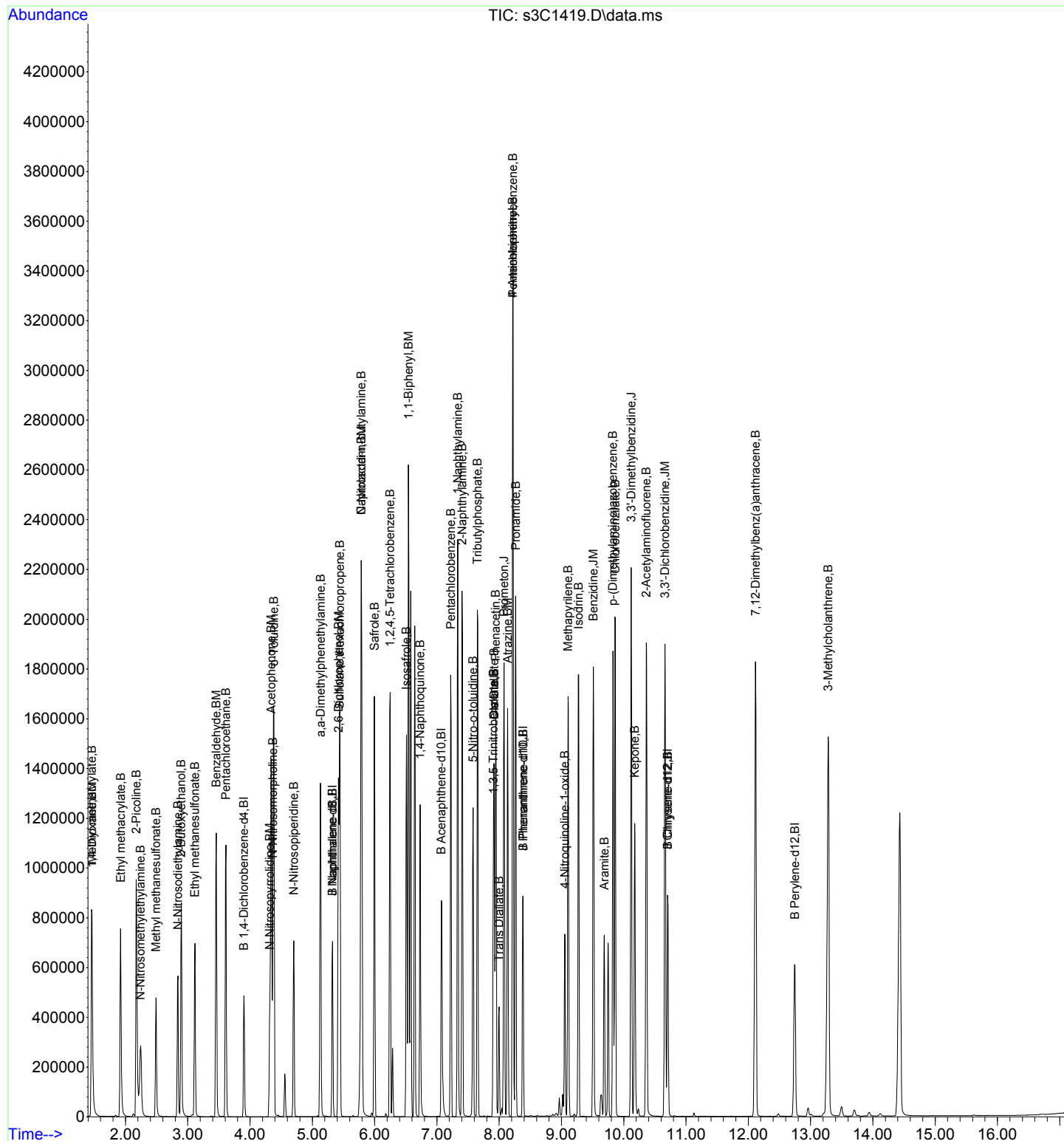
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
123) Isosafrole	162	6.511	6.506	0.921	344080	126.07	ng/uL	100 A
124) 1,4-Naphthoquinone	158	6.730	6.730	0.952	312359	123.06	ng/uL	99 A
125) Pentachlorobenzene	250	7.222	7.222	1.021	359900	124.24	ng/uL	99 A
126) 1-Naphthylamine	143	7.335	7.329	1.037	890838	124.44	ng/uL	100 A
127) 2-Naphthylamine	143	7.404	7.404	1.047	912684	124.40	ng/uL	100 A
128) 5-Nitro-o-toluidine	152	7.581	7.575	1.072	269567	131.77	ng/uL	98 A
129) Tributylphosphate	99	7.650	7.650	1.082	1218156	127.37	ng/uL	99 A
131) 1,3,5-Trinitrobenzene	75	7.907	7.902	0.943	218788	135.18	ng/uL	98 A
132) Phenacetin	108	7.944	7.934	0.948	475578	126.83	ng/uL	99 A
133) Diallate	86	7.918	7.918	0.944	279855	125.04	ng/uL#	77 A
134) Cis Diallate	86	7.918	7.918	0.944	279855	106.28	ng/uL#	78 A
135) Trans Diallate	86	7.998	7.993	0.954	95836	18.55	ng/uL	99 A
136) Atrazine	200	8.137	8.132	0.971	247937	123.11	ng/uL	98 A
137) 4-Aminobiphenyl	169	8.217	8.217	0.980	1083041	124.60	ng/uL	99 A
138) Pentachloronitrobenzene	237	8.223	8.217	0.981	111607	127.51	ng/uL	99 A
139) Pronamide	173	8.265	8.260	0.986	447314	125.48	ng/uL	99 A
140) 4-Nitroquinoline-1-oxide	128	9.052	9.046	1.080	36298	108.30	ng/uL	93
141) Methapyrilene	97	9.105	9.105	1.086	489566	120.58	ng/uL	100 A
142) Isodrin	193	9.276	9.271	1.107	160893	125.73	ng/uL	98 A
144) Aramite	185	9.688	9.683	0.905	70405	131.10	ng/uL	99 A
145) Kepone	272	10.175	10.169	0.951	158440	127.43	ng/uL	100 A
146) p-(Dimethylamino)azobe...	225	9.827	9.827	0.918	272757	128.94	ng/uL	98 A
147) Chlorobenzilate	251	9.865	9.859	0.922	422905	126.87	ng/uL	98 A
148) 2-Acetylaminofluorene	181	10.362	10.357	0.968	629974	134.29	ng/uL	100 A
150) 7,12-Dimethylbenz(a)an...	256	12.116	12.106	0.950	623087	127.70	ng/uL	99 A
151) 3-Methylcholanthrene	269	13.282	13.266	1.042	166825	130.81	ng/uL	100 A
153) Sulfolane	56	5.436	5.425	1.021	132188	121.16	ng/uL	98 A
155) Prometon	210	8.078	8.073	0.964	220760	127.37	ng/uL	98 A
156) Benzidine	184	9.512	9.506	1.135	960377	125.39	ng/uL	99 A
158) 3,3'-Dimethylbenzidine	212	10.121	10.116	0.946	937860	121.33	ng/uL	99 A
159) 3,3'-Dichlorobenzidine	252	10.661	10.656	0.996	592834	127.05	ng/uL	100 A

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1419.D
Acq On : 14 Mar 2024 14:39
Operator : LL2
Sample : |WBN240201-59|ICAL|1|SVM|1|APX-8
Misc : |MIX[B,J]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 15 08:40:05 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:05 2024
Response via : Initial Calibration



Continuing Calibration Summary

Client SDG: 660974
Instrument ID: MSD3.I
Injection Date: 14-MAR-24 15:00
Data File: S031424ICAL\s3C1420.D
Init. Cal. Date(s): 14-MAR-24 08:17 - 14-MAR-24 19:20
Lab Sample ID: WBN240221-20
Method: S031424ICAL\MSD3_8270_031424.m
Quant Type: ISTD
Method Update: 15-MAR-24 08:40

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,4-Dioxane	0.5206	0.53591		.01		2.94084	20		Averaged
Methyl methacrylate	0.7046	0.74974		.01		6.40647	20		Averaged
Ethyl methacrylate	1.096	1.12689		.01		2.81843	20		Averaged
2-Picoline	1.4109	1.45981		.01		3.46658	20		Averaged
N-Nitrosomethylethylamine	0.5524	0.57903		.01		4.82078	20		Averaged
Methyl methanesulfonate	0.6883	0.74433		.01		8.14035	20		Averaged
N-Nitrosodiethylamine	0.5779	0.60857		.01		5.30715	20		Averaged
Ethyl Methanesulfonate	1.0349	1.10562		.01		6.83351	20		Averaged
Pentachloroethane	0.5467	0.57417		.01		5.02469	20		Averaged
N-Nitrosopyrrolidine	0.6324	0.69226		.01		9.46553	20		Averaged
Acetophenone	1.8986	2.0544		.01		8.20605	20		Averaged
N-Nitrosomorpholine	0.607	0.64524		.01		6.29984	20		Averaged
o-Toluidine	2.1225	2.26439		.01		6.68504	20		Averaged
N-Nitrosopiperidine	0.164	0.17937		.01		9.37195	20		Averaged
a,a-Dimethylphenethylamine	0.6997	0.67165		.01		-4.00886	20		Averaged
2,6-Dichlorophenol	0.2713	0.28971		.01		6.78585	20		Averaged
Hexachloropropene	0.196	0.20465		.01		4.41327	20		Averaged
N-Nitrosodi-n-butylamine	0.1501	0.15873		.01		5.7495	20		Averaged
Safrole	0.2475	0.24209		.01		-2.18586	20		Averaged
1,2,4,5-Tetrachlorobenzene	0.6188	0.66205		.01		6.98933	20		Averaged
Isosafrole	0.5252	0.54624		.01		4.00609	20		Averaged
1,4-Naphthoquinone	0.4885	0.52868		.01		8.22518	20		Averaged
Pentachlorobenzene	0.5574	0.62545		.01		12.20847	20		Averaged
1-Naphthylamine	1.3776	1.45646		.01		5.72445	20		Averaged
2-Naphthylamine	1.4119	1.49778		.01		6.08258	20		Averaged
5-Nitro-o-toluidine	0.3937	0.41095		.01		4.38151	20		Averaged
Tributylphosphate	1.8405	2.06938		.01		12.43575	20		Averaged
1,3,5-Trinitrobenzene	0.1619	0.1703		.01		5.18839	20		Averaged
Diallate	0.2238	0.26341		.01		17.69884	20		Averaged
Phenacetin	0.375	0.40446		.01		7.856	20		Averaged
4-Aminobiphenyl	0.8692	0.88496		.01		1.81316	20		Averaged
Pentachloronitrobenzene	0.0875	0.09406		.01		7.49714	20		Averaged
Pronamide	0.3565	0.387		.01		8.5554	20		Averaged
4-Nitroquinoline-1-oxide	0.0335	0.03923		.01		17.10448	20		Averaged
Methapyrilene	0.406	0.29193		.01		-28.09606	20	*	Averaged
Isodrin	0.128	0.13471		.01		5.24219	20		Averaged
Aramite	0.0534	0.06239		.01		16.83521	20		Averaged

Continuing Calibration Summary

Instrument ID: MSD3.I

Injection Date: 14-MAR-24 15:00

Data File: S031424ICAL\s3C1420.D

Init. Cal. Date(s) 14-MAR-24 08:17 14-MAR-24 19:20

Lab Sample ID WBN240221-20

Method: S031424ICAL\MSD3_8270_031424.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
p-(Dimethylamino)azobenzene	0.2102	0.23207		.01		10.40438	20		Averaged
Chlorobenzilate	0.3311	0.357		.01		7.82241	20		Averaged
3,3'-Dimethylbenzidine	0.7679	0.88324		.01		15.02018	20		Averaged
Kepone	0.1235	0.1149		.01		-6.96356	20		Averaged
2-Acetylaminofluorene	0.466	0.48843		.01		4.8133	20		Averaged
3,3'-Dichlorobenzidine	0.4636	0.54419		.01		17.38352	20		Averaged
7,12Dimethylbenz(a)anthracene	0.4776	0.51814		.01		8.48827	20		Averaged
3-Methylcholanthrene	0.1248	0.1289		.01		3.28526	20		Averaged

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1420.D
 Acq On : 14 Mar 2024 15:00
 Operator : LL2
 Sample : |WBN240221-20|ICV|1|SVM|1|APX-ICV
 Misc : |MIX[B,J]
 ALS Vial : 20 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:50:36 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	90857	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	359429	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	177042	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	345934	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	343487	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	345416	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	90857	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	359429	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	177042	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	345934	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	343487	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	345416	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	359429	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	345934	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	343487	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	359429	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	177042	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	345934	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	343487	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	359429	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	345416	40.00	ng/uL	-0.02

System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	

Target Compounds								
97) 1,4-Dioxane	88	1.462	1.467	0.375	48691	41.18	ng/uL	QValue
98) Methyl methacrylate	69	1.456	1.456	0.373	68119	42.57	ng/uL	99
99) Ethyl methacrylate	69	1.922	1.922	0.493	102386	41.13	ng/uL	100
100) 2-Picoline	93	2.178	2.179	0.558	132634	41.39	ng/uL	100
101) N-Nitrosomethylethylamine	88	2.243	2.243	0.575	52609	41.93	ng/uL	99
102) Methyl methanesulfonate	80	2.489	2.489	0.638	67628	43.25	ng/uL	99
103) N-Nitrosodiethylamine	102	2.836	2.836	0.727	55293	42.13	ng/uL	98
104) 2-Butoxyethanol	57	2.895	2.895	0.742	114774	39.99	ng/uL	99
105) Ethyl methanesulfonate	79	3.109	3.109	0.797	100453	42.73	ng/uL	98
106) Benzaldehyde	77	3.451	3.457	0.885	103995	44.23	ng/uL	99
107) Pentachloroethane	167	3.612	3.612	0.926	52167	42.01	ng/uL	98
108) N-Nitrosopyrrolidine	100	4.307	4.313	1.104	62897	43.79	ng/uL	99
109) Acetophenone	105	4.334	4.334	1.111	186657	43.28	ng/uL	100
110) N-Nitrosomorpholine	56	4.355	4.355	1.117	58625	42.52	ng/uL	99
111) o-Toluidine	106	4.371	4.377	1.121	205736	42.67	ng/uL	100
113) N-Nitrosopiperidine	114	4.698	4.698	0.882	64469	43.75	ng/uL	99
114) a,a-Dimethylphenethyla...	58	5.125	5.126	0.963	241411	38.39	ng/uL	100
115) 2,6-Dichlorophenol	162	5.414	5.414	1.017	104131	42.72	ng/uL	99
116) Hexachloropropene	213	5.441	5.441	1.022	73557	41.77	ng/uL	99
117) Caprolactam	113	5.757	5.757	1.081	31546	41.82	ng/uL	97
118) N-Nitrosodi-n-butylamine	57	5.773	5.778	1.084	57052	42.29	ng/uL	96
119) Safrole	162	5.992	5.997	1.126	87013	39.13	ng/uL	100
121) 1,2,4,5-Tetrachloroben...	216	6.243	6.244	0.883	117210	42.79	ng/uL	100
122) 1,1-Biphenyl	154	6.538	6.543	0.924	307047	42.96	ng/uL	100

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1420.D
Acq On : 14 Mar 2024 15:00
Operator : LL2
Sample : |WBN240221-20|ICV|1|SVM|1|APX-ICV
Misc : |MIX[B,J]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 15 08:50:36 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

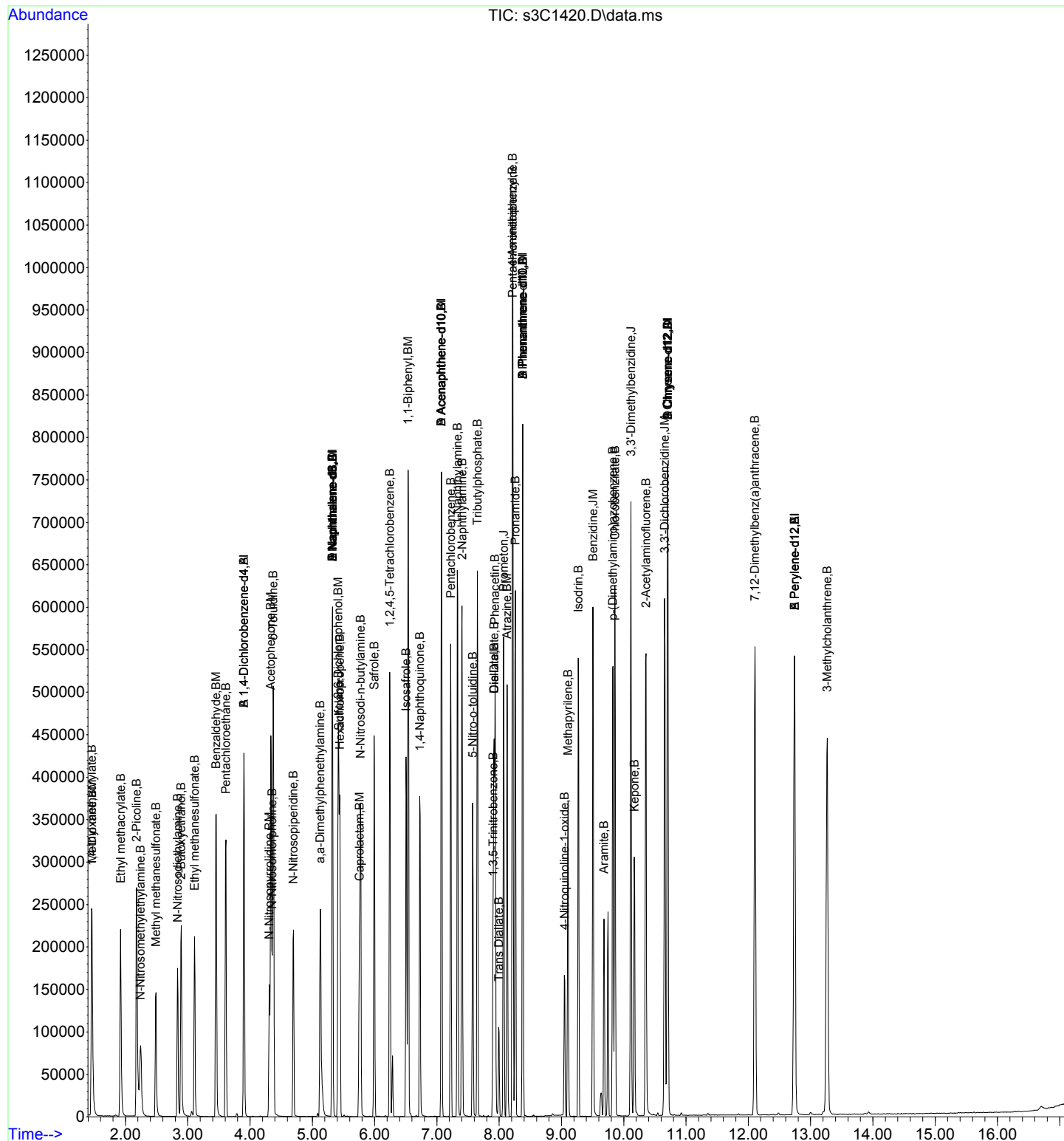
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
123) Isosafrole	162	6.505	6.506	0.920	96707	41.60	ng/uL	99
124) 1,4-Naphthoquinone	158	6.725	6.730	0.951	93599	43.29	ng/uL	99
125) Pentachlorobenzene	250	7.222	7.222	1.021	110731	44.88	ng/uL	99
126) 1-Naphthylamine	143	7.329	7.329	1.036	257854	42.29	ng/uL	99
127) 2-Naphthylamine	143	7.404	7.404	1.047	265170	42.43	ng/uL	100
128) 5-Nitro-o-toluidine	152	7.575	7.575	1.071	72755	41.76	ng/uL	99
129) Tributylphosphate	99	7.650	7.650	1.082	366367	44.97	ng/uL	100
131) 1,3,5-Trinitrobenzene	75	7.901	7.902	0.943	58914	42.09	ng/uL	99
132) Phenacetin	108	7.934	7.934	0.947	139917	43.14	ng/uL	99
133) Diallate	86	7.917	7.918	0.945	91124	47.07	ng/uL	98
134) Cis Diallate	86	7.917	7.918	0.945	91124	40.01	ng/uL	98
135) Trans Diallate	86	7.992	7.993	0.954	23753	5.31	ng/uL	99
136) Atrazine	200	8.126	8.132	0.970	72271	41.49	ng/uL	100
137) 4-Aminobiphenyl	169	8.212	8.217	0.980	306138	40.72	ng/uL	100
138) Pentachloronitrobenzene	237	8.217	8.217	0.981	32539	42.98	ng/uL	99
139) Pronamide	173	8.260	8.260	0.986	133877	43.42	ng/uL	100
140) 4-Nitroquinoline-1-oxide	128	9.046	9.046	1.080	13572	46.82	ng/uL	94
141) Methapyrilene	97	9.105	9.105	1.087	100988	28.76	ng/uL	100
142) Isodrin	193	9.271	9.271	1.107	46602	42.11	ng/uL	99
144) Aramite	185	9.683	9.683	0.905	21429	46.77	ng/uL	99
145) Kepone	272	10.169	10.169	0.950	39466	37.21	ng/uL	100
146) p-(Dimethylamino)azobe...	225	9.827	9.827	0.918	79713	44.17	ng/uL	98
147) Chlorobenzilate	251	9.859	9.859	0.921	122626	43.12	ng/uL	99
148) 2-Acetylaminofluorene	181	10.356	10.357	0.968	167768	41.92	ng/uL	99
150) 7,12-Dimethylbenz(a)an...	256	12.105	12.106	0.950	178973	43.40	ng/uL	100
151) 3-Methylcholanthrene	269	13.266	13.266	1.041	44524	41.30	ng/uL	99
153) Sulfolane	56	5.425	5.425	1.019	44206	46.98	ng/uL	99
155) Prometon	210	8.073	8.073	0.964	66576	44.41	ng/uL	98
156) Benzidine	184	9.506	9.506	1.135	286358	43.23	ng/uL	99
158) 3,3'-Dimethylbenzidine	212	10.116	10.116	0.945	303381	46.01	ng/uL	100
159) 3,3'-Dichlorobenzidine	252	10.656	10.656	0.996	186921	46.96	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

```
Data Path   : C:\msdchem\1\data\S031424ICAL\  
Data File   : s3C1420.D  
Acq On      : 14 Mar 2024   15:00  
Operator    : LL2  
Sample      : |WBN240221-20|ICV|1|SVM|1|APX-ICV  
Misc        : |MIX[B,J]  
ALS Vial    : 20      Sample Multiplier: 1
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Quant Time: Mar 15 08:50:36 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration



Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1421.D
 Acq On : 14 Mar 2024 15:22
 Operator : LL2
 Sample : |WBN240227-27.1|ICAL|1|SVM|1|P-2
 Misc : |MIX[D]
 ALS Vial : 21 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:21 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:20 2024
 Response via : Initial Calibration

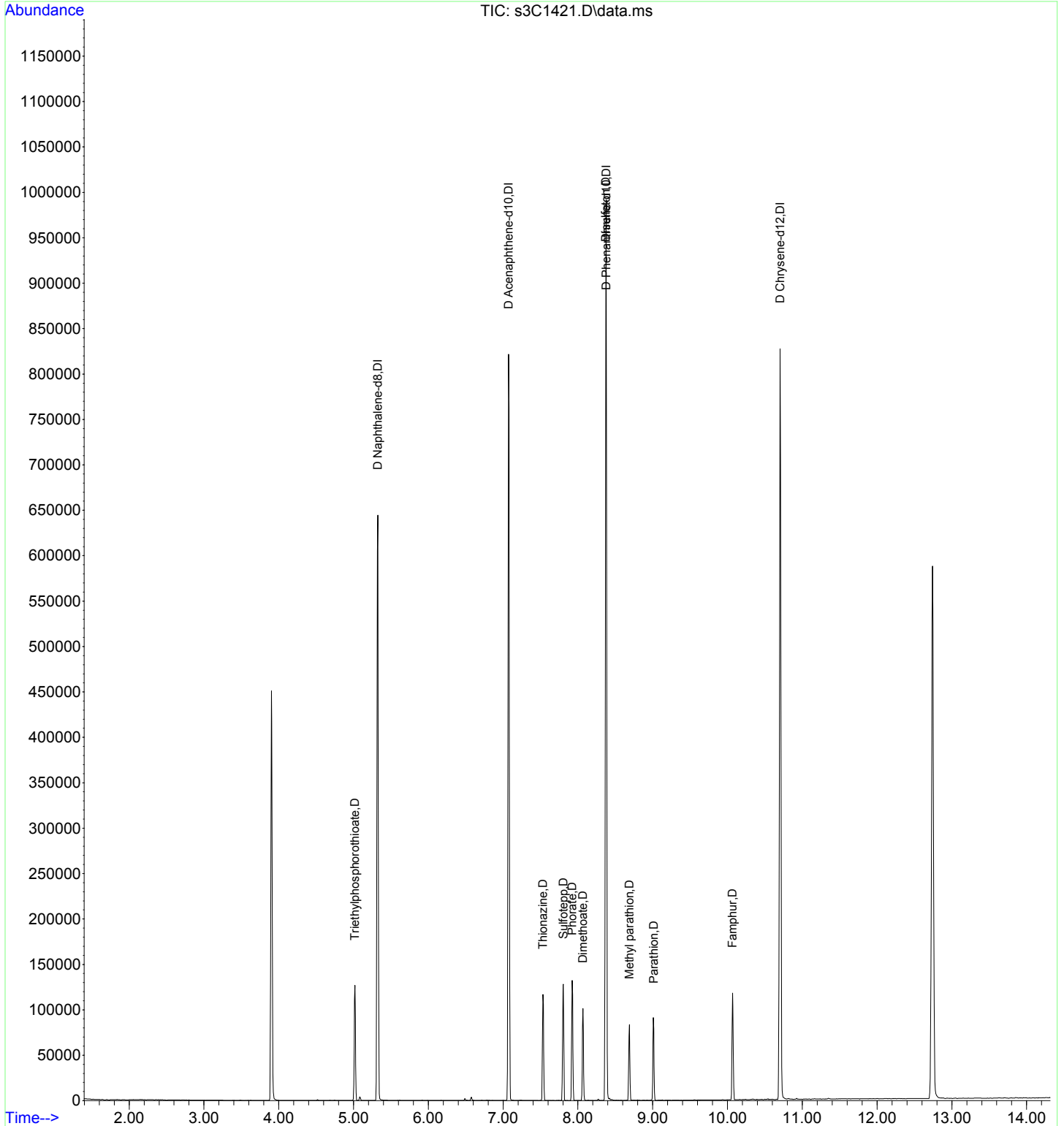
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	389680	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	192045	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	386581	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	367705	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								
161) Triethylphosphorothioate	198	5.019	5.019	0.943	15828	9.89	ng/uL	100
163) Thionazine	107	7.532	7.533	1.065	10961	9.57	ng/uL	98
165) Sulfotepp	322	7.805	7.805	0.932	10917	9.63	ng/uL	98
166) Phorate	75	7.923	7.923	0.946	43549	9.91	ng/uL	100
167) Dimethoate	87	8.067	8.067	0.963	25909	9.17	ng/uL	99
168) Disulfoton	88	8.372	8.372	0.999	41149	10.34	ng/uL	98
169) Methyl parathion	109	8.688	8.688	1.037	18412	8.24	ng/uL	96
170) Parathion	291	9.014	9.014	1.076	5481	7.92	ng/uL	92
172) Famphur	218	10.068	10.073	0.941	40169	9.10	ng/uL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1421.D
 Acq On : 14 Mar 2024 15:22
 Operator : LL2
 Sample : |WBN240227-27.1|ICAL|1|SVM|1|P-2
 Misc : |MIX[D]
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 15 08:39:21 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:20 2024
 Response via : Initial Calibration



LL
03/15/2024

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1422.D
 Acq On : 14 Mar 2024 15:40
 Operator : LL2
 Sample : |WBN240227-26|ICAL|1|SVM|1|P-3
 Misc : |MIX[D]
 ALS Vial : 22 Sample Multiplier: 1

RB
 03/18/2024

Quant Time: Mar 15 08:39:27 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:27 2024
 Response via : Initial Calibration

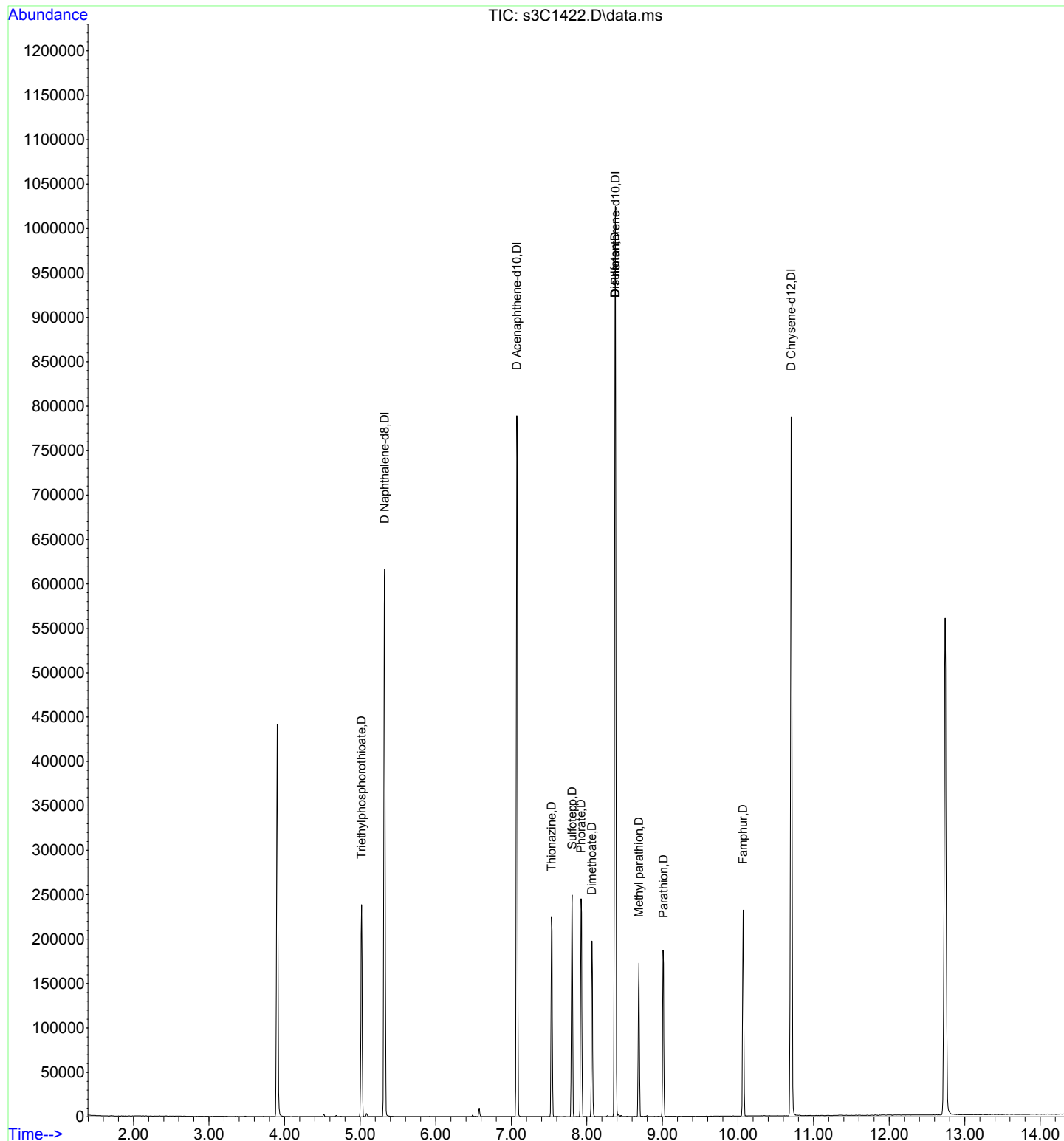
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	371435	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	184601	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	371452	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	350648	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								QValue
161) Triethylphosphorothioate	198	5.019	5.019	0.943	29742	19.55	ng/uL	100
163) Thionazine	107	7.532	7.533	1.065	20806	18.94	ng/uL	100
165) Sulfotepp	322	7.805	7.805	0.932	20203	18.55	ng/uL	98
166) Phorate	75	7.923	7.923	0.946	82793	19.60	ng/uL	100
167) Dimethoate	87	8.067	8.067	0.963	50189	18.51	ng/uL	99
168) Disulfoton	88	8.372	8.372	0.999	76336	19.97	ng/uL	99
169) Methyl parathion	109	8.688	8.688	1.037	37402	17.48	ng/uL	98
170) Parathion	291	9.014	9.014	1.076	11696	17.69	ng/uL	98
172) Famphur	218	10.068	10.073	0.941	76485	18.23	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1422.D
 Acq On : 14 Mar 2024 15:40
 Operator : LL2
 Sample : |WBN240227-26|ICAL|1|SVM|1|P-3
 Misc : |MIX[D]
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 15 08:39:27 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:27 2024
 Response via : Initial Calibration



Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1423.D
 Acq On : 14 Mar 2024 15:58
 Operator : LL2
 Sample : |WBN240227-25.1|ICAL|1|SVM|1|P-4
 Misc : |MIX[D]
 ALS Vial : 23 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:34 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:33 2024
 Response via : Initial Calibration

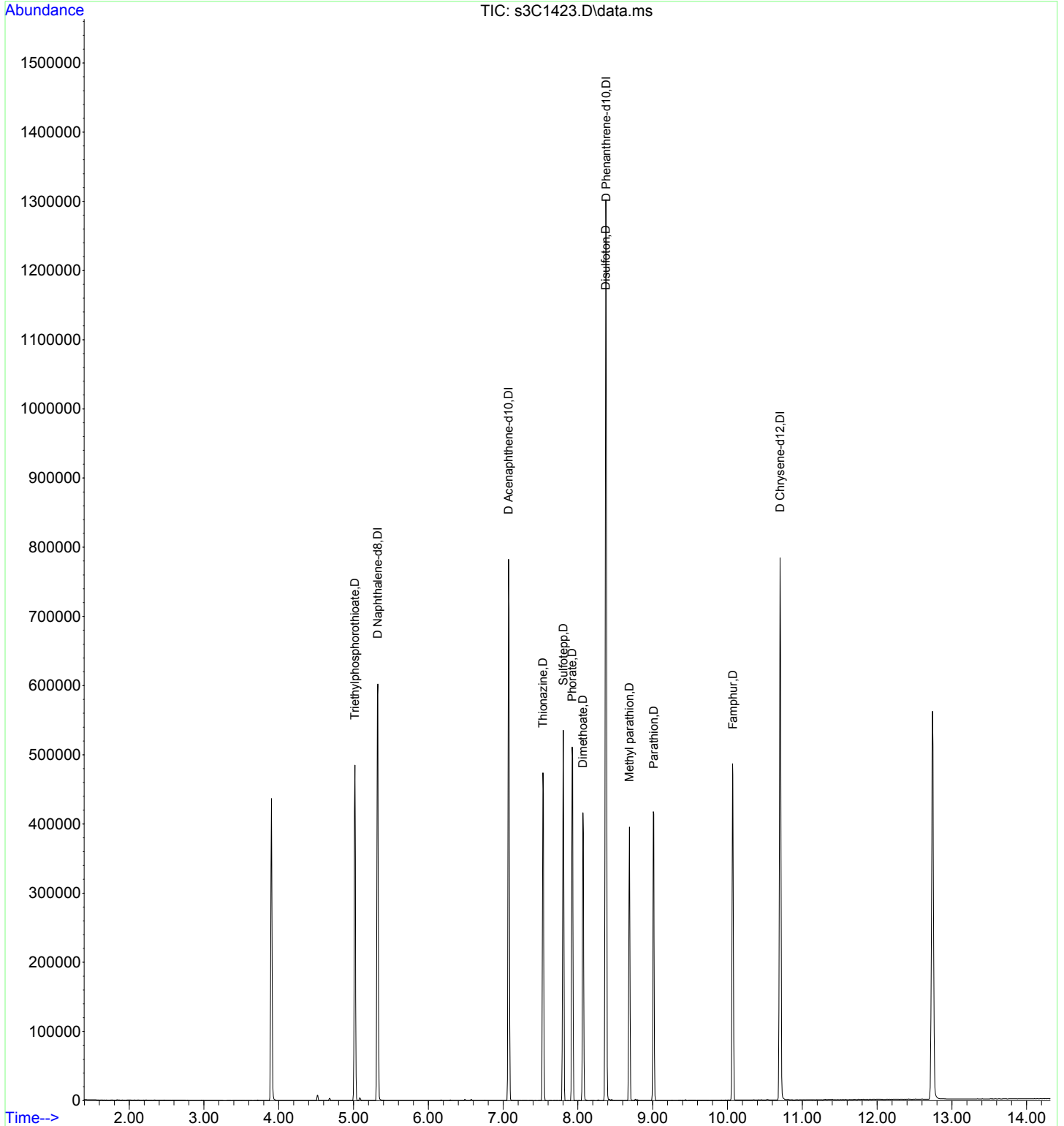
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.073	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	367889	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.073	7.073	1.000	182496	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	368634	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	352177	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								
161) Triethylphosphorothioate	198	5.019	5.019	0.943	58898	38.97	ng/uL	100
163) Thionazine	107	7.533	7.533	1.065	42997	39.39	ng/uL	100
165) Sulfotepp	322	7.805	7.805	0.932	42403	39.26	ng/uL	100
166) Phorate	75	7.923	7.923	0.946	172221	40.83	ng/uL	100
167) Dimethoate	87	8.067	8.067	0.963	108257	40.09	ng/uL	100
168) Disulfoton	88	8.372	8.372	0.999	154771	40.56	ng/uL	100
169) Methyl parathion	109	8.688	8.688	1.037	84885	39.83	ng/uL	100
170) Parathion	291	9.014	9.014	1.076	26342	40.06	ng/uL	100
172) Famphur	218	10.073	10.073	0.941	164692	39.04	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1423.D
 Acq On : 14 Mar 2024 15:58
 Operator : LL2
 Sample : WBN240227-25.1 | ICAL | 1 | SVM | 1 | P-4
 Misc : MIX[D]
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 15 08:39:34 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:33 2024
 Response via : Initial Calibration



Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1424.D
 Acq On : 14 Mar 2024 16:17
 Operator : LL2
 Sample : |WBN240227-24|ICAL|1|SVM|1|P-5
 Misc : |MIX[D]
 ALS Vial : 24 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:40 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:40 2024
 Response via : Initial Calibration

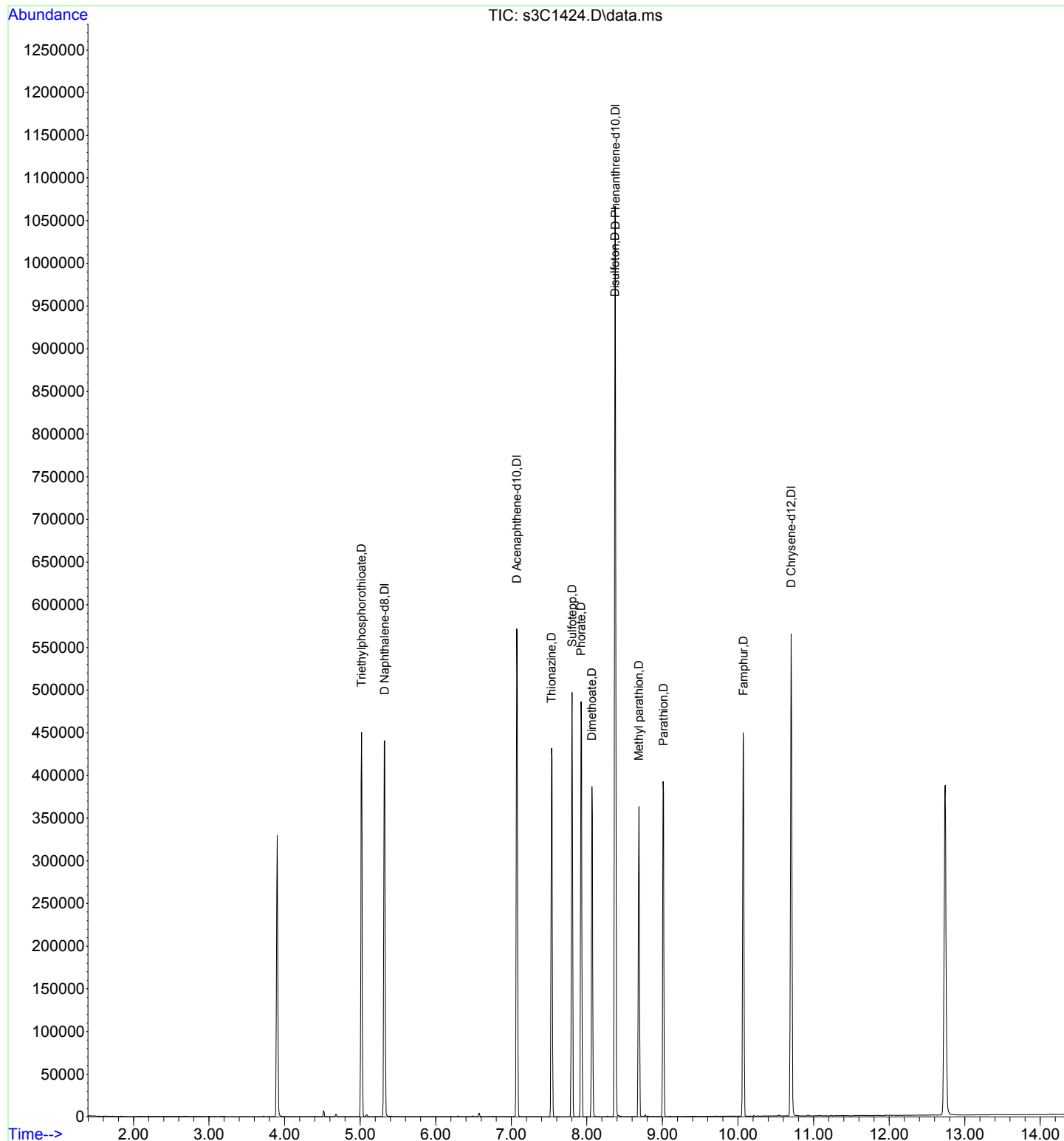
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	274633	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	132344	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	271676	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	252564	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								
161) Triethylphosphorothioate	198	5.019	5.019	0.943	55984	49.62	ng/uL	99
163) Thionazine	107	7.532	7.533	1.065	40028	50.57	ng/uL	100
165) Sulfotepp	322	7.805	7.805	0.932	39273	49.34	ng/uL	99
166) Phorate	75	7.923	7.923	0.946	160551	51.64	ng/uL	100
167) Dimethoate	87	8.067	8.067	0.963	100337	50.42	ng/uL	99
168) Disulfoton	88	8.372	8.372	0.999	142302	50.60	ng/uL	100
169) Methyl parathion	109	8.688	8.688	1.037	78314	49.86	ng/uL	99
170) Parathion	291	9.014	9.014	1.076	24165	49.87	ng/uL	98
172) Famphur	218	10.073	10.073	0.941	154369	51.02	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1424.D
 Acq On : 14 Mar 2024 16:17
 Operator : LL2
 Sample : |WBN240227-24|ICAL|1|SVM|1|P-5
 Misc : |MIX[D]
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 15 08:39:40 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:40 2024
 Response via : Initial Calibration



Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1425.D
 Acq On : 14 Mar 2024 16:35
 Operator : LL2
 Sample : |WBN240227-23|ICAL|1|SVM|1|P-6
 Misc : |MIX[D]
 ALS Vial : 25 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:47 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:46 2024
 Response via : Initial Calibration

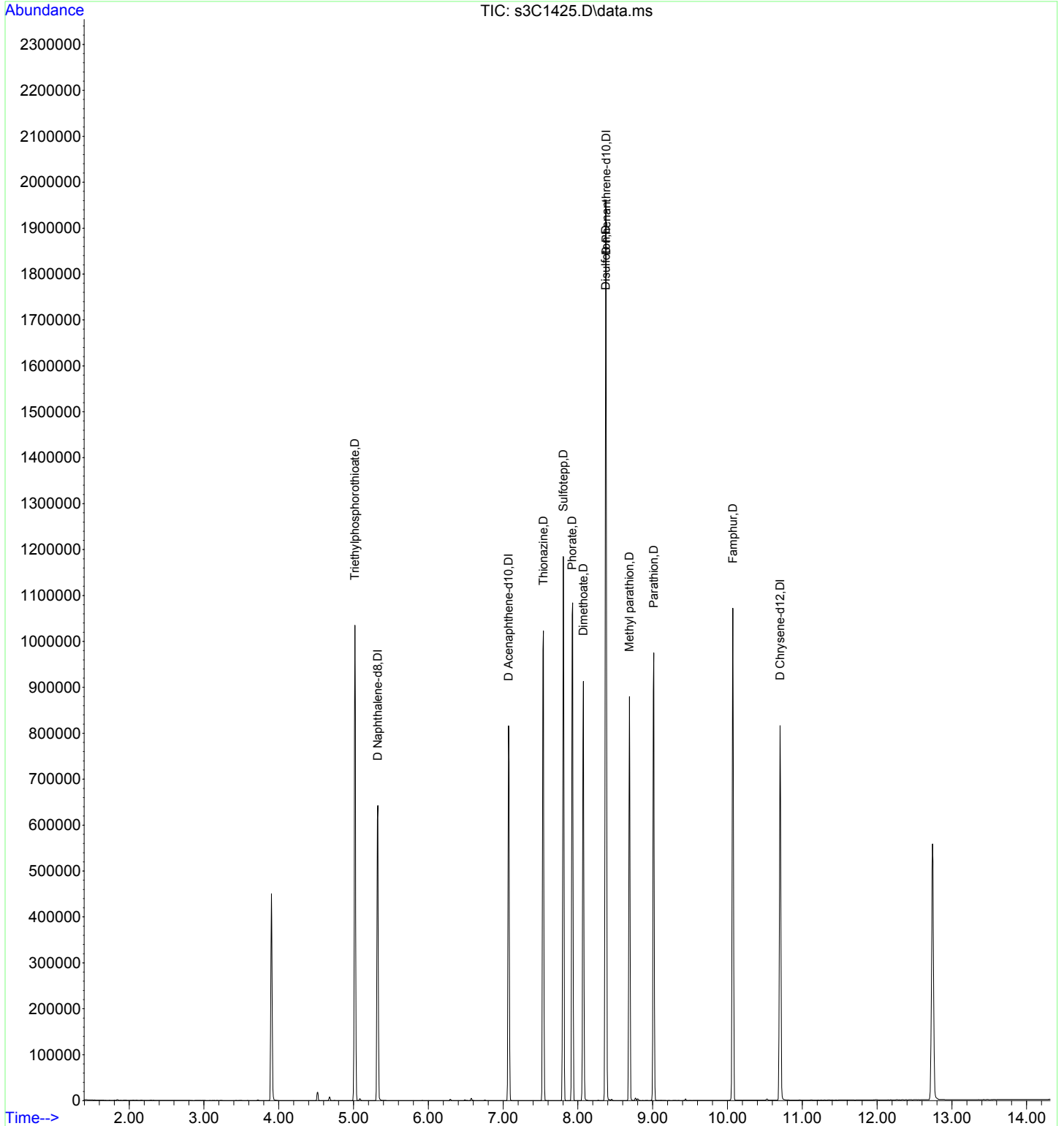
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	386761	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	189153	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	383553	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	358138	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								
161) Triethylphosphorothioate	198	5.019	5.019	0.943	127163	80.01	ng/uL	99
163) Thionazine	107	7.538	7.533	1.066	93934	82.99	ng/uL	99
165) Sulfotepp	322	7.805	7.805	0.932	92347	82.41	ng/uL	99
166) Phorate	75	7.923	7.923	0.946	367876	83.40	ng/uL	99
167) Dimethoate	87	8.073	8.067	0.964	236464	84.19	ng/uL	98
168) Disulfoton	88	8.372	8.372	0.999	325638	81.76	ng/uL	99
169) Methyl parathion	109	8.688	8.688	1.037	192803	87.09	ng/uL	99
170) Parathion	291	9.014	9.014	1.076	59269	87.02	ng/uL	99
172) Famphur	218	10.073	10.073	0.941	358478	83.53	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1425.D
 Acq On : 14 Mar 2024 16:35
 Operator : LL2
 Sample : |WBN240227-23|ICAL|1|SVM|1|P-6
 Misc : |MIX[D]
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 15 08:39:47 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:46 2024
 Response via : Initial Calibration



LL
03/15/2024

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1426.D
 Acq On : 14 Mar 2024 16:54
 Operator : LL2
 Sample : |WBN240227-22|ICAL|1|SVM|1|P-7
 Misc : |MIX[D]
 ALS Vial : 26 Sample Multiplier: 1

RB
 03/18/2024

Quant Time: Mar 15 08:40:00 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:59 2024
 Response via : Initial Calibration

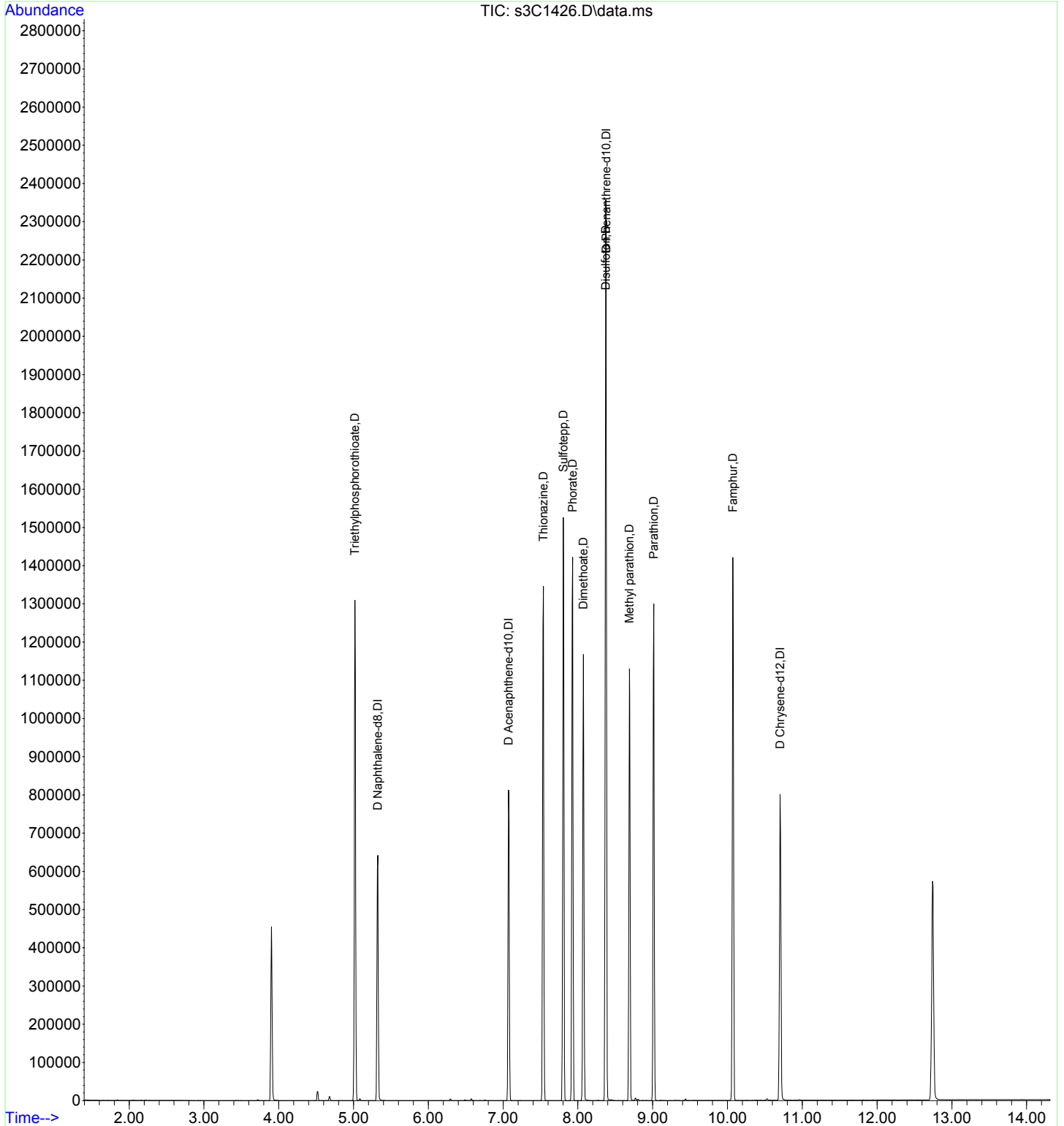
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	386725	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	189664	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	392776	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	364038	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								QValue
161) Triethylphosphorothioate	198	5.019	5.019	0.943	162105	102.04	ng/uL	98
163) Thionazine	107	7.538	7.533	1.066	122334	107.28	ng/uL	99
165) Sulfotepp	322	7.805	7.805	0.932	120094	104.54	ng/uL	98
166) Phorate	75	7.928	7.923	0.946	463862	101.88	ng/uL	100
167) Dimethoate	87	8.073	8.067	0.964	306355	106.01	ng/uL	99
168) Disulfoton	88	8.372	8.372	0.999	416452	101.41	ng/uL	100
169) Methyl parathion	109	8.688	8.688	1.037	258937	113.74	ng/uL	98
170) Parathion	291	9.014	9.014	1.076	78177	111.77	ng/uL	98
172) Famphur	218	10.073	10.073	0.941	467584	106.93	ng/uL	99

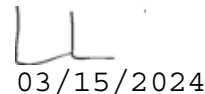
(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1426.D
 Acq On : 14 Mar 2024 16:54
 Operator : LL2
 Sample : |WBN240227-22|ICAL|1|SVM|1|P-7
 Misc : |MIX[D]
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 15 08:40:00 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:59 2024
 Response via : Initial Calibration





Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1427.D
 Acq On : 14 Mar 2024 17:12
 Operator : LL2
 Sample : |WBN240227-21|ICAL|1|SVM|1|P-8
 Misc : |MIX[D]
 ALS Vial : 27 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:40:07 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:07 2024
 Response via : Initial Calibration

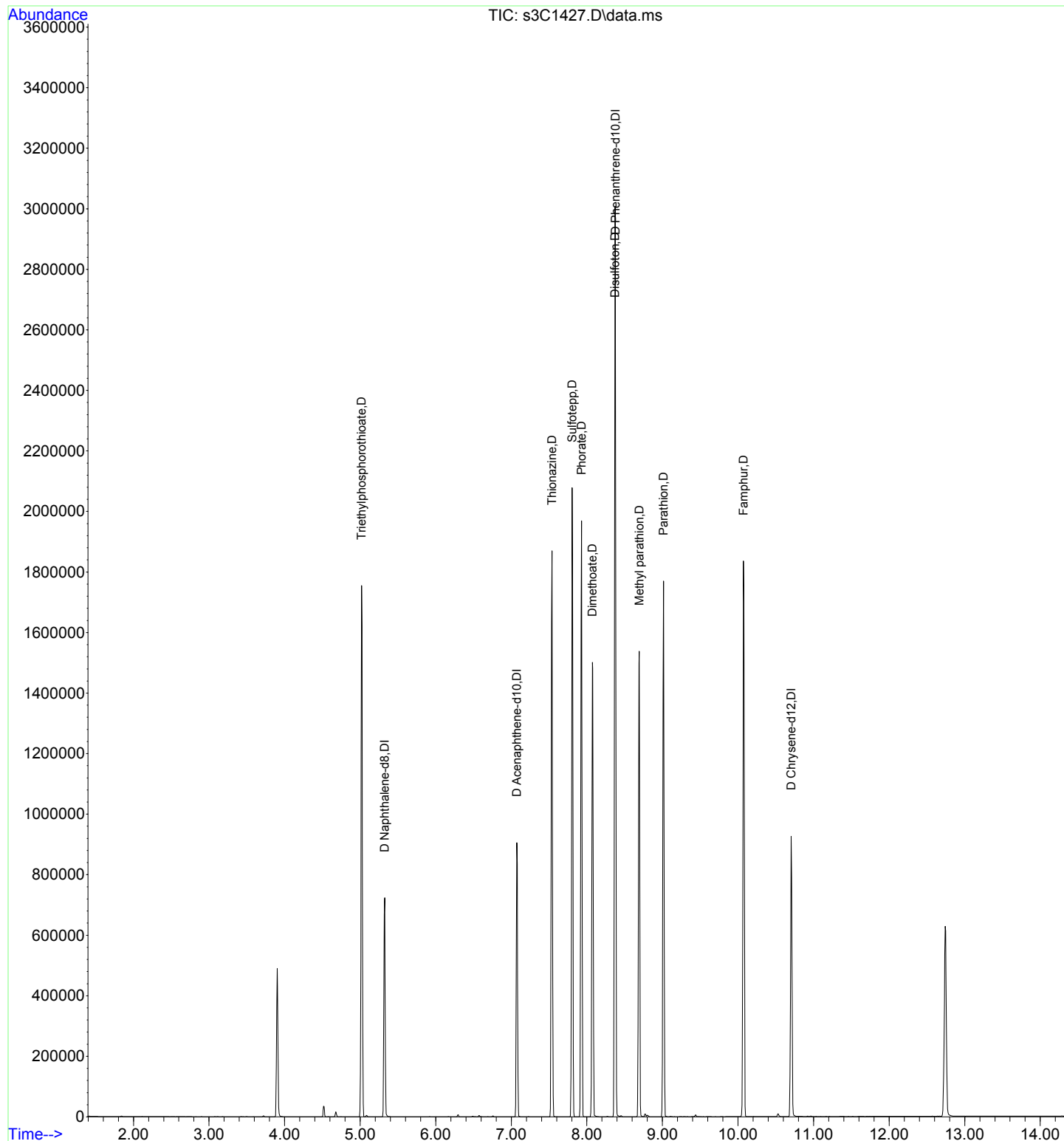
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.073	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	429060	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.073	7.073	1.000	213383	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	441950	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	408612	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								
161) Triethylphosphorothioate	198	5.019	5.019	0.943	221215	125.47	ng/uL	99 A
163) Thionazine	107	7.538	7.533	1.066	168268	130.53	ng/uL	99 A
165) Sulfotepp	322	7.805	7.805	0.932	165143	127.75	ng/uL	98 A
166) Phorate	75	7.928	7.923	0.946	632442	123.22	ng/uL	99 A
167) Dimethoate	87	8.073	8.067	0.964	425109	130.69	ng/uL	98 A
168) Disulfoton	88	8.372	8.372	0.999	563672	121.67	ng/uL	99 A
169) Methyl parathion	109	8.693	8.688	1.038	358874	139.86	ng/uL	99 A
170) Parathion	291	9.014	9.014	1.076	109470	139.07	ng/uL	97 A
172) Famphur	218	10.073	10.073	0.941	633090	128.77	ng/uL	99 A

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1427.D
 Acq On : 14 Mar 2024 17:12
 Operator : LL2
 Sample : |WBN240227-21|ICAL|1|SVM|1|P-8
 Misc : |MIX[D]
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 15 08:40:07 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:07 2024
 Response via : Initial Calibration

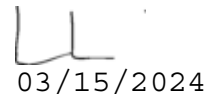


Continuing Calibration Summary

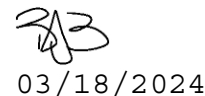
Instrument ID: MSD3.I
Data File: S031424ICAL\s3C1428.D
Lab Sample ID WBN240228-26
Quant Type ISTD

Client SDG: 660974
Injection Date: 14-MAR-24 17:30
Init. Cal. Date(s) 14-MAR-24 08:17 - 14-MAR-24 19:20
Method: S031424ICAL\MSD3_8270_031424.m
Method Update: 15-MAR-24 08:40

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Triethylphosphorothioate	0.1642	0.16545		.01		0.76127	20		Averaged
Thionazin	0.2429	0.25181		.01		3.66818	20		Averaged
Sulfotepp	0.1171	0.12187		.01		4.07344	20		Averaged
Phorate	0.4665	0.48506		.01		3.97856	20		Averaged
Dimethoate	0.2955	0.32061		.01		8.49746	20		Averaged
Disulfoton	0.4213	0.42058		.01		-0.1709	20		Averaged
Methyl parathion	0.2341	0.22921		.01		-2.08885	20		Averaged
Parathion	0.0717	0.07275		.01		1.46444	20		Averaged
Famphur	0.4801	0.49602		.01		3.31598	20		Averaged



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1428.D
 Acq On : 14 Mar 2024 17:30
 Operator : LL2
 Sample : |WBN240228-26|ICV|1|SVM|1|P-ICV
 Misc : |MIX[D]
 ALS Vial : 28 Sample Multiplier: 1



Quant Time: Mar 15 08:51:09 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

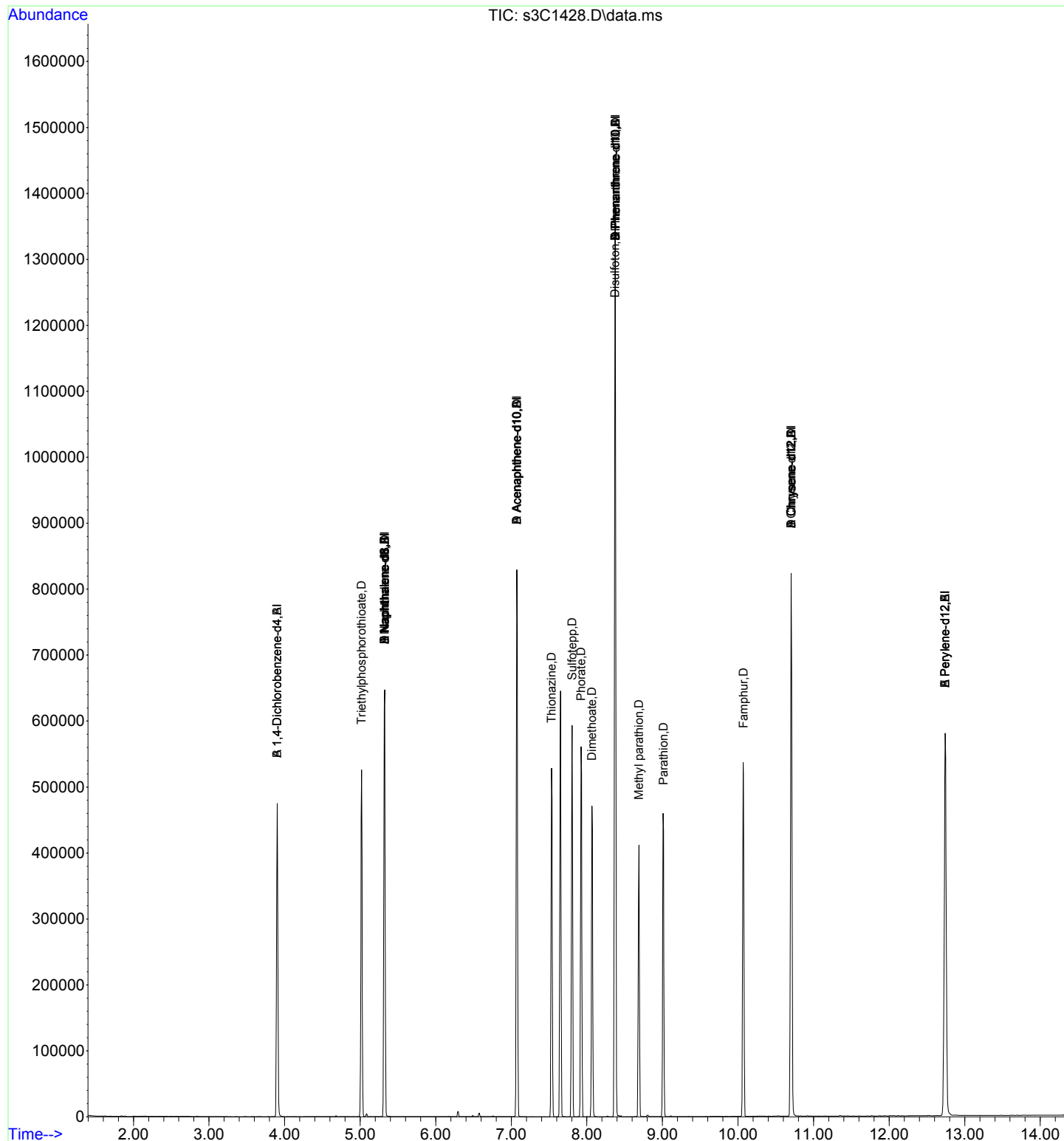
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	100469	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	394105	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.073	7.078	1.000	192938	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	387496	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	370990	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	376153	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	100469	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	394105	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.073	7.073	1.000	192938	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	387496	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	370990	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	376153	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	394105	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	387496	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	370990	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	394105	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.073	7.073	1.000	192938	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	387496	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	370990	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	394105	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	376153	40.00	ng/uL	-0.02
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								QValue
161) Triethylphosphorothioate	198	5.019	5.019	0.943	65204	40.29	ng/uL	99
163) Thionazine	107	7.533	7.533	1.065	48583	41.46	ng/uL	98
165) Sulfotepp	322	7.805	7.805	0.932	47226	41.63	ng/uL	100
166) Phorate	75	7.923	7.923	0.946	187958	41.59	ng/uL	99
167) Dimethoate	87	8.067	8.067	0.963	124237	43.40	ng/uL	98
168) Disulfoton	88	8.372	8.372	0.999	162973	39.93	ng/uL	100
169) Methyl parathion	109	8.688	8.688	1.037	88817	39.17	ng/uL	100
170) Parathion	291	9.014	9.014	1.076	28189	40.60	ng/uL	99
172) Famphur	218	10.073	10.073	0.941	184017	41.33	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1428.D
 Acq On : 14 Mar 2024 17:30
 Operator : LL2
 Sample : WBN240228-26|ICV|1|SVM|1|P-ICV
 Misc : MIX[D]
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 15 08:51:09 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1429.D
 Acq On : 14 Mar 2024 17:49
 Operator : LL2
 Sample : |WBN240313-31.1|ICAL|1|SVM|1|H-2
 Misc : |MIX[E]
 ALS Vial : 29 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:49:13 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

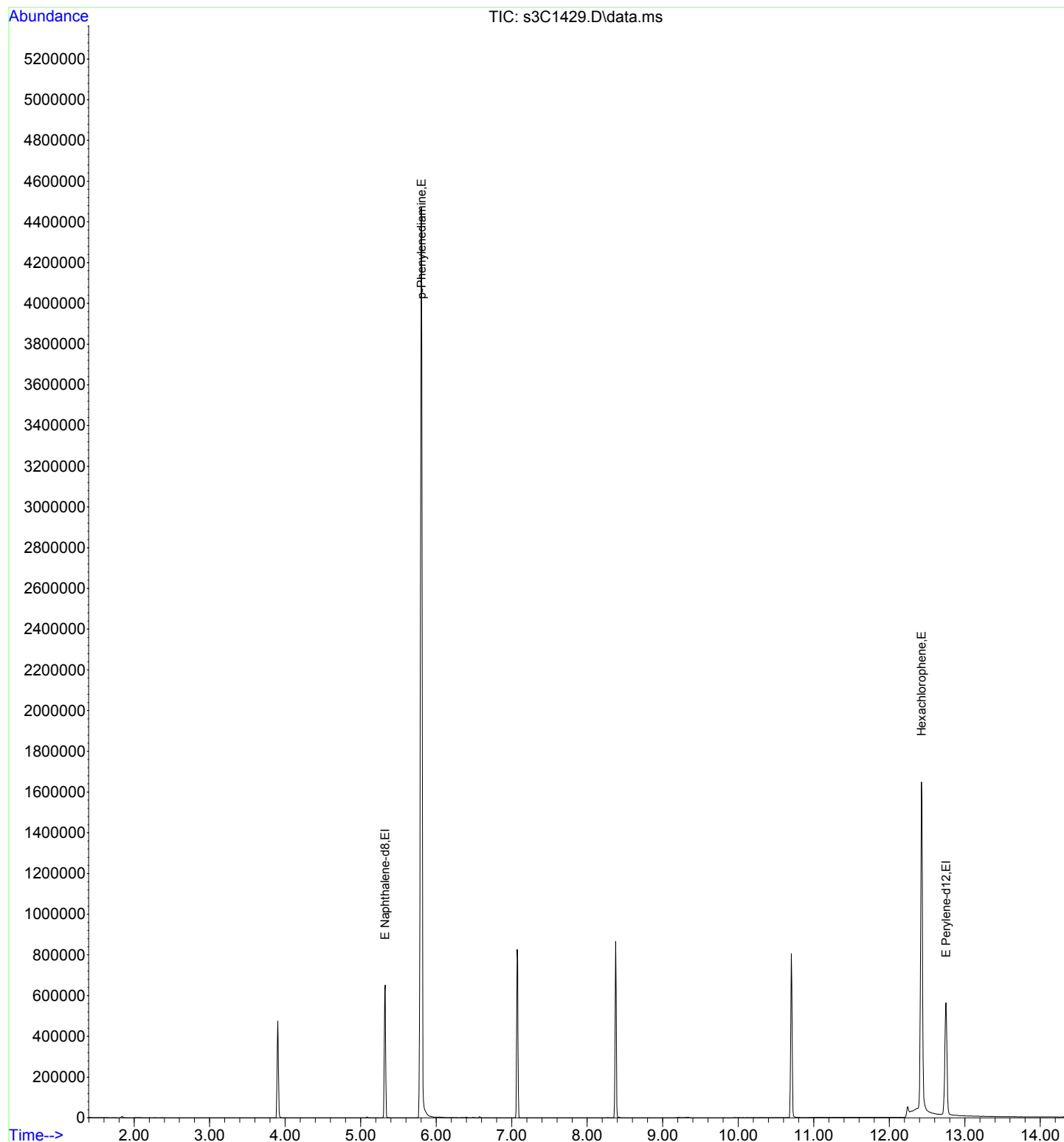
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.753	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.753	12.742	1.000	0m	40.00	ng/uL	0.01
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	395902	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.753	12.758	1.000	379275	40.00	ng/uL	0.00
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								
174) p-Phenylenediamine	108	5.805	5.810	1.090	2582748	505.74	ng/uL	QValue
176) Hexachlorophene	196	12.426	12.437	0.974	242514	493.27	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1429.D
 Acq On : 14 Mar 2024 17:49
 Operator : LL2
 Sample : |WBN240313-31.1|ICAL|1|SVM|1|H-2
 Misc : |MIX[E]
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 15 08:49:13 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1430.D
 Acq On : 14 Mar 2024 18:07
 Operator : LL2
 Sample : |WBN240313-32|ICAL|1|SVM|1|H-3
 Misc : |MIX[E]
 ALS Vial : 30 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:29 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:29 2024
 Response via : Initial Calibration

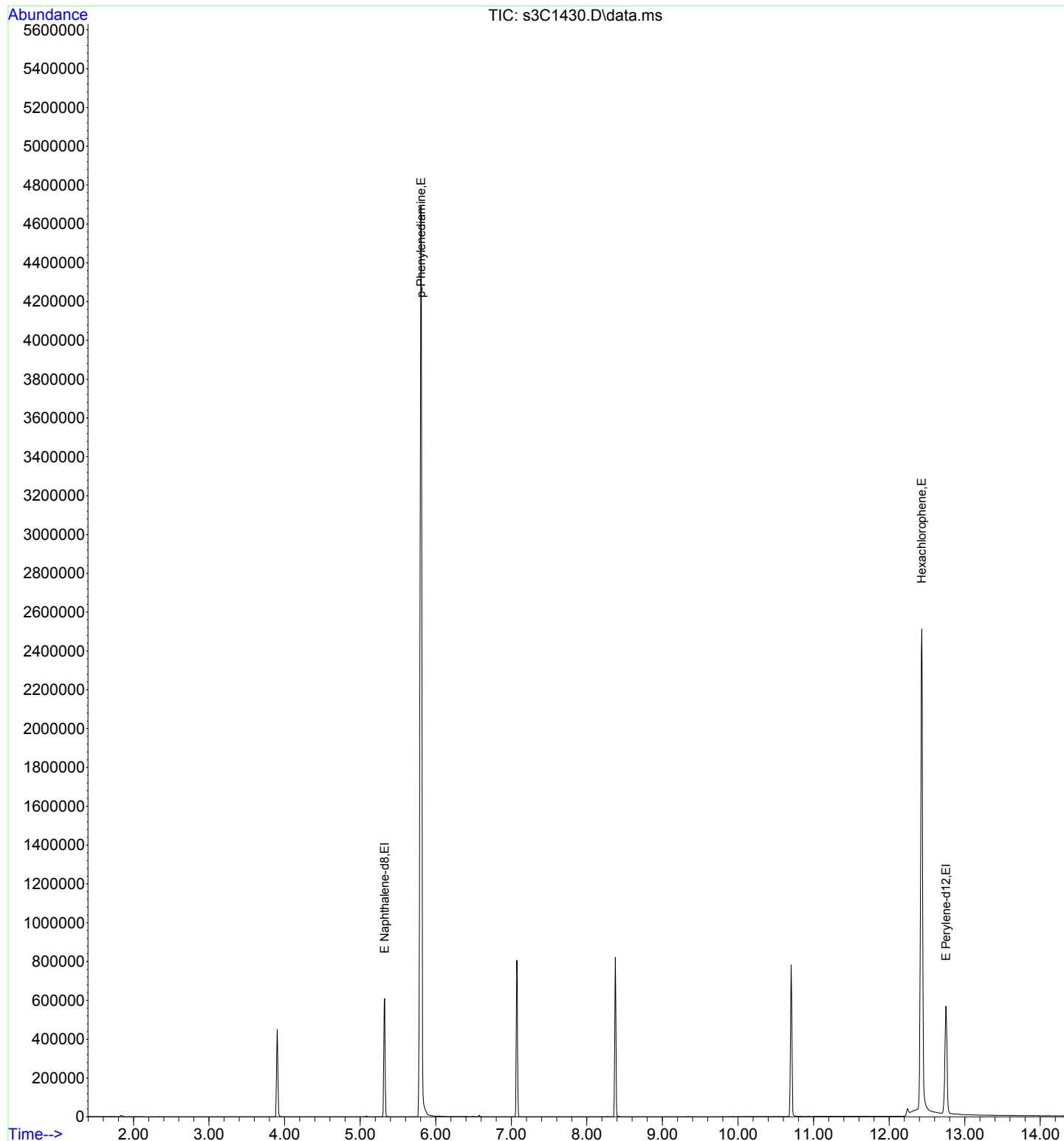
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.753	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.753	12.742	1.000	0m	40.00	ng/uL	0.01
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	376327	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.753	12.758	1.000	368169	40.00	ng/uL	0.00
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								
174) p-Phenylenediamine	108	5.805	5.810	1.090	2880355	593.36	ng/uL	QValue 100
176) Hexachlorophene	196	12.432	12.437	0.975	400922	600.11	ng/uL	99

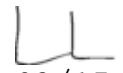
(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report


Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1430.D
 Acq On : 14 Mar 2024 18:07
 Operator : LL2
 Sample : |WBN240313-32|ICAL|1|SVM|1|H-3
 Misc : |MIX[E]
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 15 08:39:29 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:29 2024
 Response via : Initial Calibration




 03/15/2024

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1431.D
 Acq On : 14 Mar 2024 18:25
 Operator : LL2
 Sample : |WBN240313-33|ICAL|1|SVM|1|H-4
 Misc : |MIX[E]
 ALS Vial : 31 Sample Multiplier: 1


 03/18/2024

Quant Time: Mar 15 08:39:35 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:35 2024
 Response via : Initial Calibration

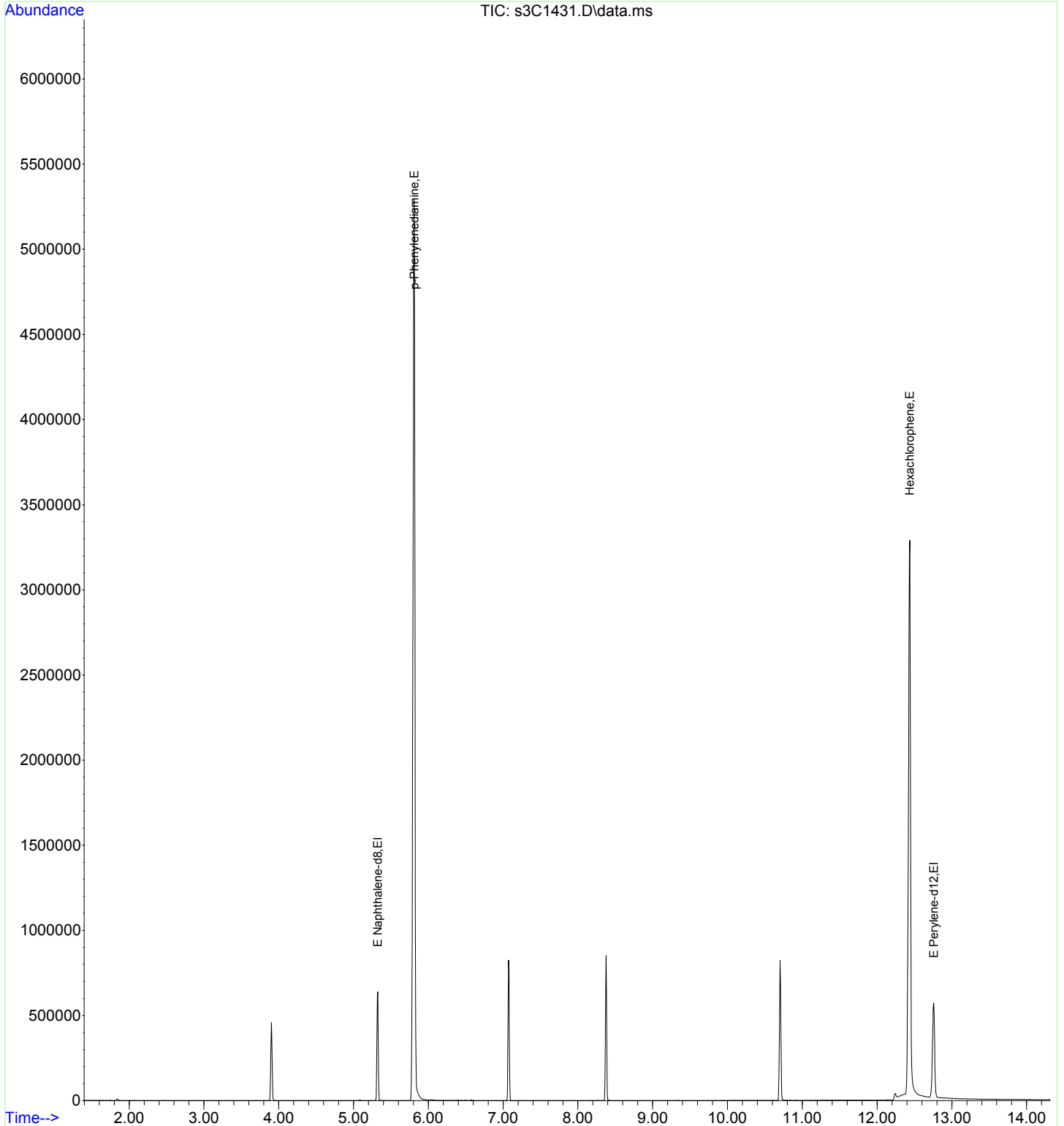
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.758	12.747	1.000	0m	40.00	ng/uL	0.01
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.758	12.742	1.000	0m	40.00	ng/uL	0.02
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	391834	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.758	12.758	1.000	382276	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								QValue
174) p-Phenylenediamine	108	5.810	5.810	1.091	3515170	697.41	ng/uL	100
176) Hexachlorophene	196	12.437	12.437	0.975	561272	705.35	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1431.D
 Acq On : 14 Mar 2024 18:25
 Operator : LL2
 Sample : |WBN240313-33|ICAL|1|SVM|1|H-4
 Misc : |MIX[E]
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 15 08:39:35 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:35 2024
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1432.D
 Acq On : 14 Mar 2024 18:44
 Operator : LL2
 Sample : |WBN240313-34|ICAL|1|SVM|1|H-5
 Misc : |MIX[E]
 ALS Vial : 32 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:42 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:42 2024
 Response via : Initial Calibration

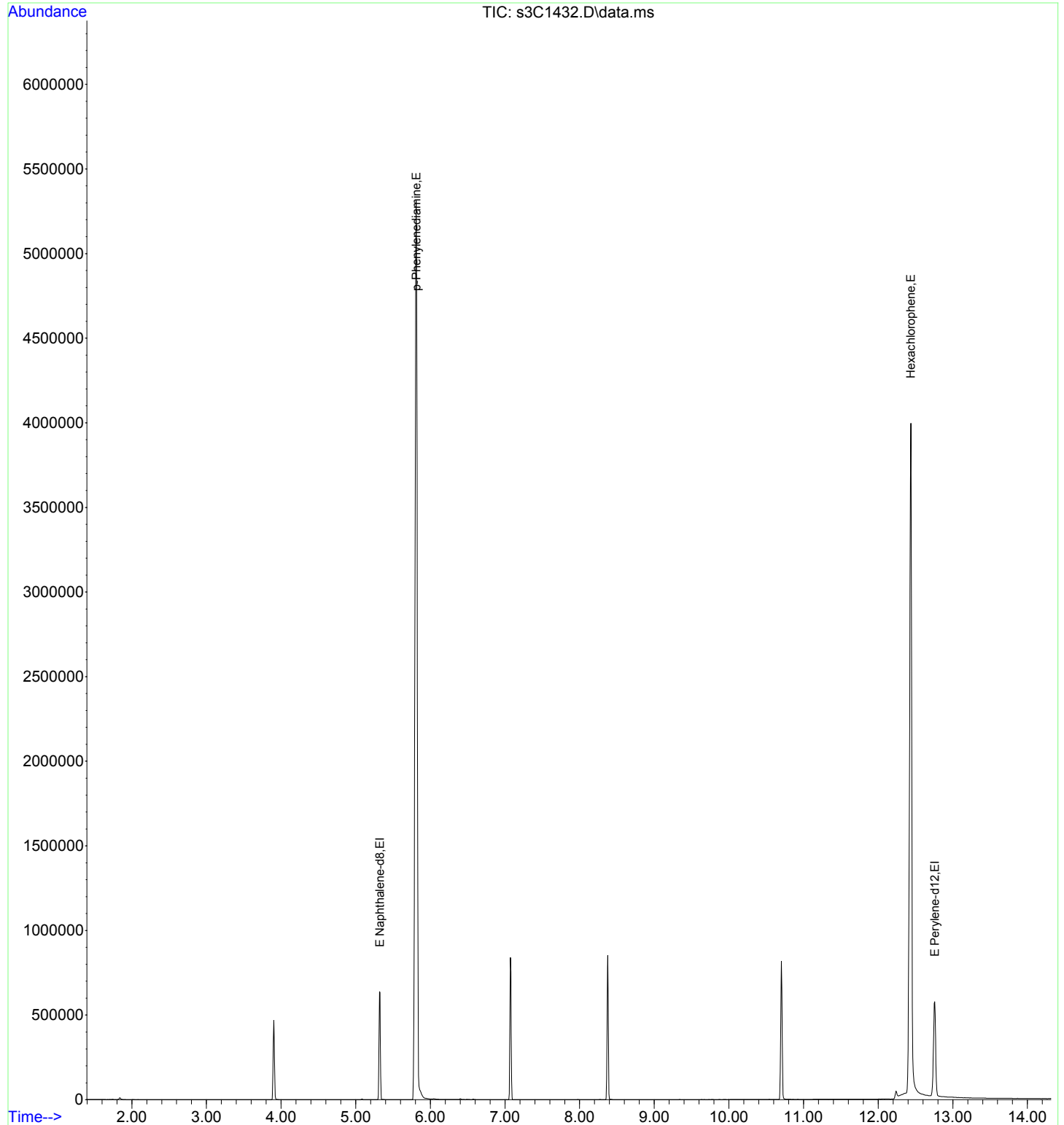
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.758	12.747	1.000	0m	40.00	ng/uL	0.01
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.758	12.742	1.000	0m	40.00	ng/uL	0.02
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	395215	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.758	12.758	1.000	387688	40.00	ng/uL	0.00
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								
174) p-Phenylenediamine	108	5.810	5.810	1.091	4064145	799.43	ng/uL	100
176) Hexachlorophene	196	12.437	12.437	0.975	705790	796.44	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1432.D
Acq On : 14 Mar 2024 18:44
Operator : LL2
Sample : |WBN240313-34|ICAL|1|SVM|1|H-5
Misc : |MIX[E]
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 15 08:39:42 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:42 2024
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1433.D
 Acq On : 14 Mar 2024 19:02
 Operator : LL2
 Sample : |WBN240313-35|ICAL|1|SVM|1|H-6
 Misc : |MIX[E]
 ALS Vial : 33 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:49 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:48 2024
 Response via : Initial Calibration

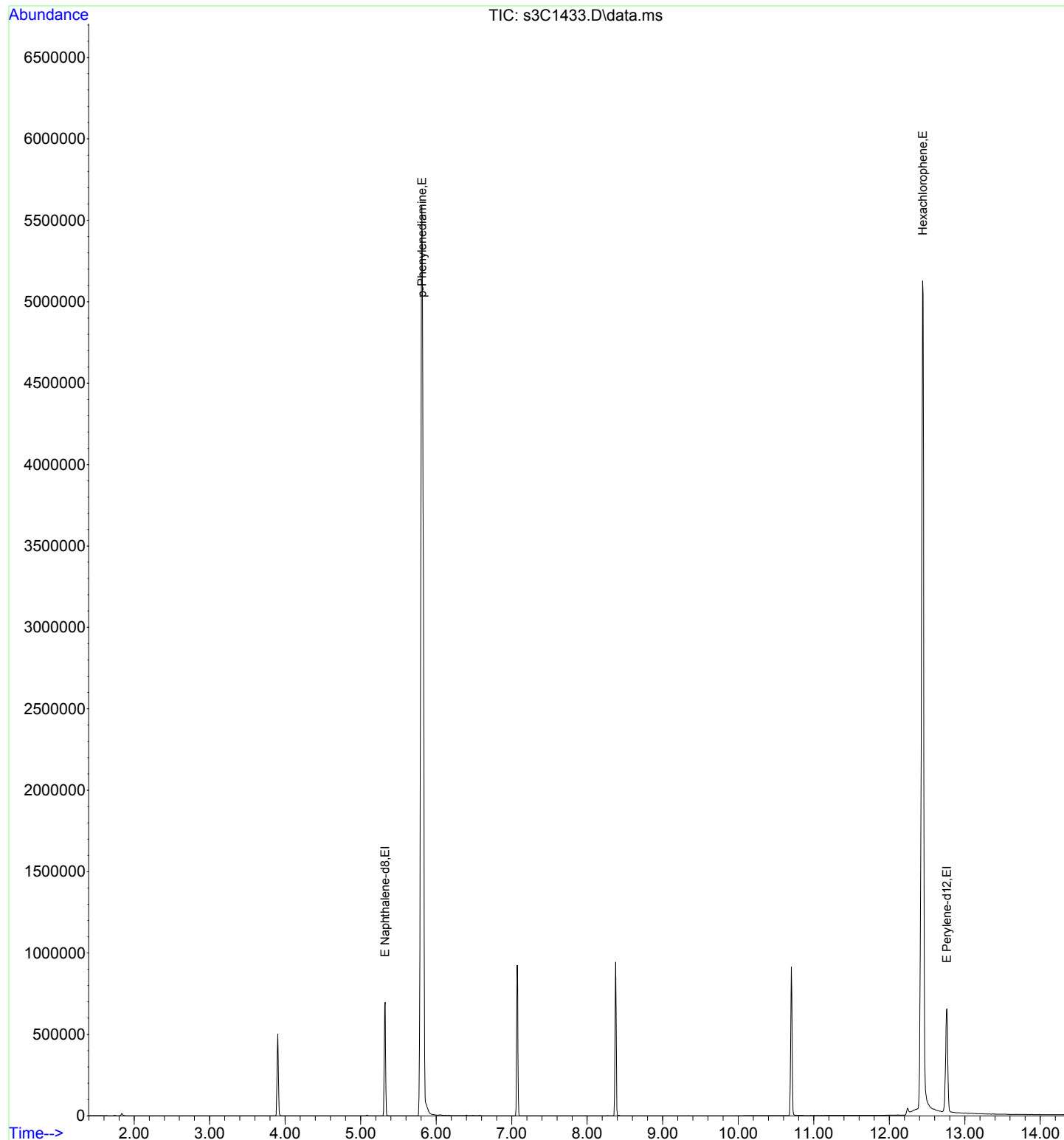
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.073	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.764	12.747	1.000	0m	40.00	ng/uL	0.02
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.764	12.742	1.000	0m	40.00	ng/uL	0.02
152) J Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	428879	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.764	12.758	1.000	431685	40.00	ng/uL	0.00
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								
174) p-Phenylenediamine	108	5.810	5.810	1.091	5008578	905.30	ng/uL	100
176) Hexachlorophene	196	12.443	12.437	0.975	979365	915.81	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1433.D
 Acq On : 14 Mar 2024 19:02
 Operator : LL2
 Sample : |WBN240313-35|ICAL|1|SVM|1|H-6
 Misc : |MIX[E]
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 15 08:39:49 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:48 2024
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1434.D
 Acq On : 14 Mar 2024 19:20
 Operator : LL2
 Sample : |WBN240313-37|ICAL|1|SVM|1|H-7
 Misc : |MIX[E]
 ALS Vial : 34 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:40:02 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:01 2024
 Response via : Initial Calibration

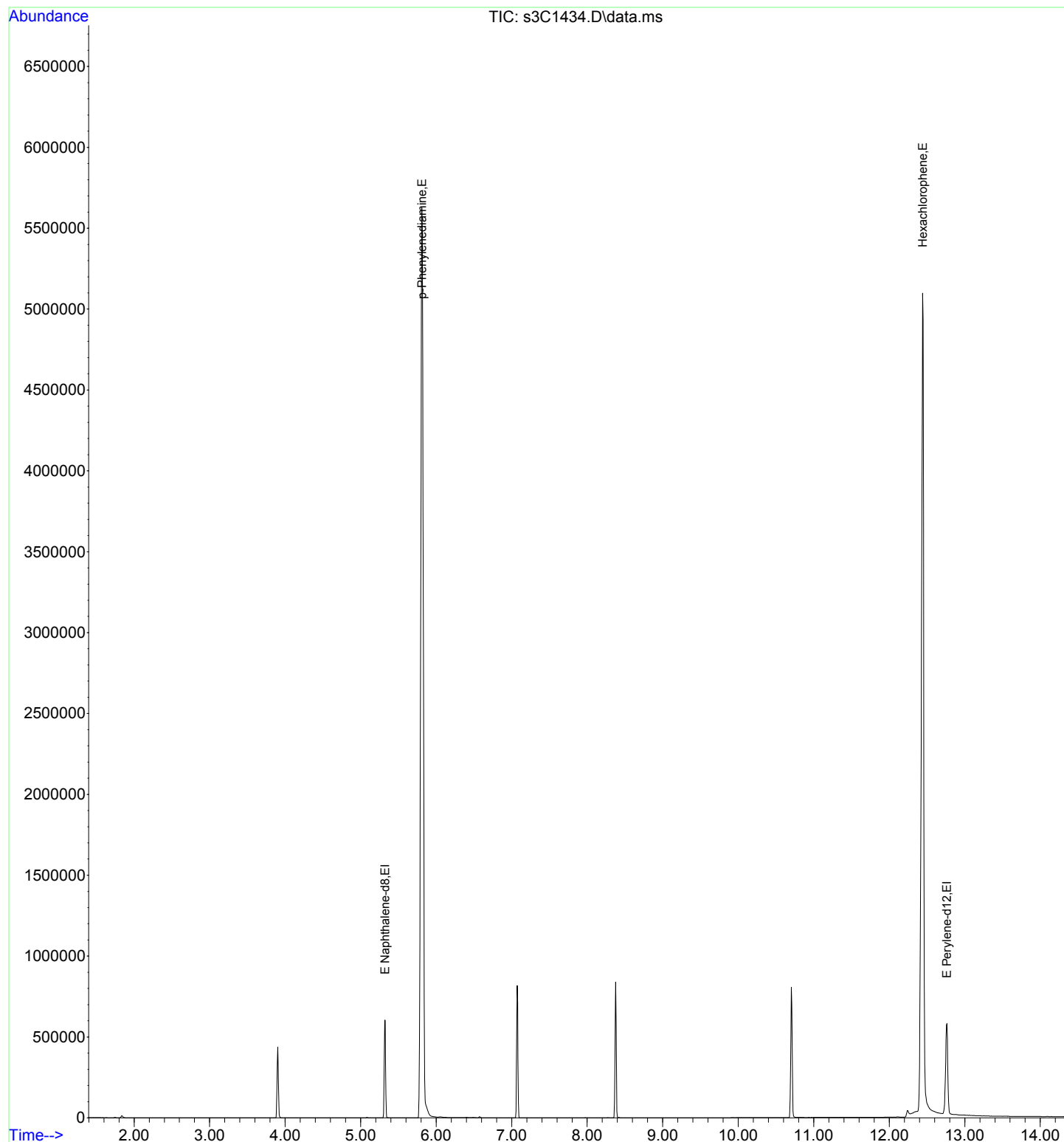
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.073	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.764	12.747	1.000	0m	40.00	ng/uL	0.02
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.764	12.742	1.000	0m	40.00	ng/uL	0.02
152) J Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	378181	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.764	12.758	1.000	376142	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								QValue
174) p-Phenylenediamine	108	5.810	5.810	1.091	4895818	1001.80	ng/uL	100 A
176) Hexachlorophene	196	12.443	12.437	0.975	975546	992.70	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1434.D
 Acq On : 14 Mar 2024 19:20
 Operator : LL2
 Sample : |WBN240313-37|ICAL|1|SVM|1|H-7
 Misc : |MIX[E]
 ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 15 08:40:02 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:01 2024
 Response via : Initial Calibration



Continuing Calibration Summary

Instrument ID: MSD3.I

Data File: S031424ICAL\s3C1435.D

Lab Sample ID WBN240228-38

Quant Type ISTD

Client SDG: 660974

Injection Date: 14-MAR-24 19:39

Init. Cal. Date(s) 14-MAR-24 08:17 - 14-MAR-24 19:20

Method: S031424ICAL\MSD3_8270_031424.m

Method Update: 15-MAR-24 08:40

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
p-Phenylenediamine	0.516	0.46887		.01		-9.13372	20		Averaged
Hexachlorophene	600	714.14	600			19.02333	20		Linear

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1435.D
 Acq On : 14 Mar 2024 19:39
 Operator : LL2
 Sample : |WBN240228-38|ICV|1|SVM|1|H-ICV
 Misc : |MIX[E]
 ALS Vial : 35 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:51:35 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

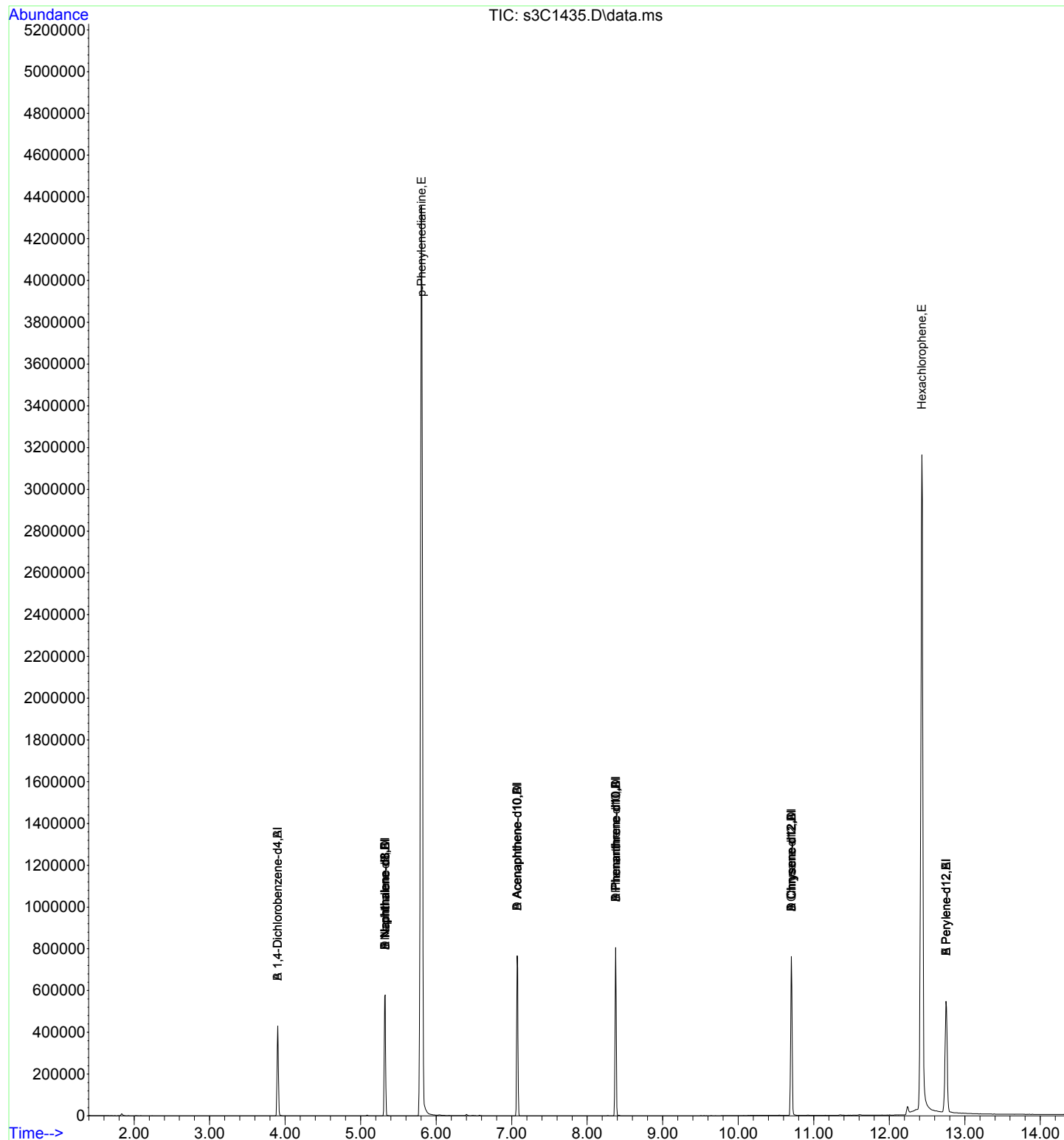
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	91170	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	358655	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	179972	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	347004	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	342903	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.753	12.747	1.000	360736	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	91170	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	358655	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	179972	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	347004	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	342903	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.753	12.742	1.000	360736	40.00	ng/uL	0.01
152) J Naphthalene-d8	136	5.323	5.324	1.000	358655	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	347004	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	342903	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	358655	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	179972	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	347004	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	342903	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	358655	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.753	12.758	1.000	360736	40.00	ng/uL	0.00
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								
174) p-Phenylenediamine	108	5.805	5.810	1.090	2942849	636.10	ng/uL	100
176) Hexachlorophene	196	12.432	12.437	0.975	543230	714.14	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1435.D
 Acq On : 14 Mar 2024 19:39
 Operator : LL2
 Sample : |WBN240228-38|ICV|1|SVM|1|H-ICV
 Misc : |MIX[E]
 ALS Vial : 35 Sample Multiplier: 1

Quant Time: Mar 15 08:51:35 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration



Continuing Calibration Summary

Client SDG: 660974
Instrument ID: MSD3.I
Injection Date: 04-APR-24 14:04
Data File: S040424.S\3D0402.D
Init. Cal. Date(s): 14-MAR-24 08:17 - 14-MAR-24 19:20
Lab Sample ID: WBN240304-04.5
Method: S040424.S\MSD3_8270_031424.m
Quant Type: ISTD
Method Update: 15-MAR-24 08:40

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S2-Fluorophenol	1.3242	1.35093		.01		2.01858	20		Averaged
SPhenol-d5	1.6411	1.75731		.01		7.08123	20		Averaged
SNitrobenzene-d5	0.3667	0.3782		.01		3.13608	20		Averaged
S2-Fluorobiphenyl	1.5194	1.49835		.01		-1.38542	20		Averaged
S2,4,6-Tribromophenol	0.146	0.13844		.01		-5.17808	20		Averaged
Sp-Terphenyl-d14	0.9564	0.99938		.01		4.49394	20		Averaged
N-Methyl-N-nitrosomethylami	40	41.91	40			4.775	20		Linear
Pyridine	1.2047	1.30057		.01		7.958	20		Averaged
Phenol	1.7029	1.82261		.8		7.02977	20		Averaged
Aniline	1.9454	2.0446		.01		5.09921	20		Averaged
bis(2-Chloroethyl) ether	1.4145	1.50131		.7		6.13715	20		Averaged
2-Chlorophenol	1.4674	1.54306		.8		5.15606	20		Averaged
1,3-Dichlorobenzene	1.6184	1.67863		.01		3.72158	20		Averaged
1,4-Dichlorobenzene	1.6395	1.69682		.01		3.49619	20		Averaged
Benzyl alcohol	0.9217	0.97506		.01		5.7893	20		Averaged
1,2-Dichlorobenzene	1.5614	1.63208		.01		4.52671	20		Averaged
o-Cresol	1.1308	1.19078		.7		5.30421	20		Averaged
bis(2-Chloro-1-methylethyl)eth	1.6718	1.77864		.01		6.39072	20		Averaged
N-Nitrosodipropylamine	0.9941	1.08024		.05		8.66512	20		Averaged
m,p-Cresols	1.34	1.4281		.6		6.57463	20		Averaged
Hexachloroethane	0.6551	0.68462		.3		4.50618	20		Averaged
Nitrobenzene	0.3642	0.377		.2		3.51455	20		Averaged
Isophorone	0.6634	0.69602		.4		4.91709	20		Averaged
2-Nitrophenol	0.184	0.18966		.1		3.07609	20		Averaged
2,4-Dimethylphenol	0.2582	0.26404		.2		2.26181	20		Averaged
Benzoic acid	40	35.65	40			-10.875	20		Linear
bis(2-Chloroethoxy)methane	0.4414	0.4577		.3		3.6928	20		Averaged
2,4-Dichlorophenol	0.2932	0.30022		.2		2.39427	20		Averaged
1,2,4-Trichlorobenzene	0.3274	0.32862		.01		0.37263	20		Averaged
Naphthalene	1.0635	1.10711		.7		4.10061	20		Averaged
4-Chloroaniline	0.4371	0.45838		.01		4.86845	20		Averaged
Hexachlorobutadiene	0.1819	0.17966		.01		-1.23145	20		Averaged
4-Chloro-3-methylphenol	0.2942	0.31236		.2		6.17267	20		Averaged
2-Methylnaphthalene	0.6927	0.73817		.4		6.56417	20		Averaged
1-Methylnaphthalene	0.6382	0.67472		.01		5.72234	20		Averaged
Hexachlorocyclopentadiene	0.3423	0.32177		.05		-5.99766	20		Averaged
2,4,6-Trichlorophenol	0.4331	0.42088		.2		-2.82152	20		Averaged

Continuing Calibration Summary

Instrument ID: MSD3.I

Injection Date: 04-APR-24 14:04

Data File: S040424.S\3D0402.D

Init. Cal. Date(s) 14-MAR-24 08:17 14-MAR-24 19:20

Lab Sample ID WBN240304-04.5

Method: S040424.S\MSD3_8270_031424.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
2,4,5-Trichlorophenol	0.4437	0.43548		.2		-1.8526	20		Averaged
2-Chloronaphthalene	1.3051	1.31172		.8		0.50724	20		Averaged
o-Nitroaniline	0.3583	0.37011		.01		3.29612	20		Averaged
Dimethylphthalate	1.4655	1.51896		.01		3.6479	20		Averaged
m-Dinitrobenzene	0.2266	0.23034		.01		1.65049	20		Averaged
2,6-Dinitrotoluene	0.3274	0.34		.2		3.8485	20		Averaged
Acenaphthylene	2.01	2.09763		.9		4.3597	20		Averaged
m-Nitroaniline	0.3894	0.40398		.01		3.74422	20		Averaged
Acenaphthene	1.2274	1.25173		.9		1.98224	20		Averaged
2,4-Dinitrophenol	40	42.23	40			5.575	20		Linear
4-Nitrophenol	40	41.65	40			4.125	20		Linear
2,4-Dinitrotoluene	0.4454	0.47564		.2		6.7894	20		Averaged
Dibenzofuran	1.8681	1.90661		.8		2.06145	20		Averaged
2,3,4,6-Tetrachlorophenol	0.3705	0.37941		.01		2.40486	20		Averaged
Diethylphthalate	1.5186	1.62539		.01		7.03213	20		Averaged
4-Chlorophenylphenylether	0.7001	0.69299		.4		-1.01557	20		Averaged
Fluorene	1.4824	1.56798		.9		5.77307	20		Averaged
p-Nitroaniline	0.396	0.42579		.01		7.52273	20		Averaged
2-Methyl-4,6-dinitrophenol	40	40.91	40			2.275	20		Linear
Diphenylamine	0.6455	0.63613		.01		-1.45159	20		Averaged
1,2-Diphenylhydrazine	0.7763	0.77808		.01		0.22929	20		Averaged
4-Bromophenylphenylether	0.2195	0.21434		.1		-2.3508	20		Averaged
Hexachlorobenzene	0.2665	0.25393		.1		-4.7167	20		Averaged
Pentachlorophenol	40	36.88	40			-7.8	20		Linear
Dinoseb	40	39.99	40			-0.025	20		Linear
Phenanthrene	1.1104	1.11799		.7		0.68354	20		Averaged
Anthracene	1.1139	1.13807		.7		2.16985	20		Averaged
Carbazole	1.0183	1.09977		.01		8.00059	20		Averaged
Di-n-butylphthalate	1.2956	1.39211		.01		7.44906	20		Averaged
Fluoranthene	1.158	1.2417		.6		7.22798	20		Averaged
Pyrene	1.2175	1.30164		.6		6.91088	20		Averaged
Butylbenzylphthalate	40	39.46	40			-1.35	20		Linear
Methoxychlor	0.7221	0.74953		.01		3.79864	20		Averaged
Benzo(a)anthracene	1.1922	1.24068		.8		4.06643	20		Averaged
bis(2-Ethylhexyl)phthalate	40	40.03	40			0.075	20		Linear
Chrysene	1.1134	1.10648		.7		-0.62152	20		Averaged
Di-n-octylphthalate	40	40.48	40			1.2	20		Linear

Continuing Calibration Summary

Instrument ID: MSD3.I

Injection Date: 04-APR-24 14:04

Data File: S040424.S\s3D0402.D

Init. Cal. Date(s) 14-MAR-24 08:17 14-MAR-24 19:20

Lab Sample ID WBN240304-04.5

Method: S040424.S\MSD3_8270_031424.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Benzo(b)fluoranthene	1.1161	1.13713		.7		1.88424	20		Averaged
Benzo(k)fluoranthene	1.1204	1.1464		.7		2.3206	20		Averaged
Benzo(a)pyrene	1.025	1.05922		.7		3.33854	20		Averaged
Indeno(1,2,3-cd)pyrene	1.0843	1.13251		.5		4.44619	20		Averaged
Dibenzo(a,h)anthracene	1.0568	1.11689		.4		5.68603	20		Averaged
Benzo(ghi)perylene	1.0325	1.08594		.5		5.17579	20		Averaged

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0402.D
 Acq On : 04 Apr 2024 14:04
 Operator : LL2
 Sample : |WBN240304-04.5|CCV|1|SVM|1|M-4
 Misc : |MIX[A]
 ALS Vial : 2 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 07:45:55 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.890	1.000	67398	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.307	1.000	283317	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.062	1.000	152313	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.362	8.367	1.000	314709	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.688	10.693	1.000	344439	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.715	12.721	1.000	362053	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.890	1.000	67398	40.00	ng/uL	# 0.00
112) B Naphthalene-d8	136	5.302	5.307	1.000	283317	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.062	1.000	152313	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.362	8.367	1.000	314709	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.688	10.693	1.000	344439	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.715	12.721	1.000	362053	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.307	1.000	283317	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.362	8.367	1.000	314709	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.688	10.693	1.000	344439	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.307	1.000	283317	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.062	1.000	152313	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.362	8.367	1.000	314709	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.688	10.693	1.000	344439	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.307	1.000	283317	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.715	12.721	1.000	362053	40.00	ng/uL	0.00

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.606	2.627	0.671	91050	40.81	ng/uL	-0.02
8) Phenol-d5	99	3.478	3.486	0.895	118439	42.83	ng/uL	0.00
23) Nitrobenzene-d5	82	4.484	4.502	0.846	107150	41.25	ng/uL	-0.02
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	228218	39.45	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.763	7.773	0.928	43567	37.94	ng/uL	-0.01
79) p-Terphenyl-d14	244	9.693	9.686	1.159	314513	41.80	ng/uL	0.00

Target Compounds								
2) 2-Ethoxyethanol	59	1.451	1.480	0.374	49758	42.95	ng/uL	99
3) N-Methyl-N-nitrosometh...	74	1.633	1.663	0.420	59336	41.91	ng/uL	98
4) Pyridine	79	1.676	1.705	0.431	87656	43.18	ng/uL	95
6) p-Benzoquinone	54	3.072	3.088	0.791	40679	39.85	ng/uL	99
7) Aniline	93	3.537	3.555	0.911	137802	42.04	ng/uL	98
9) Phenol	94	3.494	3.502	0.899	122840	42.81	ng/uL	99
10) bis(2-Chloroethyl) ether	93	3.596	3.607	0.926	101185	42.46	ng/uL	99
11) 2-Chlorophenol	128	3.660	3.670	0.942	103999	42.06	ng/uL	99
12) n-Decane	43	3.698	3.707	0.952	86297	41.07	ng/uL	99
13) 1,3-Dichlorobenzene	146	3.821	3.832	0.983	113136	41.49	ng/uL	99
14) 1,4-Dichlorobenzene	146	3.901	3.912	1.004	114362	41.40	ng/uL	99
15) 1,2-Dichlorobenzene	146	4.061	4.068	1.045	109999	41.81	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.168	4.168	1.073	119877	42.56	ng/uL	99
17) Benzyl alcohol	108	4.024	4.026	1.036	65717	42.31	ng/uL	98
18) o-Cresol	107	4.136	4.137	1.065	80256	42.12	ng/uL	99
19) m,p-Cresols	108	4.313	4.309	1.110	96251	42.63	ng/uL	98
20) N-Nitrosodipropylamine	70	4.313	4.314	1.110	72806	43.47	ng/uL	99
21) Hexachloroethane	117	4.430	4.430	1.140	46142	41.80	ng/uL	98
24) Nitrobenzene	77	4.505	4.523	0.850	106810	41.41	ng/uL	100
25) Isophorone	82	4.778	4.792	0.901	197194	41.97	ng/uL	100
26) 2-Nitrophenol	139	4.869	4.881	0.918	53733	41.24	ng/uL	98
27) 2,4-Dimethylphenol	122	4.917	4.928	0.927	74807	40.91	ng/uL	99
28) bis(2-Chloroethoxy)met...	93	5.035	5.039	0.950	129673	41.47	ng/uL	100
29) 2,4-Dichlorophenol	162	5.142	5.149	0.970	85057	40.95	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
Data File : s3D0402.D
Acq On : 04 Apr 2024 14:04
Operator : LL2
Sample : |WBN240304-04.5|CCV|1|SVM|1|M-4
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 05 07:45:55 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
30)	Benzoic acid	105	5.019	5.040	0.947	33446	35.65	ng/uL	95
31)	1,2,4-Trichlorobenzene	180	5.238	5.244	0.988	93104	40.15	ng/uL	100
32)	alpha-Terpineol	59	5.340	5.344	1.007	81846	42.08	ng/uL	100
33)	Naphthalene	128	5.324	5.328	1.004	313662	41.64	ng/uL	99
34)	4-Chloroaniline	127	5.388	5.391	1.016	129866	41.95	ng/uL	100
35)	Hexachlorobutadiene	225	5.463	5.460	1.030	50901	39.52	ng/uL	100
36)	4-Chloro-3-methylphenol	107	5.912	5.897	1.115	88498	42.47	ng/uL	100
37)	2-Methylnaphthalene	142	6.062	6.045	1.143	209135	42.62	ng/uL	100
38)	1-Methylnaphthalene	142	6.158	6.144	1.161	191159	42.29	ng/uL	99
40)	Hexachlorocyclopentadiene	237	6.217	6.215	0.881	49010	37.60	ng/uL	100
41)	2,3-Dichloroaniline	161	6.340	6.357	0.898	110568	39.20	ng/uL	98
42)	2,4,6-Trichlorophenol	196	6.340	6.357	0.898	64105	38.87	ng/uL	99
43)	2,4,5-Trichlorophenol	196	6.377	6.389	0.904	66329	39.26	ng/uL	99
45)	2-Chloronaphthalene	162	6.538	6.548	0.926	199792	40.20	ng/uL	100
46)	o-Nitroaniline	65	6.639	6.648	0.941	56372	41.32	ng/uL	99
47)	1,4-Dinitrobenzene	168	6.778	6.781	0.961	30586	40.87	ng/uL	96
48)	m-Nitroaniline	138	7.024	7.024	0.995	61531	41.50	ng/uL	98
49)	Dimethylphthalate	163	6.816	6.817	0.966	231358	41.46	ng/uL	100
50)	m-Dinitrobenzene	168	6.843	6.850	0.970	35084	40.66	ng/uL	99
51)	2,6-Dinitrotoluene	165	6.869	6.876	0.973	51786	41.54	ng/uL	100
52)	2,4-Dinitrotoluene	165	7.233	7.236	1.025	72446	42.71	ng/uL	98
53)	Acenaphthylene	152	6.928	6.934	0.982	319497	41.74	ng/uL	100
54)	Acenaphthene	154	7.089	7.093	1.005	190654	40.79	ng/uL	100
55)	2,4-Dinitrophenol	184	7.121	7.125	1.009	22710	42.23	ng/uL	99
56)	Dibenzofuran	168	7.244	7.247	1.027	290402	40.82	ng/uL	99
57)	2,3,4,6-Tetrachlorophenol	232	7.356	7.353	1.042	57789	40.96	ng/uL	100
58)	Diethylphthalate	149	7.452	7.448	1.056	247568	42.81	ng/uL	100
59)	4-Nitrophenol	109	7.180	7.173	1.017	26926	41.65	ng/uL	99
60)	Fluorene	166	7.549	7.549	1.070	238824	42.31	ng/uL	99
61)	4-Chlorophenylphenylether	204	7.549	7.549	1.070	105551	39.59	ng/uL	96
62)	p-Nitroaniline	138	7.570	7.564	1.073	64854	43.01	ng/uL	99
65)	2-Methyl-4,6-dinitroph...	198	7.591	7.603	0.908	37767	40.91	ng/uL	98
66)	Diphenylamine	169	7.656	7.661	0.916	200195	39.42	ng/uL	100
67)	1,2-Diphenylhydrazine	77	7.688	7.699	0.919	244870	40.09	ng/uL	100
68)	4-Bromophenylphenylether	248	7.976	7.979	0.954	67456	39.07	ng/uL	98
69)	Hexachlorobenzene	284	8.025	8.033	0.960	79913	38.11	ng/uL	100
70)	Pentachlorophenol	266	8.196	8.192	0.980	42254	36.88	ng/uL	99
71)	n-Octadecane	57	8.255	8.255	0.987	152061	39.27	ng/uL	99
72)	Dinoseb	211	8.345	8.351	0.998	54934	39.99	ng/uL	100
73)	Phenanthrene	178	8.378	8.388	1.002	351841	40.27	ng/uL	99
74)	Anthracene	178	8.426	8.430	1.008	358160	40.87	ng/uL	100
75)	Carbazole	167	8.559	8.562	1.024	346107	43.20	ng/uL	100
76)	Di-n-butylphthalate	149	8.843	8.839	1.058	438108	42.98	ng/uL	100
77)	Fluoranthene	202	9.383	9.379	1.122	390775	42.89	ng/uL	99
78)	Pyrene	202	9.576	9.570	1.145	409637	42.76	ng/uL	99
81)	Butylbenzylphthalate	149	10.105	10.089	0.945	198208	39.46	ng/uL	98
82)	bis(2-Ethylhexyl)phtha...	149	10.678	10.678	0.999	322245	40.03	ng/uL	99
83)	Benzo(a)anthracene	228	10.678	10.683	0.999	427337	41.63	ng/uL	99
84)	Chrysene	228	10.715	10.725	1.003	381116	39.75	ng/uL	100
85)	Methoxychlor	227	10.587	10.587	0.990	258169	41.52	ng/uL	99
86)	Methylenebis(2-chloroa...	231	10.645	10.646	0.996	77534	40.60	ng/uL	99
87)	Di-n-octylphthalate	149	11.512	11.531	1.077	504097	40.48	ng/uL	100
89)	Benzo(b)fluoranthene	252	12.095	12.087	0.951	411700	40.75	ng/uL	99
90)	Benzo(k)fluoranthene	252	12.138	12.135	0.955	415057	40.93	ng/uL	99
91)	Benzo(a)pyrene	252	12.619	12.626	0.992	383493	41.34	ng/uL	99
92)	Indeno(1,2,3-cd)pyrene	276	14.726	14.754	1.158	410027	41.78	ng/uL	99
93)	Dibenzo(a,h)anthracene	278	14.780	14.811	1.162	404374	42.28	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
Data File : s3D0402.D
Acq On : 04 Apr 2024 14:04
Operator : LL2
Sample : |WBN240304-04.5|CCV|1|SVM|1|M-4
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 05 07:45:55 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
94) Benzo(ghi)perylene	276	15.272	15.303	1.201	393167	42.07	ng/uL
95) Dibenzo(a,e)pyrene	302	17.855	17.810	1.404	349523	40.93	ng/uL

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

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Data Path   : C:\msdchem\1\data\S040424.S\  
Data File   : s3D0402.D  
Acq On      : 04 Apr 2024   14:04  
Operator    : LL2  
Sample      : |WBN240304-04.5|CCV|1|SVM|1|M-4  
Misc        : |MIX[A]  
ALS Vial    : 2      Sample Multiplier: 1
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TIC: s3D0402.D\data.ms

Abundance

Time-->

2-Fluorophenol.SA
p-Benzoquinone.A
Bis(2-chloroethyl)amine.AMP
Hexachlorocyclopentadiene.AMC
4-Chloro-3-methylphenol.AMC
Nitroanthracene.AMC
Fluoranthene.AMC
Pyrene.AMC
Benzo(a)pyrene.A
Dibenzo(a,e)pyrene.A

Continuing Calibration Summary

Instrument ID: MSD3.I
Data File: S040424.S\3D0403.D
Lab Sample ID WBN240201-54.2
Quant Type ISTD

Client SDG: 660974
Injection Date: 04-APR-24 14:27
Init. Cal. Date(s) 14-MAR-24 08:17 - 14-MAR-24 19:20
Method: S040424.S\MSD3_8270_031424.m
Method Update: 15-MAR-24 08:40

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Methyl methacrylate	0.7046	0.75149		.01		6.65484	20		Averaged
1,4-Dioxane	0.5206	0.57288		.01		10.04226	20		Averaged
Ethyl methacrylate	1.096	1.15355		.01		5.25091	20		Averaged
2-Picoline	1.4109	1.52647		.01		8.19123	20		Averaged
N-Nitrosomethylethylamine	0.5524	0.59402		.01		7.5344	20		Averaged
Methyl methanesulfonate	0.6883	0.7537		.01		9.50167	20		Averaged
N-Nitrosodiethylamine	0.5779	0.62028		.01		7.33345	20		Averaged
Ethyl Methanesulfonate	1.0349	1.11056		.01		7.31085	20		Averaged
Pentachloroethane	0.5467	0.56294		.01		2.97055	20		Averaged
N-Nitrosopyrrolidine	0.6324	0.68068		.01		7.63441	20		Averaged
Acetophenone	1.8986	2.00515		.01		5.61203	20		Averaged
N-Nitrosomorpholine	0.607	0.66622		.01		9.75618	20		Averaged
o-Toluidine	2.1225	2.27908		.01		7.37715	20		Averaged
N-Nitrosopiperidine	0.164	0.17389		.01		6.03049	20		Averaged
a,a-Dimethylphenethylamine	0.6997	0.7103		.01		1.51493	20		Averaged
2,6-Dichlorophenol	0.2713	0.27125		.01		-0.01843	20		Averaged
Hexachloropropene	0.196	0.1992		.01		1.63265	20		Averaged
N-Nitrosodi-n-butylamine	0.1501	0.15847		.01		5.57628	20		Averaged
Safrole	0.2475	0.25292		.01		2.1899	20		Averaged
1,2,4,5-Tetrachlorobenzene	0.6188	0.61048		.01		-1.34454	20		Averaged
Isosafrole	0.5252	0.52464		.01		-0.10663	20		Averaged
1,4-Naphthoquinone	0.4885	0.49249		.01		0.81679	20		Averaged
Pentachlorobenzene	0.5574	0.55512		.01		-0.40904	20		Averaged
1-Naphthylamine	1.3776	1.47418		.01		7.01074	20		Averaged
2-Naphthylamine	1.4119	1.46847		.01		4.00666	20		Averaged
5-Nitro-o-toluidine	0.3937	0.40558		.01		3.01753	20		Averaged
Tributylphosphate	1.8405	1.93275		.01		5.01222	20		Averaged
1,3,5-Trinitrobenzene	0.1619	0.18089		.01		11.72946	20		Averaged
Diallate	0.2238	0.22812		.01		1.93029	20		Averaged
Phenacetin	0.375	0.38707		.01		3.21867	20		Averaged
Pentachloronitrobenzene	0.0875	0.08725		.01		-0.28571	20		Averaged
4-Aminobiphenyl	0.8692	0.88611		.01		1.94547	20		Averaged
Pronamide	0.3565	0.3647		.01		2.30014	20		Averaged
4-Nitroquinoline-1-oxide	0.0335	0.04683		.01		39.79104	20	*	Averaged
Methapyrilene	0.406	0.4891		.01		20.46798	20	*	Averaged
Isodrin	0.128	0.13137		.01		2.63281	20		Averaged
Aramite	0.0534	0.05234		.01		-1.98502	20		Averaged

Continuing Calibration Summary

Instrument ID: MSD3.I

Injection Date: 04-APR-24 14:27

Data File: S040424.S\3D0403.D

Init. Cal. Date(s) 14-MAR-24 08:17 14-MAR-24 19:20

Lab Sample ID WBN240201-54.2

Method: S040424.S\MSD3_8270_031424.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
p-(Dimethylamino)azobenzene	0.2102	0.20131		.01		-4.22931	20		Averaged
Chlorobenzilate	0.3311	0.31908		.01		-3.63032	20		Averaged
3,3'-Dimethylbenzidine	0.7679	0.7966		.01		3.73747	20		Averaged
Kepone	0.1235	0.11536		.01		-6.59109	20		Averaged
2-Acetylaminofluorene	0.466	0.47342		.01		1.59227	20		Averaged
3,3'-Dichlorobenzidine	0.4636	0.47567		.01		2.60354	20		Averaged
7,12Dimethylbenz(a)anthracene	0.4776	0.47106		.01		-1.36935	20		Averaged
3-Methylcholanthrene	0.1248	0.12412		.01		-0.54487	20		Averaged

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0403.D
 Acq On : 04 Apr 2024 14:27
 Operator : LL2
 Sample : |WBN240201-54.2|CCV|1|SVM|1|APX-4
 Misc : |MIX[B,J]
 ALS Vial : 3 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 07:49:12 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	62936	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	257957	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.056	1.000	131021	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.362	8.362	1.000	269174	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.683	10.683	1.000	292534	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.715	12.715	1.000	305134	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	62936	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	257957	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.056	1.000	131021	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.362	8.362	1.000	269174	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.683	10.683	1.000	292534	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.715	12.715	1.000	305134	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.302	1.000	257957	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.362	8.362	1.000	269174	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.683	10.683	1.000	292534	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	257957	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.056	1.000	131021	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.362	8.362	1.000	269174	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.683	10.683	1.000	292534	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	257957	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.715	12.715	1.000	305134	40.00	ng/uL	0.00

System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.627	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.486	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.502	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.436	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.773	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.686	0.000	0	0.00	ng/uL	

Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
97) 1,4-Dioxane	88	1.456	1.456	0.375	36055	44.02	ng/uL	99
98) Methyl methacrylate	69	1.446	1.446	0.372	47296	42.66	ng/uL	99
99) Ethyl methacrylate	69	1.911	1.911	0.492	72600	42.10	ng/uL	99
100) 2-Picoline	93	2.168	2.168	0.558	96070	43.28	ng/uL	99
101) N-Nitrosomethylethylamine	88	2.232	2.232	0.575	37385	43.01	ng/uL	98
102) Methyl methanesulfonate	80	2.473	2.473	0.637	47435	43.80	ng/uL	98
103) N-Nitrosodiethylamine	102	2.820	2.820	0.726	39038	42.94	ng/uL	100
104) 2-Butoxyethanol	57	2.879	2.879	0.741	79846	40.17	ng/uL	100
105) Ethyl methanesulfonate	79	3.093	3.093	0.796	69894	42.92	ng/uL	98
106) Benzaldehyde	77	3.435	3.435	0.884	70046	43.00	ng/uL	100
107) Pentachloroethane	167	3.591	3.591	0.924	35429	41.19	ng/uL	99
108) N-Nitrosopyrrolidine	100	4.291	4.291	1.105	42839	43.05	ng/uL	99
109) Acetophenone	105	4.318	4.318	1.112	126196	42.25	ng/uL	100
110) N-Nitrosomorpholine	56	4.339	4.339	1.117	41929	43.90	ng/uL	97
111) o-Toluidine	106	4.355	4.355	1.121	143436	42.95	ng/uL	100
113) N-Nitrosopiperidine	114	4.676	4.676	0.882	44856	42.42	ng/uL	100
114) a,a-Dimethylphenethyla...	58	5.110	5.110	0.964	183228	40.60	ng/uL	100
115) 2,6-Dichlorophenol	162	5.398	5.398	1.018	69971	39.99	ng/uL	99
116) Hexachloropropene	213	5.420	5.420	1.022	51384	40.66	ng/uL	99
117) Caprolactam	113	5.746	5.746	1.084	22554	41.66	ng/uL	98
118) N-Nitrosodi-n-butylamine	57	5.757	5.757	1.086	40879	42.22	ng/uL	99
119) Safrole	162	5.976	5.976	1.127	65242	40.88	ng/uL	99
121) 1,2,4,5-Tetrachloroben...	216	6.227	6.227	0.883	79986	39.46	ng/uL	100
122) 1,1-Biphenyl	154	6.522	6.522	0.924	217156	41.06	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
Data File : s3D0403.D
Acq On : 04 Apr 2024 14:27
Operator : LL2
Sample : |WBN240201-54.2|CCV|1|SVM|1|APX-4
Misc : |MIX[B,J]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 07:49:12 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

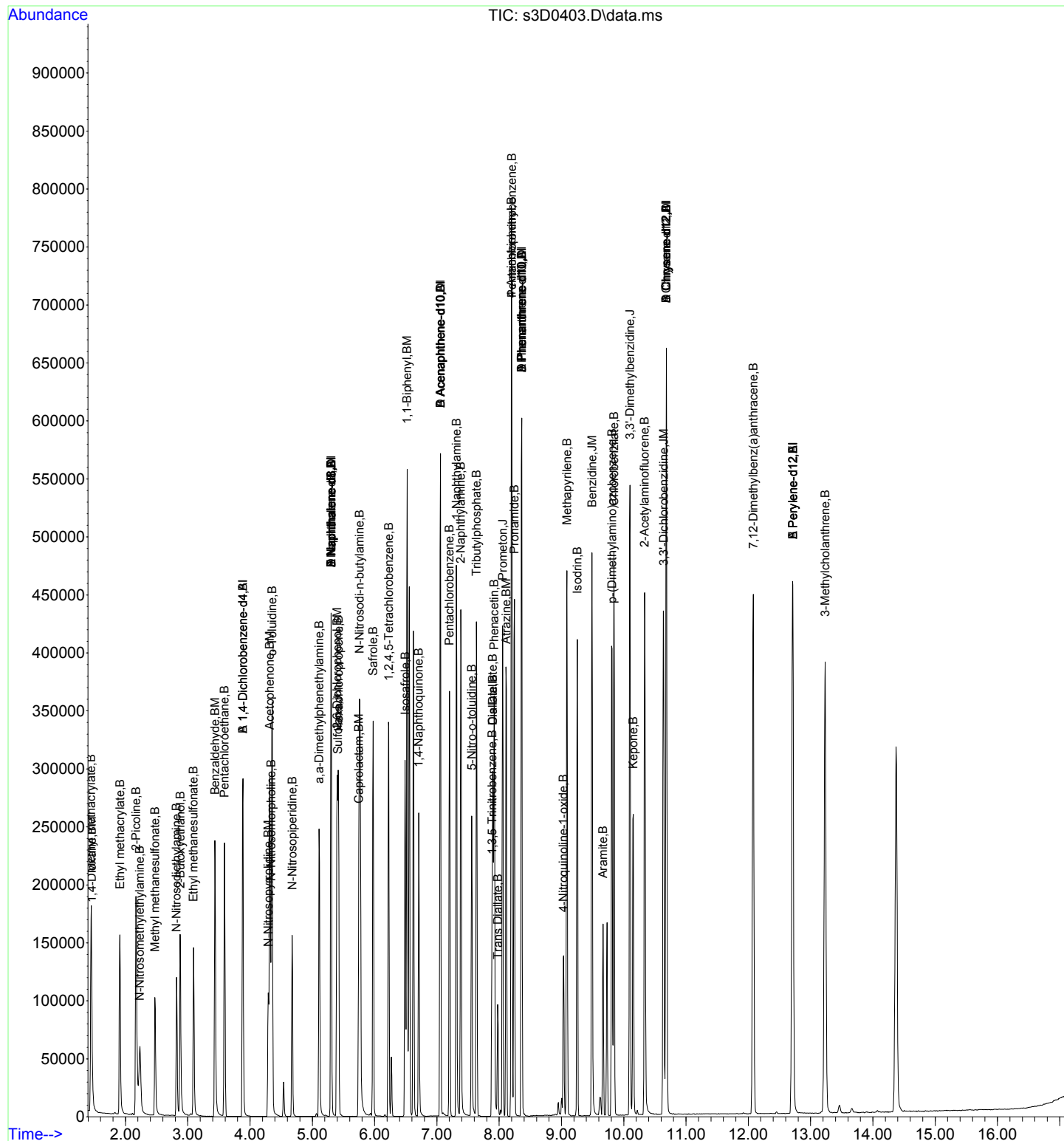
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
123) Isosafrole	162	6.490	6.490	0.920	68739	39.96	ng/uL	99
124) 1,4-Naphthoquinone	158	6.709	6.709	0.951	64527	40.33	ng/uL	98
125) Pentachlorobenzene	250	7.201	7.201	1.020	72733	39.83	ng/uL	99
126) 1-Naphthylamine	143	7.313	7.313	1.036	193148	42.81	ng/uL	100
127) 2-Naphthylamine	143	7.383	7.383	1.046	192401	41.60	ng/uL	99
128) 5-Nitro-o-toluidine	152	7.559	7.559	1.071	53139	41.21	ng/uL	97
129) Tributylphosphate	99	7.634	7.634	1.082	253231	42.01	ng/uL	99
131) 1,3,5-Trinitrobenzene	75	7.886	7.886	0.943	48691	44.70	ng/uL	98
132) Phenacetin	108	7.918	7.918	0.947	104189	41.29	ng/uL	99
133) Diallate	86	7.896	7.896	0.944	61403	40.77	ng/uL#	79
134) Cis Diallate	86	7.896	7.896	0.944	61401	34.65	ng/uL	80
135) Trans Diallate	86	7.976	7.976	0.954	20988	6.04	ng/uL	97
136) Atrazine	200	8.116	8.116	0.971	55774	41.15	ng/uL	98
137) 4-Aminobiphenyl	169	8.196	8.196	0.980	238517	40.78	ng/uL	100
138) Pentachloronitrobenzene	237	8.201	8.201	0.981	23485	39.87	ng/uL	99
139) Pronamide	173	8.244	8.244	0.986	98167	40.92	ng/uL	99
140) 4-Nitroquinoline-1-oxide	128	9.030	9.030	1.080	12605	55.88	ng/uL	93
141) Methapyrilene	97	9.089	9.089	1.087	131653	48.18	ng/uL	100
142) Isodrin	193	9.255	9.255	1.107	35361	41.06	ng/uL	98
144) Aramite	185	9.667	9.667	0.905	15311	39.24	ng/uL	97
145) Kepone	272	10.153	10.153	0.950	33747	37.36	ng/uL	99
146) p-(Dimethylamino)azobe...	225	9.811	9.811	0.918	58891	38.32	ng/uL	95
147) Chlorobenzilate	251	9.843	9.843	0.921	93343	38.54	ng/uL	97
148) 2-Acetylaminofluorene	181	10.335	10.335	0.967	138491	40.63	ng/uL	99
150) 7,12-Dimethylbenz(a)an...	256	12.079	12.079	0.950	143736	39.45	ng/uL	99
151) 3-Methylcholanthrene	269	13.234	13.234	1.041	37874	39.77	ng/uL	96
153) Sulfolane	56	5.409	5.409	1.020	28632	42.40	ng/uL	98
155) Prometon	210	8.057	8.057	0.964	46876	40.19	ng/uL	99
156) Benzidine	184	9.490	9.490	1.135	234657	45.53	ng/uL	100
158) 3,3'-Dimethylbenzidine	212	10.100	10.100	0.945	233032	41.50	ng/uL	100
159) 3,3'-Dichlorobenzidine	252	10.640	10.640	0.996	139150	41.04	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0403.D
 Acq On : 04 Apr 2024 14:27
 Operator : LL2
 Sample : WBN240201-54.2|CCV|1|SVM|1|APX-4
 Misc : MIX[B,J]
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 07:49:12 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration



Continuing Calibration Summary

Instrument ID: MSD3.I
Data File: S040424.S\s3D0404.D
Lab Sample ID WBN240227-25.7
Quant Type ISTD

Client SDG: 660974
Injection Date: 04-APR-24 14:48
Init. Cal. Date(s) 14-MAR-24 08:17 - 14-MAR-24 19:20
Method: S040424.S\MSD3_8270_031424.m
Method Update: 15-MAR-24 08:40

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Triethylphosphorothioate	0.1642	0.15785		.01		-3.86724	20		Averaged
Thionazin	0.2429	0.24917		.01		2.58131	20		Averaged
Sulfotepp	0.1171	0.11003		.01		-6.03757	20		Averaged
Phorate	0.4665	0.46898		.01		0.53162	20		Averaged
Dimethoate	0.2955	0.30625		.01		3.6379	20		Averaged
Disulfoton	0.4213	0.42971		.01		1.9962	20		Averaged
Methyl parathion	0.2341	0.24841		.01		6.11277	20		Averaged
Parathion	0.0717	0.07384		.01		2.98466	20		Averaged
Famphur	0.4801	0.47671		.01		-0.7061	20		Averaged

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0404.D
 Acq On : 04 Apr 2024 14:48
 Operator : LL2
 Sample : |WBN240227-25.7|CCV|1|SVM|1|P-4
 Misc : |MIX[D]
 ALS Vial : 4 Sample Multiplier: 1

LL
 04/05/2024

RB
 04/09/2024

Quant Time: Apr 05 07:49:40 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

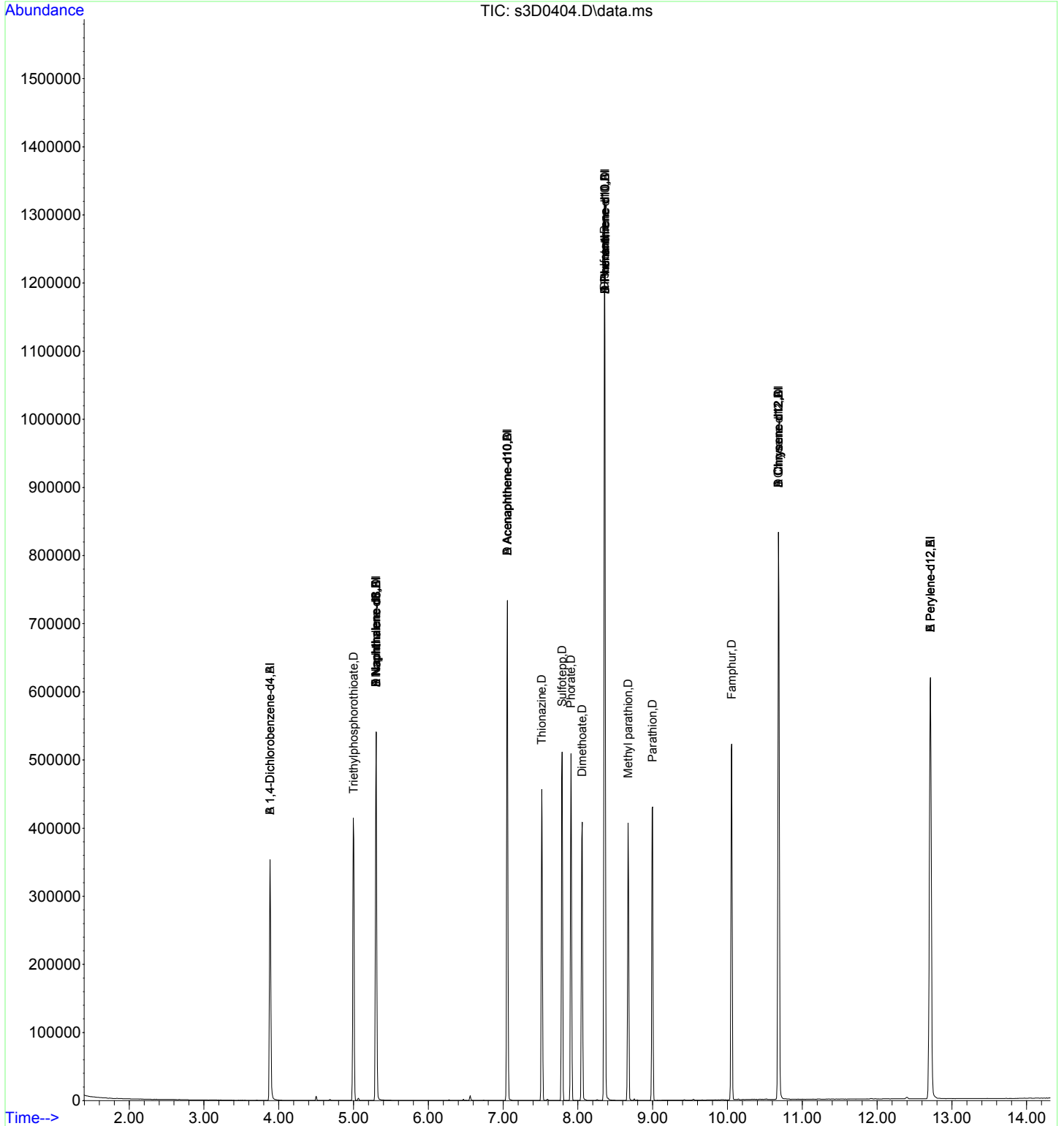
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	77272	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	320852	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.057	7.056	1.000	167816	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.362	8.362	1.000	355356	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.683	10.683	1.000	369775	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.715	12.715	1.000	396206	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	77272	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	320852	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.057	7.056	1.000	167816	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.362	8.362	1.000	355356	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.683	10.683	1.000	369775	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.715	12.715	1.000	396206	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.302	1.000	320852	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.362	8.362	1.000	355356	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.683	10.683	1.000	369775	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	320852	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.057	7.056	1.000	167816	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.362	8.362	1.000	355356	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.683	10.683	1.000	369775	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	320852	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.715	12.715	1.000	396206	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.627	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.486	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.502	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.436	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.773	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.686	0.000	0	0.00	ng/uL	
Target Compounds								QValue
161) Triethylphosphorothioate	198	5.003	5.003	0.944	50645	38.44	ng/uL	98
163) Thionazine	107	7.517	7.527	1.065	41814	41.03	ng/uL	99
165) Sulfotepp	322	7.789	7.795	0.932	39099	37.59	ng/uL	96
166) Phorate	75	7.907	7.912	0.946	166654	40.21	ng/uL	99
167) Dimethoate	87	8.057	8.056	0.964	108829	41.46	ng/uL	98
168) Disulfoton	88	8.356	8.361	0.999	152700	40.79	ng/uL	99
169) Methyl parathion	109	8.672	8.676	1.037	88274	42.45	ng/uL	99
170) Parathion	291	8.998	9.002	1.076	26241	41.21	ng/uL	93
172) Famphur	218	10.057	10.063	0.941	176274	39.72	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0404.D
 Acq On : 04 Apr 2024 14:48
 Operator : LL2
 Sample : |WBN240227-25.7|CCV|1|SVM|1|P-4
 Misc : |MIX[D]
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 05 07:49:40 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration



Continuing Calibration Summary

Instrument ID: MSD3.I

Data File: S040424.S\s3D0405.D

Lab Sample ID WBN240212-33.6

Quant Type ISTD

Client SDG: 660974

Injection Date: 04-APR-24 15:07

Init. Cal. Date(s) 14-MAR-24 08:17 - 14-MAR-24 19:20

Method: S040424.S\MSD3_8270_031424.m

Method Update: 15-MAR-24 08:40

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
p-Phenylenediamine	0.516	0.52012		.01		0.79845	20		Averaged
Hexachlorophene	700	654.42	700			-6.51143	20		Linear

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0405.D
 Acq On : 04 Apr 2024 15:07
 Operator : LL2
 Sample : |WBN240212-33.6|CCV|1|SVM|1|H-4
 Misc : |MIX[E]
 ALS Vial : 5 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 07:50:42 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

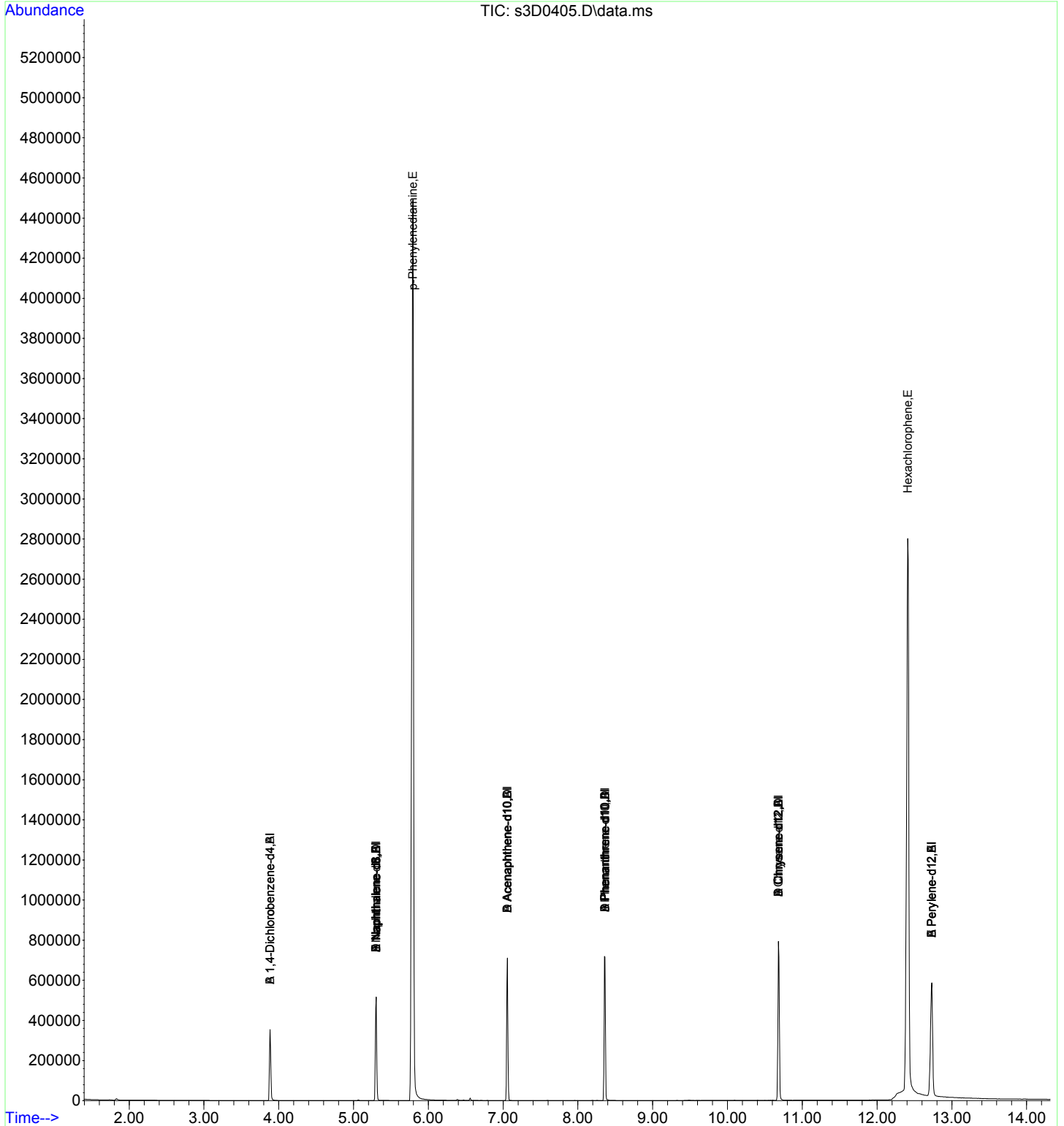
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	76707	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	313184	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	162908	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.361	8.362	1.000	330873	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.683	10.683	1.000	356836	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.731	12.715	1.000	384270	40.00	ng/uL	0.02
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	76707	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	313184	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	162908	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.361	8.362	1.000	330873	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.683	10.683	1.000	356836	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.731	12.715	1.000	384270	40.00	ng/uL	0.02
152) J Naphthalene-d8	136	5.302	5.302	1.000	313184	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.361	8.362	1.000	330873	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.683	10.683	1.000	356836	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	313184	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	162908	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.361	8.362	1.000	330873	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.683	10.683	1.000	356836	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	313184	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.731	12.715	1.000	384270	40.00	ng/uL	0.02
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.627	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.486	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.502	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.436	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.773	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.686	0.000	0	0.00	ng/uL	
Target Compounds								
174) p-Phenylenediamine	108	5.794	5.793	1.093	2850649	705.63	ng/uL	99
176) Hexachlorophene	196	12.410	12.401	0.975	488642	654.42	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0405.D
 Acq On : 04 Apr 2024 15:07
 Operator : LL2
 Sample : WBN240212-33.6|CCV|1|SVM|1|H-4
 Misc : MIX[E]
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 05 07:50:42 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration



Quality Control Data

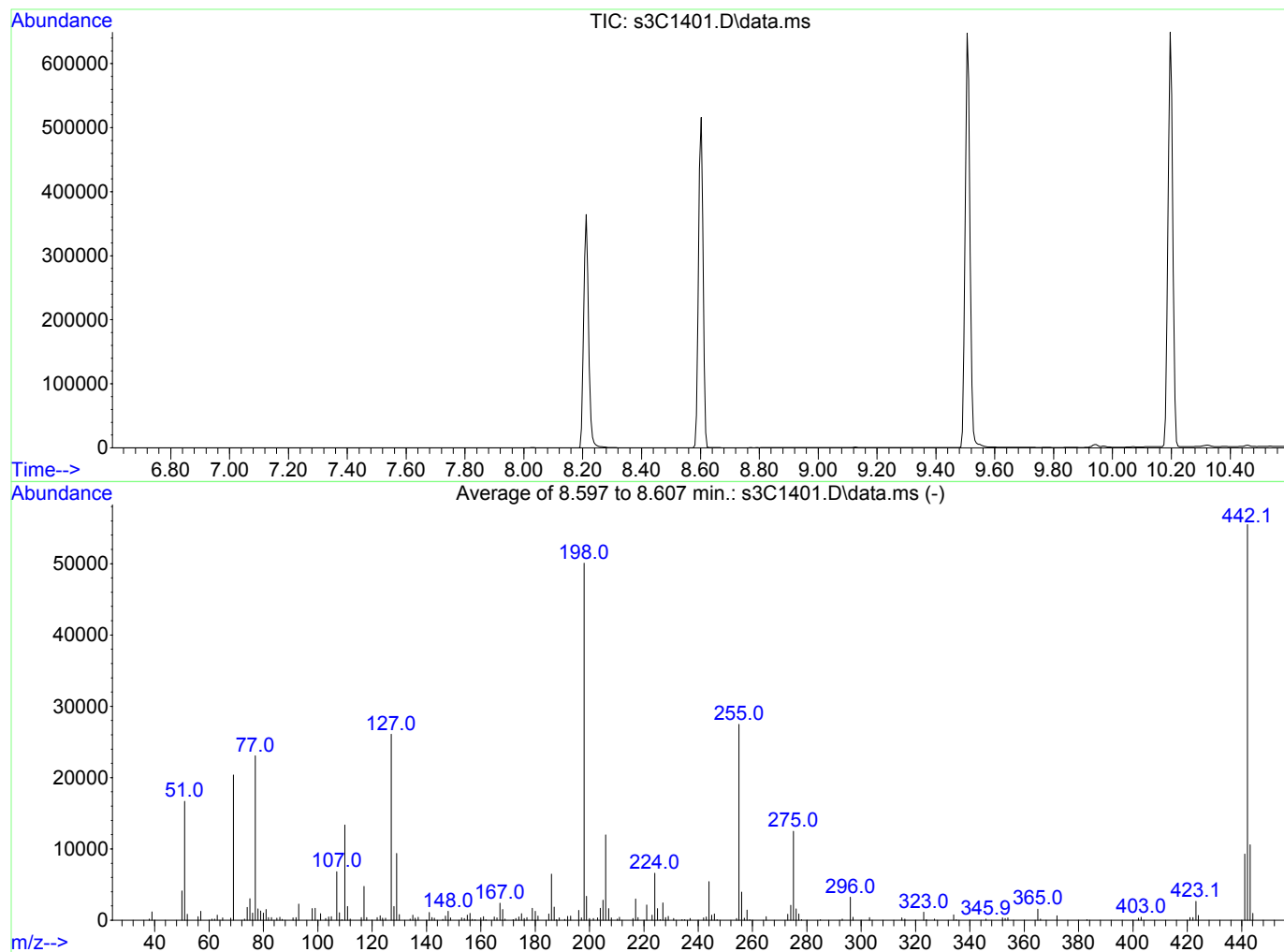
LL
03/15/2024

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1401.D
Acq On : 14 Mar 2024 08:00
Operator : LL2
Sample : |WBN240308-98|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

RB
03/18/2024

Integration File: rteint.p

Method : C:\msdchem\1\data\S031424ICAL\BNABrk_Down8270E.m
Title : dftpp / endrin / ddt
Last Update : Tue Jun 08 08:47:00 2010



AutoFind: Scans 1347, 1348, 1349; Background Corrected with Scan 1341

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	1.5	312	PASS
69	198	0.00	100	40.7	20369	PASS
70	69	0.00	2	0.0	0	PASS
197	198	0.00	2	0.7	337	PASS
198	442	0.01	100	90.3	50085	PASS
199	198	5	9	6.7	3357	PASS
365	198	1	100	3.1	1544	PASS
441	443	0.01	150	87.5	9268	PASS
442	442	0.01	100	100.0	55480	PASS
443	442	15	24	19.1	10593	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1401.D
Acq On : 14 Mar 2024 08:00
Operator : LL2
Sample : |WBN240308-98|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

LL
03/15/2024RAB
03/18/2024

Quant Time: Mar 14 09:05:41 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\BNABrk_Down8270E.m
Quant Title : dftpp / endrin / ddt
QLast Update : Tue Jun 08 08:47:00 2010
Response via : Initial Calibration

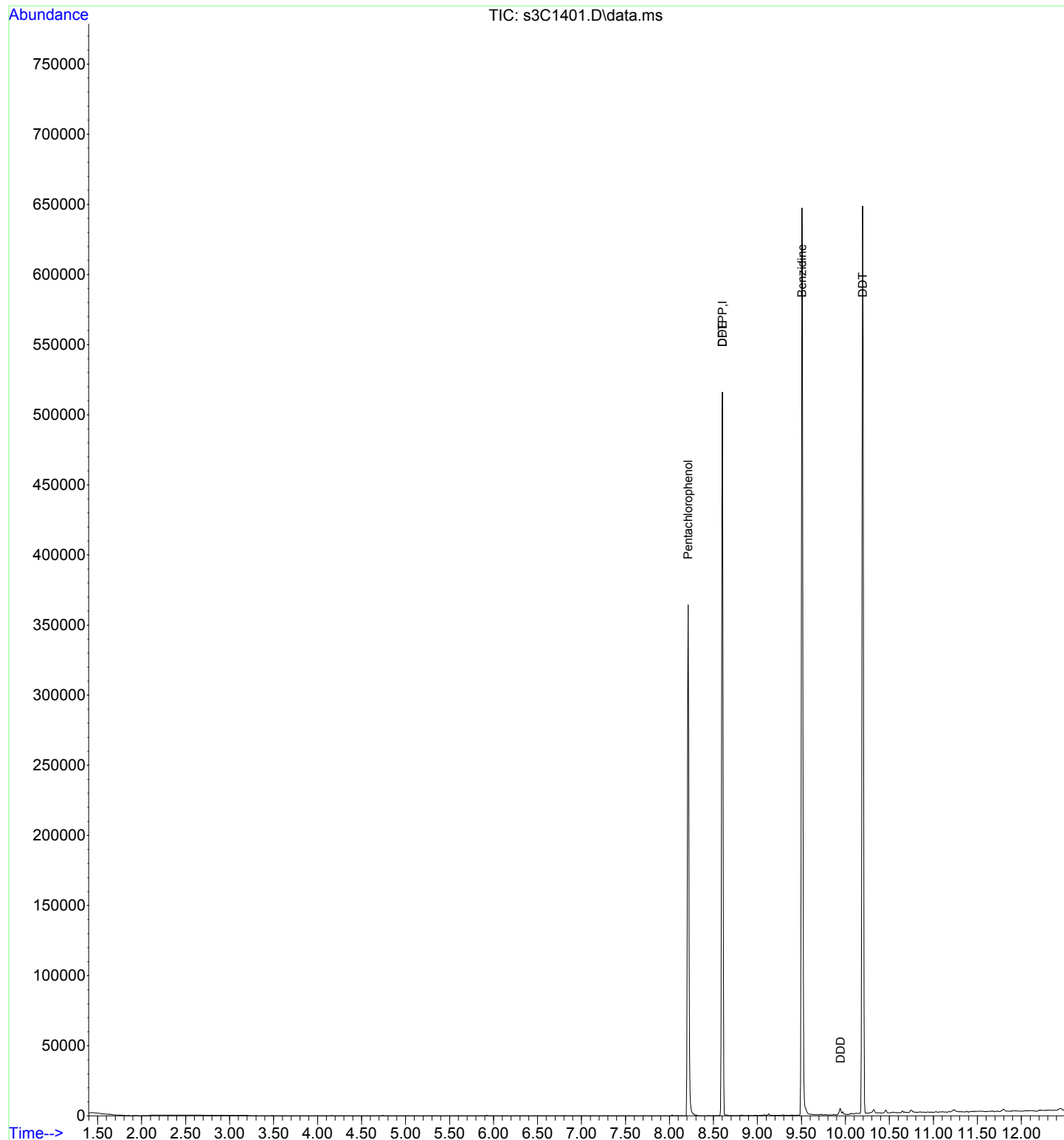
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) DFTPP	TIC	8.602	8.602	1.000	556830	5.00	ug/l	# 0.00
Target Compounds								QValue
3) Pentachlorophenol	266	8.212	8.231	0.955	54621	4.88	ug/l	100
4) Benzidine	184	9.506	9.501	1.105	313147	16.45	ug/l	100
5) DDE	246	8.602	8.602	1.000	1072	3.85	ug/l	# 83
6) DDD	235	9.945	9.927	1.156	1419	1.37	ug/l	92
7) DDT	235	10.196	10.198	1.185	145279	5.19	ug/l	99

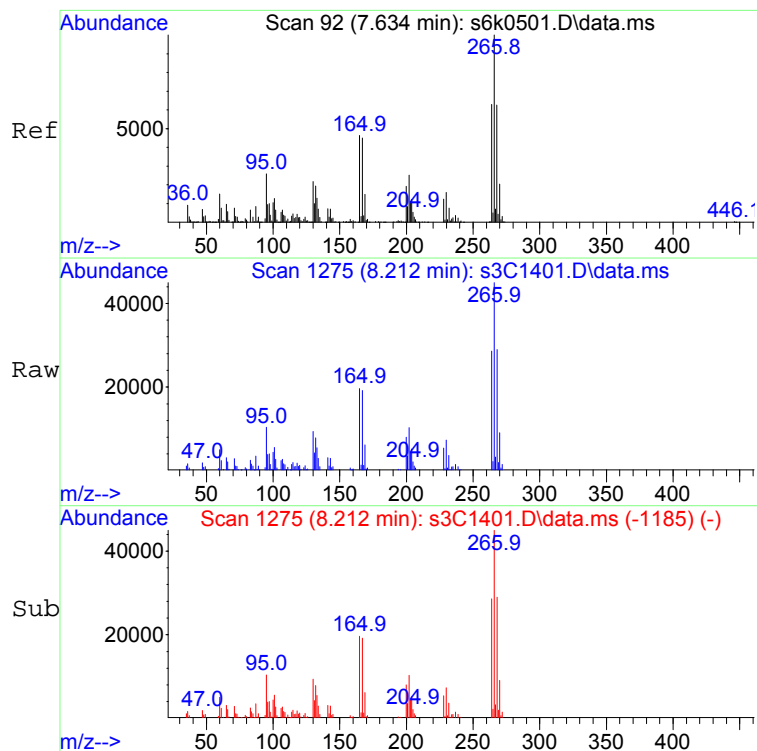
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1401.D
 Acq On : 14 Mar 2024 08:00
 Operator : LL2
 Sample : |WBN240308-98|DFTPP|1|SVM|1|DFTPP
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

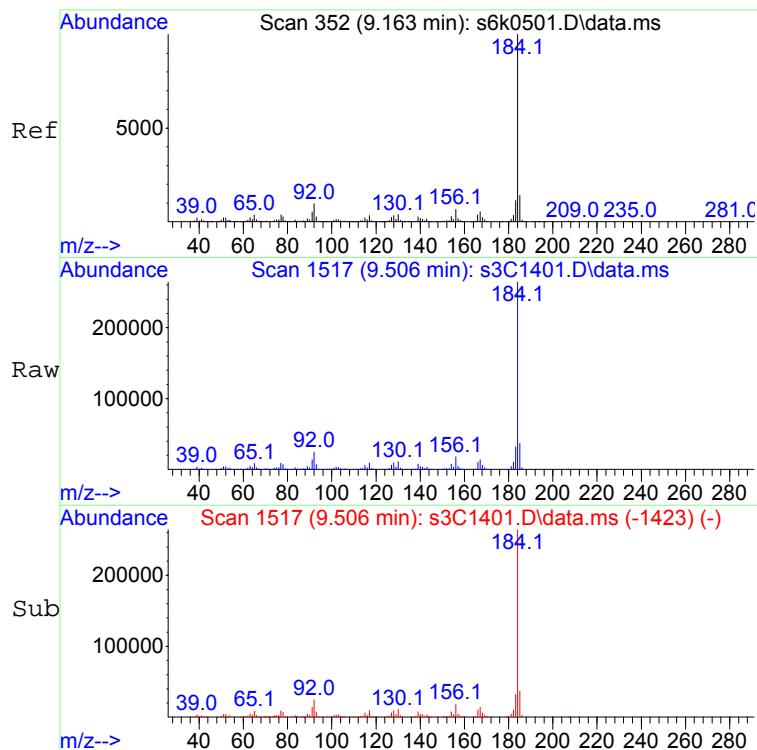
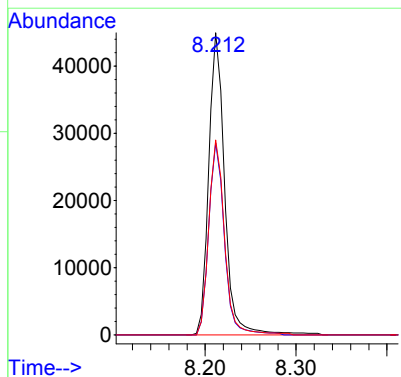
Quant Time: Mar 14 09:05:41 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\BNABrk_Down8270E.m
 Quant Title : dftpp / endrin / ddt
 QLast Update : Tue Jun 08 08:47:00 2010
 Response via : Initial Calibration





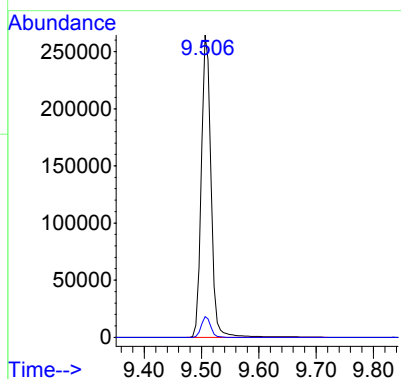
#3
Pentachlorophenol
Concen: 4.88 ug/l
RT: 8.212 min Scan# 1275
Delta R.T. -0.019 min
Lab File: s3C1401.D
Acq: 14 Mar 2024 08:00

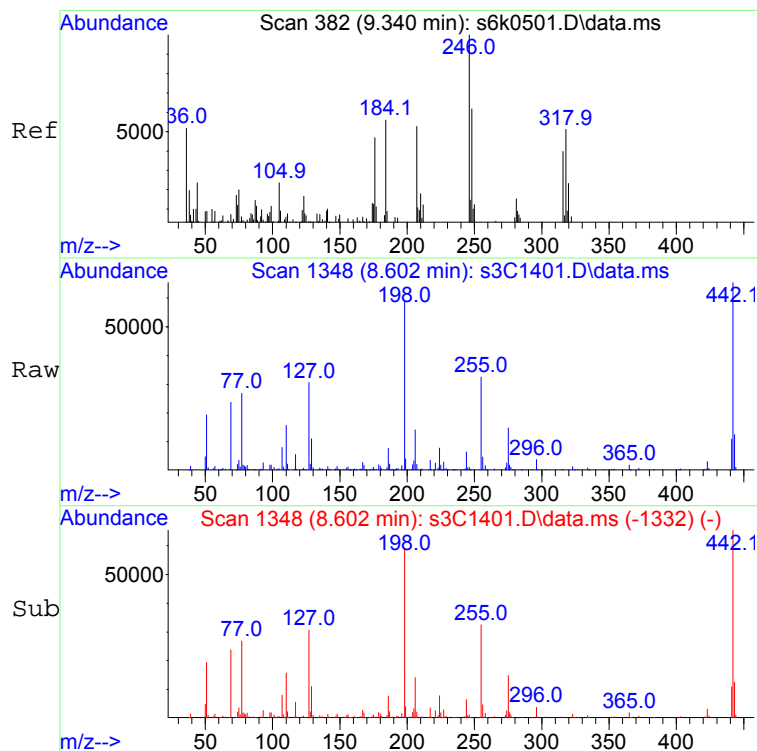
Tgt Ion	Ratio	Resp	Lower	Upper
266	100	54621		
264	62.4	0.0	162.5	
268	63.9	0.0	163.5	



#4
Benzidine
Concen: 16.45 ug/l
RT: 9.506 min Scan# 1517
Delta R.T. 0.005 min
Lab File: s3C1401.D
Acq: 14 Mar 2024 08:00

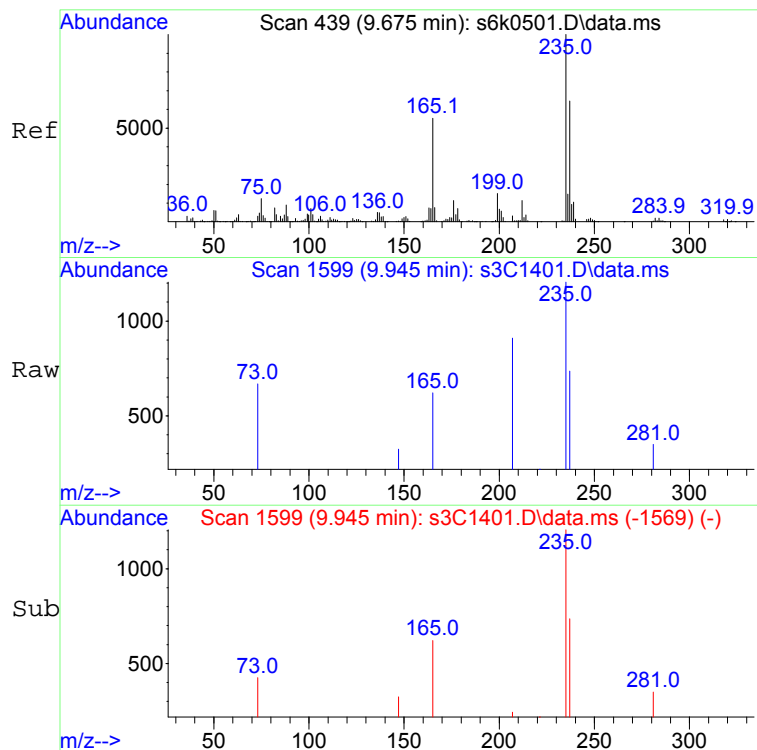
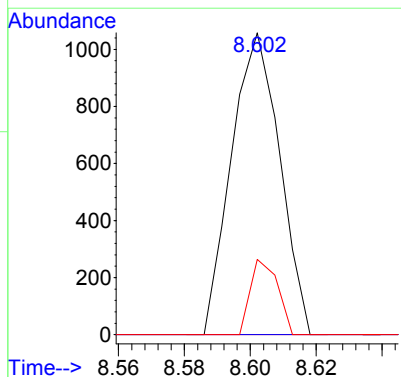
Tgt Ion	Ratio	Resp	Lower	Upper
184	100	313147		
156	6.6	0.0	106.4	





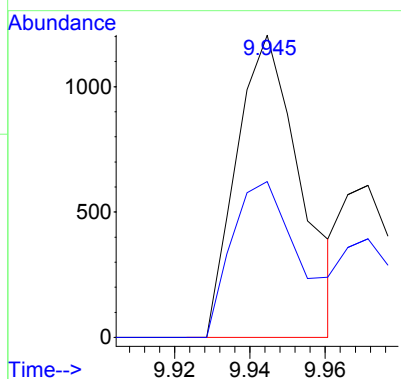
#5
DDE
Concen: 3.85 ug/l
RT: 8.602 min Scan# 1348
Delta R.T. 0.000 min
Lab File: s3C1401.D
Acq: 14 Mar 2024 08:00

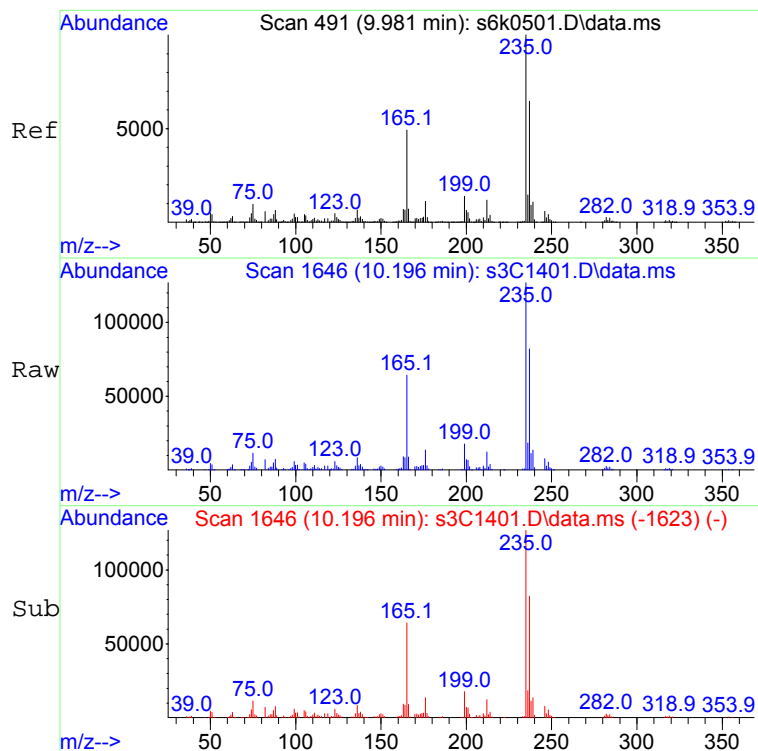
Tgt Ion	Ratio	Lower	Upper
246	100		
318	0.0	0.0	100.0
316	14.2	0.0	122.1



#6
DDD
Concen: 1.37 ug/l
RT: 9.945 min Scan# 1599
Delta R.T. 0.018 min
Lab File: s3C1401.D
Acq: 14 Mar 2024 08:00

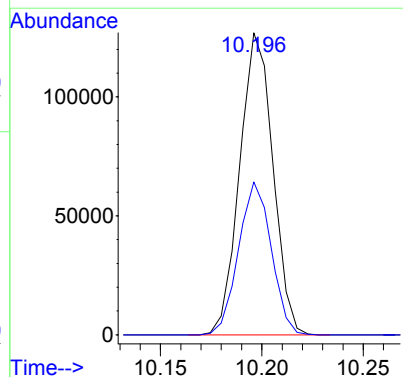
Tgt Ion	Ratio	Lower	Upper
235	100		
165	49.6	0.0	155.3





#7
DDT
Concen: 5.19 ug/l
RT: 10.196 min Scan# 1646
Delta R.T. -0.002 min
Lab File: s3C1401.D
Acq: 14 Mar 2024 08:00

Tgt Ion:	235	Resp:	145279
Ion Ratio	Lower	Upper	
235	100		
165	49.9	0.0	149.4



8270 Breakdown Report

Data File : C:\msdchem\1\data\S031424ICAL\s3C1401.D Vial: 1
Acq On : 14 Mar 2024 08:00 Operator: LL2
Sample : |WBN240308-98|DFTPP|1|SVM|1|DFTPP Inst : MSD3
Misc : Multiplr: 1.00
IntFile : rteint.p

LL
03/15/2024

RB
03/18/2024

Compounds	Area/%Breakdown	8270C	8270D
DDE	1072		
DDD	1419		
DDT	145279		
Breakdown	1.69%	Pass(<20)	Pass(<20)

Compounds	Tailing Factor	8270C	8270D
Benzidine	1.33	Pass(<3)	Pass(<2)
Pentachlorophenol	1.26	Pass(<5)	Pass(<2)

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Matrix:	MISC SOLID
Lab Sample ID:	1205692351		
Client Sample:	QC for batch 2590877	Client:	PERM001
Client ID:	MB for batch 2590877	Method:	SW846 3541/8270E
Batch ID:	2590892	Inst:	MSD3.I
Run Date:	04/04/2024 15:25	Analyst:	LL2
Prep Date:	04/04/2024 09:45	Aliquot:	10.25 g
Data File:	S040424.S\3D0406.D	Column:	DB-5ms
		Project:	PERM00224
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	1 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	976	ug/kg	293	976
110-86-1	Pyridine	U	976	ug/kg	293	976
62-53-3	Aniline	U	976	ug/kg	293	976
108-95-2	Phenol	U	976	ug/kg	293	976
111-44-4	bis(2-Chloroethyl) ether	U	976	ug/kg	293	976
95-57-8	2-Chlorophenol	U	976	ug/kg	293	976
541-73-1	1,3-Dichlorobenzene	U	976	ug/kg	293	976
106-46-7	1,4-Dichlorobenzene	U	976	ug/kg	293	976
95-50-1	1,2-Dichlorobenzene	U	976	ug/kg	293	976
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	976	ug/kg	293	976
100-51-6	Benzyl alcohol	U	976	ug/kg	293	976
95-48-7	o-Cresol	U	976	ug/kg	293	976
65794-96-9	m,p-Cresols	U	976	ug/kg	293	976
621-64-7	N-Nitrosodipropylamine	U	976	ug/kg	293	976
67-72-1	Hexachloroethane	U	976	ug/kg	293	976
98-95-3	Nitrobenzene	U	976	ug/kg	293	976
78-59-1	Isophorone	U	976	ug/kg	293	976
88-75-5	2-Nitrophenol	U	976	ug/kg	293	976
105-67-9	2,4-Dimethylphenol	U	976	ug/kg	293	976
111-91-1	bis(2-Chloroethoxy)methane	U	976	ug/kg	293	976
120-83-2	2,4-Dichlorophenol	U	976	ug/kg	293	976
65-85-0	Benzoic acid	U	1950	ug/kg	488	1950
106-47-8	4-Chloroaniline	U	976	ug/kg	293	976
87-68-3	Hexachlorobutadiene	U	976	ug/kg	293	976
59-50-7	4-Chloro-3-methylphenol	U	976	ug/kg	390	976
91-57-6	2-Methylnaphthalene	U	97.6	ug/kg	29.3	97.6
91-20-3	Naphthalene	U	97.6	ug/kg	29.3	97.6
90-12-0	1-Methylnaphthalene	U	97.6	ug/kg	29.3	97.6
77-47-4	Hexachlorocyclopentadiene	U	976	ug/kg	293	976
88-06-2	2,4,6-Trichlorophenol	U	976	ug/kg	293	976
95-95-4	2,4,5-Trichlorophenol	U	976	ug/kg	293	976
91-58-7	2-Chloronaphthalene	U	97.6	ug/kg	29.3	97.6
88-74-4	o-Nitroaniline	U	976	ug/kg	322	976
99-09-2	m-Nitroaniline	U	976	ug/kg	293	976
131-11-3	Dimethylphthalate	U	97.6	ug/kg	29.3	97.6
99-65-0	m-Dinitrobenzene	U	976	ug/kg	293	976
606-20-2	2,6-Dinitrotoluene	U	976	ug/kg	293	976
121-14-2	2,4-Dinitrotoluene	U	976	ug/kg	293	976

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Matrix:	MISC SOLID
Lab Sample ID:	1205692351		
Client Sample:	QC for batch 2590877	Client:	PERM001
Client ID:	MB for batch 2590877	Method:	SW846 3541/8270E
Batch ID:	2590892	Inst:	MSD3.I
Run Date:	04/04/2024 15:25	Analyst:	LL2
Prep Date:	04/04/2024 09:45	Aliquot:	10.25 g
Data File:	S040424.S\3D0406.D	Column:	DB-5ms
		Project:	PERM00224
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	1 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	97.6	ug/kg	29.3	97.6
83-32-9	Acenaphthene	U	97.6	ug/kg	29.3	97.6
51-28-5	2,4-Dinitrophenol	U	1950	ug/kg	293	1950
132-64-9	Dibenzofuran	U	976	ug/kg	293	976
58-90-2	2,3,4,6-Tetrachlorophenol	U	976	ug/kg	293	976
84-66-2	Diethylphthalate	U	97.6	ug/kg	29.3	97.6
100-02-7	4-Nitrophenol	U	976	ug/kg	293	976
86-73-7	Fluorene	U	97.6	ug/kg	29.3	97.6
7005-72-3	4-Chlorophenylphenylether	U	976	ug/kg	293	976
100-01-6	p-Nitroaniline	U	976	ug/kg	293	976
534-52-1	2-Methyl-4,6-dinitrophenol	U	976	ug/kg	293	976
122-39-4	Diphenylamine	U	976	ug/kg	293	976
122-66-7	1,2-Diphenylhydrazine	U	976	ug/kg	293	976
101-55-3	4-Bromophenylphenylether	U	976	ug/kg	293	976
118-74-1	Hexachlorobenzene	U	976	ug/kg	293	976
87-86-5	Pentachlorophenol	U	976	ug/kg	293	976
88-85-7	Dinoseb	U	976	ug/kg	293	976
85-01-8	Phenanthrene	U	97.6	ug/kg	29.3	97.6
120-12-7	Anthracene	U	97.6	ug/kg	29.3	97.6
86-74-8	Carbazole	U	97.6	ug/kg	29.3	97.6
84-74-2	Di-n-butylphthalate	U	97.6	ug/kg	29.3	97.6
206-44-0	Fluoranthene	U	97.6	ug/kg	29.3	97.6
129-00-0	Pyrene	U	97.6	ug/kg	29.3	97.6
85-68-7	Butylbenzylphthalate	U	97.6	ug/kg	29.3	97.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	97.6	ug/kg	29.3	97.6
56-55-3	Benzo(a)anthracene	U	97.6	ug/kg	29.3	97.6
218-01-9	Chrysene	U	97.6	ug/kg	29.3	97.6
72-43-5	Methoxychlor	U	976	ug/kg	293	976
117-84-0	Di-n-octylphthalate	U	97.6	ug/kg	29.3	97.6
205-99-2	Benzo(b)fluoranthene	U	97.6	ug/kg	29.3	97.6
207-08-9	Benzo(k)fluoranthene	U	97.6	ug/kg	29.3	97.6
50-32-8	Benzo(a)pyrene	U	97.6	ug/kg	29.3	97.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	97.6	ug/kg	29.3	97.6
53-70-3	Dibenzo(a,h)anthracene	U	97.6	ug/kg	29.3	97.6
191-24-2	Benzo(ghi)perylene	U	97.6	ug/kg	29.3	97.6
123-91-1	1,4-Dioxane	U	976	ug/kg	293	976
80-62-6	Methyl methacrylate	U	976	ug/kg	293	976
97-63-2	Ethyl methacrylate	U	976	ug/kg	293	976

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Matrix:	MISC SOLID
Lab Sample ID:	1205692351		
Client Sample:	QC for batch 2590877	Client:	PERM001
Client ID:	MB for batch 2590877	Method:	SW846 3541/8270E
Batch ID:	2590892	Inst:	MSD3.I
Run Date:	04/04/2024 15:25	Analyst:	LL2
Prep Date:	04/04/2024 09:45	Aliquot:	10.25 g
Data File:	S040424.S\3D0406.D	Column:	DB-5ms
		Project:	PERM00224
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	1 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	976	ug/kg	293	976
10595-95-6	N-Nitrosomethylethylamine	U	976	ug/kg	293	976
66-27-3	Methyl methanesulfonate	U	976	ug/kg	293	976
55-18-5	N-Nitrosodiethylamine	U	976	ug/kg	293	976
62-50-0	Ethyl Methanesulfonate	U	976	ug/kg	293	976
76-01-7	Pentachloroethane	U	976	ug/kg	293	976
930-55-2	N-Nitrosopyrrolidine	U	976	ug/kg	293	976
98-86-2	Acetophenone	U	976	ug/kg	293	976
59-89-2	N-Nitrosomorpholine	U	976	ug/kg	293	976
95-53-4	o-Toluidine	U	976	ug/kg	293	976
100-75-4	N-Nitrosopiperidine	U	976	ug/kg	293	976
122-09-8	a,a-Dimethylphenethylamine	U	976	ug/kg	341	976
87-65-0	2,6-Dichlorophenol	U	976	ug/kg	293	976
1888-71-7	Hexachloropropene	U	976	ug/kg	293	976
924-16-3	N-Nitrosodi-n-butylamine	U	976	ug/kg	293	976
94-59-7	Safrole	U	976	ug/kg	293	976
95-94-3	1,2,4,5-Tetrachlorobenzene	U	976	ug/kg	293	976
120-58-1	Isosafrole	U	976	ug/kg	293	976
130-15-4	1,4-Naphthoquinone	U	976	ug/kg	293	976
608-93-5	Pentachlorobenzene	U	976	ug/kg	293	976
134-32-7	1-Naphthylamine	U	976	ug/kg	293	976
91-59-8	2-Naphthylamine	U	976	ug/kg	293	976
99-55-8	5-Nitro-o-toluidine	U	976	ug/kg	293	976
62-44-2	Phenacetin	U	976	ug/kg	293	976
99-35-4	1,3,5-Trinitrobenzene	U	976	ug/kg	293	976
2303-16-4	Diallate	U	976	ug/kg	293	976
92-67-1	4-Aminobiphenyl	U	976	ug/kg	293	976
82-68-8	Pentachloronitrobenzene	U	976	ug/kg	293	976
23950-58-5	Pronamide	U	976	ug/kg	293	976
56-57-5	4-Nitroquinoline-1-oxide	U	976	ug/kg	293	976
91-80-5	Methapyrilene	U	976	ug/kg	293	976
465-73-6	Isodrin	U	976	ug/kg	195	976
140-57-8	Aramite	U	976	ug/kg	293	976
143-50-0	Kepone	U	976	ug/kg	293	976
60-11-7	p-(Dimethylamino)azobenzene	U	976	ug/kg	293	976
510-15-6	Chlorobenzilate	U	976	ug/kg	293	976
119-93-7	3,3'-Dimethylbenzidine	U	976	ug/kg	293	976
53-96-3	2-Acetylaminofluorene	U	976	ug/kg	293	976

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Matrix:	MISC SOLID
Lab Sample ID:	1205692351		
Client Sample:	QC for batch 2590877	Client:	PERM001
Client ID:	MB for batch 2590877	Method:	SW846 3541/8270E
Batch ID:	2590892	Inst:	MSD3.I
Run Date:	04/04/2024 15:25	Analyst:	LL2
Prep Date:	04/04/2024 09:45	Aliquot:	10.25 g
Data File:	S040424.S\3D0406.D	Column:	DB-5ms
		Project:	PERM00224
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	1 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	976	ug/kg	293	976
57-97-6	7,12-Dimethylbenz(a)anthracene	U	976	ug/kg	293	976
56-49-5	3-Methylcholanthrene	U	976	ug/kg	293	976
126-68-1	Triethylphosphorothioate	U	976	ug/kg	293	976
297-97-2	Thionazin	U	976	ug/kg	293	976
126-73-8	Tributylphosphate	U	976	ug/kg	293	976
3689-24-5	Sulfotepp	U	976	ug/kg	293	976
298-02-2	Phorate	U	976	ug/kg	293	976
60-51-5	Dimethoate	U	976	ug/kg	293	976
298-04-4	Disulfoton	U	976	ug/kg	293	976
298-00-0	Methyl parathion	U	976	ug/kg	293	976
56-38-2	Parathion	U	976	ug/kg	293	976
52-85-7	Famphur	U	976	ug/kg	293	976
106-50-3	p-Phenylenediamine	U	48800	ug/kg	9760	48800
70-30-4	Hexachlorophene	U	48800	ug/kg	11300	48800
120-82-1	1,2,4-Trichlorobenzene	U	976	ug/kg	293	976

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0406.D
 Acq On : 04 Apr 2024 15:25
 Operator : LL2
 Sample : |1205692351|2590892|1|SVM|1|MB|||
 Misc : |MSD827E4_S|MISC SOLID|QC A|mixa,b,j,d,e|||
 ALS Vial : 6 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 07:53:43 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	74563	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	305218	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	155365	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.356	8.362	1.000	318450	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.683	10.683	1.000	348183	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.715	12.715	1.000	376506	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	74563	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	305218	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	155365	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.356	8.362	1.000	318450	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.683	10.683	1.000	348183	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.715	12.715	1.000	376506	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.302	1.000	305218	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.356	8.362	1.000	318450	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.683	10.683	1.000	348183	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	305218	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	155365	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.356	8.362	1.000	318450	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.683	10.683	1.000	348183	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	305218	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.715	12.715	1.000	376506	40.00	ng/uL	0.00
System Monitoring Compounds								
5) 2-Fluorophenol	112	2.617	2.627	0.674	192175	77.85	ng/uL	-0.01
8) Phenol-d5	99	3.483	3.486	0.897	248696	81.30	ng/uL	0.00
23) Nitrobenzene-d5	82	4.484	4.502	0.846	95976	34.30	ng/uL	-0.02
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	211928	35.91	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.757	7.773	0.928	89130	76.70	ng/uL	-0.02
79) p-Terphenyl-d14	244	9.693	9.686	1.160	341965	44.91	ng/uL	0.00
Compound Amount Range Recovery								
5) 2-Fluorophenol	100.000	11	-	79	78%			
8) Phenol-d5	100.000	15	-	85	81%			
23) Nitrobenzene-d5	50.000	39	-	112	69%			
44) 2-Fluorobiphenyl	50.000	39	-	112	72%			
64) 2,4,6-Tribromophenol	100.000	37	-	132	77%			
79) p-Terphenyl-d14	50.000	24	-	129	90%			

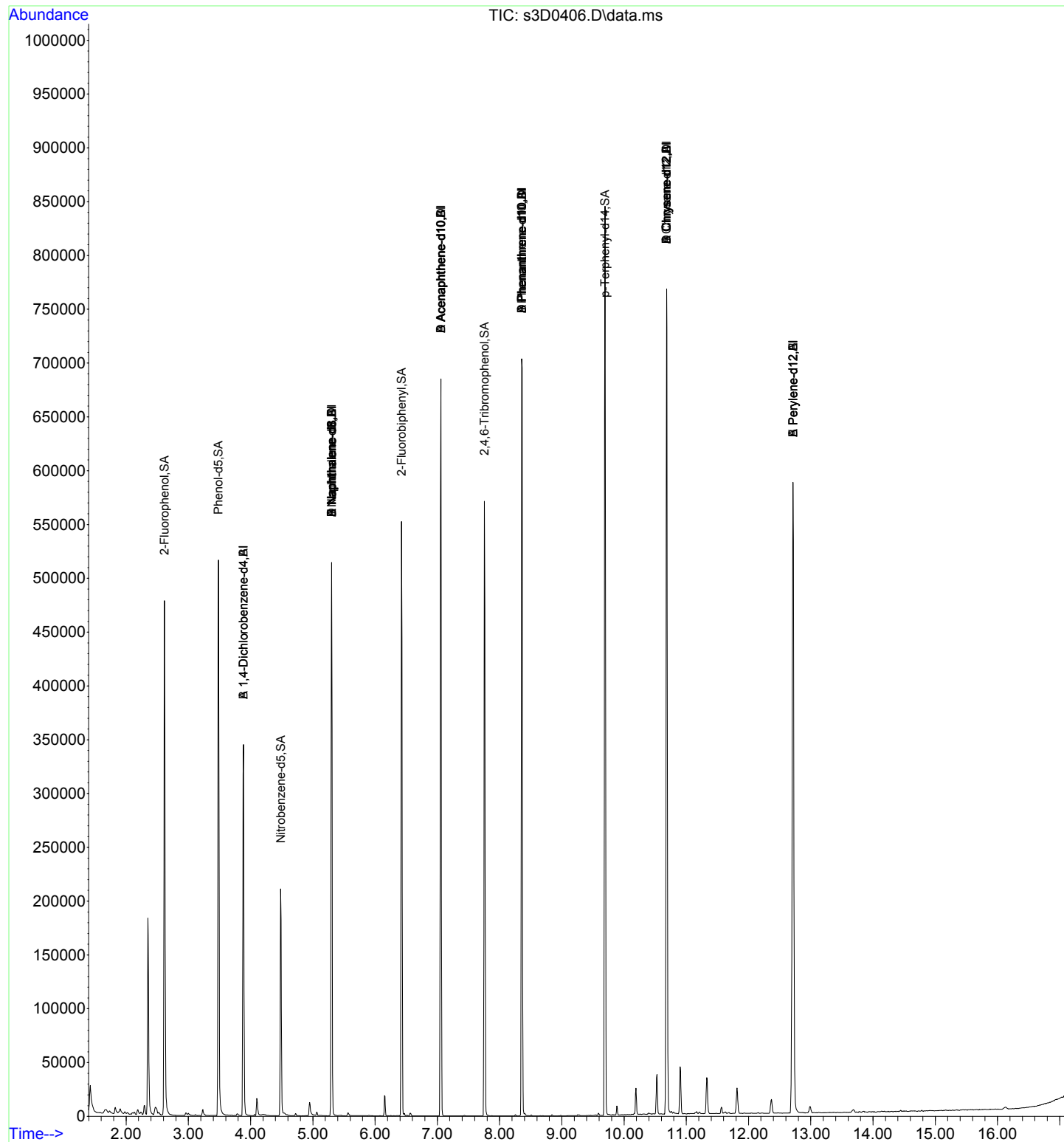
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
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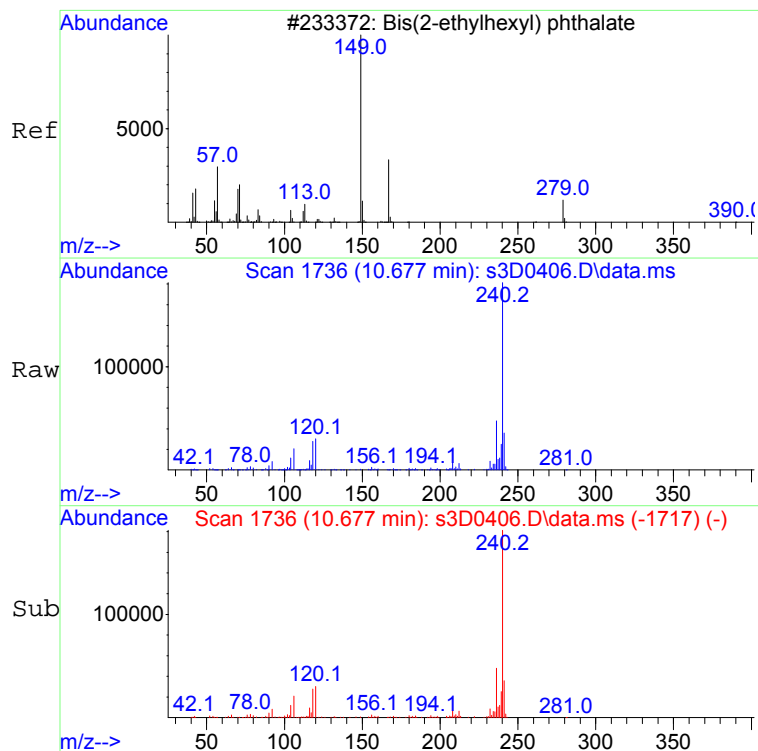
(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
Data File : s3D0406.D
Acq On : 04 Apr 2024 15:25
Operator : LL2
Sample : |1205692351|2590892|1|SVM|1|MB|||
Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
ALS Vial : 6 Sample Multiplier: 1

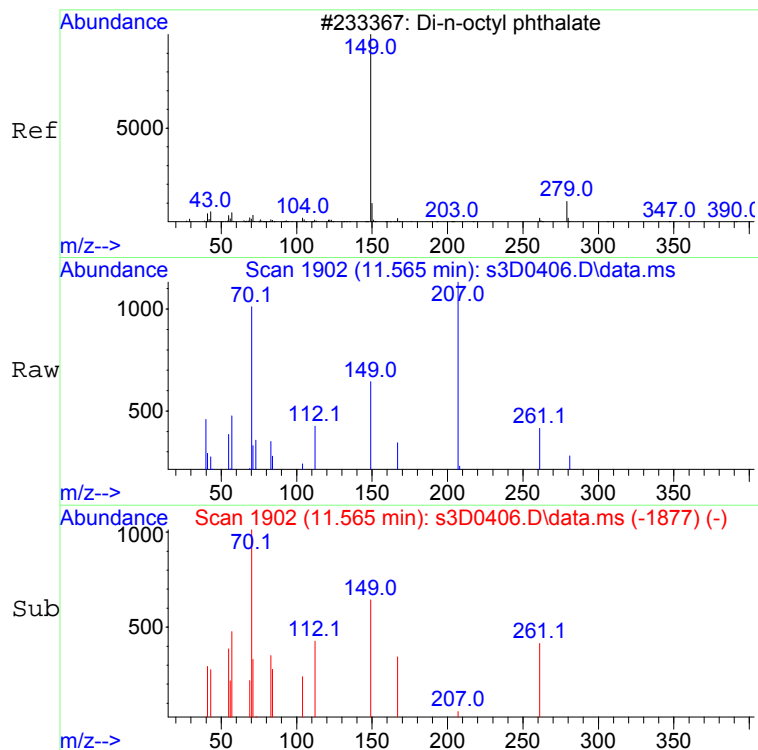
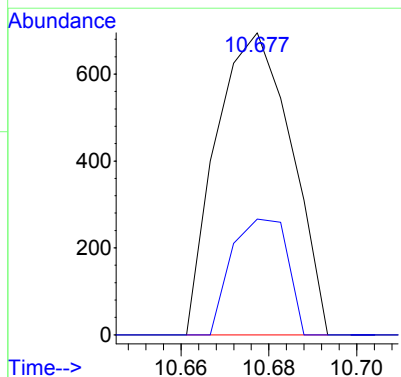
Quant Time: Apr 05 07:53:43 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration





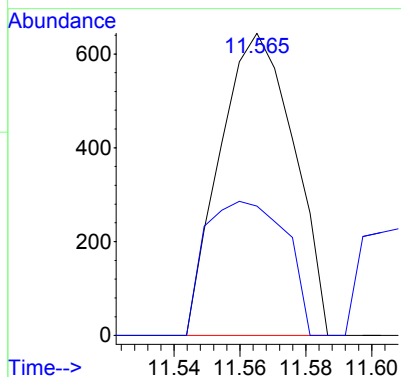
#82 BEFORE analyst DELETION
bis(2-Ethylhexyl)phthalate
Concen: 0.55 ng/uL
RT: 10.677 min Scan# 1736
Delta R.T. -0.000 min
Lab File: s3D0406.D
Acq: 04 Apr 2024 15:25

Tgt Ion:149 Resp: 827
Ion Ratio Lower Upper
149 100
167 0.0 0.0 55.6



#87 BEFORE analyst DELETION
Di-n-octylphthalate
Concen: 0.60 ng/uL
RT: 11.565 min Scan# 1902
Delta R.T. 0.035 min
Lab File: s3D0406.D
Acq: 04 Apr 2024 15:25

Tgt Ion:149 Resp: 999
Ion Ratio Lower Upper
149 100
43 48.6 0.0 37.4#



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Matrix:	MISC SOLID
Lab Sample ID:	1205692352		
Client Sample:	QC for batch 2590877	Client:	PERM001
Client ID:	LCS for batch 2590877	Method:	SW846 3541/8270E
Batch ID:	2590892	Inst:	MSD3.I
Run Date:	04/04/2024 15:46	Analyst:	LL2
Prep Date:	04/04/2024 09:45	Aliquot:	10.67 g
Data File:	S040424.S\3D0407.D	Column:	DB-5ms
		Project:	PERM00224
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	1 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		3710	ug/kg	281	937
110-86-1	Pyridine		2930	ug/kg	281	937
62-53-3	Aniline		3180	ug/kg	281	937
108-95-2	Phenol		4120	ug/kg	281	937
111-44-4	bis(2-Chloroethyl) ether		3910	ug/kg	281	937
95-57-8	2-Chlorophenol		4050	ug/kg	281	937
541-73-1	1,3-Dichlorobenzene		3510	ug/kg	281	937
106-46-7	1,4-Dichlorobenzene		3550	ug/kg	281	937
95-50-1	1,2-Dichlorobenzene		3720	ug/kg	281	937
108-60-1	bis(2-Chloro-1-methylethyl)ether		3750	ug/kg	281	937
100-51-6	Benzyl alcohol		4190	ug/kg	281	937
95-48-7	o-Cresol		3970	ug/kg	281	937
65794-96-9	m,p-Cresols		4080	ug/kg	281	937
621-64-7	N-Nitrosodipropylamine		4100	ug/kg	281	937
67-72-1	Hexachloroethane		3550	ug/kg	281	937
98-95-3	Nitrobenzene		3740	ug/kg	281	937
78-59-1	Isophorone		3820	ug/kg	281	937
88-75-5	2-Nitrophenol		3880	ug/kg	281	937
105-67-9	2,4-Dimethylphenol		2740	ug/kg	281	937
111-91-1	bis(2-Chloroethoxy)methane		3950	ug/kg	281	937
120-83-2	2,4-Dichlorophenol		4060	ug/kg	281	937
65-85-0	Benzoic acid		4860	ug/kg	469	1870
106-47-8	4-Chloroaniline		3460	ug/kg	281	937
87-68-3	Hexachlorobutadiene		3590	ug/kg	281	937
59-50-7	4-Chloro-3-methylphenol		4360	ug/kg	375	937
91-57-6	2-Methylnaphthalene		3880	ug/kg	28.1	93.7
91-20-3	Naphthalene		3790	ug/kg	28.1	93.7
90-12-0	1-Methylnaphthalene		4090	ug/kg	28.1	93.7
77-47-4	Hexachlorocyclopentadiene		1900	ug/kg	281	937
88-06-2	2,4,6-Trichlorophenol		4020	ug/kg	281	937
95-95-4	2,4,5-Trichlorophenol		4330	ug/kg	281	937
91-58-7	2-Chloronaphthalene		3870	ug/kg	28.1	93.7
88-74-4	o-Nitroaniline		4190	ug/kg	309	937
99-09-2	m-Nitroaniline		3830	ug/kg	281	937
131-11-3	Dimethylphthalate		4370	ug/kg	28.1	93.7
99-65-0	m-Dinitrobenzene	U	937	ug/kg	281	937
606-20-2	2,6-Dinitrotoluene		4160	ug/kg	281	937
121-14-2	2,4-Dinitrotoluene		4520	ug/kg	281	937

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Matrix:	MISC SOLID
Lab Sample ID:	1205692352		
Client Sample:	QC for batch 2590877	Client:	PERM001
Client ID:	LCS for batch 2590877	Method:	SW846 3541/8270E
Batch ID:	2590892	Inst:	MSD3.I
Run Date:	04/04/2024 15:46	Analyst:	LL2
Prep Date:	04/04/2024 09:45	Aliquot:	10.67 g
Data File:	S040424.S\3D0407.D	Column:	DB-5ms
		Project:	PERM00224
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	1 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene		3860	ug/kg	28.1	93.7
83-32-9	Acenaphthene		4010	ug/kg	28.1	93.7
51-28-5	2,4-Dinitrophenol		3100	ug/kg	281	1870
132-64-9	Dibenzofuran		4080	ug/kg	281	937
58-90-2	2,3,4,6-Tetrachlorophenol		3910	ug/kg	281	937
84-66-2	Diethylphthalate		4660	ug/kg	28.1	93.7
100-02-7	4-Nitrophenol		4530	ug/kg	281	937
86-73-7	Fluorene		4220	ug/kg	28.1	93.7
7005-72-3	4-Chlorophenylphenylether		4240	ug/kg	281	937
100-01-6	p-Nitroaniline		4400	ug/kg	281	937
534-52-1	2-Methyl-4,6-dinitrophenol		3580	ug/kg	281	937
122-39-4	Diphenylamine		4330	ug/kg	281	937
122-66-7	1,2-Diphenylhydrazine		4110	ug/kg	281	937
101-55-3	4-Bromophenylphenylether		4270	ug/kg	281	937
118-74-1	Hexachlorobenzene		4100	ug/kg	281	937
87-86-5	Pentachlorophenol		4220	ug/kg	281	937
88-85-7	Dinoseb	U	937	ug/kg	281	937
85-01-8	Phenanthrene		4410	ug/kg	28.1	93.7
120-12-7	Anthracene		4330	ug/kg	28.1	93.7
86-74-8	Carbazole		4720	ug/kg	28.1	93.7
84-74-2	Di-n-butylphthalate		5050	ug/kg	28.1	93.7
206-44-0	Fluoranthene		4760	ug/kg	28.1	93.7
129-00-0	Pyrene		4780	ug/kg	28.1	93.7
85-68-7	Butylbenzylphthalate		4660	ug/kg	28.1	93.7
117-81-7	bis(2-Ethylhexyl)phthalate		4530	ug/kg	28.1	93.7
56-55-3	Benzo(a)anthracene		4490	ug/kg	28.1	93.7
218-01-9	Chrysene		4320	ug/kg	28.1	93.7
72-43-5	Methoxychlor	U	937	ug/kg	281	937
117-84-0	Di-n-octylphthalate		4880	ug/kg	28.1	93.7
205-99-2	Benzo(b)fluoranthene		4570	ug/kg	28.1	93.7
207-08-9	Benzo(k)fluoranthene		4440	ug/kg	28.1	93.7
50-32-8	Benzo(a)pyrene		4410	ug/kg	28.1	93.7
193-39-5	Indeno(1,2,3-cd)pyrene		4400	ug/kg	28.1	93.7
53-70-3	Dibenzo(a,h)anthracene		4620	ug/kg	28.1	93.7
191-24-2	Benzo(ghi)perylene		4920	ug/kg	28.1	93.7
123-91-1	1,4-Dioxane		1970	ug/kg	281	937
80-62-6	Methyl methacrylate	U	937	ug/kg	281	937
97-63-2	Ethyl methacrylate	U	937	ug/kg	281	937

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Matrix:	MISC SOLID
Lab Sample ID:	1205692352		
Client Sample:	QC for batch 2590877	Client:	PERM001
Client ID:	LCS for batch 2590877	Method:	SW846 3541/8270E
Batch ID:	2590892	Inst:	MSD3.I
Run Date:	04/04/2024 15:46	Analyst:	LL2
Prep Date:	04/04/2024 09:45	Aliquot:	10.67 g
Data File:	S040424.S\3D0407.D	Column:	DB-5ms
		Project:	PERM00224
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	1 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	937	ug/kg	281	937
10595-95-6	N-Nitrosomethylethylamine	U	937	ug/kg	281	937
66-27-3	Methyl methanesulfonate	U	937	ug/kg	281	937
55-18-5	N-Nitrosodiethylamine	U	937	ug/kg	281	937
62-50-0	Ethyl Methanesulfonate	U	937	ug/kg	281	937
76-01-7	Pentachloroethane	U	937	ug/kg	281	937
930-55-2	N-Nitrosopyrrolidine		4210	ug/kg	281	937
98-86-2	Acetophenone		4230	ug/kg	281	937
59-89-2	N-Nitrosomorpholine	J	408	ug/kg	281	937
95-53-4	o-Toluidine	J	310	ug/kg	281	937
100-75-4	N-Nitrosopiperidine	U	937	ug/kg	281	937
122-09-8	a,a-Dimethylphenethylamine	U	937	ug/kg	328	937
87-65-0	2,6-Dichlorophenol		4340	ug/kg	281	937
1888-71-7	Hexachloropropene	U	937	ug/kg	281	937
924-16-3	N-Nitrosodi-n-butylamine	J	365	ug/kg	281	937
94-59-7	Safrole	U	937	ug/kg	281	937
95-94-3	1,2,4,5-Tetrachlorobenzene		3960	ug/kg	281	937
120-58-1	Isosafrole		9560	ug/kg	281	937
130-15-4	1,4-Naphthoquinone	U	937	ug/kg	281	937
608-93-5	Pentachlorobenzene	U	937	ug/kg	281	937
134-32-7	1-Naphthylamine	U	937	ug/kg	281	937
91-59-8	2-Naphthylamine	U	937	ug/kg	281	937
99-55-8	5-Nitro-o-toluidine	U	937	ug/kg	281	937
62-44-2	Phenacetin	U	937	ug/kg	281	937
99-35-4	1,3,5-Trinitrobenzene	U	937	ug/kg	281	937
2303-16-4	Diallate	U	937	ug/kg	281	937
92-67-1	4-Aminobiphenyl	U	937	ug/kg	281	937
82-68-8	Pentachloronitrobenzene	U	937	ug/kg	281	937
23950-58-5	Pronamide	U	937	ug/kg	281	937
56-57-5	4-Nitroquinoline-1-oxide	U	937	ug/kg	281	937
91-80-5	Methapyrilene	U	937	ug/kg	281	937
465-73-6	Isodrin	U	937	ug/kg	187	937
140-57-8	Aramite	U	937	ug/kg	281	937
143-50-0	Kepone	U	937	ug/kg	281	937
60-11-7	p-(Dimethylamino)azobenzene	U	937	ug/kg	281	937
510-15-6	Chlorobenzilate	U	937	ug/kg	281	937
119-93-7	3,3'-Dimethylbenzidine	U	937	ug/kg	281	937
53-96-3	2-Acetylaminofluorene	U	937	ug/kg	281	937

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660974

Lab Sample ID: 1205692352

Client Sample: QC for batch 2590877

Client ID: LCS for batch 2590877

Batch ID: 2590892

Run Date: 04/04/2024 15:46

Prep Date: 04/04/2024 09:45

Data File: S040424.S\3D0407.D

Client: PERM001

Method: SW846 3541/8270E

Inst: MSD3.I

Analyst: LL2

Aliquot: 10.67 g

Column: DB-5ms

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine		3570	ug/kg	281	937
57-97-6	7,12-Dimethylbenz(a)anthracene	U	937	ug/kg	281	937
56-49-5	3-Methylcholanthrene	U	937	ug/kg	281	937
126-68-1	Triethylphosphorothioate	U	937	ug/kg	281	937
297-97-2	Thionazin	U	937	ug/kg	281	937
126-73-8	Tributylphosphate		4730	ug/kg	281	937
3689-24-5	Sulfotepp	U	937	ug/kg	281	937
298-02-2	Phorate	J	303	ug/kg	281	937
60-51-5	Dimethoate	U	937	ug/kg	281	937
298-04-4	Disulfoton		1050	ug/kg	281	937
298-00-0	Methyl parathion	U	937	ug/kg	281	937
56-38-2	Parathion	U	937	ug/kg	281	937
52-85-7	Famphur	U	937	ug/kg	281	937
106-50-3	p-Phenylenediamine	U	46900	ug/kg	9370	46900
70-30-4	Hexachlorophene	U	46900	ug/kg	10900	46900
120-82-1	1,2,4-Trichlorobenzene		3690	ug/kg	281	937

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0407.D
 Acq On : 04 Apr 2024 15:46
 Operator : LL2
 Sample : |1205692352|2590892|1|SVM|1|LCS|||
 Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
 ALS Vial : 7 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 07:54:36 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	81101	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	340804	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	176666	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.361	8.362	1.000	353904	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.688	10.683	1.000	393321	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.715	12.715	1.000	416873	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	81101	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	340804	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	176666	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.361	8.362	1.000	353904	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.688	10.683	1.000	393321	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.715	12.715	1.000	416873	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.302	1.000	340804	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.361	8.362	1.000	353904	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.688	10.683	1.000	393321	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	340804	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	176666	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.361	8.362	1.000	353904	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.688	10.683	1.000	393321	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	340804	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.715	12.715	1.000	416873	40.00	ng/uL	0.00

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.617	2.627	0.674	207887	77.43	ng/uL	0.00
8) Phenol-d5	99	3.483	3.486	0.897	272543	81.91	ng/uL	0.00
23) Nitrobenzene-d5	82	4.489	4.502	0.847	108015	34.57	ng/uL	-0.01
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	234036	34.88	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.762	7.773	0.928	107235	83.04	ng/uL	-0.01
79) p-Terphenyl-d14	244	9.693	9.686	1.159	376481	44.49	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	77%
8) Phenol-d5	100.000	15 - 85	82%
23) Nitrobenzene-d5	50.000	39 - 112	69%
44) 2-Fluorobiphenyl	50.000	39 - 112	70%
64) 2,4,6-Tribromophenol	100.000	37 - 132	83%
79) p-Terphenyl-d14	50.000	24 - 129	89%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
3) N-Methyl-N-nitrosometh...	74	1.633	1.663	0.420	67459	39.62	ng/uL	98
4) Pyridine	79	1.676	1.705	0.431	76437	31.29	ng/uL	98
7) Aniline	93	3.542	3.555	0.912	133776	33.92	ng/uL	99
9) Phenol	94	3.500	3.502	0.901	151701	43.94	ng/uL	97
10) bis(2-Chloroethyl) ether	93	3.601	3.607	0.927	119551	41.69	ng/uL	98
11) 2-Chlorophenol	128	3.665	3.670	0.944	128680	43.25	ng/uL	99
12) n-Decane	43	3.697	3.707	0.952	73467	29.05	ng/uL	96
13) 1,3-Dichlorobenzene	146	3.826	3.832	0.985	122904	37.45	ng/uL	99
14) 1,4-Dichlorobenzene	146	3.901	3.912	1.004	126089	37.93	ng/uL	99
15) 1,2-Dichlorobenzene	146	4.061	4.068	1.045	125649	39.69	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.173	4.168	1.074	135792	40.06	ng/uL	98
17) Benzyl alcohol	108	4.029	4.026	1.037	83577	44.72	ng/uL	99
18) o-Cresol	107	4.147	4.137	1.067	97050	42.33	ng/uL	99
19) m,p-Cresols	108	4.313	4.309	1.110	118168	43.49	ng/uL	48
20) N-Nitrosodipropylamine	70	4.318	4.314	1.112	88236	43.78	ng/uL	60
21) Hexachloroethane	117	4.430	4.430	1.140	50368	37.92	ng/uL	99
24) Nitrobenzene	77	4.510	4.523	0.851	123774	39.89	ng/uL	98

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
Data File : s3D0407.D
Acq On : 04 Apr 2024 15:46
Operator : LL2
Sample : |1205692352|2590892|1|SVM|1|LCS|||
Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 05 07:54:36 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
25)	Isophorone	82	4.778	4.792	0.901	230185	40.73	ng/uL	99
26)	2-Nitrophenol	139	4.869	4.881	0.918	64905	41.41	ng/uL	99
27)	2,4-Dimethylphenol	122	4.922	4.928	0.928	64342	29.25	ng/uL	98
28)	bis(2-Chloroethoxy)met...	93	5.035	5.039	0.950	158613	42.17	ng/uL	99
29)	2,4-Dichlorophenol	162	5.147	5.149	0.971	108337	43.36	ng/uL	100
30)	Benzoic acid	105	5.040	5.040	0.951	79572	51.90	ng/uL	91
31)	1,2,4-Trichlorobenzene	180	5.238	5.244	0.988	109819	39.37	ng/uL	99
32)	alpha-Terpineol	59	5.345	5.344	1.008	93739	40.07	ng/uL	100
33)	Naphthalene	128	5.329	5.328	1.005	366047	40.40	ng/uL	100
34)	4-Chloroaniline	127	5.393	5.391	1.017	137365	36.89	ng/uL	98
35)	Hexachlorobutadiene	225	5.463	5.460	1.030	59345	38.30	ng/uL	99
36)	4-Chloro-3-methylphenol	107	5.917	5.897	1.116	116681	46.55	ng/uL	99
37)	2-Methylnaphthalene	142	6.062	6.045	1.143	244384	41.41	ng/uL	100
38)	1-Methylnaphthalene	142	6.158	6.144	1.161	237273	43.64	ng/uL	100
40)	Hexachlorocyclopentadiene	237	6.217	6.215	0.881	30585	20.23	ng/uL	99
41)	2,3-Dichloroaniline	161	6.340	6.357	0.898	137078	41.90	ng/uL	99
42)	2,4,6-Trichlorophenol	196	6.345	6.357	0.899	82042	42.89	ng/uL	99
43)	2,4,5-Trichlorophenol	196	6.382	6.389	0.904	90520	46.19	ng/uL	98
45)	2-Chloronaphthalene	162	6.538	6.548	0.926	237945	41.28	ng/uL	95
46)	o-Nitroaniline	65	6.639	6.648	0.941	70781	44.73	ng/uL	99
48)	m-Nitroaniline	138	7.024	7.024	0.995	70315	40.88	ng/uL	97
49)	Dimethylphthalate	163	6.816	6.817	0.966	301778	46.62	ng/uL	100
51)	2,6-Dinitrotoluene	165	6.869	6.876	0.973	64267	44.44	ng/uL	98
52)	2,4-Dinitrotoluene	165	7.233	7.236	1.025	94802	48.19	ng/uL	96
53)	Acenaphthylene	152	6.928	6.934	0.982	365210	41.14	ng/uL	100
54)	Acenaphthene	154	7.088	7.093	1.005	231977	42.79	ng/uL	99
55)	2,4-Dinitrophenol	184	7.121	7.125	1.009	18524	33.09	ng/uL	99
56)	Dibenzofuran	168	7.244	7.247	1.027	358957	43.51	ng/uL	99
57)	2,3,4,6-Tetrachlorophenol	232	7.356	7.353	1.042	68339	41.76	ng/uL	99
58)	Diethylphthalate	149	7.452	7.448	1.056	333326	49.70	ng/uL	100
59)	4-Nitrophenol	109	7.185	7.173	1.018	36734	48.36	ng/uL	99
60)	Fluorene	166	7.548	7.549	1.070	294468	44.98	ng/uL	100
61)	4-Chlorophenylphenylether	204	7.548	7.549	1.070	139768	45.20	ng/uL	98
62)	p-Nitroaniline	138	7.570	7.564	1.073	82036	46.91	ng/uL	100
65)	2-Methyl-4,6-dinitroph...	198	7.597	7.603	0.909	39263	38.15	ng/uL	96
66)	Diphenylamine	169	7.655	7.661	0.916	263931	46.22	ng/uL	98
67)	1,2-Diphenylhydrazine	77	7.688	7.699	0.919	300952	43.82	ng/uL	99
68)	4-Bromophenylphenylether	248	7.976	7.979	0.954	88458	45.56	ng/uL	99
69)	Hexachlorobenzene	284	8.024	8.033	0.960	103128	43.74	ng/uL	99
70)	Pentachlorophenol	266	8.196	8.192	0.980	59318	45.06	ng/uL	100
71)	n-Octadecane	57	8.254	8.255	0.987	188631	43.31	ng/uL	98
73)	Phenanthrene	178	8.383	8.388	1.003	461870	47.01	ng/uL	100
74)	Anthracene	178	8.426	8.430	1.008	455075	46.18	ng/uL	100
75)	Carbazole	167	8.559	8.562	1.024	453302	50.31	ng/uL	99
76)	Di-n-butylphthalate	149	8.843	8.839	1.058	617208	53.84	ng/uL	100
77)	Fluoranthene	202	9.383	9.379	1.122	520530	50.81	ng/uL	99
78)	Pyrene	202	9.576	9.570	1.145	549298	50.99	ng/uL	99
81)	Butylbenzylphthalate	149	10.105	10.089	0.945	285806	49.71	ng/uL	99
82)	bis(2-Ethylhexyl)phtha...	149	10.677	10.678	0.999	445148	48.33	ng/uL	99
83)	Benzo(a)anthracene	228	10.677	10.683	0.999	561151	47.87	ng/uL	99
84)	Chrysene	228	10.720	10.725	1.003	504840	46.11	ng/uL	99
87)	Di-n-octylphthalate	149	11.512	11.531	1.077	742768	52.07	ng/uL	100
89)	Benzo(b)fluoranthene	252	12.095	12.087	0.951	567462	48.79	ng/uL	99
90)	Benzo(k)fluoranthene	252	12.138	12.135	0.955	552919	47.35	ng/uL	99
91)	Benzo(a)pyrene	252	12.624	12.626	0.993	502552	47.05	ng/uL	99
92)	Indeno(1,2,3-cd)pyrene	276	14.732	14.754	1.159	531093	47.00	ng/uL	98
93)	Dibenzo(a,h)anthracene	278	14.785	14.811	1.163	543311	49.33	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
Data File : s3D0407.D
Acq On : 04 Apr 2024 15:46
Operator : LL2
Sample : |1205692352|2590892|1|SVM|1|LCS|||
Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 05 07:54:36 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
94) Benzo(ghi)perylene	276	15.277	15.303	1.201	564651	52.47	ng/uL	99
97) 1,4-Dioxane	88	1.451	1.456	0.374	22239	21.07	ng/uL	91
106) Benzaldehyde	77	3.441	3.435	0.886	16087	7.66	ng/uL	94
108) N-Nitrosopyrrolidine	100	4.296	4.291	1.106	57638	44.95	ng/uL	96
109) Acetophenone	105	4.318	4.318	1.112	173903	45.18	ng/uL	75
110) N-Nitrosomorpholine	56	4.318	4.339	1.112	5357	4.35	ng/uL#	35
111) o-Toluidine	106	4.318	4.355	1.112	14223	3.31	ng/uL#	1
115) 2,6-Dichlorophenol	162	5.398	5.398	1.018	107049	46.31	ng/uL	99
117) Caprolactam	113	5.767	5.746	1.088	34896	48.79	ng/uL#	74
118) N-Nitrosodi-n-butylamine	57	5.767	5.757	1.088	4978	3.89	ng/uL#	1
121) 1,2,4,5-Tetrachloroben...	216	6.227	6.227	0.883	115358	42.21	ng/uL	100
122) 1,1-Biphenyl	154	6.522	6.522	0.924	315091	44.18	ng/uL	98
123) Isosafrole	162	6.538	6.490	0.926	236712	102.05	ng/uL#	34
129) Tributylphosphate	99	7.639	7.634	1.083	410008	50.44	ng/uL	99
136) Atrazine	200	8.115	8.116	0.971	89519	50.24	ng/uL	98
153) Sulfolane	56	5.414	5.409	1.021	41215	46.20	ng/uL	99
155) Prometon	210	8.062	8.057	0.964	73886	48.18	ng/uL	100
156) Benzidine	184	9.490	9.490	1.135	270714	39.95	ng/uL	100
159) 3,3'-Dichlorobenzidine	252	10.640	10.640	0.995	173407	38.04	ng/uL	99
166) Phorate	75	7.971	7.907	0.953	13321	3.23	ng/uL#	46
168) Disulfoton	88	8.383	8.356	1.003	41667	11.18	ng/uL#	10

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

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Data Path : C:\msdchem\1\data\S040424.S\  
Data File : s3D0407.D  
Acq On    : 04 Apr 2024   15:46  
Operator  : LL2  
Sample    : |1205692352|2590892|1|SVM|1|LCS|||  
Misc      : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||  
ALS Vial  : 7      Sample Multiplier: 1
```


Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/26/2024 08:20	Matrix:	RS
Lab Sample ID:	1205692353	Date Received:	03/28/2024 09:25		
Client Sample:	QC for batch 2590877	Client:	PERM001	Project:	PERM00224
Client ID:	Y12EU4RS-68B(660558002MS)	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 16:53	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.08 g	Final Volume:	1 mL
Data File:	S040424.S\3D0410.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		3060	ug/kg	298	992
110-86-1	Pyridine		2480	ug/kg	298	992
62-53-3	Aniline		2300	ug/kg	298	992
108-95-2	Phenol		3630	ug/kg	298	992
111-44-4	bis(2-Chloroethyl) ether		3260	ug/kg	298	992
95-57-8	2-Chlorophenol		3430	ug/kg	298	992
541-73-1	1,3-Dichlorobenzene		2790	ug/kg	298	992
106-46-7	1,4-Dichlorobenzene		2870	ug/kg	298	992
95-50-1	1,2-Dichlorobenzene		3090	ug/kg	298	992
108-60-1	bis(2-Chloro-1-methylethyl)ether		3330	ug/kg	298	992
100-51-6	Benzyl alcohol		3720	ug/kg	298	992
95-48-7	o-Cresol		3570	ug/kg	298	992
65794-96-9	m,p-Cresols		3610	ug/kg	298	992
621-64-7	N-Nitrosodipropylamine		3580	ug/kg	298	992
67-72-1	Hexachloroethane		2860	ug/kg	298	992
98-95-3	Nitrobenzene		3270	ug/kg	298	992
78-59-1	Isophorone		3440	ug/kg	298	992
88-75-5	2-Nitrophenol		3450	ug/kg	298	992
105-67-9	2,4-Dimethylphenol		2550	ug/kg	298	992
111-91-1	bis(2-Chloroethoxy)methane		3460	ug/kg	298	992
120-83-2	2,4-Dichlorophenol		3640	ug/kg	298	992
65-85-0	Benzoic acid		8810	ug/kg	496	1980
106-47-8	4-Chloroaniline		2500	ug/kg	298	992
87-68-3	Hexachlorobutadiene		3020	ug/kg	298	992
59-50-7	4-Chloro-3-methylphenol		4060	ug/kg	397	992
91-57-6	2-Methylnaphthalene		3690	ug/kg	29.8	99.2
91-20-3	Naphthalene		3380	ug/kg	29.8	99.2
90-12-0	1-Methylnaphthalene		3820	ug/kg	29.8	99.2
77-47-4	Hexachlorocyclopentadiene		1290	ug/kg	298	992
88-06-2	2,4,6-Trichlorophenol		3720	ug/kg	298	992
95-95-4	2,4,5-Trichlorophenol		3750	ug/kg	298	992
91-58-7	2-Chloronaphthalene		3440	ug/kg	29.8	99.2
88-74-4	o-Nitroaniline		3950	ug/kg	327	992
99-09-2	m-Nitroaniline		2860	ug/kg	298	992
131-11-3	Dimethylphthalate		3870	ug/kg	29.8	99.2
99-65-0	m-Dinitrobenzene	U	992	ug/kg	298	992
606-20-2	2,6-Dinitrotoluene		3820	ug/kg	298	992
121-14-2	2,4-Dinitrotoluene		3880	ug/kg	298	992

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/26/2024 08:20	Matrix:	RS
Lab Sample ID:	1205692353	Date Received:	03/28/2024 09:25		
Client Sample:	QC for batch 2590877	Client:	PERM001	Project:	PERM00224
Client ID:	Y12EU4RS-68B(660558002MS)	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 16:53	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.08 g	Final Volume:	1 mL
Data File:	S040424.S\3D0410.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene		3480	ug/kg	29.8	99.2
83-32-9	Acenaphthene		3600	ug/kg	29.8	99.2
51-28-5	2,4-Dinitrophenol		2900	ug/kg	298	1980
132-64-9	Dibenzofuran		3720	ug/kg	298	992
58-90-2	2,3,4,6-Tetrachlorophenol		3630	ug/kg	298	992
84-66-2	Diethylphthalate		4340	ug/kg	29.8	99.2
100-02-7	4-Nitrophenol		4050	ug/kg	298	992
86-73-7	Fluorene		3790	ug/kg	29.8	99.2
7005-72-3	4-Chlorophenylphenylether		3780	ug/kg	298	992
100-01-6	p-Nitroaniline		3100	ug/kg	298	992
534-52-1	2-Methyl-4,6-dinitrophenol		2750	ug/kg	298	992
122-39-4	Diphenylamine		3980	ug/kg	298	992
122-66-7	1,2-Diphenylhydrazine		3740	ug/kg	298	992
101-55-3	4-Bromophenylphenylether		3840	ug/kg	298	992
118-74-1	Hexachlorobenzene		3560	ug/kg	298	992
87-86-5	Pentachlorophenol		4260	ug/kg	298	992
88-85-7	Dinoseb	J	553	ug/kg	298	992
85-01-8	Phenanthrene		4080	ug/kg	29.8	99.2
120-12-7	Anthracene		3680	ug/kg	29.8	99.2
86-74-8	Carbazole		4010	ug/kg	29.8	99.2
84-74-2	Di-n-butylphthalate		5390	ug/kg	29.8	99.2
206-44-0	Fluoranthene		3860	ug/kg	29.8	99.2
129-00-0	Pyrene		3790	ug/kg	29.8	99.2
85-68-7	Butylbenzylphthalate		6850	ug/kg	29.8	99.2
117-81-7	bis(2-Ethylhexyl)phthalate	E	81900	ug/kg	29.8	99.2
56-55-3	Benzo(a)anthracene		3450	ug/kg	29.8	99.2
218-01-9	Chrysene		3230	ug/kg	29.8	99.2
72-43-5	Methoxychlor	U	992	ug/kg	298	992
117-84-0	Di-n-octylphthalate		6040	ug/kg	29.8	99.2
205-99-2	Benzo(b)fluoranthene		2290	ug/kg	29.8	99.2
207-08-9	Benzo(k)fluoranthene		2040	ug/kg	29.8	99.2
50-32-8	Benzo(a)pyrene		1900	ug/kg	29.8	99.2
193-39-5	Indeno(1,2,3-cd)pyrene		959	ug/kg	29.8	99.2
53-70-3	Dibenzo(a,h)anthracene		1110	ug/kg	29.8	99.2
191-24-2	Benzo(ghi)perylene		955	ug/kg	29.8	99.2
123-91-1	1,4-Dioxane		1440	ug/kg	298	992
80-62-6	Methyl methacrylate	U	992	ug/kg	298	992
97-63-2	Ethyl methacrylate	U	992	ug/kg	298	992

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/26/2024 08:20	Matrix:	RS
Lab Sample ID:	1205692353	Date Received:	03/28/2024 09:25		
Client Sample:	QC for batch 2590877	Client:	PERM001	Project:	PERM00224
Client ID:	Y12EU4RS-68B(660558002MS)	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 16:53	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.08 g	Final Volume:	1 mL
Data File:	S040424.S\3D0410.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	992	ug/kg	298	992
10595-95-6	N-Nitrosomethylethylamine	U	992	ug/kg	298	992
66-27-3	Methyl methanesulfonate	U	992	ug/kg	298	992
55-18-5	N-Nitrosodiethylamine	U	992	ug/kg	298	992
62-50-0	Ethyl Methanesulfonate	U	992	ug/kg	298	992
76-01-7	Pentachloroethane	U	992	ug/kg	298	992
930-55-2	N-Nitrosopyrrolidine		3690	ug/kg	298	992
98-86-2	Acetophenone		3600	ug/kg	298	992
59-89-2	N-Nitrosomorpholine	J	504	ug/kg	298	992
95-53-4	o-Toluidine	U	992	ug/kg	298	992
100-75-4	N-Nitrosopiperidine	U	992	ug/kg	298	992
122-09-8	a,a-Dimethylphenethylamine	U	992	ug/kg	347	992
87-65-0	2,6-Dichlorophenol		3820	ug/kg	298	992
1888-71-7	Hexachloropropene	U	992	ug/kg	298	992
924-16-3	N-Nitrosodi-n-butylamine	J	549	ug/kg	298	992
94-59-7	Safrole	U	992	ug/kg	298	992
95-94-3	1,2,4,5-Tetrachlorobenzene		3490	ug/kg	298	992
120-58-1	Isosafrole		8510	ug/kg	298	992
130-15-4	1,4-Naphthoquinone	U	992	ug/kg	298	992
608-93-5	Pentachlorobenzene	U	992	ug/kg	298	992
134-32-7	1-Naphthylamine	U	992	ug/kg	298	992
91-59-8	2-Naphthylamine	U	992	ug/kg	298	992
99-55-8	5-Nitro-o-toluidine	U	992	ug/kg	298	992
62-44-2	Phenacetin	U	992	ug/kg	298	992
99-35-4	1,3,5-Trinitrobenzene	U	992	ug/kg	298	992
2303-16-4	Diallate	U	992	ug/kg	298	992
92-67-1	4-Aminobiphenyl	U	992	ug/kg	298	992
82-68-8	Pentachloronitrobenzene	U	992	ug/kg	298	992
23950-58-5	Pronamide	U	992	ug/kg	298	992
56-57-5	4-Nitroquinoline-1-oxide	J	312	ug/kg	298	992
91-80-5	Methapyrilene	U	992	ug/kg	298	992
465-73-6	Isodrin	U	992	ug/kg	198	992
140-57-8	Aramite	J	435	ug/kg	298	992
143-50-0	Kepone	U	992	ug/kg	298	992
60-11-7	p-(Dimethylamino)azobenzene	U	992	ug/kg	298	992
510-15-6	Chlorobenzilate	U	992	ug/kg	298	992
119-93-7	3,3'-Dimethylbenzidine	U	992	ug/kg	298	992
53-96-3	2-Acetylaminofluorene	U	992	ug/kg	298	992

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/26/2024 08:20	Matrix:	RS
Lab Sample ID:	1205692353	Date Received:	03/28/2024 09:25		
Client Sample:	QC for batch 2590877	Client:	PERM001	Project:	PERM00224
Client ID:	Y12EU4RS-68B(660558002MS)	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 16:53	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.08 g	Final Volume:	1 mL
Data File:	S040424.S\3D0410.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	J	486	ug/kg	298	992
57-97-6	7,12-Dimethylbenz(a)anthracene	U	992	ug/kg	298	992
56-49-5	3-Methylcholanthrene	U	992	ug/kg	298	992
126-68-1	Triethylphosphorothioate	U	992	ug/kg	298	992
297-97-2	Thionazin	U	992	ug/kg	298	992
126-73-8	Tributylphosphate		4410	ug/kg	298	992
3689-24-5	Sulfotepp	U	992	ug/kg	298	992
298-02-2	Phorate	U	992	ug/kg	298	992
60-51-5	Dimethoate	U	992	ug/kg	298	992
298-04-4	Disulfoton		1000	ug/kg	298	992
298-00-0	Methyl parathion	U	992	ug/kg	298	992
56-38-2	Parathion	U	992	ug/kg	298	992
52-85-7	Famphur	U	992	ug/kg	298	992
106-50-3	p-Phenylenediamine	U	49600	ug/kg	9920	49600
70-30-4	Hexachlorophene	U	49600	ug/kg	11500	49600
120-82-1	1,2,4-Trichlorobenzene		3130	ug/kg	298	992

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0410.D
 Acq On : 04 Apr 2024 16:53
 Operator : LL2
 Sample : |1205692353|2590892|1|SVM|1|MS|||
 Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
 ALS Vial : 10 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 08:01:40 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	86991	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	360464	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	188306	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.361	8.362	1.000	371213	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.693	10.683	1.000	314816	40.00	ng/uL	0.01
88) A Perylene-d12	264	12.737	12.715	1.000	394897	40.00	ng/uL	0.02
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	86991	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	360464	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	188306	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.361	8.362	1.000	371213	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.693	10.683	1.000	314816	40.00	ng/uL	0.01
149) B Perylene-d12	264	12.737	12.715	1.000	394897	40.00	ng/uL	0.02
152) J Naphthalene-d8	136	5.302	5.302	1.000	360464	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.361	8.362	1.000	371213	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.693	10.683	1.000	314816	40.00	ng/uL	0.01
160) D Naphthalene-d8	136	5.302	5.302	1.000	360464	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	188306	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.361	8.362	1.000	371213	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.693	10.683	1.000	314816	40.00	ng/uL	0.01
173) E Naphthalene-d8	136	5.302	5.302	1.000	360464	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.737	12.715	1.000	394897	40.00	ng/uL	0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.617	2.627	0.674	177550	61.65	ng/uL	0.00
8) Phenol-d5	99	3.489	3.486	0.898	244475	68.50	ng/uL	0.00
23) Nitrobenzene-d5	82	4.489	4.502	0.847	94469	28.59	ng/uL	-0.01
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	209507	29.29	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.762	7.773	0.928	96443	71.20	ng/uL	-0.01
79) p-Terphenyl-d14	244	9.699	9.686	1.160	294917	33.23	ng/uL	0.01

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	62%
8) Phenol-d5	100.000	15 - 85	69%
23) Nitrobenzene-d5	50.000	39 - 112	57%
44) 2-Fluorobiphenyl	50.000	39 - 112	59%
64) 2,4,6-Tribromophenol	100.000	37 - 132	71%
79) p-Terphenyl-d14	50.000	24 - 129	66%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
3) N-Methyl-N-nitrosometh...	74	1.638	1.663	0.422	56215	30.87	ng/uL	82
4) Pyridine	79	1.681	1.705	0.433	65497	25.00	ng/uL	96
7) Aniline	93	3.542	3.555	0.912	98117	23.19	ng/uL	99
9) Phenol	94	3.499	3.502	0.901	135622	36.62	ng/uL	97
10) bis(2-Chloroethyl) ether	93	3.601	3.607	0.927	101066	32.85	ng/uL	99
11) 2-Chlorophenol	128	3.665	3.670	0.944	110415	34.60	ng/uL	98
12) n-Decane	43	3.703	3.707	0.953	61704	22.75	ng/uL	99
13) 1,3-Dichlorobenzene	146	3.826	3.832	0.985	98858	28.09	ng/uL	99
14) 1,4-Dichlorobenzene	146	3.901	3.912	1.004	103053	28.90	ng/uL	99
15) 1,2-Dichlorobenzene	146	4.061	4.068	1.045	105629	31.11	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.173	4.168	1.074	122113	33.59	ng/uL	97
17) Benzyl alcohol	108	4.029	4.026	1.037	75247	37.54	ng/uL	99
18) o-Cresol	107	4.147	4.137	1.067	88596	36.03	ng/uL	98
19) m,p-Cresols	108	4.312	4.309	1.110	106096	36.41	ng/uL#	49
20) N-Nitrosodipropylamine	70	4.318	4.314	1.112	78002	36.08	ng/uL	60
21) Hexachloroethane	117	4.430	4.430	1.140	41067	28.83	ng/uL	98
24) Nitrobenzene	77	4.510	4.523	0.851	108310	33.00	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
Data File : s3D0410.D
Acq On : 04 Apr 2024 16:53
Operator : LL2
Sample : |1205692353|2590892|1|SVM|1|MS|||
Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 05 08:01:40 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
25)	Isophorone	82	4.783	4.792	0.902	207216	34.66	ng/uL	100
26)	2-Nitrophenol	139	4.869	4.881	0.918	57715	34.81	ng/uL	99
27)	2,4-Dimethylphenol	122	4.922	4.928	0.928	59841	25.72	ng/uL	100
28)	bis(2-Chloroethoxy)met...	93	5.035	5.039	0.950	138777	34.89	ng/uL	94
29)	2,4-Dichlorophenol	162	5.147	5.149	0.971	96951	36.69	ng/uL	99
30)	Benzoic acid	105	5.056	5.040	0.954	178665	88.81	ng/uL	96
31)	1,2,4-Trichlorobenzene	180	5.238	5.244	0.988	93225	31.60	ng/uL	100
32)	alpha-Terpineol	59	5.345	5.344	1.008	88944	35.95	ng/uL	97
33)	Naphthalene	128	5.329	5.328	1.005	326714	34.09	ng/uL	100
34)	4-Chloroaniline	127	5.393	5.391	1.017	99426	25.24	ng/uL	98
35)	Hexachlorobutadiene	225	5.462	5.460	1.030	49908	30.45	ng/uL	99
36)	4-Chloro-3-methylphenol	107	5.922	5.897	1.117	108477	40.91	ng/uL	99
37)	2-Methylnaphthalene	142	6.061	6.045	1.143	232072	37.17	ng/uL	100
38)	1-Methylnaphthalene	142	6.158	6.144	1.161	221645	38.54	ng/uL	99
40)	Hexachlorocyclopentadiene	237	6.217	6.215	0.881	21034	13.05	ng/uL	99
41)	2,3-Dichloroaniline	161	6.345	6.357	0.899	120991	34.70	ng/uL	99
42)	2,4,6-Trichlorophenol	196	6.345	6.357	0.899	76420	37.48	ng/uL	99
43)	2,4,5-Trichlorophenol	196	6.382	6.389	0.904	79054	37.85	ng/uL	100
45)	2-Chloronaphthalene	162	6.538	6.548	0.926	212948	34.66	ng/uL	95
46)	o-Nitroaniline	65	6.639	6.648	0.941	67147	39.81	ng/uL	99
48)	m-Nitroaniline	138	7.024	7.024	0.995	52774	28.79	ng/uL	98
49)	Dimethylphthalate	163	6.816	6.817	0.966	269038	39.00	ng/uL	99
51)	2,6-Dinitrotoluene	165	6.869	6.876	0.973	59308	38.48	ng/uL	98
52)	2,4-Dinitrotoluene	165	7.238	7.236	1.026	81943	39.08	ng/uL	98
53)	Acenaphthylene	152	6.928	6.934	0.982	331835	35.07	ng/uL	99
54)	Acenaphthene	154	7.088	7.093	1.005	209554	36.27	ng/uL	98
55)	2,4-Dinitrophenol	184	7.121	7.125	1.009	16241	29.25	ng/uL	95
56)	Dibenzofuran	168	7.244	7.247	1.027	329316	37.45	ng/uL	99
57)	2,3,4,6-Tetrachlorophenol	232	7.356	7.353	1.042	63783	36.57	ng/uL	99
58)	Diethylphthalate	149	7.452	7.448	1.056	312390	43.70	ng/uL	99
59)	4-Nitrophenol	109	7.190	7.173	1.019	32557	40.81	ng/uL	94
60)	Fluorene	166	7.548	7.549	1.070	266376	38.17	ng/uL	99
61)	4-Chlorophenylphenylether	204	7.548	7.549	1.070	125584	38.11	ng/uL	98
62)	p-Nitroaniline	138	7.570	7.564	1.073	58290	31.27	ng/uL	98
65)	2-Methyl-4,6-dinitroph...	198	7.597	7.603	0.909	28430	27.68	ng/uL	93
66)	Diphenylamine	169	7.655	7.661	0.916	240150	40.09	ng/uL	98
67)	1,2-Diphenylhydrazine	77	7.687	7.699	0.919	271284	37.66	ng/uL	97
68)	4-Bromophenylphenylether	248	7.976	7.979	0.954	78846	38.71	ng/uL	98
69)	Hexachlorobenzene	284	8.024	8.033	0.960	88693	35.86	ng/uL	100
70)	Pentachlorophenol	266	8.201	8.192	0.981	59039	42.96	ng/uL	98
71)	n-Octadecane	57	8.260	8.255	0.988	216220	47.33	ng/uL	98
72)	Dinoseb	211	8.388	8.351	1.003	660	5.57	ng/uL#	1
73)	Phenanthrene	178	8.383	8.388	1.003	423538	41.10	ng/uL	99
74)	Anthracene	178	8.426	8.430	1.008	383857	37.13	ng/uL	99
75)	Carbazole	167	8.565	8.562	1.024	382023	40.43	ng/uL	100
76)	Di-n-butylphthalate	149	8.848	8.839	1.058	653604	54.36	ng/uL	99
77)	Fluoranthene	202	9.388	9.379	1.123	418090	38.91	ng/uL	98
78)	Pyrene	202	9.576	9.570	1.145	432060	38.24	ng/uL	99
81)	Butylbenzylphthalate	149	10.110	10.089	0.945	318625	69.07	ng/uL	99
82)	bis(2-Ethylhexyl)phtha...	149	10.704	10.678	1.001	6140412	825.55	ng/uL	94 A
83)	Benzo(a)anthracene	228	10.683	10.683	0.999	326404	34.79	ng/uL	99
84)	Chrysene	228	10.726	10.725	1.003	285422	32.57	ng/uL	99
87)	Di-n-octylphthalate	149	11.522	11.531	1.078	696460	60.91	ng/uL	99
89)	Benzo(b)fluoranthene	252	12.111	12.087	0.951	254183	23.07	ng/uL	99
90)	Benzo(k)fluoranthene	252	12.154	12.135	0.954	226940	20.52	ng/uL	100
91)	Benzo(a)pyrene	252	12.640	12.626	0.992	194053	19.18	ng/uL	98
92)	Indeno(1,2,3-cd)pyrene	276	14.753	14.754	1.158	103496	9.67	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
Data File : s3D0410.D
Acq On : 04 Apr 2024 16:53
Operator : LL2
Sample : |1205692353|2590892|1|SVM|1|MS|||
Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 05 08:01:40 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
93)	Dibenzo(a,h)anthracene	278	14.812	14.811	1.163	116965	11.21	ng/uL	97
94)	Benzo(ghi)perylene	276	15.299	15.303	1.201	98180	9.63	ng/uL	98
97)	1,4-Dioxane	88	1.456	1.456	0.375	16404	14.49	ng/uL	93
106)	Benzaldehyde	77	3.441	3.435	0.886	57941	25.74	ng/uL	100
108)	N-Nitrosopyrrolidine	100	4.296	4.291	1.106	51094	37.15	ng/uL	96
109)	Acetophenone	105	4.318	4.318	1.112	149838	36.29	ng/uL	72
110)	N-Nitrosomorpholine	56	4.318	4.339	1.112	6707	5.08	ng/uL#	35
115)	2,6-Dichlorophenol	162	5.398	5.398	1.018	94125	38.50	ng/uL	100
117)	Caprolactam	113	5.773	5.746	1.089	32996	43.62	ng/uL#	76
118)	N-Nitrosodi-n-butylamine	57	5.778	5.757	1.090	7487	5.53	ng/uL#	1
121)	1,2,4,5-Tetrachloroben...	216	6.227	6.227	0.883	102578	35.21	ng/uL	99
122)	1,1-Biphenyl	154	6.521	6.522	0.924	288224	37.92	ng/uL	98
123)	Isosafrole	162	6.538	6.490	0.926	212182	85.82	ng/uL#	35
129)	Tributylphosphate	99	7.650	7.634	1.084	384817	44.41	ng/uL	98
134)	Cis Diallate	86	7.875	7.896	0.942	2019	0.83	ng/uL#	1
136)	Atrazine	200	8.121	8.116	0.971	75549	40.42	ng/uL	99
140)	4-Nitroquinoline-1-oxide	128	8.971	9.030	1.073	977	3.14	ng/uL#	41
144)	Aramite	185	9.699	9.667	0.907	1840	4.38	ng/uL#	64
153)	Sulfolane	56	5.414	5.409	1.021	37911	40.18	ng/uL	98
155)	Prometon	210	8.078	8.057	0.966	68584	42.64	ng/uL	97
159)	3,3'-Dichlorobenzidine	252	10.651	10.640	0.996	17876	4.90	ng/uL	99
168)	Disulfoton	88	8.383	8.356	1.003	39441	10.09	ng/uL#	32

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

```
Data Path : C:\msdchem\1\data\S040424.S\  
Data File : s3D0410.D  
Acq On    : 04 Apr 2024   16:53  
Operator  : LL2  
Sample    : |1205692353|2590892|1|SVM|1|MS|||  
Misc      : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||  
ALS Vial  : 10   Sample Multiplier: 1
```

[illegible]

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/26/2024 08:20	Matrix:	RS
Lab Sample ID:	1205692354	Date Received:	03/28/2024 09:25		
Client Sample:	QC for batch 2590877	Client:	PERM001	Project:	PERM00224
Client ID:	Y12EU4RS-68B(660558002MSD)	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 17:14	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.09 g	Final Volume:	1 mL
Data File:	S040424.S\3D0411.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		3150	ug/kg	297	991
110-86-1	Pyridine		2750	ug/kg	297	991
62-53-3	Aniline		2150	ug/kg	297	991
108-95-2	Phenol		3540	ug/kg	297	991
111-44-4	bis(2-Chloroethyl) ether		3270	ug/kg	297	991
95-57-8	2-Chlorophenol		3380	ug/kg	297	991
541-73-1	1,3-Dichlorobenzene		2880	ug/kg	297	991
106-46-7	1,4-Dichlorobenzene		2950	ug/kg	297	991
95-50-1	1,2-Dichlorobenzene		3380	ug/kg	297	991
108-60-1	bis(2-Chloro-1-methylethyl)ether		3400	ug/kg	297	991
100-51-6	Benzyl alcohol		3620	ug/kg	297	991
95-48-7	o-Cresol		3470	ug/kg	297	991
65794-96-9	m,p-Cresols		3510	ug/kg	297	991
621-64-7	N-Nitrosodipropylamine		3560	ug/kg	297	991
67-72-1	Hexachloroethane		2960	ug/kg	297	991
98-95-3	Nitrobenzene		3340	ug/kg	297	991
78-59-1	Isophorone		3450	ug/kg	297	991
88-75-5	2-Nitrophenol		3450	ug/kg	297	991
105-67-9	2,4-Dimethylphenol		2480	ug/kg	297	991
111-91-1	bis(2-Chloroethoxy)methane		3520	ug/kg	297	991
120-83-2	2,4-Dichlorophenol		3640	ug/kg	297	991
65-85-0	Benzoic acid		7910	ug/kg	496	1980
106-47-8	4-Chloroaniline		2370	ug/kg	297	991
87-68-3	Hexachlorobutadiene		3100	ug/kg	297	991
59-50-7	4-Chloro-3-methylphenol		4010	ug/kg	396	991
91-57-6	2-Methylnaphthalene		3650	ug/kg	29.7	99.1
91-20-3	Naphthalene		3410	ug/kg	29.7	99.1
90-12-0	1-Methylnaphthalene		3810	ug/kg	29.7	99.1
77-47-4	Hexachlorocyclopentadiene		1360	ug/kg	297	991
88-06-2	2,4,6-Trichlorophenol		3690	ug/kg	297	991
95-95-4	2,4,5-Trichlorophenol		3870	ug/kg	297	991
91-58-7	2-Chloronaphthalene		3430	ug/kg	29.7	99.1
88-74-4	o-Nitroaniline		3980	ug/kg	327	991
99-09-2	m-Nitroaniline		2800	ug/kg	297	991
131-11-3	Dimethylphthalate		3890	ug/kg	29.7	99.1
99-65-0	m-Dinitrobenzene	U	991	ug/kg	297	991
606-20-2	2,6-Dinitrotoluene		3810	ug/kg	297	991
121-14-2	2,4-Dinitrotoluene		3890	ug/kg	297	991

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/26/2024 08:20	Matrix:	RS
Lab Sample ID:	1205692354	Date Received:	03/28/2024 09:25		
Client Sample:	QC for batch 2590877	Client:	PERM001	Project:	PERM00224
Client ID:	Y12EU4RS-68B(660558002MSD)	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 17:14	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.09 g	Final Volume:	1 mL
Data File:	S040424.S\3D0411.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene		3490	ug/kg	29.7	99.1
83-32-9	Acenaphthene		3600	ug/kg	29.7	99.1
51-28-5	2,4-Dinitrophenol		2340	ug/kg	297	1980
132-64-9	Dibenzofuran		3730	ug/kg	297	991
58-90-2	2,3,4,6-Tetrachlorophenol		3640	ug/kg	297	991
84-66-2	Diethylphthalate		4390	ug/kg	29.7	99.1
100-02-7	4-Nitrophenol		3980	ug/kg	297	991
86-73-7	Fluorene		3810	ug/kg	29.7	99.1
7005-72-3	4-Chlorophenylphenylether		3800	ug/kg	297	991
100-01-6	p-Nitroaniline		3050	ug/kg	297	991
534-52-1	2-Methyl-4,6-dinitrophenol		2220	ug/kg	297	991
122-39-4	Diphenylamine		3940	ug/kg	297	991
122-66-7	1,2-Diphenylhydrazine		3770	ug/kg	297	991
101-55-3	4-Bromophenylphenylether		3840	ug/kg	297	991
118-74-1	Hexachlorobenzene		3530	ug/kg	297	991
87-86-5	Pentachlorophenol		3980	ug/kg	297	991
88-85-7	Dinoseb	J	554	ug/kg	297	991
85-01-8	Phenanthrene		4030	ug/kg	29.7	99.1
120-12-7	Anthracene		3630	ug/kg	29.7	99.1
86-74-8	Carbazole		3940	ug/kg	29.7	99.1
84-74-2	Di-n-butylphthalate		5380	ug/kg	29.7	99.1
206-44-0	Fluoranthene		3680	ug/kg	29.7	99.1
129-00-0	Pyrene		3590	ug/kg	29.7	99.1
85-68-7	Butylbenzylphthalate		6510	ug/kg	29.7	99.1
117-81-7	bis(2-Ethylhexyl)phthalate	E	53000	ug/kg	29.7	99.1
56-55-3	Benzo(a)anthracene		3150	ug/kg	29.7	99.1
218-01-9	Chrysene		3130	ug/kg	29.7	99.1
72-43-5	Methoxychlor	U	991	ug/kg	297	991
117-84-0	Di-n-octylphthalate		5440	ug/kg	29.7	99.1
205-99-2	Benzo(b)fluoranthene		2060	ug/kg	29.7	99.1
207-08-9	Benzo(k)fluoranthene		1970	ug/kg	29.7	99.1
50-32-8	Benzo(a)pyrene		1780	ug/kg	29.7	99.1
193-39-5	Indeno(1,2,3-cd)pyrene		966	ug/kg	29.7	99.1
53-70-3	Dibenzo(a,h)anthracene		1110	ug/kg	29.7	99.1
191-24-2	Benzo(ghi)perylene		931	ug/kg	29.7	99.1
123-91-1	1,4-Dioxane		1610	ug/kg	297	991
80-62-6	Methyl methacrylate	U	991	ug/kg	297	991
97-63-2	Ethyl methacrylate	U	991	ug/kg	297	991

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/26/2024 08:20	Matrix:	RS
Lab Sample ID:	1205692354	Date Received:	03/28/2024 09:25		
Client Sample:	QC for batch 2590877	Client:	PERM001	Project:	PERM00224
Client ID:	Y12EU4RS-68B(660558002MSD)	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 17:14	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.09 g	Final Volume:	1 mL
Data File:	S040424.S\3D0411.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	991	ug/kg	297	991
10595-95-6	N-Nitrosomethylethylamine	U	991	ug/kg	297	991
66-27-3	Methyl methanesulfonate	U	991	ug/kg	297	991
55-18-5	N-Nitrosodiethylamine	U	991	ug/kg	297	991
62-50-0	Ethyl Methanesulfonate	U	991	ug/kg	297	991
76-01-7	Pentachloroethane	U	991	ug/kg	297	991
930-55-2	N-Nitrosopyrrolidine		3610	ug/kg	297	991
98-86-2	Acetophenone		3550	ug/kg	297	991
59-89-2	N-Nitrosomorpholine	J	469	ug/kg	297	991
95-53-4	o-Toluidine	U	991	ug/kg	297	991
100-75-4	N-Nitrosopiperidine	U	991	ug/kg	297	991
122-09-8	a,a-Dimethylphenethylamine	U	991	ug/kg	347	991
87-65-0	2,6-Dichlorophenol		3820	ug/kg	297	991
1888-71-7	Hexachloropropene	U	991	ug/kg	297	991
924-16-3	N-Nitrosodi-n-butylamine	J	543	ug/kg	297	991
94-59-7	Safrole	U	991	ug/kg	297	991
95-94-3	1,2,4,5-Tetrachlorobenzene		3490	ug/kg	297	991
120-58-1	Isosafrole		8530	ug/kg	297	991
130-15-4	1,4-Naphthoquinone	U	991	ug/kg	297	991
608-93-5	Pentachlorobenzene	U	991	ug/kg	297	991
134-32-7	1-Naphthylamine	U	991	ug/kg	297	991
91-59-8	2-Naphthylamine	U	991	ug/kg	297	991
99-55-8	5-Nitro-o-toluidine	U	991	ug/kg	297	991
62-44-2	Phenacetin	U	991	ug/kg	297	991
99-35-4	1,3,5-Trinitrobenzene	U	991	ug/kg	297	991
2303-16-4	Diallate	U	991	ug/kg	297	991
92-67-1	4-Aminobiphenyl	U	991	ug/kg	297	991
82-68-8	Pentachloronitrobenzene	U	991	ug/kg	297	991
23950-58-5	Pronamide	U	991	ug/kg	297	991
56-57-5	4-Nitroquinoline-1-oxide	J	382	ug/kg	297	991
91-80-5	Methapyrilene	U	991	ug/kg	297	991
465-73-6	Isodrin	U	991	ug/kg	198	991
140-57-8	Aramite	U	991	ug/kg	297	991
143-50-0	Kepone	U	991	ug/kg	297	991
60-11-7	p-(Dimethylamino)azobenzene	U	991	ug/kg	297	991
510-15-6	Chlorobenzilate	U	991	ug/kg	297	991
119-93-7	3,3'-Dimethylbenzidine	U	991	ug/kg	297	991
53-96-3	2-Acetylaminofluorene	U	991	ug/kg	297	991

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660974	Date Collected:	03/26/2024 08:20	Matrix:	RS
Lab Sample ID:	1205692354	Date Received:	03/28/2024 09:25		
Client Sample:	QC for batch 2590877	Client:	PERM001	Project:	PERM00224
Client ID:	Y12EU4RS-68B(660558002MSD)	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 17:14	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.09 g	Final Volume:	1 mL
Data File:	S040424.S\3D0411.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	J	471	ug/kg	297	991
57-97-6	7,12-Dimethylbenz(a)anthracene	U	991	ug/kg	297	991
56-49-5	3-Methylcholanthrene	U	991	ug/kg	297	991
126-68-1	Triethylphosphorothioate	U	991	ug/kg	297	991
297-97-2	Thionazin	U	991	ug/kg	297	991
126-73-8	Tributylphosphate		4460	ug/kg	297	991
3689-24-5	Sulfotepp	U	991	ug/kg	297	991
298-02-2	Phorate	U	991	ug/kg	297	991
60-51-5	Dimethoate	U	991	ug/kg	297	991
298-04-4	Disulfoton		1000	ug/kg	297	991
298-00-0	Methyl parathion	U	991	ug/kg	297	991
56-38-2	Parathion	U	991	ug/kg	297	991
52-85-7	Famphur	U	991	ug/kg	297	991
106-50-3	p-Phenylenediamine	U	49600	ug/kg	9910	49600
70-30-4	Hexachlorophene	U	49600	ug/kg	11500	49600
120-82-1	1,2,4-Trichlorobenzene		3190	ug/kg	297	991

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0411.D
 Acq On : 04 Apr 2024 17:14
 Operator : LL2
 Sample : |1205692354|2590892|1|SVM|1|MSD|||
 Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
 ALS Vial : 11 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 08:01:57 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	93827	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	379844	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	198076	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.367	8.362	1.000	392294	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.694	10.683	1.000	341975	40.00	ng/uL	0.01
88) A Perylene-d12	264	12.737	12.715	1.000	407418	40.00	ng/uL	0.02
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	93827	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	379844	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	198076	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.367	8.362	1.000	392294	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.694	10.683	1.000	341975	40.00	ng/uL	0.01
149) B Perylene-d12	264	12.737	12.715	1.000	407418	40.00	ng/uL	0.02
152) J Naphthalene-d8	136	5.302	5.302	1.000	379844	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.367	8.362	1.000	392294	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.694	10.683	1.000	341975	40.00	ng/uL	0.01
160) D Naphthalene-d8	136	5.302	5.302	1.000	379844	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	198076	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.367	8.362	1.000	392294	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.694	10.683	1.000	341975	40.00	ng/uL	0.01
173) E Naphthalene-d8	136	5.302	5.302	1.000	379844	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.737	12.715	1.000	407418	40.00	ng/uL	0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.617	2.627	0.674	190819	61.43	ng/uL	0.00
8) Phenol-d5	99	3.489	3.486	0.898	256663	66.67	ng/uL	0.00
23) Nitrobenzene-d5	82	4.489	4.502	0.847	101534	29.16	ng/uL	-0.01
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	222198	29.53	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.762	7.773	0.928	101093	70.62	ng/uL	-0.01
79) p-Terphenyl-d14	244	9.699	9.686	1.159	308773	32.92	ng/uL	0.01

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	61%
8) Phenol-d5	100.000	15 - 85	67%
23) Nitrobenzene-d5	50.000	39 - 112	58%
44) 2-Fluorobiphenyl	50.000	39 - 112	59%
64) 2,4,6-Tribromophenol	100.000	37 - 132	71%
79) p-Terphenyl-d14	50.000	24 - 129	66%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
3) N-Methyl-N-nitrosometh...	74	1.633	1.663	0.420	62380	31.75	ng/uL#	1
4) Pyridine	79	1.676	1.705	0.431	78453	27.76	ng/uL	96
7) Aniline	93	3.542	3.555	0.912	99066	21.71	ng/uL	98
9) Phenol	94	3.505	3.502	0.902	142766	35.74	ng/uL	97
10) bis(2-Chloroethyl) ether	93	3.601	3.607	0.927	109469	32.99	ng/uL	100
11) 2-Chlorophenol	128	3.665	3.670	0.944	117556	34.15	ng/uL	98
12) n-Decane	43	3.697	3.707	0.952	72653	24.84	ng/uL	97
13) 1,3-Dichlorobenzene	146	3.826	3.832	0.985	110116	29.01	ng/uL	99
14) 1,4-Dichlorobenzene	146	3.901	3.912	1.004	114322	29.73	ng/uL	99
15) 1,2-Dichlorobenzene	146	4.061	4.068	1.045	125069	34.15	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.174	4.168	1.074	134465	34.29	ng/uL	94
17) Benzyl alcohol	108	4.029	4.026	1.037	78974	36.53	ng/uL	98
18) o-Cresol	107	4.147	4.137	1.067	92939	35.04	ng/uL	96
19) m,p-Cresols	108	4.318	4.309	1.112	111267	35.40	ng/uL#	48
20) N-Nitrosodipropylamine	70	4.318	4.314	1.112	83785	35.93	ng/uL	60
21) Hexachloroethane	117	4.430	4.430	1.140	45958	29.91	ng/uL	96
24) Nitrobenzene	77	4.511	4.523	0.851	116701	33.74	ng/uL	100

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0411.D
 Acq On : 04 Apr 2024 17:14
 Operator : LL2
 Sample : |1205692354|2590892|1|SVM|1|MSD||
 Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 05 08:01:57 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
25)	Isophorone	82	4.783	4.792	0.902	219289	34.81	ng/uL	100
26)	2-Nitrophenol	139	4.869	4.881	0.918	60832	34.82	ng/uL	99
27)	2,4-Dimethylphenol	122	4.922	4.928	0.928	61357	25.03	ng/uL	99
28)	bis(2-Chloroethoxy)met...	93	5.035	5.039	0.950	148913	35.52	ng/uL	95
29)	2,4-Dichlorophenol	162	5.147	5.149	0.971	102169	36.69	ng/uL	99
30)	Benzoic acid	105	5.056	5.040	0.954	163929	79.78	ng/uL	95
31)	1,2,4-Trichlorobenzene	180	5.238	5.244	0.988	100115	32.20	ng/uL	99
32)	alpha-Terpineol	59	5.345	5.344	1.008	92854	35.61	ng/uL	98
33)	Naphthalene	128	5.329	5.328	1.005	347888	34.45	ng/uL	100
34)	4-Chloroaniline	127	5.393	5.391	1.017	99173	23.89	ng/uL	98
35)	Hexachlorobutadiene	225	5.463	5.460	1.030	53979	31.26	ng/uL	100
36)	4-Chloro-3-methylphenol	107	5.923	5.897	1.117	113076	40.47	ng/uL	100
37)	2-Methylnaphthalene	142	6.062	6.045	1.143	242211	36.82	ng/uL	99
38)	1-Methylnaphthalene	142	6.158	6.144	1.161	233042	38.46	ng/uL	99
40)	Hexachlorocyclopentadiene	237	6.217	6.215	0.881	23288	13.74	ng/uL	98
41)	2,3-Dichloroaniline	161	6.345	6.357	0.899	127466	34.75	ng/uL	99
42)	2,4,6-Trichlorophenol	196	6.345	6.357	0.899	79867	37.24	ng/uL	99
43)	2,4,5-Trichlorophenol	196	6.383	6.389	0.904	85728	39.02	ng/uL	99
45)	2-Chloronaphthalene	162	6.538	6.548	0.926	223794	34.63	ng/uL	95
46)	o-Nitroaniline	65	6.645	6.648	0.942	71247	40.16	ng/uL	98
48)	m-Nitroaniline	138	7.024	7.024	0.995	54472	28.25	ng/uL	100
49)	Dimethylphthalate	163	6.816	6.817	0.966	285217	39.30	ng/uL	99
51)	2,6-Dinitrotoluene	165	6.875	6.876	0.974	62264	38.40	ng/uL	98
52)	2,4-Dinitrotoluene	165	7.238	7.236	1.026	86647	39.28	ng/uL	98
53)	Acenaphthylene	152	6.928	6.934	0.982	350096	35.17	ng/uL	99
54)	Acenaphthene	154	7.089	7.093	1.005	220727	36.32	ng/uL	98
55)	2,4-Dinitrophenol	184	7.121	7.125	1.009	11696	23.63	ng/uL	95
56)	Dibenzofuran	168	7.244	7.247	1.027	348580	37.68	ng/uL	99
57)	2,3,4,6-Tetrachlorophenol	232	7.356	7.353	1.042	67416	36.74	ng/uL	99
58)	Diethylphthalate	149	7.452	7.448	1.056	333071	44.29	ng/uL	99
59)	4-Nitrophenol	109	7.190	7.173	1.019	33613	40.12	ng/uL	93
60)	Fluorene	166	7.549	7.549	1.070	281998	38.42	ng/uL	99
61)	4-Chlorophenylphenylether	204	7.554	7.549	1.070	133088	38.39	ng/uL	98
62)	p-Nitroaniline	138	7.570	7.564	1.073	60394	30.80	ng/uL	94
65)	2-Methyl-4,6-dinitroph...	198	7.597	7.603	0.908	23291	22.44	ng/uL	89
66)	Diphenylamine	169	7.655	7.661	0.915	251869	39.79	ng/uL	98
67)	1,2-Diphenylhydrazine	77	7.693	7.699	0.919	289626	38.04	ng/uL	98
68)	4-Bromophenylphenylether	248	7.976	7.979	0.953	83371	38.73	ng/uL	97
69)	Hexachlorobenzene	284	8.030	8.033	0.960	93044	35.60	ng/uL	99
70)	Pentachlorophenol	266	8.201	8.192	0.980	57895	40.15	ng/uL	98
71)	n-Octadecane	57	8.260	8.255	0.987	229669	47.58	ng/uL	98
72)	Dinoseb	211	8.394	8.351	1.003	744	5.59	ng/uL#	1
73)	Phenanthrene	178	8.383	8.388	1.002	442367	40.62	ng/uL	99
74)	Anthracene	178	8.431	8.430	1.008	399946	36.61	ng/uL	99
75)	Carbazole	167	8.565	8.562	1.024	396874	39.74	ng/uL	100
76)	Di-n-butylphthalate	149	8.848	8.839	1.058	689403	54.26	ng/uL	99
77)	Fluoranthene	202	9.388	9.379	1.122	421649	37.13	ng/uL	98
78)	Pyrene	202	9.576	9.570	1.144	432123	36.19	ng/uL	99
81)	Butylbenzylphthalate	149	10.111	10.089	0.945	329229	65.72	ng/uL	98
82)	bis(2-Ethylhexyl)phtha...	149	10.699	10.678	1.001	4316673	534.43	ng/uL	95 A
83)	Benzo(a)anthracene	228	10.683	10.683	0.999	323596	31.75	ng/uL	100
84)	Chrysene	228	10.720	10.725	1.003	300347	31.55	ng/uL	100
87)	Di-n-octylphthalate	149	11.523	11.531	1.078	680553	54.85	ng/uL	100
89)	Benzo(b)fluoranthene	252	12.111	12.087	0.951	236744	20.83	ng/uL	99
90)	Benzo(k)fluoranthene	252	12.148	12.135	0.954	227378	19.92	ng/uL	99
91)	Benzo(a)pyrene	252	12.635	12.626	0.992	187324	17.94	ng/uL	99
92)	Indeno(1,2,3-cd)pyrene	276	14.753	14.754	1.158	107678	9.75	ng/uL	98

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
Data File : s3D0411.D
Acq On : 04 Apr 2024 17:14
Operator : LL2
Sample : |1205692354|2590892|1|SVM|1|MSD|||
Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 05 08:01:57 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

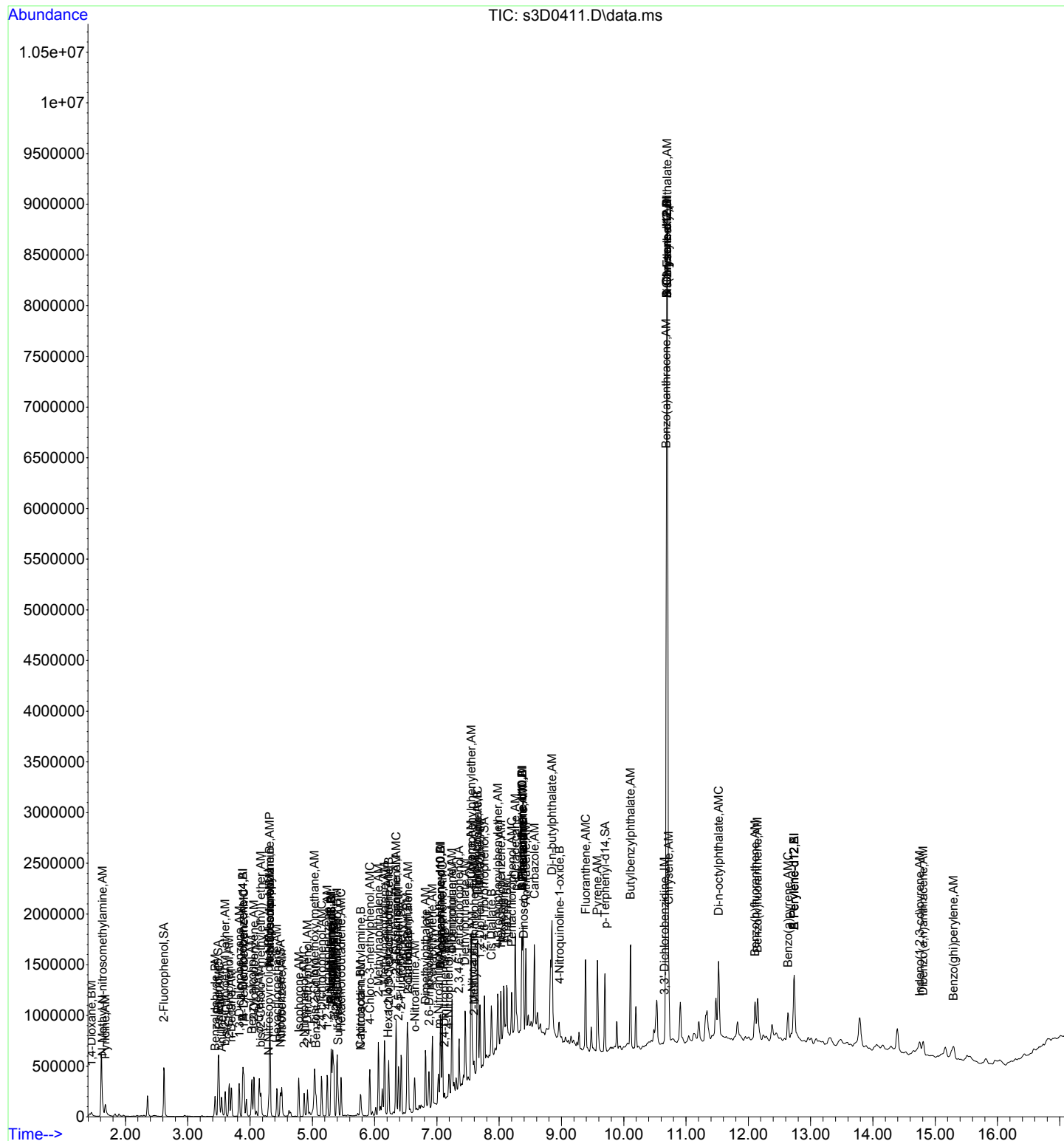
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
93) Dibenzo(a,h)anthracene	278	14.807	14.811	1.163	120792	11.22	ng/uL	98
94) Benzo(ghi)perylene	276	15.293	15.303	1.201	98729	9.39	ng/uL	99
97) 1,4-Dioxane	88	1.451	1.456	0.374	19854	16.26	ng/uL	97
106) Benzaldehyde	77	3.441	3.435	0.886	55792	22.98	ng/uL	98
108) N-Nitrosopyrrolidine	100	4.297	4.291	1.106	54037	36.43	ng/uL	96
109) Acetophenone	105	4.318	4.318	1.112	159667	35.85	ng/uL	72
110) N-Nitrosomorpholine	56	4.318	4.339	1.112	6738	4.73	ng/uL#	35
115) 2,6-Dichlorophenol	162	5.398	5.398	1.018	99360	38.57	ng/uL	99
117) Caprolactam	113	5.773	5.746	1.089	35037	43.95	ng/uL#	75
118) N-Nitrosodi-n-butylamine	57	5.778	5.757	1.090	7818	5.48	ng/uL#	1
121) 1,2,4,5-Tetrachloroben...	216	6.227	6.227	0.883	107778	35.17	ng/uL	99
122) 1,1-Biphenyl	154	6.522	6.522	0.924	301596	37.72	ng/uL	98
123) Isosafrole	162	6.538	6.490	0.926	223794	86.05	ng/uL#	34
129) Tributylphosphate	99	7.650	7.634	1.084	409918	44.98	ng/uL	98
134) Cis Diallate	86	7.875	7.896	0.941	2244	0.87	ng/uL#	1
136) Atrazine	200	8.126	8.116	0.971	81215	41.12	ng/uL	98
140) 4-Nitroquinoline-1-oxide	128	8.971	9.030	1.072	1267	3.85	ng/uL#	7
153) Sulfolane	56	5.414	5.409	1.021	39859	40.08	ng/uL	99
155) Prometon	210	8.078	8.057	0.965	70875	41.69	ng/uL	95
159) 3,3'-Dichlorobenzidine	252	10.651	10.640	0.996	18843	4.75	ng/uL	99
168) Disulfoton	88	8.383	8.356	1.002	41810	10.12	ng/uL#	32

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

```
Data Path : C:\msdchem\1\data\S040424.S\  
Data File : s3D0411.D  
Acq On    : 04 Apr 2024 17:14  
Operator  : LL2  
Sample    : |1205692354|2590892|1|SVM|1|MSD|||  
Misc      : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||  
ALS Vial  : 11 Sample Multiplier: 1
```

Quant Time: Apr 05 08:01:57 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration



Miscellaneous

Prep Logbook

Automated Soxhlet Extraction

Batch ID: 2590877
Analyst: Jacob Stewart
Method: SW846 3541

Verified by: _____

Lab SOP: GL-OA-E-066 REV# 9
Instrument: Semi-Volatiles Manual

Sample ID	Prep Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1205692351 MB	04-APR-2024 09:45:00	10.25	1	0.09756
1205692352 LCS	04-APR-2024 09:45:00	10.67	1	0.09372
660397001	04-APR-2024 09:45:00	10	1	0.1
660558002	04-APR-2024 09:45:00	10.26	1	0.09747
1205692353 MS (660558002)	04-APR-2024 09:45:00	10.08	1	0.09921
1205692354 MSD (660558002)	04-APR-2024 09:45:00	10.09	1	0.09911
660950001	04-APR-2024 09:45:00	10.33	1	0.09681
660950002	04-APR-2024 09:45:00	10.19	1	0.09814
660950003	04-APR-2024 09:45:00	10.73	1	0.0932
660950004	04-APR-2024 09:45:00	10.56	1	0.0947
660950005	04-APR-2024 09:45:00	10.76	1	0.09294
660950006	04-APR-2024 09:45:00	10.31	1	0.09699
660968001	04-APR-2024 09:45:00	10.7	1	0.09346
660968002	04-APR-2024 09:45:00	10.68	1	0.09363
660968003	04-APR-2024 09:45:00	10.66	1	0.09381
660968004	04-APR-2024 09:45:00	10.28	1	0.09728
660968005	04-APR-2024 09:45:00	10.82	1	0.09242
660968006	04-APR-2024 09:45:00	10.69	1	0.09355
660974001	04-APR-2024 09:45:00	10.24	1	0.09766
660974002	04-APR-2024 09:45:00	10.26	1	0.09747
660974003	04-APR-2024 09:45:00	10.22	1	0.09785
660974004	04-APR-2024 09:45:00	10.23	1	0.09775
660974005	04-APR-2024 09:45:00	10.25	1	0.09756
660974006	04-APR-2024 09:45:00	10.93	1	0.09149

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1205692352	BNALCS Prom/Sulf w/o Benzidine/Atrazine 50ppm	WE240308-42	1	mL	Balance #: OPBAL-845
LCS	1205692352	BENZIDINE/Atrazine LCS	WE240320-49	1	mL	Soxtherm Unit: 11A, 7A, 8A, 9A
MS	1205692353	BNALCS Prom/Sulf w/o Benzidine/Atrazine 50ppm	WE240308-42	1	mL	Logbook Reviewer: DS
MS	1205692353	BENZIDINE/Atrazine LCS	WE240320-49	1	mL	Final Solvent: Methylene Chloride
MSD	1205692354	BNALCS Prom/Sulf w/o Benzidine/Atrazine 50ppm	WE240308-42	1	mL	Start Time: 10:07
MSD	1205692354	BENZIDINE/Atrazine LCS	WE240320-49	1	mL	End Time: 11:07
SURR	All	BNA for all Surrogate	UE230912-15	1	mL	Verified by: CB

Prep Logbook

Batch ID: 2590877

Verified by: _____

Analyst: Jacob Stewart

Lab SOP: GL-OA-E-066 REV# 9

Method: SW846 3541

Instrument: Semi-Volatiles Manual

Sample ID	Prep Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)	
REGNT All	Methylene Chloride		4211387	60	mL
REGNT All	Sand pure 40-100 mesh		4226226-A	30	g
REGNT All	Acetone		4318865-B4	60	mL

ORGANIC RUN LOG - INSTRUMENT ID#MSD3

GEL ORGANIC RUN LOG

03/15/2024

DATE: 14-Mar-24

METHOD: See Data

OPERATOR: LL2

Sequence Number: S031424IC

03/18/2024

Internal Std ID: UBN240111-01.1

Calibration Information:

Initial Calibration Dates: See Calibration History

Initial Calibration Std ID's: See Associated Data and Run Log

GEL SOP: GL-OA-E-009

Solvent Reference ID: 3859329

Analysis		Data File	Lab Sample ID	Client	Batch #	Dil.	AS	Analyst	Comments
Date	Time					Factor	Slot #		
03/14/2024	08:00	s3C1401.D	WBN240308-98	DFTPP	DFTPP	1	1	LL2	
03/14/2024	08:17	s3C1402.D	WBN240312-01.1	M-1	ICAL	1	2	LL2	
03/14/2024	08:40	s3C1403.D	WBN240312-02.1	M-2	ICAL	1	3	LL2	
03/14/2024	09:03	s3C1404.D	WBN240312-03.1	M-3	ICAL	1	4	LL2	
03/14/2024	09:27	s3C1405.D	WBN240312-04.1	M-4	ICAL	1	5	LL2	
03/14/2024	09:50	s3C1406.D	WBN240312-05	M-5	ICAL	1	6	LL2	
03/14/2024	10:14	s3C1407.D	WBN240312-06	M-6	ICAL	1	7	LL2	
03/14/2024	10:37	s3C1408.D	WBN240312-07	M-7	ICAL	1	8	LL2	
03/14/2024	11:01	s3C1409.D	WBN240312-08	M-8	ICAL	1	9	LL2	
03/14/2024	11:24	s3C1410.D	WBN240312-43	M-ICV	ICV	1	10	LL2	
03/14/2024	11:48	s3C1411.D	WBN240201-51.1	APX-2	ICAL	1	11	LL2	
03/14/2024	12:09	s3C1412.D	WBN240201-52	APX-3	ICAL	1	12	LL2	
03/14/2024	12:30	s3C1413.D	WBN240201-53	APX-9	ICAL	1	13	LL2	
03/14/2024	12:52	s3C1414.D	WBN240201-54.1	APX-4	ICAL	1	14	LL2	
03/14/2024	13:13	s3C1415.D	WBN240201-55	APX-5	ICAL	1	15	LL2	
03/14/2024	13:35	s3C1416.D	WBN240201-56	APX-10	ICAL	1	16	LL2	
03/14/2024	13:56	s3C1417.D	WBN240201-57	APX-6	ICAL	1	17	LL2	
03/14/2024	14:17	s3C1418.D	WBN240201-58	APX-7	ICAL	1	18	LL2	
03/14/2024	14:39	s3C1419.D	WBN240201-59	APX-8	ICAL	1	19	LL2	
03/14/2024	15:00	s3C1420.D	WBN240221-20	APX-ICV	ICV	1	20	LL2	
03/14/2024	15:22	s3C1421.D	WBN240227-27.1	P-2	ICAL	1	21	LL2	
03/14/2024	15:40	s3C1422.D	WBN240227-26	P-3	ICAL	1	22	LL2	
03/14/2024	15:58	s3C1423.D	WBN240227-25.1	P-4	ICAL	1	23	LL2	
03/14/2024	16:17	s3C1424.D	WBN240227-24	P-5	ICAL	1	24	LL2	
03/14/2024	16:35	s3C1425.D	WBN240227-23	P-6	ICAL	1	25	LL2	
03/14/2024	16:54	s3C1426.D	WBN240227-22	P-7	ICAL	1	26	LL2	
03/14/2024	17:12	s3C1427.D	WBN240227-21	P-8	ICAL	1	27	LL2	
03/14/2024	17:30	s3C1428.D	WBN240228-26	P-ICV	ICV	1	28	LL2	
03/14/2024	17:49	s3C1429.D	WBN240313-31.1	H-2	ICAL	1	29	LL2	
03/14/2024	18:07	s3C1430.D	WBN240313-32	H-3	ICAL	1	30	LL2	
03/14/2024	18:25	s3C1431.D	WBN240313-33	H-4	ICAL	1	31	LL2	
03/14/2024	18:44	s3C1432.D	WBN240313-34	H-5	ICAL	1	32	LL2	
03/14/2024	19:02	s3C1433.D	WBN240313-35	H-6	ICAL	1	33	LL2	
03/14/2024	19:20	s3C1434.D	WBN240313-37	H-7	ICAL	1	34	LL2	
03/14/2024	19:39	s3C1435.D	WBN240228-38	H-ICV	ICV	1	35	LL2	

GEL ORGANIC RUN LOG

DATE: 4-Apr-24METHOD: See DataOPERATOR: LL2Sequence Number: S040424.SInternal Std ID: UBN240111-01.1

Calibration Information:

Initial Calibration Dates: See Calibration History

Initial Calibration Std ID's: See Associated Data and Run Log

GEL SOP: GL-OA-E-009

Solvent Reference ID: 3859329

Analysis		Data File	Lab Sample ID	Client	Batch #	Dil.	AS	Analyst	Comments
Date	Time					Factor	Slot #		
04/04/2024	05:24	rinse01.D	WBN240304-04.12	M-4	CCV	1	2	LL2	
04/04/2024	13:50	s3D0401.D	WBN240308-98	DFTPP	DFTPP	1	1	LL2	
04/04/2024	14:04	s3D0402.D	WBN240304-04.5	M-4	CCV	1	2	LL2	
04/04/2024	14:27	s3D0403.D	WBN240201-54.2	APX-4	CCV	1	3	LL2	
04/04/2024	14:48	s3D0404.D	WBN240227-25.7	P-4	CCV	1	4	LL2	
04/04/2024	15:07	s3D0405.D	WBN240212-33.6	H-4	CCV	1	5	LL2	
04/04/2024	15:25	s3D0406.D	1205692351	MB	2590892	1	6	LL2	
04/04/2024	15:46	s3D0407.D	1205692352	LCS	2590892	1	7	LL2	
04/04/2024	16:08	s3D0408.D	660397001	CARE	2590892	1	8	LL2	overrange hit - RR @ 5x
04/04/2024	16:31	s3D0409.D	660558002	UCOR	2590892	1	9	LL2	overrange hit - RR @ 5x
04/04/2024	16:53	s3D0410.D	1205692353	MS	2590892	1	10	LL2	
04/04/2024	17:14	s3D0411.D	1205692354	MSD	2590892	1	11	LL2	
04/04/2024	17:36	s3D0412.D	660950001	PERM	2590892	1	12	LL2	overrange hits - RR @ 200x
04/04/2024	17:57	s3D0413.D	660950002	PERM	2590892	1	13	LL2	overrange hits - RR @ 200x
04/04/2024	18:18	s3D0414.D	660950003	PERM	2590892	1	14	LL2	overrange hits - RR @ 200x
04/04/2024	18:40	s3D0415.D	660950004	PERM	2590892	1	15	LL2	overrange hits - RR @ 200x
04/04/2024	19:01	s3D0416.D	660950005	PERM	2590892	1	16	LL2	overrange hits - RR @ 200x
04/04/2024	19:22	s3D0417.D	660950006	PERM	2590892	1	17	LL2	overrange hits - RR @ 200x
04/04/2024	19:44	s3D0418.D	660968001	PERM	2590892	1	18	LL2	
04/04/2024	20:05	s3D0419.D	660968002	PERM	2590892	1	19	LL2	
04/04/2024	20:26	s3D0420.D	660968003	PERM	2590892	1	20	LL2	
04/04/2024	20:48	s3D0421.D	660968004	PERM	2590892	1	21	LL2	
04/04/2024	21:09	s3D0422.D	660968005	PERM	2590892	1	22	LL2	
04/04/2024	21:30	s3D0423.D	660968006	PERM	2590892	1	23	LL2	
04/04/2024	21:51	s3D0424.D	660974001	PERM	2590892	1	24	LL2	
04/04/2024	22:13	s3D0425.D	660974002	PERM	2590892	1	25	LL2	
04/04/2024	22:34	s3D0426.D	660974003	PERM	2590892	1	26	LL2	
04/04/2024	22:55	s3D0427.D	660974004	PERM	2590892	1	27	LL2	
04/04/2024	23:16	s3D0428.D	660974005	PERM	2590892	1	28	LL2	
04/04/2024	23:38	s3D0429.D	660974006	PERM	2590892	1	29	LL2	

Metals Analysis

Case Narrative

Metals
Technical Case Narrative
Perma-Fix of Florida
SDG #: 660974

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7471B

Analytical Procedure: GL-MA-E-010 REV# 40

Analytical Batch: 2590723

Preparation Method: SW846 7471B Prep

Preparation Procedure: GL-MA-E-010 REV# 40

Preparation Batch: 2590722

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
660974001	12039.B4.Top Front.PFF
660974002	12039.B4.Middle Front.PFF
660974003	12039.B4.Bottom Front.PFF
660974004	12040.B4.Top Back.PFF
660974005	12040.B4.Middle Back.PFF
660974006	12040.B4.Bottom Back.PFF
1205692115	Method Blank (MB)CVAA
1205692116	Laboratory Control Sample (LCS)
1205692119	660950001(12038.B2.Pre-Test.EPAL) Serial Dilution (SD)
1205692117	660950001(12038.B2.Pre-Test.EPAD) Sample Duplicate (DUP)
1205692118	660950001(12038.B2.Pre-Test.EPAS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 1205692117 (12038.B2.Pre-Test.EPADUP), 1205692118 (12038.B2.Pre-Test.EPAMS) and 1205692119 (12038.B2.Pre-Test.EPASDILT) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report for

PERM001 Perma-Fix of Florida

Client SDG: 660974 GEL Work Order: 660974

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:



Name: Alan Stanley

Date: 04 APR 2024

Title: Analyst II/Team Leader

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660974

METHOD TYPE: SW846

SAMPLE ID: 660974001

CLIENT ID: 12039.B4.Top Front.PFF

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 02-APR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	1030	ug/kg			AV	7.56	1	HG6	040424S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660974

METHOD TYPE: SW846

SAMPLE ID: 660974002

CLIENT ID: 12039.B4.Middle Front.PFF

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 02-APR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	918	ug/kg			AV	7.76	1	HG6	040424S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660974

METHOD TYPE: SW846

SAMPLE ID: 660974003

CLIENT ID: 12039.B4.Bottom Front.PFF

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 02-APR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	100	ug/kg			AV	6.96	1	HG6	040424S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660974

METHOD TYPE: SW846

SAMPLE ID: 660974004

CLIENT ID: 12040.B4.Top Back.PFF

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 02-APR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	402	ug/kg			AV	7.76	1	HG6	040424S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660974

METHOD TYPE: SW846

SAMPLE ID: 660974005

CLIENT ID: 12040.B4.Middle Back.PFF

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 02-APR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	194	ug/kg			AV	7.94	1	HG6	040424S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660974

METHOD TYPE: SW846

SAMPLE ID: 660974006

CLIENT ID: 12040.B4.Bottom Back.PFF

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 02-APR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	190	ug/kg			AV	7.15	1	HG6	040424S1-1

*Analytical Methods:
AV SW846 7471B

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 660974

Contract: PERM00224

Lab Code: GEL

Instrument ID: HG6

<i>Sample ID</i>	<i>Analyte</i>	<i>Result</i>	<i>Units</i>	<i>True Value</i>	<i>Units</i>	<i>% Recovery</i>	<i>Acceptance Window (%R)</i>	<i>M*</i>	<i>Analysis Date/Time</i>	<i>Run Number</i>
ICV01	Mercury	5.06	ug/L	5	ug/L	101.1	90.0 - 110.0	AV	04-APR-24 09:45	040424S1-1
CCV01	Mercury	5.01	ug/L	5	ug/L	100.2	80.0 - 120.0	AV	04-APR-24 09:50	040424S1-1
CCV02	Mercury	5.03	ug/L	5	ug/L	100.7	80.0 - 120.0	AV	04-APR-24 09:56	040424S1-1
CCV03	Mercury	5.02	ug/L	5	ug/L	100.4	80.0 - 120.0	AV	04-APR-24 10:37	040424S1-1
CCV04	Mercury	5.05	ug/L	5	ug/L	101	80.0 - 120.0	AV	04-APR-24 10:57	040424S1-1
CCV05	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 - 120.0	AV	04-APR-24 11:17	040424S1-1
CCV06	Mercury	5.37	ug/L	5	ug/L	107.4	80.0 - 120.0	AV	04-APR-24 11:38	040424S1-1

***Analytical Methods:**

AV SW846 7471B

METALS
-2b-
CRDL Standard for ICP & ICPMS

SDG No: 660974

Contract: PERM00224

Lab Code: GEL

Instrument ID: HG6

<i>Sample ID</i>	<i>Analyte</i>	<i>Result</i>	<i>Units</i>	<i>True Value</i>	<i>Units</i>	<i>% Recovery</i>	<i>Advisory Limits (%R)</i>	<i>M*</i>	<i>Analysis Date/Time</i>	<i>Run Number</i>
CRDL01	Mercury	.175	ug/L	.2	ug/L	87.5	70.0 - 130.0	AV	04-APR-24 09:48	040424S1-1

***Analytical Methods:**

AV

SW846 7471B

SW846

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 660974

Contract: PERM00224

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
ICB01	Mercury	0.067	+/-2	U	0.067	0.2	SOL	AV	04-APR-24 09:46	040424S1-1
CCB01	Mercury	0.067	+/-2	U	0.067	0.2	SOL	AV	04-APR-24 09:51	040424S1-1
CCB02	Mercury	0.067	+/-2	U	0.067	0.2	SOL	AV	04-APR-24 09:58	040424S1-1
CCB03	Mercury	0.067	+/-2	U	0.067	0.2	SOL	AV	04-APR-24 10:38	040424S1-1
CCB04	Mercury	0.067	+/-2	U	0.067	0.2	SOL	AV	04-APR-24 10:59	040424S1-1
CCB05	Mercury	0.067	+/-2	U	0.067	0.2	SOL	AV	04-APR-24 11:19	040424S1-1
CCB06	Mercury	0.067	+/-2	U	0.067	0.2	SOL	AV	04-APR-24 11:39	040424S1-1

*Analytical Methods:

AV SW846 7471B

SW846

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 660974
Contract: PERM00224
Matrix: Misc Solid

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Acceptance Window</u>	<u>Conc Qual</u>	<u>M*</u>	<u>MDL</u>	<u>RDL</u>
1205692115	Mercury	7.28	ug/kg	+/-21.7	U	AV	7.28	21.7

*Analytical Methods:
AV SW846 7471B

METALS									
-5a-									
Matrix Spike Summary									
SDG NO.	660974	Client ID:	12038.B2.Pre-Test.EPAS						
Contract:	PERM00224	Level:	Low						
Matrix:	MISC SOLID	% Solids:							
Sample ID:	660950001	Spike ID:	1205692118						

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M*
Mercury	ug/kg		304000		322000		233	-7850	N/A	AV

*Analytical Methods:
AV SW846 7471B

Metals
-6-
Duplicate Sample Summary

SDG No.: 660974**Lab Code:** GEL**Contract:** PERM00224**Client ID:** 12038.B2.Pre-Test.EPAD**Matrix:** MISC SOLID**Level:** Low**Sample ID:** 660950001**Duplicate ID:** 1205692117**Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Mercury	ug/kg	+/-20%	322000		307000		4.69		AV

***Analytical Methods:**

AV SW846 7471B

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 660974
Contract: PERM00224
Aqueous LCS Source:

Solid LCS Source: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M*</u>
1205692116	Mercury	ug/kg	237	243		102	80-120	AV

*Analytical Methods:
AV SW846 7471B

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 660974 Client ID: 12038.B2.Pre-Test.EPAL

Contract: PERM00224

Matrix: SOLID Level: Low

Sample ID: 660950001 Serial Dilution ID: 1205692119

<u>Analyte</u>	<u>Initial Value ug/L</u>	<u>C</u>	<u>Serial Value ug/L</u>	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M*</u>
Mercury	1.41		1.36		3.627			AV

*Analytical Methods:

AV SW846 7471B

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 660974

Method Type: AV

Contract: PERM00224

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number	2590722						
1205692115	MB for batch 2590722	MB	m	03-APR-24	.276g	30mL	
1205692116	LCS for batch 2590722	LCS	m	03-APR-24	.253g	30mL	
1205692118	12038.B2.Pre-Test.EPAS	MS	m	03-APR-24	.258g	30mL	
1205692117	12038.B2.Pre-Test.EPAD	DUP	m	03-APR-24	.299g	30mL	
660974001	12039.B4.Top Front.PFF	SAMPLE	m	03-APR-24	.266g	30mL	
660974002	12039.B4.Middle Front.PFF	SAMPLE	m	03-APR-24	.259g	30mL	
660974003	12039.B4.Bottom Front.PFF	SAMPLE	m	03-APR-24	.289g	30mL	
660974004	12040.B4.Top Back.PFF	SAMPLE	m	03-APR-24	.259g	30mL	
660974005	12040.B4.Middle Back.PFF	SAMPLE	m	03-APR-24	.253g	30mL	
660974006	12040.B4.Bottom Back.PFF	SAMPLE	m	03-APR-24	.281g	30mL	

SW846

**Metals
-14-
Analysis Run Log**

Contract: PERM00224**Lab Code :** GEL**Inst Name:** HG6**Start Date:** 04-APR-24**End Date:** 04-APR-24**Client Sdg:** 660974**Instrument Type:**AV**Data File:** 040424S1-1

Samp ID	D/F	Run Time	Hg
S0.0	1	09:34:00	X
S0.2	1	09:36:00	X
S0.5	1	09:38:00	X
S2.0	1	09:39:00	X
S5.0	1	09:41:00	X
S10.0	1	09:43:00	X
ICV01	1	09:45:00	X
ICB01	1	09:46:00	X
CRDL01	1	09:48:00	X
CCV01	1	09:50:00	X
CCB01	1	09:51:00	X
1205692115	1	09:53:00	X
1205692116	1	09:55:00	X
CCV02	1	09:56:00	X
CCB02	1	09:58:00	X
ZZZZZ	1	10:00:00	
ZZZZZ	1	10:09:00	
ZZZZZ	1	10:11:00	
ZZZZZ	200	10:12:00	
ZZZZZ	200	10:14:00	
ZZZZZ	200	10:16:00	
ZZZZZ	1000	10:17:00	
ZZZZZ	200	10:19:00	
ZZZZZ	1	10:21:00	
ZZZZZ	1	10:22:00	
ZZZZZ	1	10:24:00	
ZZZZZ	1	10:26:00	
ZZZZZ	1	10:28:00	
ZZZZZ	1	10:29:00	
CCV03	1	10:37:00	X
CCB03	1	10:38:00	X
ZZZZZ	2000	10:40:00	
1205692117	2000	10:42:00	X
1205692118	2000	10:43:00	X
1205692119	10000	10:45:00	X
ZZZZZ	2000	10:47:00	
ZZZZZ	200	10:49:00	
ZZZZZ	200	10:50:00	
ZZZZZ	200	10:52:00	
ZZZZZ	200	10:54:00	
ZZZZZ	200	10:55:00	

**Metals
-14-
Analysis Run Log**

Contract: PERM00224**Lab Code :** GEL**Inst Name:** HG6**Start Date:** 04-APR-24**End Date:** 04-APR-24**Client Sdg:** 660974**Instrument Type:**AV**Data File:** 040424S1-1

Samp ID	D/F	Run Time	Hg
CCV04	1	10:57:00	X
CCB04	1	10:59:00	X
ZZZZZZ	1	11:00:00	
ZZZZZZ	1	11:02:00	
ZZZZZZ	1	11:04:00	
ZZZZZZ	1	11:06:00	
ZZZZZZ	1	11:07:00	
ZZZZZZ	1	11:09:00	
660974001	1	11:11:00	X
660974002	1	11:12:00	X
660974003	1	11:14:00	X
660974004	1	11:16:00	X
CCV05	1	11:17:00	X
CCB05	1	11:19:00	X
660974005	1	11:21:00	X
660974006	1	11:22:00	X
ZZZZZZ	1	11:24:00	
ZZZZZZ	1	11:26:00	
ZZZZZZ	1	11:28:00	
ZZZZZZ	1	11:29:00	
ZZZZZZ	1	11:31:00	
ZZZZZZ	1	11:33:00	
ZZZZZZ	1	11:34:00	
ZZZZZZ	1	11:36:00	
CCV06	1	11:38:00	X
CCB06	1	11:39:00	X

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 660974

Contract: PERM00224

Lab Code: GEL

MDL

Hg Effective Date: 01-DEC-19

Instrument(s):

HG6

Verified on:

10-JAN-2024

		<i>Wavelength (nm)</i>	<i>MDL ug/L</i>	<i>RDL ug/L</i>
MERCURY	<i>Analyte</i>			
SOLID	Mercury	253.7	0.067	0.2

Raw Data

=====
Analysis BegunLogged In Analyst: hg6
Spectrometer: FIMS-100, P/N B050-9550Technique: AA FIMS-MHS
Autosampler: S10Sample Information File: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Sample Information\
040424.SIFX

Batch ID:

Results Data Set: 040424S1

Results Library: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Results\Results.mdb

=====
Method Loaded

Method Name: SOIL*

Method Last Saved: 4/3/2024 11:29:39

Method Description: 7471A - Hg6

=====
Sequence No.: 1

Autosampler Location: 1

Sample ID: Calib Blank

Date Collected: 4/4/2024 09:33:32

Analyst: JP2

Data Type: Original

Replicate Data: Calib Blank

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1		[0.00]	0.0004	0.0008	0.0004	09:34:21	Yes
2		[0.00]	0.0005	0.0020	0.0005	09:34:52	Yes
Mean:		[0.00]	0.0004				
SD:		0.0000	0.0001				
%RSD:		0.00%	19.77%				

Auto-zero performed.

=====
Sequence No.: 2

Autosampler Location: 2

Sample ID: S0.2

Date Collected: 4/4/2024 09:35:12

Analyst: JP2

Data Type: Original

Replicate Data: S0.2

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1		[0.2]	0.0019	0.0106	0.0023	09:36:02	Yes
2		[0.2]	0.0019	0.0105	0.0023	09:36:33	Yes
Mean:		[0.2]	0.0019				
SD:		0.000	0.0000				
%RSD:		0.00%	0.20%				

Standard number 1 applied. [0.2]

Correlation Coef.: 1.000000 Slope: 0.00948 Intercept: 0.00000

=====
Sequence No.: 3

Autosampler Location: 3

Sample ID: S0.5

Date Collected: 4/4/2024 09:36:54

Analyst: JP2

Data Type: Original

Replicate Data: S0.5

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1		[0.5]	0.0049	0.0243	0.0053	09:37:44	Yes
2		[0.5]	0.0049	0.0241	0.0053	09:38:15	Yes
Mean:		[0.5]	0.0049				
SD:		0.000	0.0000				
%RSD:		0.00%	0.07%				

Standard number 2 applied. [0.5]

Correlation Coef.: 0.999944 Slope: 0.00972 Intercept: -0.00002

=====
Sequence No.: 4

Autosampler Location: 4

Sample ID: S2.0

Date Collected: 4/4/2024 09:38:36

Analyst: JP2

Data Type: Original

Replicate Data: S2.0

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0202	0.0958	0.0206	09:39:27	Yes
2		[2.0]	0.0203	0.0967	0.0207	09:39:57	Yes

Mean: [2.0] 0.0202

SD: 0.000 0.0001

%RSD: 0.00% 0.44%

Standard number 3 applied. [2.0]

Correlation Coef.: 0.999948 Slope: 0.01015 Intercept: -0.00011

Sequence No.: 5

Autosampler Location: 5

Sample ID: S5.0

Date Collected: 4/4/2024 09:40:19

Analyst: JP2

Data Type: Original

Replicate Data: S5.0

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0505	0.2380	0.0510	09:41:10	Yes
2		[5.0]	0.0507	0.2391	0.0511	09:41:40	Yes

Mean: [5.0] 0.0506

SD: 0.000 0.0001

%RSD: 0.00% 0.27%

Standard number 4 applied. [5.0]

Correlation Coef.: 0.999993 Slope: 0.01014 Intercept: -0.00010

Sequence No.: 6

Autosampler Location: 6

Sample ID: S10.0

Date Collected: 4/4/2024 09:42:02

Analyst: JP2

Data Type: Original

Replicate Data: S10.0

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1000	0.4725	0.1004	09:42:51	Yes
2		[10.0]	0.0998	0.4724	0.1003	09:43:22	Yes

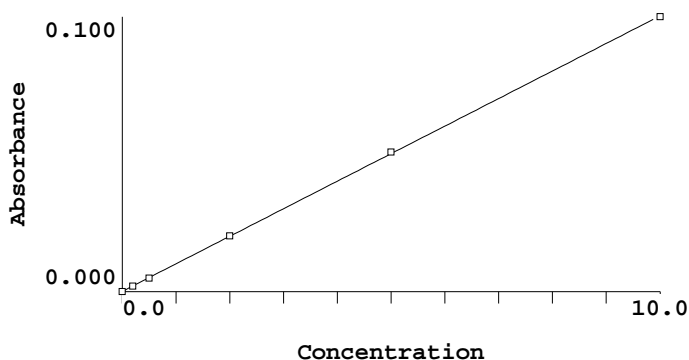
Mean: [10.0] 0.0999

SD: 0.000 0.0001

%RSD: 0.00% 0.09%

Standard number 5 applied. [10.0]

Correlation Coef.: 0.999973 Slope: 0.01001 Intercept: 0.00004



Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. µg/L	Calculated Conc. µg/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.004	0.00	19.77
S0.2	0.0019	0.2	0.185	0.00	0.20
S0.5	0.0049	0.5	0.480	0.00	0.07

SDG: 660974

S2.0	0.0202	2.0	2.016	0.00	0.44
S5.0	0.0506	5.0	5.050	0.00	0.27
S10.0	0.0999	10.0	9.973	0.00	0.09

Correlation Coef.: 0.999973 Slope: 0.01001 Intercept: 0.00004

Sequence No.: 7

Autosampler Location: 9

Sample ID: ICV

Date Collected: 4/4/2024 09:43:42

Analyst: JP2

Data Type: Original

Replicate Data: ICV

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	5.042	5.042	0.0505	0.2401	0.0510	09:44:33	Yes
2	5.068	5.068	0.0508	0.2399	0.0512	09:45:03	Yes
Mean:	5.055	5.055	0.0507				
SD:	0.0190	0.0190	0.0002				
%RSD:	0.38%	0.38%	0.38%				

QC value within limits for Hg 253.7 Recovery = 101.10%
All analyte(s) passed QC.

Sequence No.: 8

Autosampler Location: 10

Sample ID: ICB

Date Collected: 4/4/2024 09:45:24

Analyst: JP2

Data Type: Original

Replicate Data: ICB

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	-0.027	-0.027	-0.0002	0.0003	0.0002	09:46:15	Yes
2	-0.022	-0.022	-0.0002	0.0007	0.0003	09:46:45	Yes
Mean:	-0.025	-0.025	-0.0002				
SD:	0.0035	0.0035	0.0000				
%RSD:	14.15%	14.15%	17.31%				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9

Autosampler Location: 11

Sample ID: CRDL

Date Collected: 4/4/2024 09:47:06

Analyst: JP2

Data Type: Original

Replicate Data: CRDL

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.178	0.178	0.0018	0.0105	0.0023	09:47:57	Yes
2	0.172	0.172	0.0018	0.0096	0.0022	09:48:27	Yes
Mean:	0.175	0.175	0.0018				
SD:	0.0043	0.0043	0.0000				
%RSD:	2.44%	2.44%	2.38%				

QC value within limits for Hg 253.7 Recovery = 87.28%
All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 7

Sample ID: CCV

Date Collected: 4/4/2024 09:48:48

Analyst: JP2

Data Type: Original

Replicate Data: CCV

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	4.992	4.992	0.0500	0.2377	0.0505	09:49:38	Yes
2	5.033	5.033	0.0504	0.2377	0.0509	09:50:08	Yes
Mean:	5.012	5.012	0.0502				
SD:	0.0286	0.0286	0.0003				
%RSD:	0.57%	0.57%	0.57%				

QC value within limits for Hg 253.7 Recovery = 100.25%

All analyte(s) passed QC.

Sequence No.: 11

Sample ID: CCB

Analyst: JP2

Autosampler Location: 8

Date Collected: 4/4/2024 09:50:29

Data Type: Original

Replicate Data: CCB

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.009	-0.009	-0.0000	0.0012	0.0004	09:51:19	Yes
2	-0.001	-0.001	0.0000	0.0021	0.0005	09:51:49	Yes
Mean:	-0.005	-0.005	-0.0000				
SD:	0.0053	0.0053	0.0001				
%RSD:	105.57%	105.57%	>999.9%				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 12

Sample ID: 1205692115|2590723|1

Analyst: JP2

Autosampler Location: 12

Date Collected: 4/4/2024 09:52:11

Data Type: Original

Replicate Data: 1205692115|2590723|1

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0001	0.0020	0.0005	09:53:02	Yes
2	0.006	0.006	0.0001	0.0022	0.0005	09:53:32	Yes
Mean:	0.004	0.004	0.0001				
SD:	0.0023	0.0023	0.0000				
%RSD:	57.39%	57.39%	26.80%				

Sequence No.: 13

Sample ID: 1205692116|2590723|1

Analyst: JP2

Autosampler Location: 13

Date Collected: 4/4/2024 09:53:54

Data Type: Original

Replicate Data: 1205692116|2590723|1

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.048	2.048	0.0206	0.0981	0.0210	09:54:45	Yes
2	2.044	2.044	0.0205	0.0969	0.0210	09:55:15	Yes
Mean:	2.046	2.046	0.0205				
SD:	0.0026	0.0026	0.0000				
%RSD:	0.13%	0.13%	0.13%				

Sequence No.: 14

Sample ID: CCV

Analyst: JP2

Autosampler Location: 7

Date Collected: 4/4/2024 09:55:37

Data Type: Original

Replicate Data: CCV

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.016	5.016	0.0503	0.2369	0.0507	09:56:27	Yes
2	5.051	5.051	0.0506	0.2383	0.0511	09:56:57	Yes
Mean:	5.034	5.034	0.0505				
SD:	0.0249	0.0249	0.0002				
%RSD:	0.50%	0.50%	0.50%				

QC value within limits for Hg 253.7 Recovery = 100.68%

All analyte(s) passed QC.

Sequence No.: 15

Sample ID: CCB

Analyst: JP2

Autosampler Location: 8

Date Collected: 4/4/2024 09:57:17

Data Type: Original

Replicate Data: CCB

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	-0.022	-0.022	-0.0002	0.0005	0.0003	09:58:07	Yes
2	-0.017	-0.017	-0.0001	0.0008	0.0003	09:58:37	Yes
Mean:	-0.019	-0.019	-0.0001				
SD:	0.0036	0.0036	0.0000				
%RSD:	18.67%	18.67%	24.37%				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

=====

Sequence No.: 16
Sample ID: 660950001|2590723|1
Analyst: JP2

Autosampler Location: 14
Date Collected: 4/4/2024 09:58:58
Data Type: Original

Replicate Data: 660950001|2590723|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	155.1	155.1	1.5531	14.8933	1.5535	09:59:47	Yes
	Sample concentration is greater than that of the highest standard.						
2	118.8	118.8	1.1899	10.8369	1.1903	10:00:19	Yes
	Sample concentration is greater than that of the highest standard.						
Mean:	137.0	137.0	1.3715				
SD:	25.65	25.65	0.2568				
%RSD:	18.73%	18.73%	18.73%				

Sample concentration is greater than that of the highest standard.

=====

Sequence No.: 17
Sample ID: 1205692117|2590723|1
Analyst: JP2

Autosampler Location: 15
Date Collected: 4/4/2024 10:00:39
Data Type: Original

Replicate Data: 1205692117|2590723|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	139.9	139.9	1.4013	13.2407	1.4018	10:01:29	Yes
	Sample concentration is greater than that of the highest standard.						

FIMS-100: Lamp energy too low.

=====
Analysis BegunLogged In Analyst: hg6
Spectrometer: FIMS-100, P/N B050-9550Technique: AA FIMS-MHS
Autosampler: S10Sample Information File: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Sample Information\
040424.SIFX

Batch ID:

Results Data Set: 040424S1

Results Library: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Results\Results.mdb

=====
Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 4/4/2024 10:35:53

Analyst: JP2

Data Type: Original

Replicate Data: CCV

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	4.983	4.983	0.0499	0.2432	0.0504	10:36:44	Yes
2	5.052	5.052	0.0506	0.2450	0.0511	10:37:14	Yes
Mean:	5.018	5.018	0.0503				
SD:	0.0486	0.0486	0.0005				
%RSD:	0.97%	0.97%	0.97%				

QC value within limits for Hg 253.7 Recovery = 100.35%
All analyte(s) passed QC.=====
Sequence No.: 2

Autosampler Location: 8

Sample ID: CCB

Date Collected: 4/4/2024 10:37:34

Analyst: JP2

Data Type: Original

Replicate Data: CCB

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	-0.010	-0.010	-0.0001	-0.0002	0.0004	10:38:25	Yes
2	0.030	0.030	0.0003	0.0021	0.0008	10:38:55	Yes
Mean:	0.010	0.010	0.0001				
SD:	0.0289	0.0289	0.0003				
%RSD:	289.75%	289.75%	199.95%				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.=====
Sequence No.: 3

Autosampler Location: 14

Sample ID: 660950001|2590723|2000

Date Collected: 4/4/2024 10:39:15

Analyst: JP2

Data Type: Original

Replicate Data: 660950001|2590723|2000

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	1.387	1.387	0.0139	0.0682	0.0144	10:40:05	Yes
2	1.424	1.424	0.0143	0.0697	0.0147	10:40:35	Yes
Mean:	1.406	1.406	0.0141				
SD:	0.0262	0.0262	0.0003				
%RSD:	1.87%	1.87%	1.86%				

=====
Sequence No.: 4

Autosampler Location: 15

Sample ID: 1205692117|2590723|2000

Date Collected: 4/4/2024 10:40:56

Analyst: JP2

Data Type: Original

Replicate Data: 1205692117|2590723|2000

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored

1	1.514	1.514	0.0152	0.0750	0.0156	10:41:46	Yes
2	1.549	1.549	0.0156	0.0756	0.0160	10:42:17	Yes
Mean:	1.531	1.531	0.0154				
SD:	0.0245	0.0245	0.0002				
%RSD:	1.60%	1.60%	1.59%				

Sequence No.: 5

Autosampler Location: 16

Sample ID: 1205692118|2590723|2000

Date Collected: 4/4/2024 10:42:37

Analyst: JP2

Data Type: Original

Replicate Data: 1205692118|2590723|2000

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	1.288	1.288	0.0129	0.0629	0.0134	10:43:27	Yes
2	1.324	1.324	0.0133	0.0642	0.0137	10:43:57	Yes
Mean:	1.306	1.306	0.0131				
SD:	0.0257	0.0257	0.0003				
%RSD:	1.97%	1.97%	1.96%				

Sequence No.: 6

Autosampler Location: 17

Sample ID: 1205692119|2590723|10000

Date Collected: 4/4/2024 10:44:18

Analyst: JP2

Data Type: Original

Replicate Data: 1205692119|2590723|10000

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.255	0.255	0.0026	0.0134	0.0030	10:45:08	Yes
2	0.288	0.288	0.0029	0.0152	0.0034	10:45:39	Yes
Mean:	0.271	0.271	0.0028				
SD:	0.0234	0.0234	0.0002				
%RSD:	8.61%	8.61%	8.47%				

Sequence No.: 7

Autosampler Location: 18

Sample ID: 1205692120|2590723|2000

Date Collected: 4/4/2024 10:45:59

Analyst: JP2

Data Type: Original

Replicate Data: 1205692120|2590723|2000

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	3.247	3.247	0.0326	0.1589	0.0330	10:46:49	Yes
2	3.253	3.253	0.0326	0.1573	0.0331	10:47:20	Yes
Mean:	3.250	3.250	0.0326				
SD:	0.0041	0.0041	0.0000				
%RSD:	0.13%	0.13%	0.13%				

Sequence No.: 8

Autosampler Location: 19

Sample ID: 660950002|2590723|200

Date Collected: 4/4/2024 10:47:41

Analyst: JP2

Data Type: Original

Replicate Data: 660950002|2590723|200

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	11.83	11.83	0.1185	0.5937	0.1189	10:48:31	Yes
Sample concentration is greater than that of the highest standard.							
2	11.97	11.97	0.1199	0.5972	0.1204	10:49:01	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	11.90	11.90	0.1192				
SD:	0.099	0.099	0.0010				
%RSD:	0.83%	0.83%	0.83%				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 9

Autosampler Location: 20

Sample ID: 660950003|2590723|200
Analyst: JP2

Date Collected: 4/4/2024 10:49:22
Data Type: Original

Replicate Data: 660950003|2590723|200

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	10.77	10.77	0.1079	0.5378	0.1083	10:50:12	Yes
2	10.77	10.77	0.1078	0.5358	0.1083	10:50:42	Yes
Mean:	10.77	10.77	0.1079				
SD:	0.004	0.004	0.0000				
%RSD:	0.03%	0.03%	0.03%				

=====

Sequence No.: 10

Autosampler Location: 21

Sample ID: 660950004|2590723|200
Analyst: JP2

Date Collected: 4/4/2024 10:51:03
Data Type: Original

Replicate Data: 660950004|2590723|200

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	13.94	13.94	0.1396	0.6972	0.1401	10:51:54	Yes
Sample concentration is greater than that of the highest standard.							
2	14.04	14.04	0.1406	0.6988	0.1410	10:52:24	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	13.99	13.99	0.1401				
SD:	0.069	0.069	0.0007				
%RSD:	0.49%	0.49%	0.49%				

Sample concentration is greater than that of the highest standard.

=====

Sequence No.: 11

Autosampler Location: 22

Sample ID: 660950005|2590723|200
Analyst: JP2

Date Collected: 4/4/2024 10:52:45
Data Type: Original

Replicate Data: 660950005|2590723|200

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	15.28	15.28	0.1531	0.7640	0.1535	10:53:36	Yes
Sample concentration is greater than that of the highest standard.							
2	15.35	15.35	0.1537	0.7623	0.1542	10:54:06	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	15.32	15.32	0.1534				
SD:	0.049	0.049	0.0005				
%RSD:	0.32%	0.32%	0.32%				

Sample concentration is greater than that of the highest standard.

=====

Sequence No.: 12

Autosampler Location: 23

Sample ID: 660950006|2590723|200
Analyst: JP2

Date Collected: 4/4/2024 10:54:28
Data Type: Original

Replicate Data: 660950006|2590723|200

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	13.06	13.06	0.1308	0.6516	0.1312	10:55:19	Yes
Sample concentration is greater than that of the highest standard.							
2	13.11	13.11	0.1313	0.6486	0.1318	10:55:49	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	13.09	13.09	0.1311				
SD:	0.037	0.037	0.0004				
%RSD:	0.28%	0.28%	0.28%				

Sample concentration is greater than that of the highest standard.

=====

Sequence No.: 13

Autosampler Location: 7

Sample ID: CCV
Analyst: JP2

Date Collected: 4/4/2024 10:56:11
Data Type: Original

Replicate Data: CCV

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	5.026	5.026	0.0504	0.2488	0.0508	10:57:01	Yes
2	5.073	5.073	0.0508	0.2500	0.0513	10:57:31	Yes
Mean:	5.049	5.049	0.0506				
SD:	0.0333	0.0333	0.0003				
%RSD:	0.66%	0.66%	0.66%				

QC value within limits for Hg 253.7 Recovery = 100.98%
All analyte(s) passed QC.

=====

Sequence No.: 14

Autosampler Location: 8

Sample ID: CCB

Date Collected: 4/4/2024 10:57:51

Analyst: JP2

Data Type: Original

Replicate Data: CCB

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.003	0.003	0.0001	0.0016	0.0005	10:58:41	Yes
2	0.021	0.021	0.0003	0.0030	0.0007	10:59:12	Yes
Mean:	0.012	0.012	0.0002				
SD:	0.0128	0.0128	0.0001				
%RSD:	103.97%	103.97%	76.16%				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

=====

Sequence No.: 15

Autosampler Location: 24

Sample ID: 660968001|2590723|1

Date Collected: 4/4/2024 10:59:32

Analyst: JP2

Data Type: Original

Replicate Data: 660968001|2590723|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	2.451	2.451	0.0246	0.1198	0.0250	11:00:24	Yes
2	2.441	2.441	0.0245	0.1186	0.0249	11:00:54	Yes
Mean:	2.446	2.446	0.0245				
SD:	0.0074	0.0074	0.0001				
%RSD:	0.30%	0.30%	0.30%				

=====

Sequence No.: 16

Autosampler Location: 25

Sample ID: 660968002|2590723|1

Date Collected: 4/4/2024 11:01:16

Analyst: JP2

Data Type: Original

Replicate Data: 660968002|2590723|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	2.079	2.079	0.0209	0.1011	0.0213	11:02:07	Yes
2	2.076	2.076	0.0208	0.1010	0.0213	11:02:38	Yes
Mean:	2.078	2.078	0.0208				
SD:	0.0023	0.0023	0.0000				
%RSD:	0.11%	0.11%	0.11%				

=====

Sequence No.: 17

Autosampler Location: 26

Sample ID: 660968003|2590723|1

Date Collected: 4/4/2024 11:03:00

Analyst: JP2

Data Type: Original

Replicate Data: 660968003|2590723|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	2.182	2.182	0.0219	0.1076	0.0223	11:03:50	Yes
2	2.208	2.208	0.0222	0.1104	0.0226	11:04:20	Yes

Mean: 2.195 2.195 0.0220
SD: 0.0189 0.0189 0.0002
%RSD: 0.86% 0.86% 0.86%

Sequence No.: 18

Sample ID: 660968004|2590723|1

Analyst: JP2

Autosampler Location: 27

Date Collected: 4/4/2024 11:04:42

Data Type: Original

Replicate Data: 660968004|2590723|1

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.918	1.918	0.0192	0.0944	0.0197	11:05:32	Yes
2	1.933	1.933	0.0194	0.0946	0.0198	11:06:03	Yes
Mean:	1.926	1.926	0.0193				
SD:	0.0108	0.0108	0.0001				
%RSD:	0.56%	0.56%	0.56%				

Sequence No.: 19

Sample ID: 660968005|2590723|1

Analyst: JP2

Autosampler Location: 28

Date Collected: 4/4/2024 11:06:23

Data Type: Original

Replicate Data: 660968005|2590723|1

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.372	1.372	0.0138	0.0670	0.0142	11:07:13	Yes
2	1.375	1.375	0.0138	0.0680	0.0142	11:07:43	Yes
Mean:	1.373	1.373	0.0138				
SD:	0.0023	0.0023	0.0000				
%RSD:	0.16%	0.16%	0.16%				

Sequence No.: 20

Sample ID: 660968006|2590723|1

Analyst: JP2

Autosampler Location: 29

Date Collected: 4/4/2024 11:08:04

Data Type: Original

Replicate Data: 660968006|2590723|1

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.102	2.102	0.0211	0.1077	0.0215	11:08:54	Yes
2	2.185	2.185	0.0219	0.1142	0.0224	11:09:25	Yes
Mean:	2.143	2.143	0.0215				
SD:	0.0587	0.0587	0.0006				
%RSD:	2.74%	2.74%	2.73%				

Sequence No.: 21

Sample ID: 660974001|2590723|1

Analyst: JP2

Autosampler Location: 30

Date Collected: 4/4/2024 11:09:46

Data Type: Original

Replicate Data: 660974001|2590723|1

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	9.123	9.123	0.0914	0.4477	0.0918	11:10:36	Yes
2	9.130	9.130	0.0915	0.4478	0.0919	11:11:06	Yes
Mean:	9.127	9.127	0.0914				
SD:	0.0055	0.0055	0.0001				
%RSD:	0.06%	0.06%	0.06%				

Sequence No.: 22

Sample ID: 660974002|2590723|1

Analyst: JP2

Autosampler Location: 31

Date Collected: 4/4/2024 11:11:27

Data Type: Original

Replicate Data: 660974002|2590723|1

Analyte: Hg 253.7

Repl	SampleConc	StndConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	7.887	7.887	0.0790	0.3937	0.0795	11:12:16	Yes
2	7.965	7.965	0.0798	0.3982	0.0802	11:12:47	Yes
Mean:	7.926	7.926	0.0794				
SD:	0.0554	0.0554	0.0006				
%RSD:	0.70%	0.70%	0.70%				

Sequence No.: 23
Sample ID: 660974003|2590723|1
Analyst: JP2

Autosampler Location: 32
Date Collected: 4/4/2024 11:13:09
Data Type: Original

Replicate Data: 660974003|2590723|1
Analyte: Hg 253.7

Repl	SampleConc	StndConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.959	0.959	0.0096	0.0480	0.0101	11:13:58	Yes
2	0.969	0.969	0.0097	0.0485	0.0102	11:14:29	Yes
Mean:	0.964	0.964	0.0097				
SD:	0.0071	0.0071	0.0001				
%RSD:	0.74%	0.74%	0.73%				

Sequence No.: 24
Sample ID: 660974004|2590723|1
Analyst: JP2

Autosampler Location: 33
Date Collected: 4/4/2024 11:14:50
Data Type: Original

Replicate Data: 660974004|2590723|1
Analyte: Hg 253.7

Repl	SampleConc	StndConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	3.454	3.454	0.0346	0.1717	0.0351	11:15:40	Yes
2	3.487	3.487	0.0350	0.1740	0.0354	11:16:11	Yes
Mean:	3.471	3.471	0.0348				
SD:	0.0236	0.0236	0.0002				
%RSD:	0.68%	0.68%	0.68%				

Sequence No.: 25
Sample ID: CCV
Analyst: JP2

Autosampler Location: 7
Date Collected: 4/4/2024 11:16:32
Data Type: Original

Replicate Data: CCV
Analyte: Hg 253.7

Repl	SampleConc	StndConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	5.110	5.110	0.0512	0.2520	0.0517	11:17:22	Yes
2	5.167	5.167	0.0518	0.2526	0.0522	11:17:52	Yes
Mean:	5.139	5.139	0.0515				
SD:	0.0403	0.0403	0.0004				
%RSD:	0.78%	0.78%	0.78%				

QC value within limits for Hg 253.7 Recovery = 102.78%
All analyte(s) passed QC.

Sequence No.: 26
Sample ID: CCB
Analyst: JP2

Autosampler Location: 8
Date Collected: 4/4/2024 11:18:12
Data Type: Original

Replicate Data: CCB
Analyte: Hg 253.7

Repl	SampleConc	StndConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.013	0.013	0.0002	0.0022	0.0006	11:19:02	Yes
2	0.021	0.021	0.0003	0.0028	0.0007	11:19:32	Yes
Mean:	0.017	0.017	0.0002				
SD:	0.0059	0.0059	0.0001				
%RSD:	34.62%	34.62%	27.42%				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 27

Sample ID: 660974005|2590723|1

Analyst: JP2

Autosampler Location: 34

Date Collected: 4/4/2024 11:19:53

Data Type: Original

Replicate Data: 660974005|2590723|1

Analyte: Hg 253.7

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	1.632	1.632	0.0164	0.0802	0.0168	11:20:44	Yes
2	1.646	1.646	0.0165	0.0805	0.0170	11:21:14	Yes
Mean:	1.639	1.639	0.0165				
SD:	0.0104	0.0104	0.0001				
%RSD:	0.63%	0.63%	0.63%				

Sequence No.: 28

Sample ID: 660974006|2590723|1

Analyst: JP2

Autosampler Location: 35

Date Collected: 4/4/2024 11:21:36

Data Type: Original

Replicate Data: 660974006|2590723|1

Analyte: Hg 253.7

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	1.753	1.753	0.0176	0.0880	0.0180	11:22:26	Yes
2	1.797	1.797	0.0180	0.0921	0.0185	11:22:56	Yes
Mean:	1.775	1.775	0.0178				
SD:	0.0314	0.0314	0.0003				
%RSD:	1.77%	1.77%	1.76%				

Sequence No.: 29

Sample ID: 661045001|2590723|1

Analyst: JP2

Autosampler Location: 36

Date Collected: 4/4/2024 11:23:18

Data Type: Original

Replicate Data: 661045001|2590723|1

Analyte: Hg 253.7

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	3.719	3.719	0.0373	0.2054	0.0377	11:24:08	Yes
2	3.702	3.702	0.0371	0.2042	0.0376	11:24:39	Yes
Mean:	3.711	3.711	0.0372				
SD:	0.0122	0.0122	0.0001				
%RSD:	0.33%	0.33%	0.33%				

Sequence No.: 30

Sample ID: 661046001|2590723|1

Analyst: JP2

Autosampler Location: 37

Date Collected: 4/4/2024 11:25:01

Data Type: Original

Replicate Data: 661046001|2590723|1

Analyte: Hg 253.7

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.351	0.351	0.0036	0.0252	0.0040	11:25:52	Yes
2	0.294	0.294	0.0030	0.0205	0.0034	11:26:22	Yes
Mean:	0.322	0.322	0.0033				
SD:	0.0404	0.0404	0.0004				
%RSD:	12.53%	12.53%	12.36%				

Sequence No.: 31

Sample ID: 1205692736|2591102|1

Analyst: JP2

Autosampler Location: 38

Date Collected: 4/4/2024 11:26:44

Data Type: Original

Replicate Data: 1205692736|2591102|1

Analyte: Hg 253.7

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	-0.017	-0.017	-0.0001	0.0009	0.0003	11:27:35	Yes

Replicate Data: 661065004|2591102|1

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.148	0.148	0.0015	0.0105	0.0020	11:36:02	Yes
2	0.170	0.170	0.0017	0.0118	0.0022	11:36:33	Yes
Mean:	0.159	0.159	0.0016				
SD:	0.0157	0.0157	0.0002				
%RSD:	9.88%	9.88%	9.60%				

Sequence No.: 37

Autosampler Location: 7

Sample ID: CCV

Date Collected: 4/4/2024 11:36:54

Analyst: JP2

Data Type: Original

Replicate Data: CCV

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.341	5.341	0.0535	0.2581	0.0540	11:37:44	Yes
2	5.398	5.398	0.0541	0.2547	0.0545	11:38:14	Yes
Mean:	5.369	5.369	0.0538				
SD:	0.0400	0.0400	0.0004				
%RSD:	0.74%	0.74%	0.74%				

QC value within limits for Hg 253.7 Recovery = 107.38%

All analyte(s) passed QC.

Sequence No.: 38

Autosampler Location: 8

Sample ID: CCB

Date Collected: 4/4/2024 11:38:35

Analyst: JP2

Data Type: Original

Replicate Data: CCB

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.013	0.013	0.0002	0.0024	0.0006	11:39:25	Yes
2	0.015	0.015	0.0002	0.0024	0.0006	11:39:55	Yes
Mean:	0.014	0.014	0.0002				
SD:	0.0013	0.0013	0.0000				
%RSD:	9.29%	9.29%	7.06%				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

User canceled analysis.

Miscellaneous

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID:	2590722	Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
Analyst:	Jeanne Myburgh	LCS	1205692116	MHGSOILMSSPIKE	WHG240403-14	.3	mL
Method:	SW846 7471B Prep	MS	1205692118	MHGSOILMSSPIKE	WHG240403-14	.3	mL
Lab SOP:	GL-MA-E-010 REV# 40						
Instrument:	BAL-835						

Sample ID	Prep Date	Matrix	Initial Weight (g)	Final Volume (mL)	Hot Block Stop Date (date)	Prep Factor (mL/g)
1205692115 MB	03-APR-2024 12:53:06	Misc Solid	0.276	30	04/03/24 15:15	108.69565
1205692116 LCS	03-APR-2024 12:53:06	Misc Solid	0.253	30	04/03/24 15:15	118.57708
660950001	03-APR-2024 12:53:06	Misc Solid	0.262	30	04/03/24 15:15	114.50382
1205692119 SDILT (660950001)	03-APR-2024 12:53:06	Misc Solid	0.262	30	04/03/24 15:15	114.50382
1205692117 DUP (660950001)	03-APR-2024 12:53:06	Misc Solid	0.299	30	04/03/24 15:15	100.33445
1205692118 MS (660950001)	03-APR-2024 12:53:06	Misc Solid	0.258	30	04/03/24 15:15	116.27907
660950002	03-APR-2024 12:53:06	Misc Solid	0.281	30	04/03/24 15:15	106.76157
660950003	03-APR-2024 12:53:06	Misc Solid	0.261	30	04/03/24 15:15	114.94253
660950004	03-APR-2024 12:53:06	Misc Solid	0.252	30	04/03/24 15:15	119.04762
660950005	03-APR-2024 12:53:06	Misc Solid	0.297	30	04/03/24 15:15	101.0101
660950006	03-APR-2024 12:53:06	Misc Solid	0.276	30	04/03/24 15:15	108.69565
660968001	03-APR-2024 12:53:06	Misc Solid	0.264	30	04/03/24 15:15	113.63636
660968002	03-APR-2024 12:53:06	Misc Solid	0.282	30	04/03/24 15:15	106.38298
660968003	03-APR-2024 12:53:06	Misc Solid	0.293	30	04/03/24 15:15	102.38908
660968004	03-APR-2024 12:53:06	Misc Solid	0.278	30	04/03/24 15:15	107.91367
660968005	03-APR-2024 12:53:06	Misc Solid	0.255	30	04/03/24 15:15	117.64706
660968006	03-APR-2024 12:53:06	Misc Solid	0.286	30	04/03/24 15:15	104.8951
660974001	03-APR-2024 12:53:06	Misc Solid	0.266	30	04/03/24 15:15	112.78195
660974002	03-APR-2024 12:53:06	Misc Solid	0.259	30	04/03/24 15:15	115.83012
660974003	03-APR-2024 12:53:06	Misc Solid	0.289	30	04/03/24 15:15	103.80623
660974004	03-APR-2024 12:53:06	Misc Solid	0.259	30	04/03/24 15:15	115.83012
660974005	03-APR-2024 12:53:06	Misc Solid	0.253	30	04/03/24 15:15	118.57708
660974006	03-APR-2024 12:53:06	Misc Solid	0.281	30	04/03/24 15:15	106.76157
661045001	03-APR-2024 12:53:06	Solid	0.254	30	04/03/24 15:15	118.11024
661046001	03-APR-2024 12:53:06	Solid	0.262	30	04/03/24 15:15	114.50382

Reagent/Solvent Lot ID	Description	Amount	Comments:
WHG240403	50% Aqua Regia	5 mL	Block Temperature (92-98C): 93 C
4324927	5% KMnO4 solution	7.5 mL	Temperature within limits (Y/N)?: y
4326654-C	Hg reducing agent	3 mL	Thermometer ID: 2126223
240319	Teflon chips for MB/LCS metals Solids	.25 g	Hot Block ID: 12
UHG4218178-01	Mercury Source Standard #1 1,000 mg/L	50 uL	Lot number: MP3971
UHG4055839-02	Mercury Source Standard #2 1,000 mg/L	50 uL	Prep Date2: 03-APR-2024 14:45 MP HOT BLOCKS Jeanne Myburgh
IHG240403-01	Mercury Intermediate 1st Source 200 ug/L	250 mL	
IHG240403-02	Mercury Intermediate 2nd Source 200 ug/L	250 mL	
WHG240403-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL	

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

Prep Logbook

Sample ID	Prep Date	Matrix	Initial Weight (g)	Final Volume (mL)	Hot Block Stop Date (date)	Prep Factor (mL/g)
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Reagent/Solvent Lot ID	Description	Amount	Comments:
WHG240403-08	Mercury Working Standard 1st Source CAL S 0.5	75 uL	
WHG240403-11	Mercury Working 1st Source CAL S 10.0	1.5 mL	
WHG240403-09	Mercury Working 1st Source CAL S 2.0	300 uL	
WHG240403-10	Mercury Working 1st Source CAL S 5.0/CCV	750 uL	
WHG240403-12	Mercury Working 2nd Source S 5.0/ICV	750 uL	

Standard Logbook

Serial ID: UHG4055839-02 **Open/Reference Date:** 08-NOV-23 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 08-NOV-23 **Catalog Number :** HP1000033-1-100
Type: Source Material **Expires:** 08-NOV-24 **Lot Number :** 2324111-100EE
Employee: Jessica Palumbo **Solvent :** 10% HNO3
Supplier: HPS
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG4218178-01 **Open/Reference Date:** 01-FEB-24 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 01-FEB-24 **Catalog Number :** G34-060080-02-01
Type: Source Material **Expires:** 01-FEB-25 **Lot Number :** U2-HG737574
Employee: Jeanne Myburgh **Solvent :** 5% HNO3
Supplier: Inorganic Venture
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: IHG240403-01 **Open/Reference Date:** 03-APR-24 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 03-APR-24 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 05-APR-24 **Solvent :** 5mL HNO3 + TypeI H2O
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG4218178-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG240403-02 **Open/Reference Date:** 03-APR-24 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 03-APR-24 **Solvent :** 2% HNO3-1734294
Type: Intermediate **Expires:** 05-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG4055839-02	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: WHG240403-07 **Open/Reference Date:** 03-APR-24 **Pipet Id :** Hg1289245
Name: MHGWORKCALSO.2CRA **Received:** 03-APR-24 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG240403-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG240403-08 **Open/Reference Date:** 03-APR-24 **Pipet Id :** Hg1289245
Name: MHGWORKCALSO.5 **Received:** 03-APR-24 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG240403-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG240403-09 **Open/Reference Date:** 03-APR-24 **Pipet Id :** Hg1289245
Name: MHGWORKCALSO.2 **Received:** 03-APR-24 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG240403-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG240403-10 **Open/Reference Date:** 03-APR-24 **Pipet Id :** Hg1289245
Name: MHGWORKCALSO.5CCV **Received:** 03-APR-24 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG240403-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Standard Logbook

Serial ID: WHG240403-11 **Open/Reference Date:** 03-APR-24 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 03-APR-24 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG240403-01	Mercury	200 ug/L	1500 uL	30 mL	10 ug/L

Serial ID: WHG240403-12 **Open/Reference Date:** 03-APR-24 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 03-APR-24 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG240403-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG240403-14 **Open/Reference Date:** 03-APR-24 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 03-APR-24 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG4218178-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WIC050802-02CCV **Open/Reference Date:** 02-AUG-05
Name: IC-LCS/CCV **Received:** 02-AUG-05
Type: Working **Expires:** 04-AUG-05
Employee: Mary Sherwood
Supplier: GEL
Description: LCS Total Anion Working Standard - FIRST SOURCE
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UIC050725-2	Bromide	500 mg/L	.5 mL	100 mL	2.5 mg/L
UIC050725-1	Nitrite-N	1000 mg/L	.5 mL	100 mL	5 mg/L
UIC050725-1	Sulfate	4000 mg/L	.5 mL	100 mL	20 mg/L
UIC050725-1	Chloride	2000 mg/L	.5 mL	100 mL	10 mg/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UIC050725-2	O-Phosphate-P	500 mg/L	.5 mL	100 mL	2.5 mg/L
UIC050725-1	Nitrate-N	1000 mg/L	.5 mL	100 mL	5 mg/L
UIC050725-1	Fluoride	1000 mg/L	.5 mL	100 mL	5 mg/L

Serial ID: 240319 **Open/Reference Date:** 19-MAR-24 **Lot Number :** 31452228
Name: I-Boiling chips **Received:** 19-MAR-24
Type: Reagent/Solvent **Expires:** 19-MAR-26
Employee: Savanna Deppish
Supplier: Chemware
Description: Teflon chips for MB/LCS metals Solids
Comments: None

Serial ID: 3867945-A **Open/Reference Date:** 17-FEB-23 **Lot Number :** 224778
Name: B-NaCl-MER **Received:** 17-FEB-23
Type: Reagent/Solvent **Expires:** 17-FEB-25
Employee: Jessica Palumbo
Supplier: Fisher Scientific
Description: Sodium Chloride
Comments: None

Serial ID: 4047155-A **Open/Reference Date:** 23-OCT-23 **Lot Number :** 23H0456968
Name: B-NH2OH.HCl-MER **Received:** 23-OCT-23
Type: Reagent/Solvent **Expires:** 16-JUL-24
Employee: Jessica Palumbo
Supplier: VWR
Description: Hydroxylamine Hydrochloride
Comments: None

Serial ID: 4324468-A **Open/Reference Date:** 27-MAR-24 **Lot Number :** 2023101263
Name: B-HCl-MER **Received:** 27-MAR-24
Type: Reagent/Solvent **Expires:** 27-MAR-25
Employee: Jeanne Myburgh
Supplier: VWR
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 4324927 **Open/Reference Date:** 28-MAR-24 **Balance Id :** BAL-835
Name: B-KMnO4-MER **Received:** 28-MAR-24
Type: Reagent/Solvent **Expires:** 28-MAR-25
Employee: Jeanne Myburgh
Supplier: GEL

Standard Logbook

Description: 5% KMnO4 solution

Comments: None

Serial ID: 4326654-C **Open/Reference Date:** 01-APR-24 **Balance Id :** BAL-423
Name: B-NaCl.NH2OH.HCl-MER **Received:** 01-APR-24
Type: Reagent/Solvent **Expires:** 16-JUL-24
Employee: Jessica Palumbo
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
3867945-A	B-NaCl-MER	NA	420 g	3500 mL	12 PERCENT
4047155-A	B-NH2OH.HCl-MER	N/A	420 g	3500 mL	12 PERCENT

April 09, 2024

Sophia Barbour
Perma-Fix
1940 N.W. 67th Place
Gainesville, Florida 32653

Re: VTD TSCA TEST 2024 2024VTD_POST_TEST_4_EPA
Work Order: 660968

Dear Sophia Barbour:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on April 02, 2024. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4422.

Sincerely,

Adrian Melendrez for
Jacob Crook
Project Manager

Purchase Order: 718585
Chain of Custody: 2024VTD_POST_TEST_4-
Enclosures



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Case Narrative

**Receipt Narrative
for
Perma-Fix of Florida
SDG: 660968**

April 09, 2024

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample receipt: The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on April 02, 2024 for analysis. The samples were delivered with proper chain of custody documentation and signatures. The samples were screened according to GEL Standard Operating Procedure. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C). Samples were received within the specified holding time. There are no additional comments concerning sample receipt.

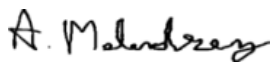
Sample Identification: The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
660968001	12039.B4.Top Front.EPA
660968002	12039.B4.Middle Front.EPA
660968003	12039.B4.Bottom Front.EPA
660968004	12040.B4.Top Back.EPA
660968005	12040.B4.Middle Back.EPA
660968006	12040.B4.Bottom Back.EPA

Case Narrative:

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC/MS Semivolatile, GC/MS Volatile and Metals.



Adrian Melendrez for
Jacob Crook
Project Manager

Chain of Custody and Supporting Documentation

Page: 1 of 1

Project #: VTD_TSCA_TEST_2024

Chain of Custody and Analytical Request

Chain of Custody and Analytical Request

GEL Work Order Number: 660968

Client Name: Perma-Fix of Florida, Inc.

Project/Site Name: Perma-Fix of Florida, Inc.

Address: 1940 NW 67th Pl., Gainesville, FL, 32653

Collected By: Jeffery Gonyea

SDG: 660968

GEL Laboratories, LLC

2040 Savage Road

Charleston, SC 29407

Phone: (843) 556-8171

Fax: (843) 766-1178

Phone # 352.373.6066

Fax #

Send Results To: sophia.barbour@perma-fix.com

Sample ID

* For composites - indicate start and stop date time

*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)
12039.B4.Top Front.EPA	3/30/2024 9:00 N	N	N	SS
12039.B4.Middle Front.EPA	3/30/2024 9:05 N	N	N	SS
12039.B4.Bottom Front.EPA	3/30/2024 9:10 N	N	N	SS
12040.B4.Top Back.EPA	3/30/2024 9:15 N	N	N	SS
12040.B4.Middle Back.EPA	3/30/2024 9:20 N	N	N	SS
12040.B4.Bottom Back.EPA	3/30/2024 9:25 N	N	N	SS

Should this sample be considered:

Yes, please supply isotopic info

(7) Known or possible Hazards

Appendix IX VOCs (SW 846 8260B)

Appendix IX B/N/A (SW 846 8270C)

Mercury (SW 846 7471)

Total number of containers

Preservative Type (6)

Comments

Note: extra sample is required for sample specific QC

Sample Analysis Requested (5) (Fill in the number of containers for each test)

TAT Requested: Normal: Rush: X Specify: 5-Day (Subject to Surcharge)

Fax Results: [] Yes [X] No

Select Deliverable: [X] C of A [X] QC Summary [] Level 1 [] Level 2 [] Level 3 [X] Level 4

Additional Remarks:

For Lab Receiving Use Only: Custody Seal Intact? [] Yes [] No Cooler Temp: 3 °C

Sample Collection Time Zone: [X] Eastern [] Pacific [] Central [] Mountain [] Other:

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
Jeffery Gonyea	30 MAR 24	John Baier	30 MAR 24	09:25
John Baier	01 APR 24	Cheryl	01 APR 24	16:20

For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

1.) Chain of Custody Number = Client Determined

2.) QC Codes N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal

5.) Sample Analysis Requested Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B 7470A - 1)

6.) Preservative Type HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

7.) KNOWN OR POSSIBLE HAZARDS

RCRA Metals

As = Arsenic Hg= Mercury

Ba = Barium Se= Selenium

Cd = Cadmium Ag= Silver

Cr = Chromium MR= Misc, RCRA metals

Pb = Lead

Characteristic Hazards

FL = Flammable/Ignitable

CO = Corrosive

RE = Reactive

Listed Waste

LW= Listed Waste

(F,K,P and U-listed wastes.)

Waste code(s):

Other

OT= Other / Unknown

(i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)

Description:

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

Surrogate of DE and Zircon Sand

Spiked with Hg, As, Cd, Cr, Pb, Perc,

1,2-Dichlorobenzene, Naphthalene,

Xylenes, Organics Hg removed.

JC

SAMPLE RECEIPT & REVIEW FORM

Client: <u>PEEM</u>		SDG/AR/COC/Work Order: <u>660968</u>	
Received By: <u>CLM</u>		Date Received: <u>4/6/24</u>	
Carrier and Tracking Number		Circle Applicable: <input checked="" type="checkbox"/> FedEx Express <input type="checkbox"/> FedEx Ground <input type="checkbox"/> UPS <input type="checkbox"/> Field Services <input type="checkbox"/> Courier <input type="checkbox"/> Other <u>811822129008 (3°)</u> <u>811822128906 (3°)</u>	
Suspected Hazard Information	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM / mR/Hr Classified as: <u>Rad 1</u> Rad 2 Rad 3	
D) Did the client designate samples are hazardous?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil <u>RCRA</u> Asbestos Beryllium Other: _____	
Sample Receipt Criteria		Yes <input type="checkbox"/> NA <input checked="" type="checkbox"/> No <input type="checkbox"/>	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: _____ *all temperatures are recorded in Celsius
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>IR8-23</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: _____ If Preservation added, Lot#: _____
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No <input checked="" type="checkbox"/> NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No <input checked="" type="checkbox"/> NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No <input checked="" type="checkbox"/> NA ___ Sample ID's and containers affected: _____
8	Samples received within holding time?	<input checked="" type="checkbox"/>	ID's and tests affected: _____
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	ID's and containers affected: _____
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe) <u>ID: 12043.B2, Pre-Test. EPA has 7:05 as the time</u>
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed): <u>10.) on the sample COC states 14:20.</u>			

PM (or PMA) review: Initials _____ Date _____ Page _____ of _____

Laboratory Certifications

List of current GEL Certifications as of 09 April 2024

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122024-05
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235
Utah NELAP	SC000122024-39
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Volatile Analysis

Case Narrative

**GC/MS Volatile
Technical Case Narrative
Perma-Fix of Florida
SDG #: 660968**

Product: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Analytical Method: SW846 8260D

Analytical Procedure: GL-OA-E-038 REV# 29

Analytical Batch: 2591977

Preparation Method: SW846 5035

Preparation Procedure: GL-OA-E-039 REV# 13

Preparation Batch: 2591975

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
660968001	12039.B4.Top Front.EPA
660968002	12039.B4.Middle Front.EPA
660968003	12039.B4.Bottom Front.EPA
660968004	12040.B4.Top Back.EPA
660968005	12040.B4.Middle Back.EPA
660968006	12040.B4.Bottom Back.EPA
1205694058	Laboratory Control Sample (LCS)
1205694059	Method Blank (MB)
1205694060	High Blank (HB)
1205694061	660968001(12039.B4.Top Front.EPA) Post Spike (PS)
1205694062	660968001(12039.B4.Top Front.EPA) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

Continuing Calibration Verification Requirements

All Calibration Verification Standards (CCV) did not meet the acceptance criteria as outlined in Method 8260D for samples and the associated QC. However, the method allows for a designated number of outliers dependent on the requested analyte list. This SDG satisfied the 8260D outlier acceptance criteria. The results are reported.

Quality Control (QC) Information

Blank (MB) Statement

Target analytes were detected in the blank 1205694060 (HB) below the reporting limit. The associated data are qualified accordingly and reported.

Technical Information

Sample Dilutions/Methanol Dilutions

Samples were analyzed employing a methanol dilution extraction procedure because the sample matrices were not amenable to more concentrated analyses.

Analyte	660968					
	001	002	003	004	005	006
Several	50X	50X	50X	50X	50X	50X

Miscellaneous Information

Additional Comments

Samples were characterized as miscellaneous solids.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report for

PERM001 Perma-Fix of Florida

Client SDG: 660968 GEL Work Order: 660968

The Qualifiers in this report are defined as follows:

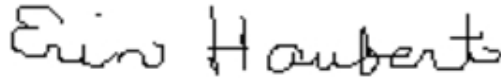
- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- B The target analyte was detected in the associated blank.
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- DL Indicates that sample is diluted.
- RA Indicates that sample is re-analyzed without re-extraction.
- RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:



Name: Erin Haubert

Date: 08 APR 2024

Title: Data Validator

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660968001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 13:22	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:31	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040424VC\CA412.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	89.3	ug/kg	29.7	89.3
74-87-3	Chloromethane	U	89.3	ug/kg	29.7	89.3
75-01-4	Vinyl chloride	U	89.3	ug/kg	29.7	89.3
74-83-9	Bromomethane	U	89.3	ug/kg	29.7	89.3
75-00-3	Chloroethane	U	89.3	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane	U	89.3	ug/kg	29.7	89.3
67-64-1	Acetone	J	188	ug/kg	149	446
75-35-4	1,1-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
74-88-4	Iodomethane	U	446	ug/kg	149	446
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-05-8	Acetonitrile	U	2230	ug/kg	744	2230
75-15-0	Carbon disulfide	U	446	ug/kg	149	446
75-09-2	Methylene chloride	U	446	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
108-05-4	Vinyl acetate	U	446	ug/kg	149	446
75-34-3	1,1-Dichloroethane	U	89.3	ug/kg	29.7	89.3
78-93-3	2-Butanone	JB	213	ug/kg	149	446
67-66-3	Chloroform	U	89.3	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane	U	89.3	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride	U	89.3	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane	U	89.3	ug/kg	29.7	89.3
71-43-2	Benzene	U	89.3	ug/kg	29.7	89.3
79-01-6	Trichloroethylene	U	89.3	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane	U	89.3	ug/kg	29.7	89.3
74-95-3	Dibromomethane	U	89.3	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane	U	89.3	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone	U	446	ug/kg	149	446
108-88-3	Toluene	U	89.3	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane	U	89.3	ug/kg	29.7	89.3
591-78-6	2-Hexanone	U	446	ug/kg	149	446
127-18-4	Tetrachloroethylene	U	89.3	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane	U	89.3	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane	U	89.3	ug/kg	29.7	89.3
108-90-7	Chlorobenzene	U	89.3	ug/kg	29.7	89.3
100-41-4	Ethylbenzene	U	89.3	ug/kg	29.7	89.3
100-42-5	Styrene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660968001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 13:22	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:31	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040424VC\CA412.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	89.3	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane	U	89.3	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane	U	89.3	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)	U	268	ug/kg	89.3	268
630-20-6	1,1,1,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
120-82-1	1,2,4-Trichlorobenzene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660968002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 13:49	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:32	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040424VC\CA413.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	90.9	ug/kg	30.3	90.9
74-87-3	Chloromethane	U	90.9	ug/kg	30.3	90.9
75-01-4	Vinyl chloride	U	90.9	ug/kg	30.3	90.9
74-83-9	Bromomethane	U	90.9	ug/kg	30.3	90.9
75-00-3	Chloroethane	U	90.9	ug/kg	30.3	90.9
75-69-4	Trichlorofluoromethane	U	90.9	ug/kg	30.3	90.9
67-64-1	Acetone	J	166	ug/kg	152	455
75-35-4	1,1-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
74-88-4	Iodomethane	U	455	ug/kg	152	455
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	455	ug/kg	152	455
75-05-8	Acetonitrile	U	2270	ug/kg	758	2270
75-15-0	Carbon disulfide	U	455	ug/kg	152	455
75-09-2	Methylene chloride	U	455	ug/kg	152	455
156-60-5	trans-1,2-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
108-05-4	Vinyl acetate	U	455	ug/kg	152	455
75-34-3	1,1-Dichloroethane	U	90.9	ug/kg	30.3	90.9
78-93-3	2-Butanone	JB	207	ug/kg	152	455
67-66-3	Chloroform	U	90.9	ug/kg	30.3	90.9
71-55-6	1,1,1-Trichloroethane	U	90.9	ug/kg	30.3	90.9
56-23-5	Carbon tetrachloride	U	90.9	ug/kg	30.3	90.9
107-06-2	1,2-Dichloroethane	U	90.9	ug/kg	30.3	90.9
71-43-2	Benzene	U	90.9	ug/kg	30.3	90.9
79-01-6	Trichloroethylene	U	90.9	ug/kg	30.3	90.9
78-87-5	1,2-Dichloropropane	U	90.9	ug/kg	30.3	90.9
74-95-3	Dibromomethane	U	90.9	ug/kg	30.3	90.9
75-27-4	Bromodichloromethane	U	90.9	ug/kg	30.3	90.9
10061-01-5	cis-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
108-10-1	4-Methyl-2-pentanone	U	455	ug/kg	152	455
108-88-3	Toluene	U	90.9	ug/kg	30.3	90.9
10061-02-6	trans-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
79-00-5	1,1,2-Trichloroethane	U	90.9	ug/kg	30.3	90.9
591-78-6	2-Hexanone	U	455	ug/kg	152	455
127-18-4	Tetrachloroethylene	U	90.9	ug/kg	30.3	90.9
124-48-1	Dibromochloromethane	U	90.9	ug/kg	30.3	90.9
106-93-4	1,2-Dibromoethane	U	90.9	ug/kg	30.3	90.9
108-90-7	Chlorobenzene	U	90.9	ug/kg	30.3	90.9
100-41-4	Ethylbenzene	U	90.9	ug/kg	30.3	90.9
100-42-5	Styrene	U	90.9	ug/kg	30.3	90.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660968002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 13:49	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:32	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040424VC\CA413.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	90.9	ug/kg	30.3	90.9
79-34-5	1,1,2,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
96-18-4	1,2,3-Trichloropropane	U	90.9	ug/kg	30.3	90.9
96-12-8	1,2-Dibromo-3-chloropropane	U	90.9	ug/kg	45.5	90.9
107-02-8	Acrolein	U	455	ug/kg	152	455
107-05-1	Allyl chloride	U	455	ug/kg	152	455
107-13-1	Acrylonitrile	U	455	ug/kg	152	455
126-99-8	2-Chloro-1,3-butadiene	U	90.9	ug/kg	30.3	90.9
107-12-0	Propionitrile	U	455	ug/kg	152	455
126-98-7	Methacrylonitrile	U	455	ug/kg	152	455
78-83-1	Isobutyl alcohol	U	4550	ug/kg	1520	4550
80-62-6	Methyl methacrylate	U	455	ug/kg	152	455
97-63-2	Ethyl methacrylate	U	455	ug/kg	152	455
76-01-7	Pentachloroethane	U	455	ug/kg	152	455
110-57-6	trans-1,4-Dichloro-2-butene	U	455	ug/kg	152	455
1330-20-7	Xylenes (total)	U	273	ug/kg	90.9	273
630-20-6	1,1,1,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
120-82-1	1,2,4-Trichlorobenzene	U	90.9	ug/kg	30.3	90.9

Volatile

Certificate of Analysis

Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660968003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 14:17	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:33	Aliquot:	5.9 g	Final Volume:	10 mL
Data File:	data\040424VC\CA414.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	84.7	ug/kg	28.2	84.7
74-87-3	Chloromethane	U	84.7	ug/kg	28.2	84.7
75-01-4	Vinyl chloride	U	84.7	ug/kg	28.2	84.7
74-83-9	Bromomethane	U	84.7	ug/kg	28.2	84.7
75-00-3	Chloroethane	U	84.7	ug/kg	28.2	84.7
75-69-4	Trichlorofluoromethane	U	84.7	ug/kg	28.2	84.7
67-64-1	Acetone	J	408	ug/kg	141	424
75-35-4	1,1-Dichloroethylene	U	84.7	ug/kg	28.2	84.7
74-88-4	Iodomethane	U	424	ug/kg	141	424
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	424	ug/kg	141	424
75-05-8	Acetonitrile	U	2120	ug/kg	706	2120
75-15-0	Carbon disulfide	U	424	ug/kg	141	424
75-09-2	Methylene chloride	U	424	ug/kg	141	424
156-60-5	trans-1,2-Dichloroethylene	U	84.7	ug/kg	28.2	84.7
108-05-4	Vinyl acetate	U	424	ug/kg	141	424
75-34-3	1,1-Dichloroethane	U	84.7	ug/kg	28.2	84.7
78-93-3	2-Butanone	JB	199	ug/kg	141	424
67-66-3	Chloroform	U	84.7	ug/kg	28.2	84.7
71-55-6	1,1,1-Trichloroethane	U	84.7	ug/kg	28.2	84.7
56-23-5	Carbon tetrachloride	U	84.7	ug/kg	28.2	84.7
107-06-2	1,2-Dichloroethane	U	84.7	ug/kg	28.2	84.7
71-43-2	Benzene	U	84.7	ug/kg	28.2	84.7
79-01-6	Trichloroethylene	U	84.7	ug/kg	28.2	84.7
78-87-5	1,2-Dichloropropane	U	84.7	ug/kg	28.2	84.7
74-95-3	Dibromomethane	U	84.7	ug/kg	28.2	84.7
75-27-4	Bromodichloromethane	U	84.7	ug/kg	28.2	84.7
10061-01-5	cis-1,3-Dichloropropylene	U	84.7	ug/kg	28.2	84.7
108-10-1	4-Methyl-2-pentanone	U	424	ug/kg	141	424
108-88-3	Toluene	U	84.7	ug/kg	28.2	84.7
10061-02-6	trans-1,3-Dichloropropylene	U	84.7	ug/kg	28.2	84.7
79-00-5	1,1,2-Trichloroethane	U	84.7	ug/kg	28.2	84.7
591-78-6	2-Hexanone	U	424	ug/kg	141	424
127-18-4	Tetrachloroethylene	U	84.7	ug/kg	28.2	84.7
124-48-1	Dibromochloromethane	U	84.7	ug/kg	28.2	84.7
106-93-4	1,2-Dibromoethane	U	84.7	ug/kg	28.2	84.7
108-90-7	Chlorobenzene	U	84.7	ug/kg	28.2	84.7
100-41-4	Ethylbenzene	U	84.7	ug/kg	28.2	84.7
100-42-5	Styrene	U	84.7	ug/kg	28.2	84.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660968003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 14:17	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:33	Aliquot:	5.9 g	Final Volume:	10 mL
Data File:	data\040424VC\CA414.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	84.7	ug/kg	28.2	84.7
79-34-5	1,1,2,2-Tetrachloroethane	U	84.7	ug/kg	28.2	84.7
96-18-4	1,2,3-Trichloropropane	U	84.7	ug/kg	28.2	84.7
96-12-8	1,2-Dibromo-3-chloropropane	U	84.7	ug/kg	42.4	84.7
107-02-8	Acrolein	U	424	ug/kg	141	424
107-05-1	Allyl chloride	U	424	ug/kg	141	424
107-13-1	Acrylonitrile	U	424	ug/kg	141	424
126-99-8	2-Chloro-1,3-butadiene	U	84.7	ug/kg	28.2	84.7
107-12-0	Propionitrile	U	424	ug/kg	141	424
126-98-7	Methacrylonitrile	U	424	ug/kg	141	424
78-83-1	Isobutyl alcohol	U	4240	ug/kg	1410	4240
80-62-6	Methyl methacrylate	U	424	ug/kg	141	424
97-63-2	Ethyl methacrylate	U	424	ug/kg	141	424
76-01-7	Pentachloroethane	U	424	ug/kg	141	424
110-57-6	trans-1,4-Dichloro-2-butene	U	424	ug/kg	141	424
1330-20-7	Xylenes (total)	U	254	ug/kg	84.7	254
630-20-6	1,1,1,2-Tetrachloroethane	U	84.7	ug/kg	28.2	84.7
120-82-1	1,2,4-Trichlorobenzene	U	84.7	ug/kg	28.2	84.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660968004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 14:45	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:34	Aliquot:	5.8 g	Final Volume:	10 mL
Data File:	data\040424VC\CA415.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	86.2	ug/kg	28.7	86.2
74-87-3	Chloromethane	U	86.2	ug/kg	28.7	86.2
75-01-4	Vinyl chloride	U	86.2	ug/kg	28.7	86.2
74-83-9	Bromomethane	U	86.2	ug/kg	28.7	86.2
75-00-3	Chloroethane	U	86.2	ug/kg	28.7	86.2
75-69-4	Trichlorofluoromethane	U	86.2	ug/kg	28.7	86.2
67-64-1	Acetone	J	195	ug/kg	144	431
75-35-4	1,1-Dichloroethylene	U	86.2	ug/kg	28.7	86.2
74-88-4	Iodomethane	U	431	ug/kg	144	431
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	431	ug/kg	144	431
75-05-8	Acetonitrile	U	2160	ug/kg	718	2160
75-15-0	Carbon disulfide	U	431	ug/kg	144	431
75-09-2	Methylene chloride	U	431	ug/kg	144	431
156-60-5	trans-1,2-Dichloroethylene	U	86.2	ug/kg	28.7	86.2
108-05-4	Vinyl acetate	U	431	ug/kg	144	431
75-34-3	1,1-Dichloroethane	U	86.2	ug/kg	28.7	86.2
78-93-3	2-Butanone	JB	183	ug/kg	144	431
67-66-3	Chloroform	U	86.2	ug/kg	28.7	86.2
71-55-6	1,1,1-Trichloroethane	U	86.2	ug/kg	28.7	86.2
56-23-5	Carbon tetrachloride	U	86.2	ug/kg	28.7	86.2
107-06-2	1,2-Dichloroethane	U	86.2	ug/kg	28.7	86.2
71-43-2	Benzene	U	86.2	ug/kg	28.7	86.2
79-01-6	Trichloroethylene	U	86.2	ug/kg	28.7	86.2
78-87-5	1,2-Dichloropropane	U	86.2	ug/kg	28.7	86.2
74-95-3	Dibromomethane	U	86.2	ug/kg	28.7	86.2
75-27-4	Bromodichloromethane	U	86.2	ug/kg	28.7	86.2
10061-01-5	cis-1,3-Dichloropropylene	U	86.2	ug/kg	28.7	86.2
108-10-1	4-Methyl-2-pentanone	U	431	ug/kg	144	431
108-88-3	Toluene	U	86.2	ug/kg	28.7	86.2
10061-02-6	trans-1,3-Dichloropropylene	U	86.2	ug/kg	28.7	86.2
79-00-5	1,1,2-Trichloroethane	U	86.2	ug/kg	28.7	86.2
591-78-6	2-Hexanone	U	431	ug/kg	144	431
127-18-4	Tetrachloroethylene	U	86.2	ug/kg	28.7	86.2
124-48-1	Dibromochloromethane	U	86.2	ug/kg	28.7	86.2
106-93-4	1,2-Dibromoethane	U	86.2	ug/kg	28.7	86.2
108-90-7	Chlorobenzene	U	86.2	ug/kg	28.7	86.2
100-41-4	Ethylbenzene	U	86.2	ug/kg	28.7	86.2
100-42-5	Styrene	U	86.2	ug/kg	28.7	86.2

Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660968

Lab Sample ID: 660968004

Client ID: 12040.B4.Top Back.EPA

Batch ID: 2591977

Run Date: 04/04/2024 14:45

Prep Date: 04/04/2024 08:34

Data File: data\040424VC\CA415.D

Date Collected: 03/30/2024 09:15

Date Received: 04/02/2024 08:50

Client: PERM001

Method: SW846 8260D

Inst: VOAC.I

Analyst: PXY1

Aliquot: 5.8 g

Column: DB-624

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-038

Dilution: 50

Purge Vol: 5 mL

Final Volume: 10 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	86.2	ug/kg	28.7	86.2
79-34-5	1,1,2,2-Tetrachloroethane	U	86.2	ug/kg	28.7	86.2
96-18-4	1,2,3-Trichloropropane	U	86.2	ug/kg	28.7	86.2
96-12-8	1,2-Dibromo-3-chloropropane	U	86.2	ug/kg	43.1	86.2
107-02-8	Acrolein	U	431	ug/kg	144	431
107-05-1	Allyl chloride	U	431	ug/kg	144	431
107-13-1	Acrylonitrile	U	431	ug/kg	144	431
126-99-8	2-Chloro-1,3-butadiene	U	86.2	ug/kg	28.7	86.2
107-12-0	Propionitrile	U	431	ug/kg	144	431
126-98-7	Methacrylonitrile	U	431	ug/kg	144	431
78-83-1	Isobutyl alcohol	U	4310	ug/kg	1440	4310
80-62-6	Methyl methacrylate	U	431	ug/kg	144	431
97-63-2	Ethyl methacrylate	U	431	ug/kg	144	431
76-01-7	Pentachloroethane	U	431	ug/kg	144	431
110-57-6	trans-1,4-Dichloro-2-butene	U	431	ug/kg	144	431
1330-20-7	Xylenes (total)	U	259	ug/kg	86.2	259
630-20-6	1,1,1,2-Tetrachloroethane	U	86.2	ug/kg	28.7	86.2
120-82-1	1,2,4-Trichlorobenzene	U	86.2	ug/kg	28.7	86.2

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660968005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 15:13	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:35	Aliquot:	5.8 g	Final Volume:	10 mL
Data File:	data\040424VC\CA416.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	86.2	ug/kg	28.7	86.2
74-87-3	Chloromethane	U	86.2	ug/kg	28.7	86.2
75-01-4	Vinyl chloride	U	86.2	ug/kg	28.7	86.2
74-83-9	Bromomethane	U	86.2	ug/kg	28.7	86.2
75-00-3	Chloroethane	U	86.2	ug/kg	28.7	86.2
75-69-4	Trichlorofluoromethane	U	86.2	ug/kg	28.7	86.2
67-64-1	Acetone	J	154	ug/kg	144	431
75-35-4	1,1-Dichloroethylene	U	86.2	ug/kg	28.7	86.2
74-88-4	Iodomethane	U	431	ug/kg	144	431
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	431	ug/kg	144	431
75-05-8	Acetonitrile	U	2160	ug/kg	718	2160
75-15-0	Carbon disulfide	U	431	ug/kg	144	431
75-09-2	Methylene chloride	U	431	ug/kg	144	431
156-60-5	trans-1,2-Dichloroethylene	U	86.2	ug/kg	28.7	86.2
108-05-4	Vinyl acetate	U	431	ug/kg	144	431
75-34-3	1,1-Dichloroethane	U	86.2	ug/kg	28.7	86.2
78-93-3	2-Butanone	JB	184	ug/kg	144	431
67-66-3	Chloroform	U	86.2	ug/kg	28.7	86.2
71-55-6	1,1,1-Trichloroethane	U	86.2	ug/kg	28.7	86.2
56-23-5	Carbon tetrachloride	U	86.2	ug/kg	28.7	86.2
107-06-2	1,2-Dichloroethane	U	86.2	ug/kg	28.7	86.2
71-43-2	Benzene	U	86.2	ug/kg	28.7	86.2
79-01-6	Trichloroethylene	U	86.2	ug/kg	28.7	86.2
78-87-5	1,2-Dichloropropane	U	86.2	ug/kg	28.7	86.2
74-95-3	Dibromomethane	U	86.2	ug/kg	28.7	86.2
75-27-4	Bromodichloromethane	U	86.2	ug/kg	28.7	86.2
10061-01-5	cis-1,3-Dichloropropylene	U	86.2	ug/kg	28.7	86.2
108-10-1	4-Methyl-2-pentanone	U	431	ug/kg	144	431
108-88-3	Toluene	U	86.2	ug/kg	28.7	86.2
10061-02-6	trans-1,3-Dichloropropylene	U	86.2	ug/kg	28.7	86.2
79-00-5	1,1,2-Trichloroethane	U	86.2	ug/kg	28.7	86.2
591-78-6	2-Hexanone	U	431	ug/kg	144	431
127-18-4	Tetrachloroethylene	U	86.2	ug/kg	28.7	86.2
124-48-1	Dibromochloromethane	U	86.2	ug/kg	28.7	86.2
106-93-4	1,2-Dibromoethane	U	86.2	ug/kg	28.7	86.2
108-90-7	Chlorobenzene	U	86.2	ug/kg	28.7	86.2
100-41-4	Ethylbenzene	U	86.2	ug/kg	28.7	86.2
100-42-5	Styrene	U	86.2	ug/kg	28.7	86.2

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660968005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 15:13	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:35	Aliquot:	5.8 g	Final Volume:	10 mL
Data File:	data\040424VC\CA416.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	86.2	ug/kg	28.7	86.2
79-34-5	1,1,2,2-Tetrachloroethane	U	86.2	ug/kg	28.7	86.2
96-18-4	1,2,3-Trichloropropane	U	86.2	ug/kg	28.7	86.2
96-12-8	1,2-Dibromo-3-chloropropane	U	86.2	ug/kg	43.1	86.2
107-02-8	Acrolein	U	431	ug/kg	144	431
107-05-1	Allyl chloride	U	431	ug/kg	144	431
107-13-1	Acrylonitrile	U	431	ug/kg	144	431
126-99-8	2-Chloro-1,3-butadiene	U	86.2	ug/kg	28.7	86.2
107-12-0	Propionitrile	U	431	ug/kg	144	431
126-98-7	Methacrylonitrile	U	431	ug/kg	144	431
78-83-1	Isobutyl alcohol	U	4310	ug/kg	1440	4310
80-62-6	Methyl methacrylate	U	431	ug/kg	144	431
97-63-2	Ethyl methacrylate	U	431	ug/kg	144	431
76-01-7	Pentachloroethane	U	431	ug/kg	144	431
110-57-6	trans-1,4-Dichloro-2-butene	U	431	ug/kg	144	431
1330-20-7	Xylenes (total)	U	259	ug/kg	86.2	259
630-20-6	1,1,1,2-Tetrachloroethane	U	86.2	ug/kg	28.7	86.2
120-82-1	1,2,4-Trichlorobenzene	U	86.2	ug/kg	28.7	86.2

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660968006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 15:41	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:36	Aliquot:	5.9 g	Final Volume:	10 mL
Data File:	data\040424VC\CA417.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	84.7	ug/kg	28.2	84.7
74-87-3	Chloromethane	U	84.7	ug/kg	28.2	84.7
75-01-4	Vinyl chloride	U	84.7	ug/kg	28.2	84.7
74-83-9	Bromomethane	U	84.7	ug/kg	28.2	84.7
75-00-3	Chloroethane	U	84.7	ug/kg	28.2	84.7
75-69-4	Trichlorofluoromethane	U	84.7	ug/kg	28.2	84.7
67-64-1	Acetone	J	149	ug/kg	141	424
75-35-4	1,1-Dichloroethylene	U	84.7	ug/kg	28.2	84.7
74-88-4	Iodomethane	U	424	ug/kg	141	424
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	424	ug/kg	141	424
75-05-8	Acetonitrile	U	2120	ug/kg	706	2120
75-15-0	Carbon disulfide	U	424	ug/kg	141	424
75-09-2	Methylene chloride	U	424	ug/kg	141	424
156-60-5	trans-1,2-Dichloroethylene	U	84.7	ug/kg	28.2	84.7
108-05-4	Vinyl acetate	U	424	ug/kg	141	424
75-34-3	1,1-Dichloroethane	U	84.7	ug/kg	28.2	84.7
78-93-3	2-Butanone	JB	176	ug/kg	141	424
67-66-3	Chloroform	U	84.7	ug/kg	28.2	84.7
71-55-6	1,1,1-Trichloroethane	U	84.7	ug/kg	28.2	84.7
56-23-5	Carbon tetrachloride	U	84.7	ug/kg	28.2	84.7
107-06-2	1,2-Dichloroethane	U	84.7	ug/kg	28.2	84.7
71-43-2	Benzene	U	84.7	ug/kg	28.2	84.7
79-01-6	Trichloroethylene	U	84.7	ug/kg	28.2	84.7
78-87-5	1,2-Dichloropropane	U	84.7	ug/kg	28.2	84.7
74-95-3	Dibromomethane	U	84.7	ug/kg	28.2	84.7
75-27-4	Bromodichloromethane	U	84.7	ug/kg	28.2	84.7
10061-01-5	cis-1,3-Dichloropropylene	U	84.7	ug/kg	28.2	84.7
108-10-1	4-Methyl-2-pentanone	U	424	ug/kg	141	424
108-88-3	Toluene	U	84.7	ug/kg	28.2	84.7
10061-02-6	trans-1,3-Dichloropropylene	U	84.7	ug/kg	28.2	84.7
79-00-5	1,1,2-Trichloroethane	U	84.7	ug/kg	28.2	84.7
591-78-6	2-Hexanone	U	424	ug/kg	141	424
127-18-4	Tetrachloroethylene	U	84.7	ug/kg	28.2	84.7
124-48-1	Dibromochloromethane	U	84.7	ug/kg	28.2	84.7
106-93-4	1,2-Dibromoethane	U	84.7	ug/kg	28.2	84.7
108-90-7	Chlorobenzene	U	84.7	ug/kg	28.2	84.7
100-41-4	Ethylbenzene	U	84.7	ug/kg	28.2	84.7
100-42-5	Styrene	U	84.7	ug/kg	28.2	84.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660968006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 15:41	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:36	Aliquot:	5.9 g	Final Volume:	10 mL
Data File:	data\040424VC\CA417.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	84.7	ug/kg	28.2	84.7
79-34-5	1,1,2,2-Tetrachloroethane	U	84.7	ug/kg	28.2	84.7
96-18-4	1,2,3-Trichloropropane	U	84.7	ug/kg	28.2	84.7
96-12-8	1,2-Dibromo-3-chloropropane	U	84.7	ug/kg	42.4	84.7
107-02-8	Acrolein	U	424	ug/kg	141	424
107-05-1	Allyl chloride	U	424	ug/kg	141	424
107-13-1	Acrylonitrile	U	424	ug/kg	141	424
126-99-8	2-Chloro-1,3-butadiene	U	84.7	ug/kg	28.2	84.7
107-12-0	Propionitrile	U	424	ug/kg	141	424
126-98-7	Methacrylonitrile	U	424	ug/kg	141	424
78-83-1	Isobutyl alcohol	U	4240	ug/kg	1410	4240
80-62-6	Methyl methacrylate	U	424	ug/kg	141	424
97-63-2	Ethyl methacrylate	U	424	ug/kg	141	424
76-01-7	Pentachloroethane	U	424	ug/kg	141	424
110-57-6	trans-1,4-Dichloro-2-butene	U	424	ug/kg	141	424
1330-20-7	Xylenes (total)	U	254	ug/kg	84.7	254
630-20-6	1,1,1,2-Tetrachloroethane	U	84.7	ug/kg	28.2	84.7
120-82-1	1,2,4-Trichlorobenzene	U	84.7	ug/kg	28.2	84.7

Quality Control Summary

SDG Number: 660968
Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1205694058	LCS for batch 2591975	106	104	102
1205694059	MB for batch 2591975	109	108	105
1205694060	HB for batch 2591975	106	D 106	D 108
660968001	12039.B4.Top Front.EPA	108	D 107	D 105
660968002	12039.B4.Middle Front.EPA	110	D 108	D 107
660968003	12039.B4.Bottom Front.EPA	109	D 107	D 106
660968004	12040.B4.Top Back.EPA	107	D 105	D 104
660968005	12040.B4.Middle Back.EPA	109	D 106	D 107
660968006	12040.B4.Bottom Back.EPA	109	D 106	D 108
1205694061	12039.B4.Top Front.EPAPS	109	D 109	D 109
1205694062	12039.B4.Top Front.EPAPSD	109	D 108	D 109

Surrogate	Acceptance Limits
DCED4 = 1,2-Dichloroethane-d4	(77%-127%)
TOL = Toluene-d8	(81%-120%)
BFB = Bromofluorobenzene	(74%-128%)

* Recovery outside Acceptance Limits
Column to be used to flag recovery values
D Sample Diluted

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660968

Client ID: LCS for batch 2591975

Lab Sample ID: 1205694058

Instrument: VOAC.I

Analvst: PXY1

Purge Vol: 5 mL

Sample Type: Laboratory Control Sample

Matrix: MISC SOLID

Analysis Date: 04/04/2024 11:02

Prep Batch ID:2591975

Batch ID: 2591977

Dilution: 1

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-05-8	LCS Acetonitrile	1250	0.0	1370	110	58-129
1330-20-7	LCS Xylenes (total)	150	0.0	161	107	70-121
67-64-1	LCS Acetone	250	0.0	262	105	62-136
74-88-4	LCS Iodomethane	250	0.0	267	107	67-124
75-15-0	LCS Carbon disulfide	250	0.0	320	128	64-135
108-05-4	LCS Vinyl acetate	250	0.0	267	107	63-132
78-93-3	LCS 2-Butanone	250	0.0	285	114	64-131
108-10-1	LCS 4-Methyl-2-pentanone	250	0.0	292	117	64-126
591-78-6	LCS 2-Hexanone	250	0.0	316	126	60-143
75-71-8	LCS Dichlorodifluoromethane	50.0	0.0	58.6	117	53-153
74-87-3	LCS Chloromethane	50.0	0.0	47.8	96	56-138
75-01-4	LCS Vinyl chloride	50.0	0.0	48.8	98	61-138
74-83-9	LCS Bromomethane	50.0	0.0	49.9	100	63-140
75-00-3	LCS Chloroethane	50.0	0.0	54.4	109	70-132
75-69-4	LCS Trichlorofluoromethane	50.0	0.0	55.5	111	64-133
75-35-4	LCS 1,1-Dichloroethylene	50.0	0.0	59.9	120	70-132
75-09-2	LCS Methylene chloride	50.0	0.0	52.2	104	65-118
156-60-5	LCS trans-1,2-Dichloroethylene	50.0	0.0	56.2	112	71-125
75-34-3	LCS 1,1-Dichloroethane	50.0	0.0	56.5	113	74-124
67-66-3	LCS Chloroform	50.0	0.0	54.2	108	72-122
71-55-6	LCS 1,1,1-Trichloroethane	50.0	0.0	53.9	108	67-132
56-23-5	LCS Carbon tetrachloride	50.0	0.0	56.0	112	66-134

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660968

Client ID: LCS for batch 2591975

Lab Sample ID: 1205694058

Instrument: VOAC.I

Analvst: PXY1

Purge Vol: 5 mL

Sample Type: Laboratory Control Sample

Matrix: MISC SOLID

Analysis Date: 04/04/2024 11:02

Dilution: 1

Prep Batch ID:2591975

Batch ID: 2591977

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
107-06-2	LCS 1,2-Dichloroethane	50.0	0.0	54.3	109	62-128
71-43-2	LCS Benzene	50.0	0.0	52.1	104	73-126
79-01-6	LCS Trichloroethylene	50.0	0.0	52.2	104	72-123
78-87-5	LCS 1,2-Dichloropropane	50.0	0.0	54.5	109	72-120
74-95-3	LCS Dibromomethane	50.0	0.0	52.9	106	73-119
75-27-4	LCS Bromodichloromethane	50.0	0.0	53.8	108	71-126
10061-01-5	LCS cis-1,3-Dichloropropylene	50.0	0.0	53.0	106	70-124
108-88-3	LCS Toluene	50.0	0.0	55.8	112	70-120
10061-02-6	LCS trans-1,3-Dichloropropylene	50.0	0.0	57.5	115	69-120
79-00-5	LCS 1,1,2-Trichloroethane	50.0	0.0	55.0	110	70-115
127-18-4	LCS Tetrachloroethylene	50.0	0.0	52.4	105	68-126
124-48-1	LCS Dibromochloromethane	50.0	0.0	52.4	105	69-128
106-93-4	LCS 1,2-Dibromoethane	50.0	0.0	53.8	108	73-119
108-90-7	LCS Chlorobenzene	50.0	0.0	53.2	106	74-116
100-41-4	LCS Ethylbenzene	50.0	0.0	55.5	111	67-120
100-42-5	LCS Styrene	50.0	0.0	52.6	105	70-122
75-25-2	LCS Bromoform	50.0	0.0	53.3	107	62-132
79-34-5	LCS 1,1,2,2-Tetrachloroethane	50.0	0.0	58.2	116	66-120
96-18-4	LCS 1,2,3-Trichloropropane	50.0	0.0	56.0	112	69-119
96-12-8	LCS 1,2-Dibromo-3-chloropropane	50.0	0.0	50.8	102	57-133
120-82-1	LCS 1,2,4-Trichlorobenzene	50.0	0.0	50.5	101	68-123
630-20-6	LCS 1,1,1,2-Tetrachloroethane	50.0	0.0	51.8	104	71-123

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660968

Client ID: 12039.B4.Top Front.EPAPS

Lab Sample ID: 1205694061

Instrument: VOAC.I

Analvst: PXY1

Purge Vol: 5 mL

Sample Type: Post Spike

Matrix: MISC SOLID

Analysis Date: 04/04/2024 18:56

Dilution: 50

Prep Batch ID:2591975

Batch ID: 2591977

CAS No.		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
75-05-8	PS	Acetonitrile	1250	0.000 U	1320	105	45-132
1330-20-7	PS	Xylenes (total)	150	0.000 U	142	95	45-128
67-64-1	PS	Acetone	250	2.10 J	248	98	37-145
78-93-3	PS	2-Butanone	250	2.38 JB	289	115	42-135
74-88-4	PS	Iodomethane	250	0.000 U	252	101	44-131
75-15-0	PS	Carbon disulfide	250	0.000 U	300	120	48-136
108-05-4	PS	Vinyl acetate	250	0.000 U	245	98	38-133
108-10-1	PS	4-Methyl-2-pentanone	250	0.000 U	291	116	51-131
591-78-6	PS	2-Hexanone	250	0.000 U	301	120	34-142
75-71-8	PS	Dichlorodifluoromethane	50.0	0.000 U	55.7	111	39-162
74-87-3	PS	Chloromethane	50.0	0.000 U	45.5	91	41-150
75-01-4	PS	Vinyl chloride	50.0	0.000 U	45.6	91	46-150
74-83-9	PS	Bromomethane	50.0	0.000 U	59.4	119	37-166
75-00-3	PS	Chloroethane	50.0	0.000 U	50.9	102	51-133
75-69-4	PS	Trichlorofluoromethane	50.0	0.000 U	50.9	102	47-134
75-35-4	PS	1,1-Dichloroethylene	50.0	0.000 U	57.1	114	50-139
75-09-2	PS	Methylene chloride	50.0	0.000 U	49.8	100	54-122
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.000 U	54.6	109	52-130
75-34-3	PS	1,1-Dichloroethane	50.0	0.000 U	55.7	111	59-127
67-66-3	PS	Chloroform	50.0	0.000 U	53.3	107	58-125
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.000 U	51.1	102	54-136
56-23-5	PS	Carbon tetrachloride	50.0	0.000 U	51.7	103	46-136

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660968

Client ID: 12039.B4.Top Front.EPAPS

Lab Sample ID: 1205694061

Instrument: VOAC.I

Analvst: PXY1

Purge Vol: 5 mL

Sample Type: Post Spike

Matrix: MISC SOLID

Analysis Date: 04/04/2024 18:56

Dilution: 50

Prep Batch ID:2591975

Batch ID: 2591977

CAS No.	Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
107-06-2	PS 1,2-Dichloroethane	50.0	0.000 U	53.8	108	54-128
71-43-2	PS Benzene	50.0	0.000 U	49.6	99	57-131
79-01-6	PS Trichloroethylene	50.0	0.000 U	48.5	97	48-134
78-87-5	PS 1,2-Dichloropropane	50.0	0.000 U	52.2	104	55-122
74-95-3	PS Dibromomethane	50.0	0.000 U	50.7	101	57-122
75-27-4	PS Bromodichloromethane	50.0	0.000 U	51.3	103	52-128
10061-01-5	PS cis-1,3-Dichloropropylene	50.0	0.000 U	49.3	99	46-125
108-88-3	PS Toluene	50.0	0.000 U	52.4	105	52-124
10061-02-6	PS trans-1,3-Dichloropropylene	50.0	0.000 U	55.3	111	45-131
79-00-5	PS 1,1,2-Trichloroethane	50.0	0.000 U	53.8	108	55-127
127-18-4	PS Tetrachloroethylene	50.0	0.000 U	45.8	92	43-131
124-48-1	PS Dibromochloromethane	50.0	0.000 U	50.2	100	51-128
106-93-4	PS 1,2-Dibromoethane	50.0	0.000 U	51.8	104	53-126
108-90-7	PS Chlorobenzene	50.0	0.000 U	48.3	97	47-124
100-41-4	PS Ethylbenzene	50.0	0.000 U	48.9	98	44-124
100-42-5	PS Styrene	50.0	0.000 U	46.4	93	40-127
75-25-2	PS Bromoform	50.0	0.000 U	49.5	99	48-132
79-34-5	PS 1,1,2,2-Tetrachloroethane	50.0	0.000 U	57.6	115	48-128
96-18-4	PS 1,2,3-Trichloropropane	50.0	0.000 U	55.0	110	56-130
96-12-8	PS 1,2-Dibromo-3-chloropropane	50.0	0.000 U	47.4	95	38-138
120-82-1	PS 1,2,4-Trichlorobenzene	50.0	0.000 U	42.9	86	29-139
630-20-6	PS 1,1,1,2-Tetrachloroethane	50.0	0.000 U	49.7	99	50-126

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660968

Client ID: 12039.B4.Top Front.EPAPSD

Lab Sample ID: 1205694062

Instrument: VOAC.I

Analvst: PXY1

Purge Vol: 5 mL

Sample Type: Post Spike Duplicate

Matrix: MISC SOLID

Analysis Date: 04/04/2024 19:24

Dilution: 50

Prep Batch ID:2591975

Batch ID: 2591977

CAS No.	Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-05-8	PSD Acetonitrile	1250	0.000 U	1310	105	45-132	0	0-20
1330-20-7	PSD Xylenes (total)	150	0.000 U	144	96	45-128	1	0-20
67-64-1	PSD Acetone	250	2.10 J	249	99	37-145	0	0-20
78-93-3	PSD 2-Butanone	250	2.38 JB	286	113	42-135	1	0-20
74-88-4	PSD Iodomethane	250	0.000 U	254	101	44-131	0	0-20
75-15-0	PSD Carbon disulfide	250	0.000 U	300	120	48-136	0	0-20
108-05-4	PSD Vinyl acetate	250	0.000 U	244	98	38-133	0	0-20
108-10-1	PSD 4-Methyl-2-pentanone	250	0.000 U	288	115	51-131	1	0-20
591-78-6	PSD 2-Hexanone	250	0.000 U	301	120	34-142	0	0-20
75-71-8	PSD Dichlorodifluoromethane	50.0	0.000 U	55.5	111	39-162	0	0-20
74-87-3	PSD Chloromethane	50.0	0.000 U	45.1	90	41-150	1	0-20
75-01-4	PSD Vinyl chloride	50.0	0.000 U	45.4	91	46-150	1	0-20
74-83-9	PSD Bromomethane	50.0	0.000 U	58.2	116	37-166	2	0-20
75-00-3	PSD Chloroethane	50.0	0.000 U	50.3	101	51-133	1	0-20
75-69-4	PSD Trichlorofluoromethane	50.0	0.000 U	50.8	102	47-134	0	0-20
75-35-4	PSD 1,1-Dichloroethylene	50.0	0.000 U	57.1	114	50-139	0	0-20
75-09-2	PSD Methylene chloride	50.0	0.000 U	49.9	100	54-122	0	0-20
156-60-5	PSD trans-1,2-Dichloroethylene	50.0	0.000 U	54.9	110	52-130	1	0-20
75-34-3	PSD 1,1-Dichloroethane	50.0	0.000 U	55.8	112	59-127	0	0-20
67-66-3	PSD Chloroform	50.0	0.000 U	53.8	108	58-125	1	0-20
71-55-6	PSD 1,1,1-Trichloroethane	50.0	0.000 U	51.5	103	54-136	1	0-20
56-23-5	PSD Carbon tetrachloride	50.0	0.000 U	51.6	103	46-136	0	0-20

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660968

Client ID: 12039.B4.Top Front.EPAPSD

Lab Sample ID: 1205694062

Instrument: VOAC.I

Analvst: PXY1

Purge Vol: 5 mL

Sample Type: Post Spike Duplicate

Matrix: MISC SOLID

Analysis Date: 04/04/2024 19:24

Dilution: 50

Prep Batch ID:2591975

Batch ID: 2591977

CAS No.		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits	Acceptance RPD %	Acceptance Limits
107-06-2	PSD	1,2-Dichloroethane	50.0	0.000 U	54.0	108	54-128	0	0-20
71-43-2	PSD	Benzene	50.0	0.000 U	50.2	100	57-131	1	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.000 U	49.0	98	48-134	1	0-20
78-87-5	PSD	1,2-Dichloropropane	50.0	0.000 U	52.9	106	55-122	1	0-20
74-95-3	PSD	Dibromomethane	50.0	0.000 U	50.9	102	57-122	0	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.000 U	51.9	104	52-128	1	0-20
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.000 U	50.1	100	46-125	2	0-20
108-88-3	PSD	Toluene	50.0	0.000 U	52.8	106	52-124	1	0-20
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.000 U	55.1	110	45-131	0	0-20
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.000 U	53.7	107	55-127	0	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.000 U	46.4	93	43-131	1	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.000 U	50.3	101	51-128	0	0-20
106-93-4	PSD	1,2-Dibromoethane	50.0	0.000 U	52.1	104	53-126	0	0-20
108-90-7	PSD	Chlorobenzene	50.0	0.000 U	49.1	98	47-124	2	0-20
100-41-4	PSD	Ethylbenzene	50.0	0.000 U	49.7	99	44-124	2	0-20
100-42-5	PSD	Styrene	50.0	0.000 U	47.7	95	40-127	3	0-20
75-25-2	PSD	Bromoform	50.0	0.000 U	50.3	101	48-132	1	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.000 U	57.7	115	48-128	0	0-20
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.000 U	55.5	111	56-130	1	0-20
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.000 U	48.1	96	38-138	2	0-20
120-82-1	PSD	1,2,4-Trichlorobenzene	50.0	0.000 U	44.4	89	29-139	3	0-20
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.000 U	49.8	100	50-126	0	0-20

Method Blank Summary

Page 1 of 1

SDG Number:	660968	Client:	PERM001	Matrix:	MISC SOLID
Client ID:	MB for batch 2591975	Instrument ID:	VOAC.I	Data File:	data\040424VC\CA410P.D
Lab Sample ID:	1205694059	Prep Date:	04/04/2024 08:01	Analyzed:	04/04/24 12:26
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 2591975	1205694058	data\040424VC\CA407P.D	04/04/24	1102
02 HB for batch 2591975	1205694060	data\040424VC\CA411.D	04/04/24	1254
03 12039.B4.Top Front.EPA	660968001	data\040424VC\CA412.D	04/04/24	1322
04 12039.B4.Middle Front.EPA	660968002	data\040424VC\CA413.D	04/04/24	1349
05 12039.B4.Bottom Front.EPA	660968003	data\040424VC\CA414.D	04/04/24	1417
06 12040.B4.Top Back.EPA	660968004	data\040424VC\CA415.D	04/04/24	1445
07 12040.B4.Middle Back.EPA	660968005	data\040424VC\CA416.D	04/04/24	1513
08 12040.B4.Bottom Back.EPA	660968006	data\040424VC\CA417.D	04/04/24	1541
09 12039.B4.Top Front.EPAPS	1205694061	data\040424VC\CA424.D	04/04/24	1856
10 12039.B4.Top Front.EPAPSD	1205694062	data\040424VC\CA425.D	04/04/24	1924

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC

Client SDG: 660968

Instrument ID: VOAC.I

Injection Date/Time: 18-MAR-24 11:14

Column Description: DB-624

Lab File ID data\031824VC_ICAL\CY101.D

m/e	Ion Abundance Criteria	% Relative Abundance
95	50 - 200% of mass 174	141.6
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	1.5
174	50 - 200% of mass 95	70.6
175	5.0 - 9.0% of mass 174	8.6
176	95.0 - 105.0% of mass 174	98.3
177	5.0 - 10.0% of mass 176	6.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	WCVM240318-01	data\031824VC_ICAL\CY102.D	18-MAR-24 11:39
ICALMIX[A]	WCVM240318-02	data\031824VC_ICAL\CY103.D	18-MAR-24 12:07
ICALMIX[A]	WCVM240318-03	data\031824VC_ICAL\CY104.D	18-MAR-24 12:35
ICALMIX[A]	WCVM240318-04	data\031824VC_ICAL\CY105.D	18-MAR-24 13:03
ICALMIX[A]	WCVM240318-05	data\031824VC_ICAL\CY106.D	18-MAR-24 13:31
ICALMIX[A]	WCVM240318-06	data\031824VC_ICAL\CY107.D	18-MAR-24 13:59
ICALMIX[A]	WCVM240318-07	data\031824VC_ICAL\CY108.D	18-MAR-24 14:26
ICALMIX[A]	WCVM240318-08	data\031824VC_ICAL\CY109.D	18-MAR-24 14:54
ICALMIX[A]	WCVM240318-09	data\031824VC_ICAL\CY110.D	18-MAR-24 15:22
ICVMIX[A]01	WCVM240318-10	data\031824VC_ICAL\CY112.D	18-MAR-24 16:17
ICALMIX[B]	WCVM240318-11	data\031824VC_ICAL\CY113.D	18-MAR-24 16:45
ICALMIX[B]	WCVM240318-12	data\031824VC_ICAL\CY114.D	18-MAR-24 17:13
ICALMIX[B]	WCVM240318-13	data\031824VC_ICAL\CY115.D	18-MAR-24 17:41
ICALMIX[B]	WCVM240318-14	data\031824VC_ICAL\CY116.D	18-MAR-24 18:08
ICALMIX[B]	WCVM240318-15	data\031824VC_ICAL\CY117.D	18-MAR-24 18:36
ICALMIX[B]	WCVM240318-16	data\031824VC_ICAL\CY118.D	18-MAR-24 19:04
ICALMIX[B]	WCVM240318-17	data\031824VC_ICAL\CY119.D	18-MAR-24 19:32
ICALMIX[B]	WCVM240318-18	data\031824VC_ICAL\CY120.D	18-MAR-24 20:00
ICVMIX[B]02	WCVM240318-19	data\031824VC_ICAL\CY122.D	18-MAR-24 20:56
CCVMIX[A]01	WCVM240404-01	data\040424VC\CA407.D	04-APR-24 11:02

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC

Client SDG: 660968

Instrument ID: VOAC.I

Injection Date/Time: 18-MAR-24 11:14

Column Description: DB-624

Lab File ID data\031824VC_ICAL\CY101.D

m/e	Ion Abundance Criteria	% Relative Abundance
95	50 - 200% of mass 174	141.6
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	1.5
174	50 - 200% of mass 95	70.6
175	5.0 - 9.0% of mass 174	8.6
176	95.0 - 105.0% of mass 174	98.3
177	5.0 - 10.0% of mass 176	6.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
BLK01LCS	1205694058	data\040424VC\CA407P.D	04-APR-24 11:02
CCVMIX[B]02	WCVM240404-02	data\040424VC\CA408.D	04-APR-24 11:30
BLK01	1205694059	data\040424VC\CA410P.D	04-APR-24 12:26
HBLK01	1205694060	data\040424VC\CA411.D	04-APR-24 12:54
12039.B4.Top Front.EPA	660968001	data\040424VC\CA412.D	04-APR-24 13:22
12039.B4.Middle Front.EPA	660968002	data\040424VC\CA413.D	04-APR-24 13:49
12039.B4.Bottom Front.EPA	660968003	data\040424VC\CA414.D	04-APR-24 14:17
12040.B4.Top Back.EPA	660968004	data\040424VC\CA415.D	04-APR-24 14:45
12040.B4.Middle Back.EPA	660968005	data\040424VC\CA416.D	04-APR-24 15:13
12040.B4.Bottom Back.EPA	660968006	data\040424VC\CA417.D	04-APR-24 15:41
12039.B4.Top Front.EPAMS	1205694061	data\040424VC\CA424.D	04-APR-24 18:56
12039.B4.Top Front.EPAMSD	1205694062	data\040424VC\CA425.D	04-APR-24 19:24

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 660968

Instrument: VOAC.I

STD Analysis Time: 04-APR-24 11:02

GC Column: DB-624

Data File: data\040424VC\CA407.D

	Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
	Area	# RT #	Area	# RT #	Area	# RT #
12 Hour STD Upper Limit Lower Limit	919031	10.92	694448	14.34	362790	16.92
	1838062	11.42	1388896	14.84	725580	17.42
	459516	10.42	347224	13.84	181395	16.42
Sample ID						
BLK01LCS	919031	10.9	694448	14.3	362790	16.9
BLK01	946213	10.9	663760	14.3	337143	16.9
HBLK01	956056	10.9	698713	14.3	348445	16.9
12039.B4.Top Front.EPA	963725	10.9	688240	14.3	346051	16.9
12039.B4.Middle Front.EPA	942002	10.9	677828	14.3	346984	16.9
12039.B4.Bottom Front.EPA	980518	10.9	691568	14.3	348933	16.9
12040.B4.Top Back.EPA	979084	10.9	693688	14.3	350009	16.9
12040.B4.Middle Back.EPA	963636	10.9	687817	14.3	345126	16.9
12040.B4.Bottom Back.EPA	951409	10.9	678490	14.3	340933	16.9
12039.B4.Top Front.EPAMS	947977	10.9	684649	14.3	350870	16.9
12039.B4.Top Front.EPAMSD	946992	10.9	693459	14.3	352764	16.9

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatiles

Certificate of Analysis

Sample Summary

SDG Number: 660968

Lab Sample ID: 660968001

Client ID: 12039.B4.Top Front.EPA

Batch ID: 2591977

Run Date: 04/04/2024 13:22

Prep Date: 04/04/2024 08:31

Data File: data\040424VC\CA412.D

Date Collected: 03/30/2024 09:00

Date Received: 04/02/2024 08:50

Client: PERM001

Method: SW846 8260D

Inst: VOAC.I

Analyst: PXY1

Aliquot: 5.6 g

Column: DB-624

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-038

Dilution: 50

Purge Vol: 5 mL

Final Volume: 10 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	89.3	ug/kg	29.7	89.3
74-87-3	Chloromethane	U	89.3	ug/kg	29.7	89.3
75-01-4	Vinyl chloride	U	89.3	ug/kg	29.7	89.3
74-83-9	Bromomethane	U	89.3	ug/kg	29.7	89.3
75-00-3	Chloroethane	U	89.3	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane	U	89.3	ug/kg	29.7	89.3
67-64-1	Acetone	J	188	ug/kg	149	446
75-35-4	1,1-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
74-88-4	Iodomethane	U	446	ug/kg	149	446
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-05-8	Acetonitrile	U	2230	ug/kg	744	2230
75-15-0	Carbon disulfide	U	446	ug/kg	149	446
75-09-2	Methylene chloride	U	446	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene	U	89.3	ug/kg	29.7	89.3
108-05-4	Vinyl acetate	U	446	ug/kg	149	446
75-34-3	1,1-Dichloroethane	U	89.3	ug/kg	29.7	89.3
78-93-3	2-Butanone	JB	213	ug/kg	149	446
67-66-3	Chloroform	U	89.3	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane	U	89.3	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride	U	89.3	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane	U	89.3	ug/kg	29.7	89.3
71-43-2	Benzene	U	89.3	ug/kg	29.7	89.3
79-01-6	Trichloroethylene	U	89.3	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane	U	89.3	ug/kg	29.7	89.3
74-95-3	Dibromomethane	U	89.3	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane	U	89.3	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone	U	446	ug/kg	149	446
108-88-3	Toluene	U	89.3	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene	U	89.3	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane	U	89.3	ug/kg	29.7	89.3
591-78-6	2-Hexanone	U	446	ug/kg	149	446
127-18-4	Tetrachloroethylene	U	89.3	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane	U	89.3	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane	U	89.3	ug/kg	29.7	89.3
108-90-7	Chlorobenzene	U	89.3	ug/kg	29.7	89.3
100-41-4	Ethylbenzene	U	89.3	ug/kg	29.7	89.3
100-42-5	Styrene	U	89.3	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660968001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 13:22	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:31	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040424VC\CA412.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	89.3	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane	U	89.3	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane	U	89.3	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)	U	268	ug/kg	89.3	268
630-20-6	1,1,1,2-Tetrachloroethane	U	89.3	ug/kg	29.7	89.3
120-82-1	1,2,4-Trichlorobenzene	U	89.3	ug/kg	29.7	89.3

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA412.D
Acq On : 04 Apr 2024 13:22
Operator : PXY1
InstName : VOAC
Sample : |660968001|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 7 Sample Multiplier: 1

MA
04/05/2024

Quant Time: Apr 04 13:46:03 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.909	10.934	1.000	963725	50.00	ug/L	-0.02
43) Chlorobenzene-d5	117	14.336	14.354	1.000	688240	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.908	16.933	1.000	346051	50.00	ug/L	-0.02
84) B Fluorobenzene	96	10.909	10.928	1.000	963527	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	117	14.336	14.348	1.000	688027	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.908	16.920	1.000	346051	50.00	ug/L	-0.01

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.525	10.543	0.965	315186	54.01	ug/L	-0.02
45) Toluene-d8	98	12.696	12.714	0.886	946909	53.26	ug/L	-0.02
63) Bromofluorobenzene	95	15.604	15.622	0.923	312398	52.40	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	108%
45) Toluene-d8	50.000	81 - 120	107%
63) Bromofluorobenzene	50.000	74 - 128	105%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.361	7.367	0.675	2716	2.10	ug/L	73
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.782	7.739	0.713	274	N.D.		
13) Methyl acetate	43	7.770	7.794	0.712	758	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.983	8.001	0.732	7936	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.666	8.690	0.794	4151	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.507	9.525	0.871	4353	2.38	ug/L	83
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.641	10.665	0.975	724	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA412.D
Acq On : 04 Apr 2024 13:22
Operator : PXY1
InstName : VOAC
Sample : |660968001|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 04 13:46:03 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.434	11.434	1.048	813	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.769	12.793	0.891	888	N.D.	
47) trans-1,3-Dichloroprop...	75	12.933	12.952	0.902	315	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene	164	13.421	13.439	0.936	131	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene	112	14.366	14.390	1.002	308	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.433	14.457	1.007	355	N.D.	
57) m,p-Xylenes	106	14.549	14.573	1.015	548	N.D.	
58) o-Xylene	91	15.018	15.037	1.048	443	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.604	15.695	0.923	118	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene	91	15.860	15.866	0.938	143	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene	91	16.103	16.128	0.952	189	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.433	16.463	0.972	341	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene	146	16.853	16.865	0.997	200	N.D.	
76) 1,4-Dichlorobenzene	146	16.927	16.957	1.001	324	N.D.	
77) n-Butylbenzene	91	17.256	17.280	1.021	347	N.D.	
78) 1,2-Dichlorobenzene	146	17.408	17.432	1.030	13556	1.42 ug/L	98
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	19.542	19.578	1.156	559	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.987	20.017	1.182	2250	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA412.D
Acq On : 04 Apr 2024 13:22
Operator : PXY1
InstName : VOAC
Sample : |660968001|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 04 13:46:03 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

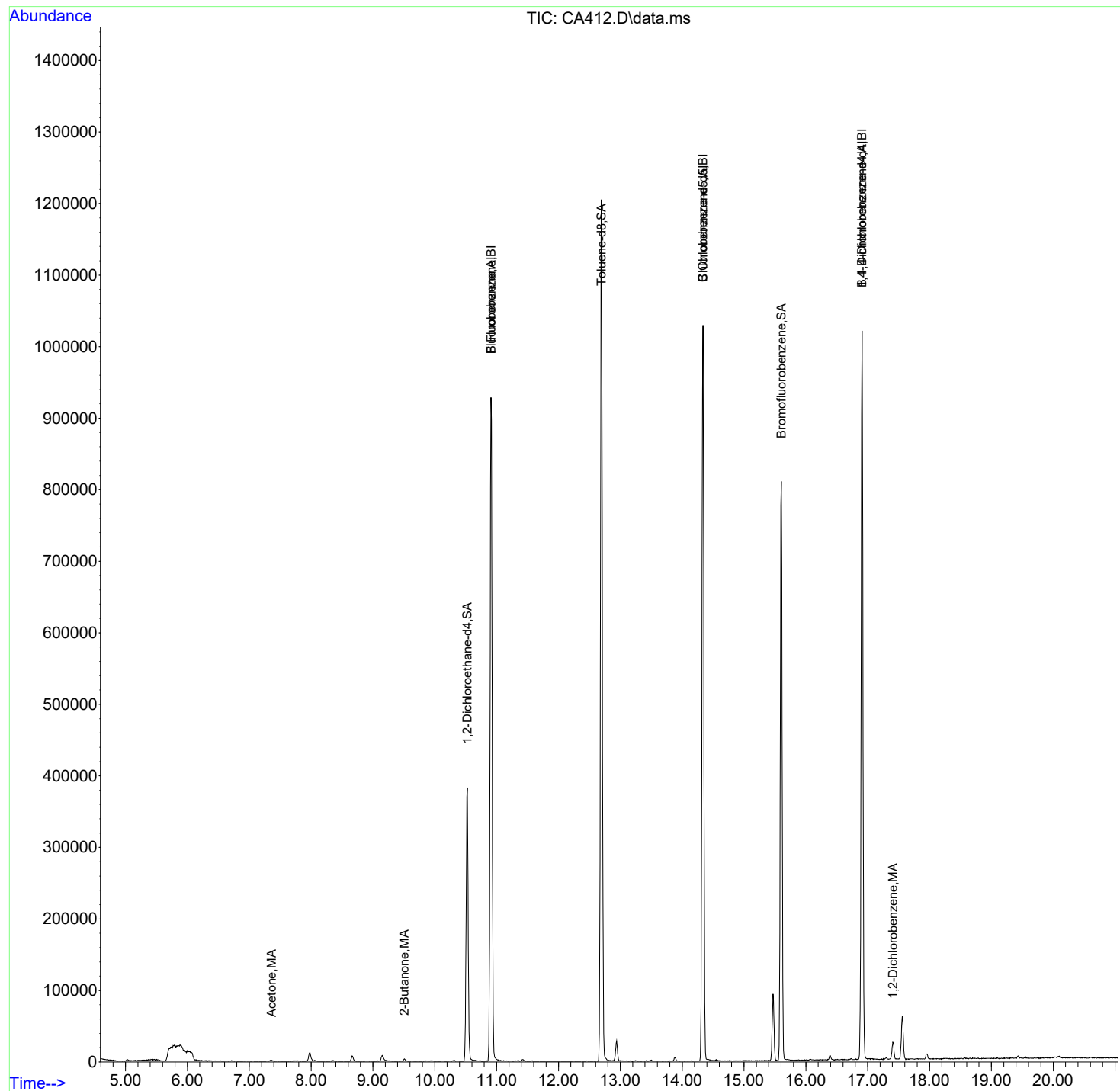
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.453	7.440	0.683	227	N.D.	
88) Allyl chloride	41	7.782	7.843	0.713	274	N.D.	
89) tert-Butyl Alcohol	59	8.062	7.983	0.739	651	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.507	9.531	0.871	4353	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.940	9.940	0.911	566	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride	91	17.061	17.073	1.009	1486	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.487	17.506	1.034	202	N.D.	

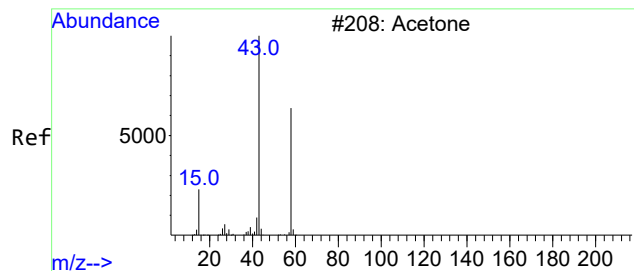
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

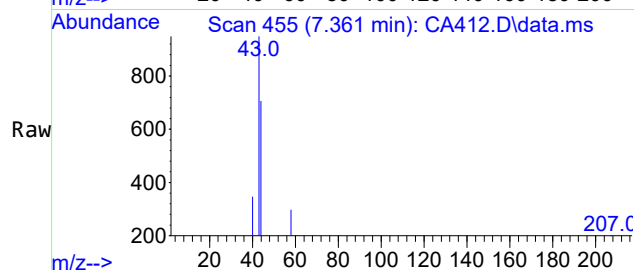
Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA412.D
Acq On : 04 Apr 2024 13:22
Operator : PXY1
InstName : VOAC
Sample : |660968001|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 04 13:46:03 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

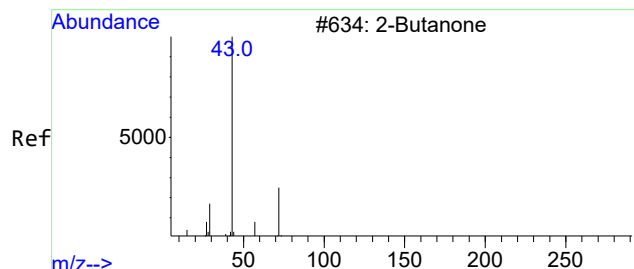
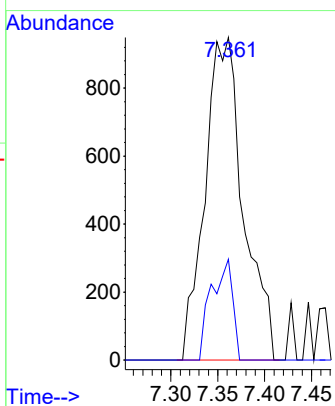
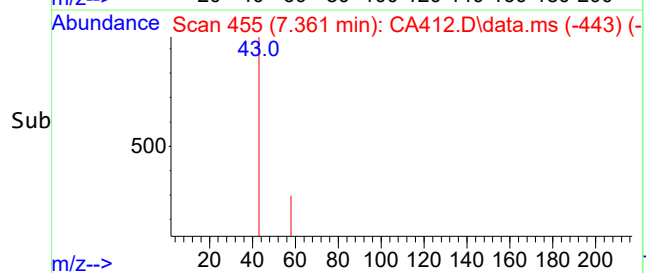




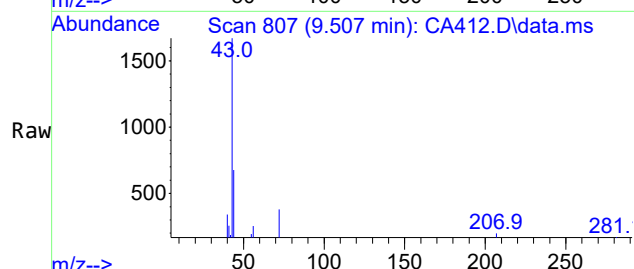
#9
Acetone
Concen: 2.10 ug/L
RT: 7.361 min Scan# 455
Delta R.T. -0.006 min
Lab File: CA412.D
Acq: 04 Apr 2024 13:22



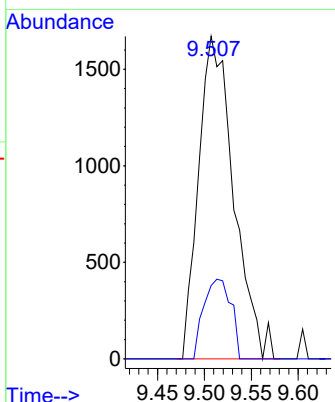
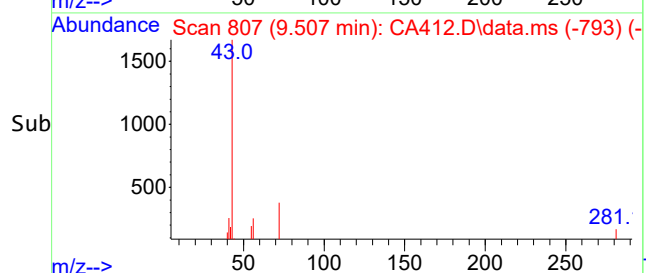
Tgt Ion: 43 Resp: 2716
Ion Ratio Lower Upper
43 100
58 17.3 2.6 62.6

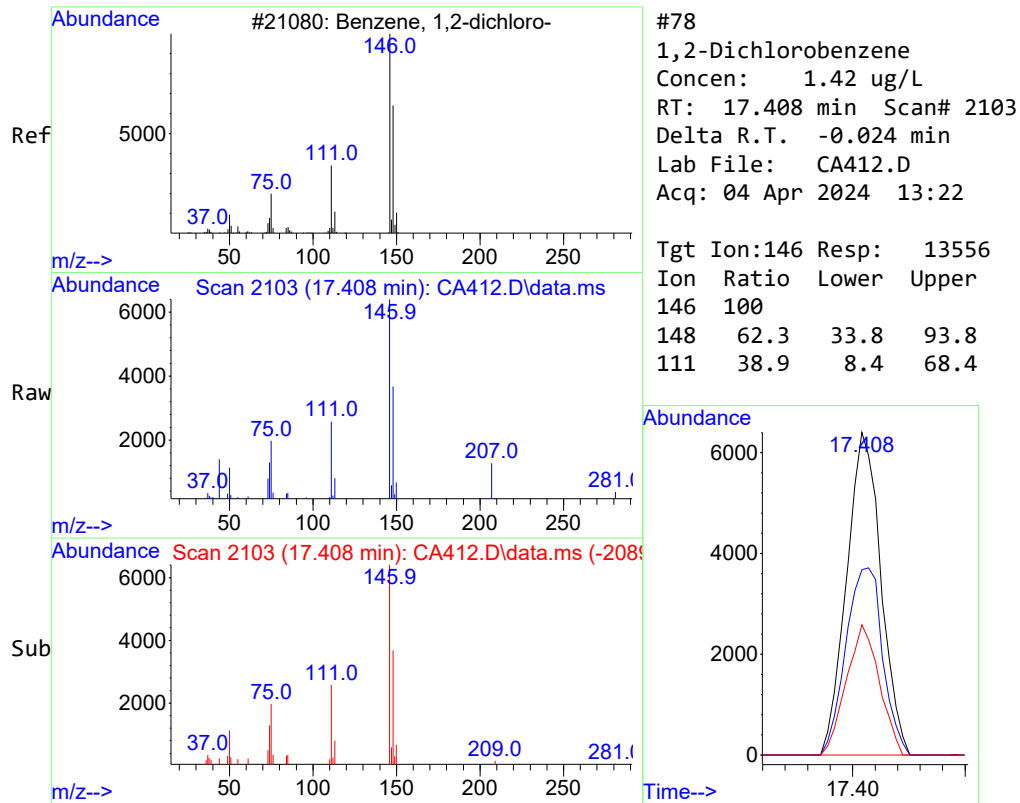


#21
2-Butanone
Concen: 2.38 ug/L
RT: 9.507 min Scan# 807
Delta R.T. -0.018 min
Lab File: CA412.D
Acq: 04 Apr 2024 13:22



Tgt Ion: 43 Resp: 4353
Ion Ratio Lower Upper
43 100
72 19.1 0.0 58.1





Volatiles
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660968002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 13:49	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:32	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040424VC\CA413.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	90.9	ug/kg	30.3	90.9
74-87-3	Chloromethane	U	90.9	ug/kg	30.3	90.9
75-01-4	Vinyl chloride	U	90.9	ug/kg	30.3	90.9
74-83-9	Bromomethane	U	90.9	ug/kg	30.3	90.9
75-00-3	Chloroethane	U	90.9	ug/kg	30.3	90.9
75-69-4	Trichlorofluoromethane	U	90.9	ug/kg	30.3	90.9
67-64-1	Acetone	J	166	ug/kg	152	455
75-35-4	1,1-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
74-88-4	Iodomethane	U	455	ug/kg	152	455
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	455	ug/kg	152	455
75-05-8	Acetonitrile	U	2270	ug/kg	758	2270
75-15-0	Carbon disulfide	U	455	ug/kg	152	455
75-09-2	Methylene chloride	U	455	ug/kg	152	455
156-60-5	trans-1,2-Dichloroethylene	U	90.9	ug/kg	30.3	90.9
108-05-4	Vinyl acetate	U	455	ug/kg	152	455
75-34-3	1,1-Dichloroethane	U	90.9	ug/kg	30.3	90.9
78-93-3	2-Butanone	JB	207	ug/kg	152	455
67-66-3	Chloroform	U	90.9	ug/kg	30.3	90.9
71-55-6	1,1,1-Trichloroethane	U	90.9	ug/kg	30.3	90.9
56-23-5	Carbon tetrachloride	U	90.9	ug/kg	30.3	90.9
107-06-2	1,2-Dichloroethane	U	90.9	ug/kg	30.3	90.9
71-43-2	Benzene	U	90.9	ug/kg	30.3	90.9
79-01-6	Trichloroethylene	U	90.9	ug/kg	30.3	90.9
78-87-5	1,2-Dichloropropane	U	90.9	ug/kg	30.3	90.9
74-95-3	Dibromomethane	U	90.9	ug/kg	30.3	90.9
75-27-4	Bromodichloromethane	U	90.9	ug/kg	30.3	90.9
10061-01-5	cis-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
108-10-1	4-Methyl-2-pentanone	U	455	ug/kg	152	455
108-88-3	Toluene	U	90.9	ug/kg	30.3	90.9
10061-02-6	trans-1,3-Dichloropropylene	U	90.9	ug/kg	30.3	90.9
79-00-5	1,1,2-Trichloroethane	U	90.9	ug/kg	30.3	90.9
591-78-6	2-Hexanone	U	455	ug/kg	152	455
127-18-4	Tetrachloroethylene	U	90.9	ug/kg	30.3	90.9
124-48-1	Dibromochloromethane	U	90.9	ug/kg	30.3	90.9
106-93-4	1,2-Dibromoethane	U	90.9	ug/kg	30.3	90.9
108-90-7	Chlorobenzene	U	90.9	ug/kg	30.3	90.9
100-41-4	Ethylbenzene	U	90.9	ug/kg	30.3	90.9
100-42-5	Styrene	U	90.9	ug/kg	30.3	90.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660968002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 13:49	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:32	Aliquot:	5.5 g	Final Volume:	10 mL
Data File:	data\040424VC\CA413.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	90.9	ug/kg	30.3	90.9
79-34-5	1,1,2,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
96-18-4	1,2,3-Trichloropropane	U	90.9	ug/kg	30.3	90.9
96-12-8	1,2-Dibromo-3-chloropropane	U	90.9	ug/kg	45.5	90.9
107-02-8	Acrolein	U	455	ug/kg	152	455
107-05-1	Allyl chloride	U	455	ug/kg	152	455
107-13-1	Acrylonitrile	U	455	ug/kg	152	455
126-99-8	2-Chloro-1,3-butadiene	U	90.9	ug/kg	30.3	90.9
107-12-0	Propionitrile	U	455	ug/kg	152	455
126-98-7	Methacrylonitrile	U	455	ug/kg	152	455
78-83-1	Isobutyl alcohol	U	4550	ug/kg	1520	4550
80-62-6	Methyl methacrylate	U	455	ug/kg	152	455
97-63-2	Ethyl methacrylate	U	455	ug/kg	152	455
76-01-7	Pentachloroethane	U	455	ug/kg	152	455
110-57-6	trans-1,4-Dichloro-2-butene	U	455	ug/kg	152	455
1330-20-7	Xylenes (total)	U	273	ug/kg	90.9	273
630-20-6	1,1,1,2-Tetrachloroethane	U	90.9	ug/kg	30.3	90.9
120-82-1	1,2,4-Trichlorobenzene	U	90.9	ug/kg	30.3	90.9

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA413.D
Acq On : 04 Apr 2024 13:49
Operator : PXY1
InstName : VOAC
Sample : |660968002|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 8 Sample Multiplier: 1

MA

04/05/2024

Quant Time: Apr 04 14:19:08 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.909	10.934	1.000	942002	50.00	ug/L	-0.02
43) Chlorobenzene-d5	117	14.335	14.354	1.000	677828	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.908	16.933	1.000	346984	50.00	ug/L	-0.02
84) B Fluorobenzene	96	10.909	10.928	1.000	941643	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	117	14.335	14.348	1.000	677828	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.908	16.920	1.000	346984	50.00	ug/L	-0.01

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.519	10.543	0.964	314344	55.11	ug/L	-0.02
45) Toluene-d8	98	12.695	12.714	0.886	948810	54.18	ug/L	-0.02
63) Bromofluorobenzene	95	15.597	15.622	0.922	320704	53.64	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	110%
45) Toluene-d8	50.000	81 - 120	108%
63) Bromofluorobenzene	50.000	74 - 128	107%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.349	7.367	0.674	2304	1.83	ug/L	74
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.727	7.739	0.708	383	N.D.		
13) Methyl acetate	43	7.769	7.794	0.712	932	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.977	8.001	0.731	8240	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.666	8.690	0.794	3074	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.513	9.525	0.872	4071	2.28	ug/L	88
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.641	10.665	0.975	596	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA413.D
Acq On : 04 Apr 2024 13:49
Operator : PXY1
InstName : VOAC
Sample : |660968002|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 04 14:19:08 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.415	11.434	1.046	831	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.762	12.793	0.890	600	N.D.	
47) trans-1,3-Dichloroprop...	75	12.927	12.952	0.902	363	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone	43	13.494	13.384	0.941	114	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.439	14.457	1.007	308	N.D.	
57) m,p-Xylenes	106	14.549	14.573	1.015	400	N.D.	
58) o-Xylene	91	15.012	15.037	1.047	228	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene	105	15.463	15.414	0.915	117	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.597	15.695	0.922	125	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene	91	15.835	15.866	0.937	125	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene	91	16.109	16.128	0.953	275	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.445	16.463	0.973	158	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene	146	16.847	16.865	0.996	196	N.D.	
76) 1,4-Dichlorobenzene	146	16.932	16.957	1.001	312	N.D.	
77) n-Butylbenzene	91	17.256	17.280	1.021	334	N.D.	
78) 1,2-Dichlorobenzene	146	17.408	17.432	1.030	9537	1.00 ug/L	100
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	19.554	19.578	1.156	372	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.987	20.017	1.182	2001	N.D.	
83) 1,2,3-Trichlorobenzene	180	20.377	20.401	1.205	153	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA413.D
Acq On : 04 Apr 2024 13:49
Operator : PXY1
InstName : VOAC
Sample : |660968002|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 04 14:19:08 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

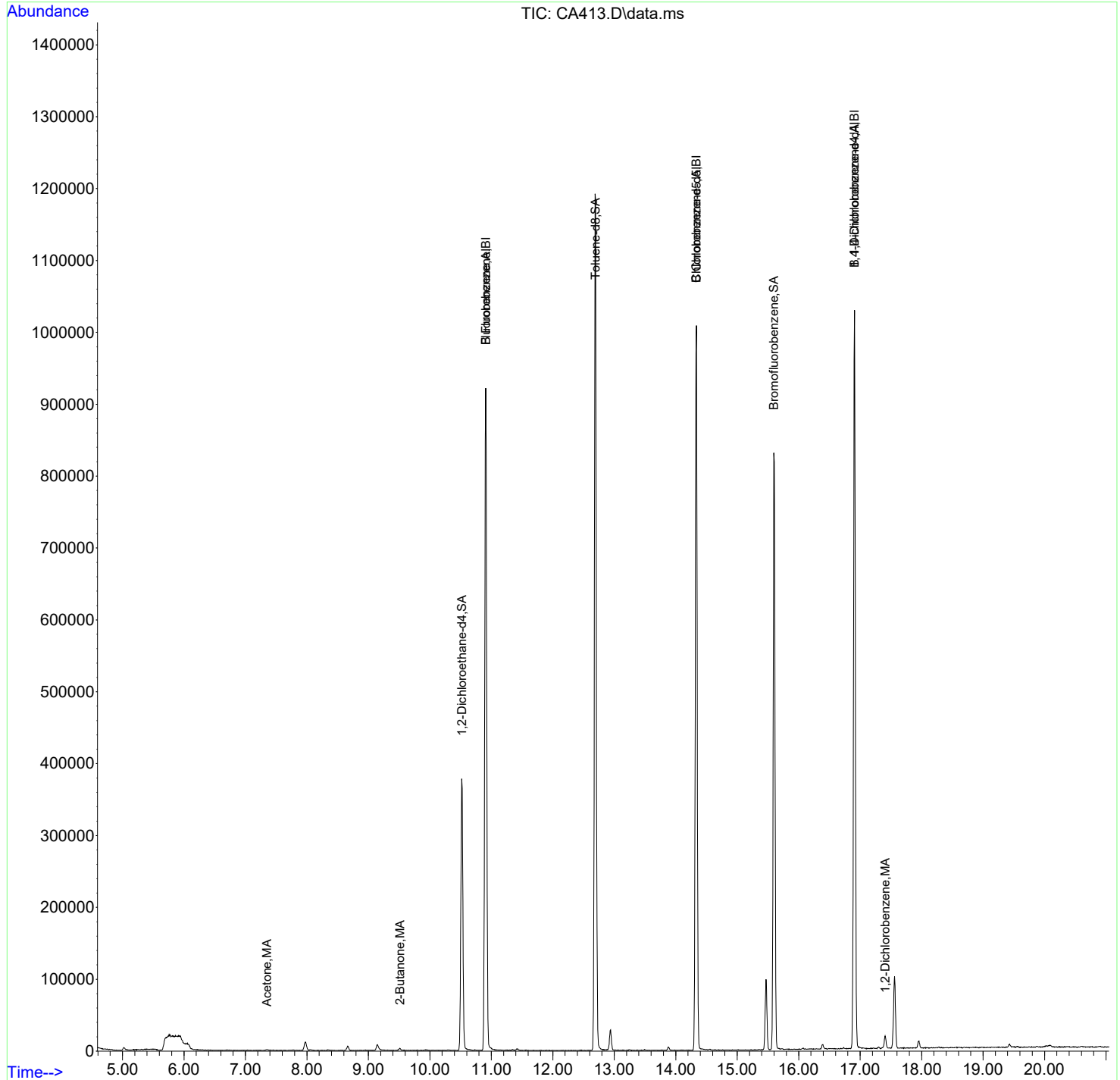
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.440	7.440	0.682	361	N.D.	
88) Allyl chloride	41	7.965	7.843	0.730	475	N.D.	
89) tert-Butyl Alcohol	59	8.056	7.983	0.738	688	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.513	9.531	0.872	4071	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.934	9.940	0.911	675	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride	91	17.060	17.073	1.009	986	N.D.	
112) bis(2-Chloroisopropyl)...		0.000	17.506	0.000	0m	N.D.	d

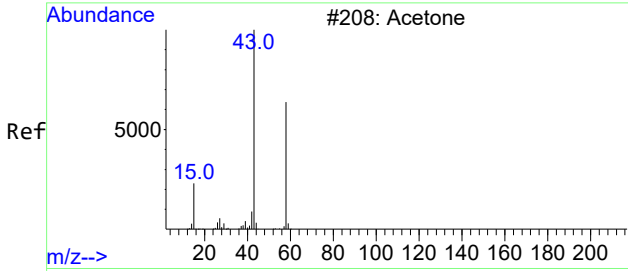
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA413.D
Acq On : 04 Apr 2024 13:49
Operator : PXY1
InstName : VOAC
Sample : |660968002|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.5G/100UL N/A SOIL
ALS Vial : 8 Sample Multiplier: 1

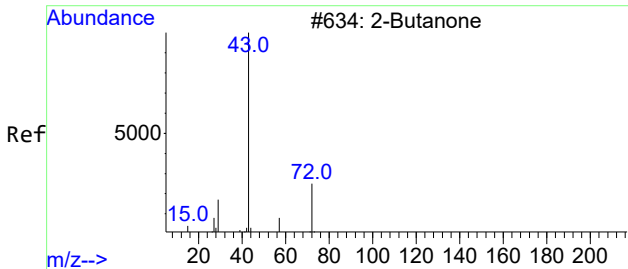
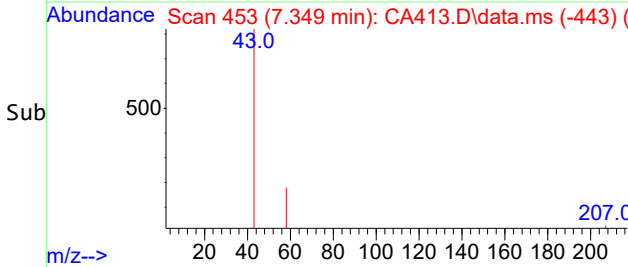
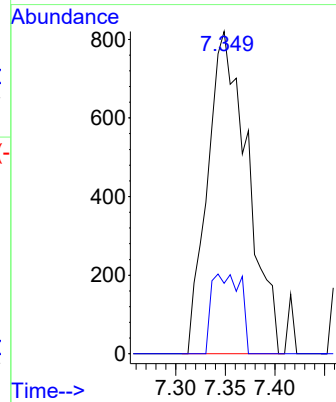
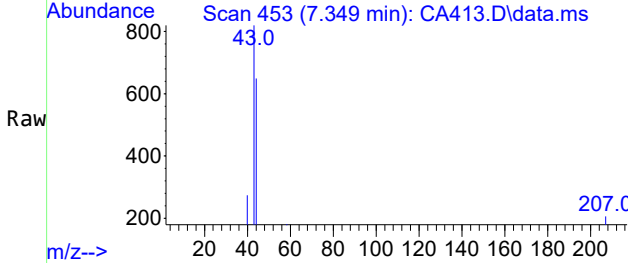
Quant Time: Apr 04 14:19:08 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





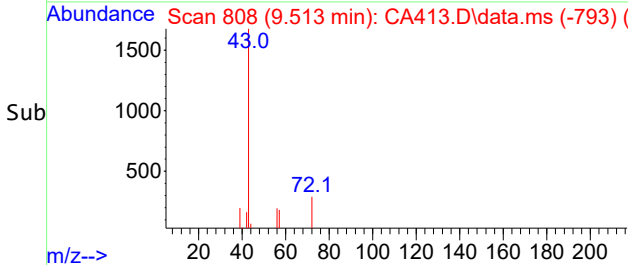
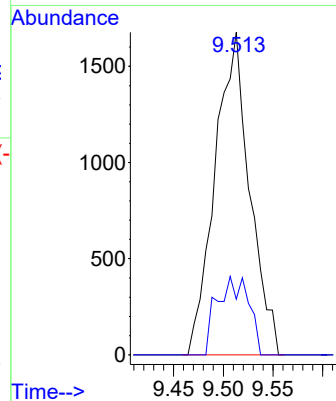
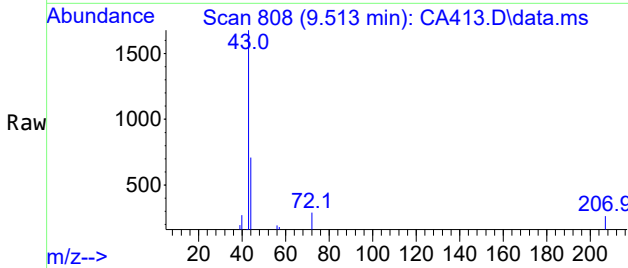
#9
Acetone
Concen: 1.83 ug/L
RT: 7.349 min Scan# 453
Delta R.T. -0.018 min
Lab File: CA413.D
Acq: 04 Apr 2024 13:49

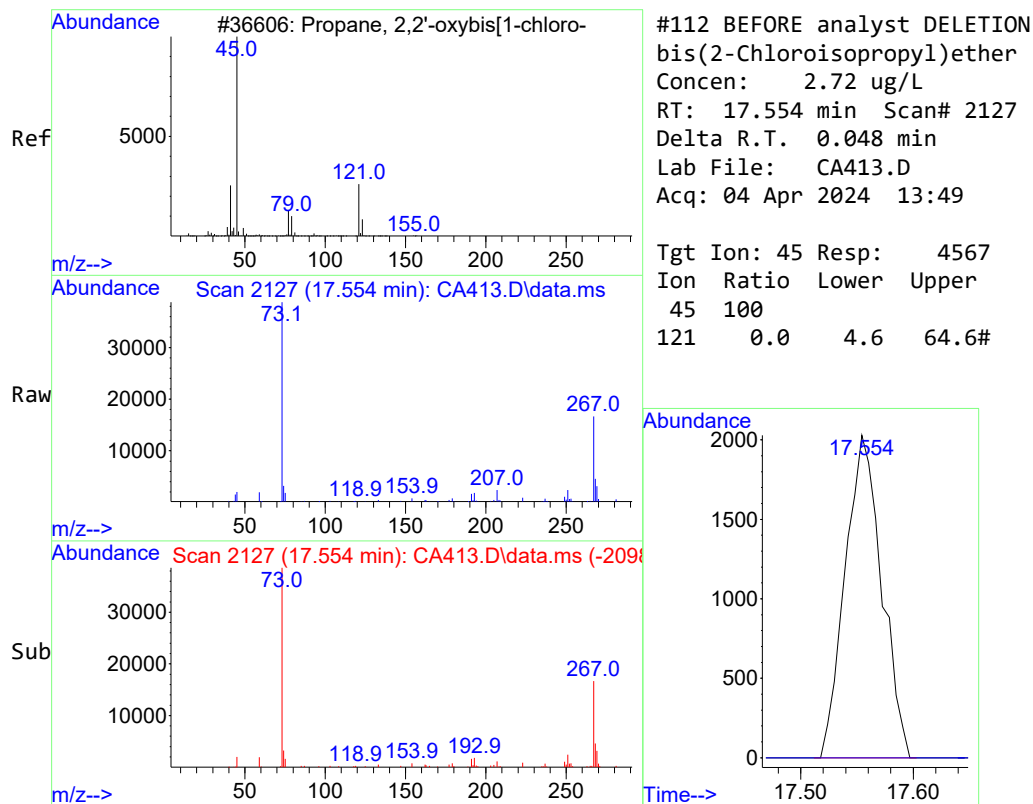
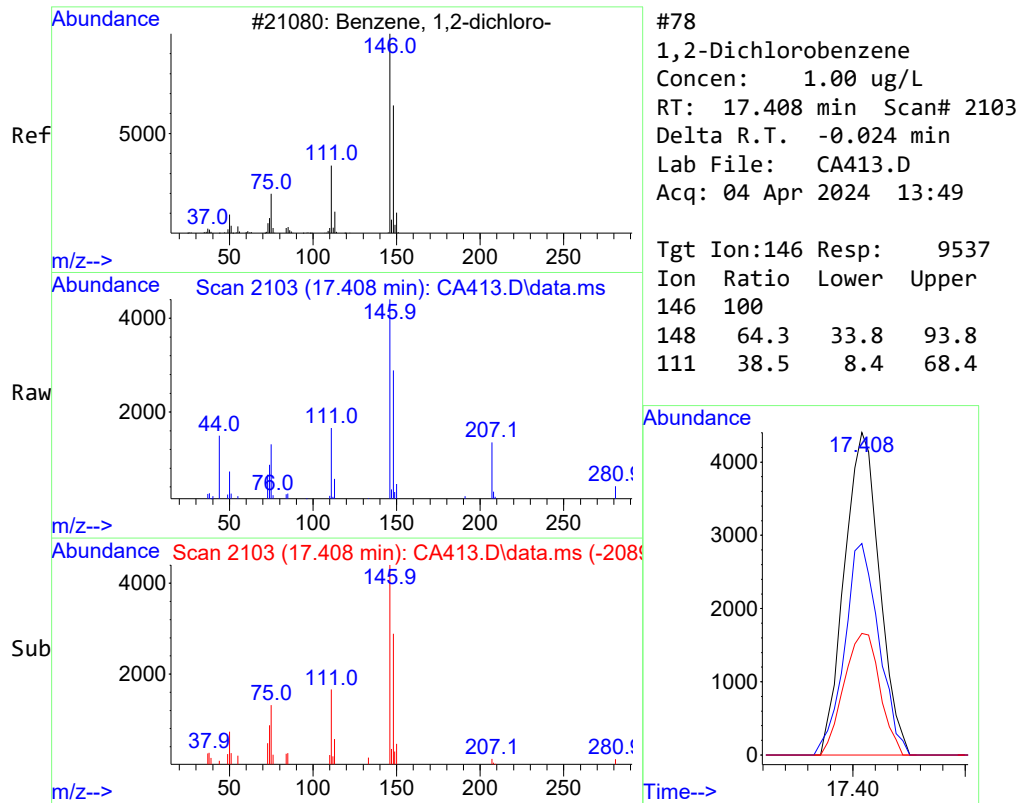
Tgt Ion: 43 Resp: 2304
Ion Ratio Lower Upper
43 100
58 17.9 2.6 62.6



#21
2-Butanone
Concen: 2.28 ug/L
RT: 9.513 min Scan# 808
Delta R.T. -0.012 min
Lab File: CA413.D
Acq: 04 Apr 2024 13:49

Tgt Ion: 43 Resp: 4071
Ion Ratio Lower Upper
43 100
72 21.9 0.0 58.1





Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660968003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 14:17	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:33	Aliquot:	5.9 g	Final Volume:	10 mL
Data File:	data\040424VC\CA414.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	84.7	ug/kg	28.2	84.7
74-87-3	Chloromethane	U	84.7	ug/kg	28.2	84.7
75-01-4	Vinyl chloride	U	84.7	ug/kg	28.2	84.7
74-83-9	Bromomethane	U	84.7	ug/kg	28.2	84.7
75-00-3	Chloroethane	U	84.7	ug/kg	28.2	84.7
75-69-4	Trichlorofluoromethane	U	84.7	ug/kg	28.2	84.7
67-64-1	Acetone	J	408	ug/kg	141	424
75-35-4	1,1-Dichloroethylene	U	84.7	ug/kg	28.2	84.7
74-88-4	Iodomethane	U	424	ug/kg	141	424
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	424	ug/kg	141	424
75-05-8	Acetonitrile	U	2120	ug/kg	706	2120
75-15-0	Carbon disulfide	U	424	ug/kg	141	424
75-09-2	Methylene chloride	U	424	ug/kg	141	424
156-60-5	trans-1,2-Dichloroethylene	U	84.7	ug/kg	28.2	84.7
108-05-4	Vinyl acetate	U	424	ug/kg	141	424
75-34-3	1,1-Dichloroethane	U	84.7	ug/kg	28.2	84.7
78-93-3	2-Butanone	JB	199	ug/kg	141	424
67-66-3	Chloroform	U	84.7	ug/kg	28.2	84.7
71-55-6	1,1,1-Trichloroethane	U	84.7	ug/kg	28.2	84.7
56-23-5	Carbon tetrachloride	U	84.7	ug/kg	28.2	84.7
107-06-2	1,2-Dichloroethane	U	84.7	ug/kg	28.2	84.7
71-43-2	Benzene	U	84.7	ug/kg	28.2	84.7
79-01-6	Trichloroethylene	U	84.7	ug/kg	28.2	84.7
78-87-5	1,2-Dichloropropane	U	84.7	ug/kg	28.2	84.7
74-95-3	Dibromomethane	U	84.7	ug/kg	28.2	84.7
75-27-4	Bromodichloromethane	U	84.7	ug/kg	28.2	84.7
10061-01-5	cis-1,3-Dichloropropylene	U	84.7	ug/kg	28.2	84.7
108-10-1	4-Methyl-2-pentanone	U	424	ug/kg	141	424
108-88-3	Toluene	U	84.7	ug/kg	28.2	84.7
10061-02-6	trans-1,3-Dichloropropylene	U	84.7	ug/kg	28.2	84.7
79-00-5	1,1,2-Trichloroethane	U	84.7	ug/kg	28.2	84.7
591-78-6	2-Hexanone	U	424	ug/kg	141	424
127-18-4	Tetrachloroethylene	U	84.7	ug/kg	28.2	84.7
124-48-1	Dibromochloromethane	U	84.7	ug/kg	28.2	84.7
106-93-4	1,2-Dibromoethane	U	84.7	ug/kg	28.2	84.7
108-90-7	Chlorobenzene	U	84.7	ug/kg	28.2	84.7
100-41-4	Ethylbenzene	U	84.7	ug/kg	28.2	84.7
100-42-5	Styrene	U	84.7	ug/kg	28.2	84.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660968003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 14:17	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:33	Aliquot:	5.9 g	Final Volume:	10 mL
Data File:	data\040424VC\CA414.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	84.7	ug/kg	28.2	84.7
79-34-5	1,1,2,2-Tetrachloroethane	U	84.7	ug/kg	28.2	84.7
96-18-4	1,2,3-Trichloropropane	U	84.7	ug/kg	28.2	84.7
96-12-8	1,2-Dibromo-3-chloropropane	U	84.7	ug/kg	42.4	84.7
107-02-8	Acrolein	U	424	ug/kg	141	424
107-05-1	Allyl chloride	U	424	ug/kg	141	424
107-13-1	Acrylonitrile	U	424	ug/kg	141	424
126-99-8	2-Chloro-1,3-butadiene	U	84.7	ug/kg	28.2	84.7
107-12-0	Propionitrile	U	424	ug/kg	141	424
126-98-7	Methacrylonitrile	U	424	ug/kg	141	424
78-83-1	Isobutyl alcohol	U	4240	ug/kg	1410	4240
80-62-6	Methyl methacrylate	U	424	ug/kg	141	424
97-63-2	Ethyl methacrylate	U	424	ug/kg	141	424
76-01-7	Pentachloroethane	U	424	ug/kg	141	424
110-57-6	trans-1,4-Dichloro-2-butene	U	424	ug/kg	141	424
1330-20-7	Xylenes (total)	U	254	ug/kg	84.7	254
630-20-6	1,1,1,2-Tetrachloroethane	U	84.7	ug/kg	28.2	84.7
120-82-1	1,2,4-Trichlorobenzene	U	84.7	ug/kg	28.2	84.7

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA414.D
Acq On : 04 Apr 2024 14:17
Operator : PXY1
InstName : VOAC
Sample : |660968003|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.9G/100UL N/A SOIL
ALS Vial : 9 Sample Multiplier: 1

MA
04/05/2024

Quant Time: Apr 04 14:50:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.909	10.934	1.000	980518	50.00	ug/L	-0.02
43) Chlorobenzene-d5	117	14.329	14.354	1.000	691568	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.908	16.933	1.000	348933	50.00	ug/L	-0.02
84) B Fluorobenzene	96	10.909	10.928	1.000	980344	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	117	14.329	14.348	1.000	691568	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.908	16.920	1.000	349010	50.00	ug/L	-0.01

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.519	10.543	0.964	322360	54.30	ug/L	-0.02
45) Toluene-d8	98	12.689	12.714	0.886	953113	53.35	ug/L	-0.02
63) Bromofluorobenzene	95	15.597	15.622	0.922	318862	53.04	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	109%
45) Toluene-d8	50.000	81 - 120	107%
63) Bromofluorobenzene	50.000	74 - 128	106%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.349	7.367	0.674	6336	4.82	ug/L	82
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.977	7.739	0.731	559	N.D.		
13) Methyl acetate	43	7.776	7.794	0.713	667	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.971	8.001	0.731	8350	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.666	8.690	0.794	4836	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.507	9.525	0.871	4374	2.35	ug/L	77
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.641	10.665	0.975	272	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA414.D
Acq On : 04 Apr 2024 14:17
Operator : PXY1
InstName : VOAC
Sample : |660968003|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.9G/100UL N/A SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 04 14:50:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.415	11.434	1.046	818	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.775	12.793	0.892	711	N.D.	
47) trans-1,3-Dichloroprop...	75	12.933	12.952	0.903	385	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone	43	13.372	13.384	0.933	120	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.433	14.457	1.007	200	N.D.	
57) m,p-Xylenes	106	14.555	14.573	1.016	484	N.D.	
58) o-Xylene	91	15.006	15.037	1.047	356	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.591	15.695	0.922	252	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.439	16.463	0.972	138	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene	146	16.933	16.957	1.001	287	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.414	17.432	1.030	8081	0.84 ug/L	98
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.993	20.017	1.182	1500	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA414.D
Acq On : 04 Apr 2024 14:17
Operator : PXY1
InstName : VOAC
Sample : |660968003|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.9G/100UL N/A SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 04 14:50:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

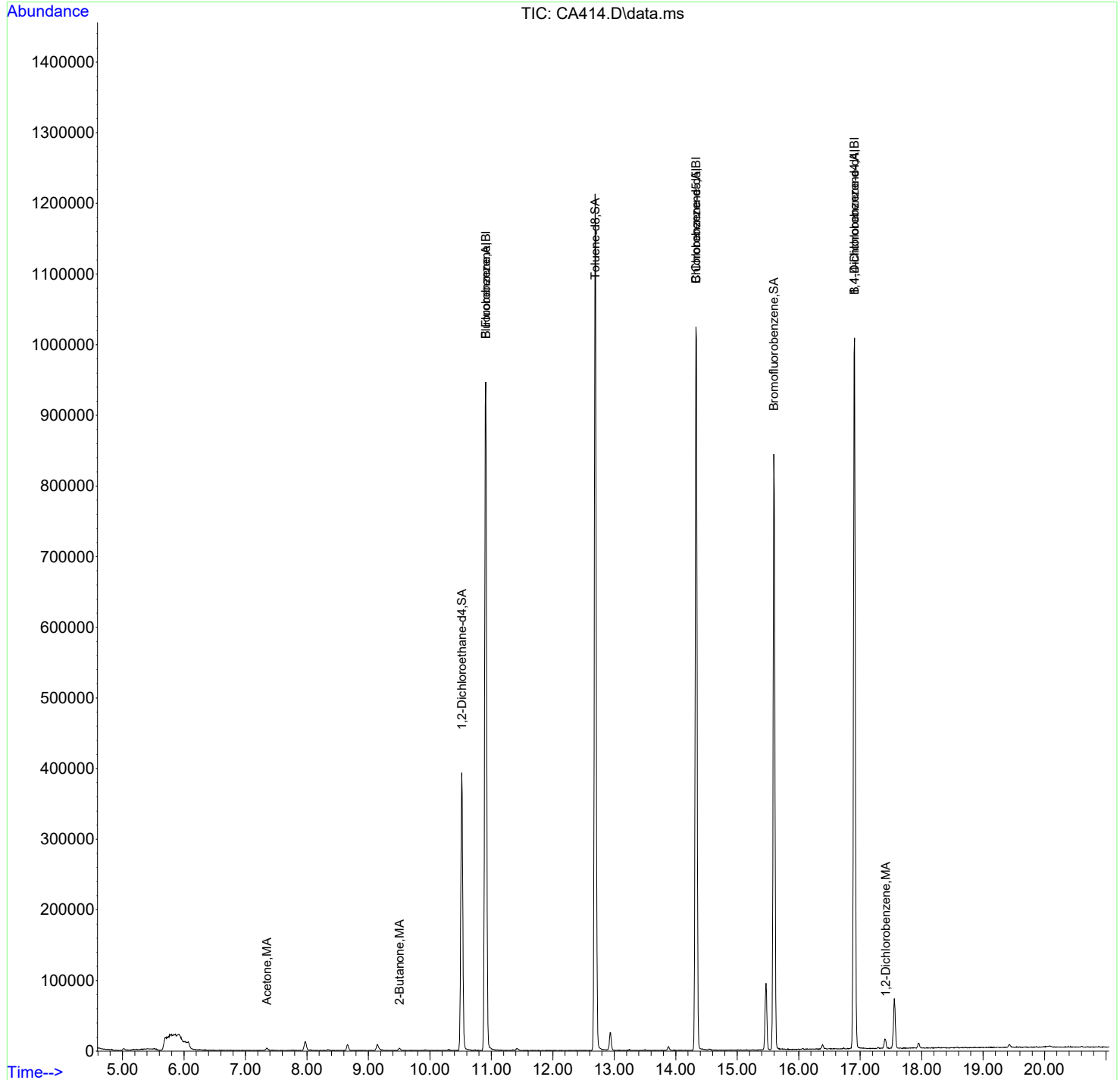
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.428	7.440	0.681	337	N.D.	
88) Allyl chloride	41	7.977	7.843	0.731	559	N.D.	
89) tert-Butyl Alcohol	59	7.983	7.983	0.732	215	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.507	9.531	0.871	4374	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.928	9.940	0.910	554	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride	91	17.048	17.073	1.008	707	N.D.	
112) bis(2-Chloroisopropyl)...		0.000	17.506	0.000	0m	N.D.	d

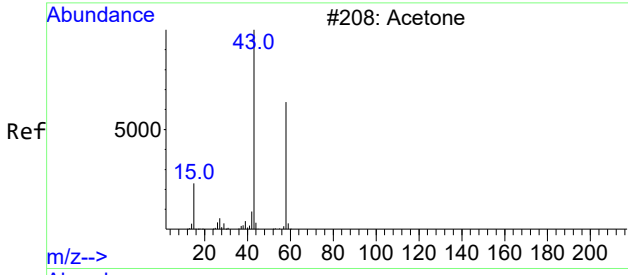
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA414.D
Acq On : 04 Apr 2024 14:17
Operator : PXY1
InstName : VOAC
Sample : |660968003|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.9G/100UL N/A SOIL
ALS Vial : 9 Sample Multiplier: 1

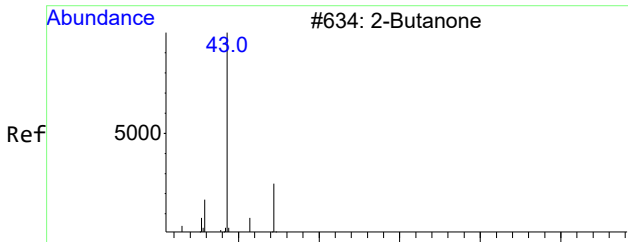
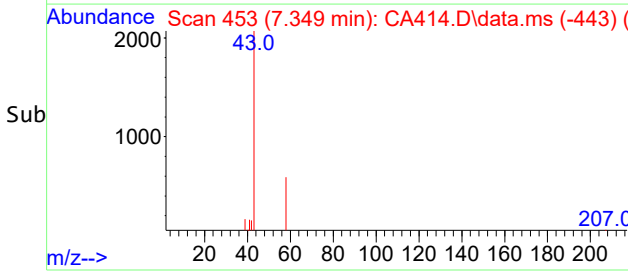
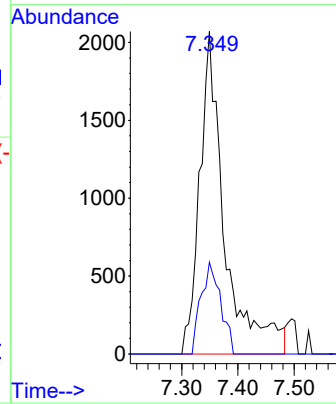
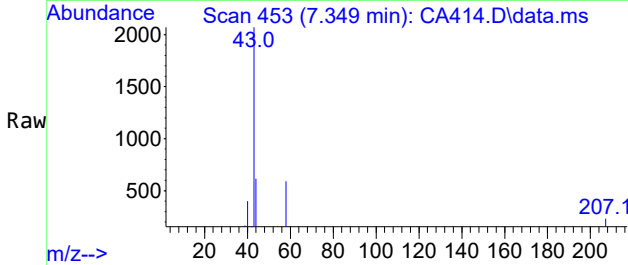
Quant Time: Apr 04 14:50:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





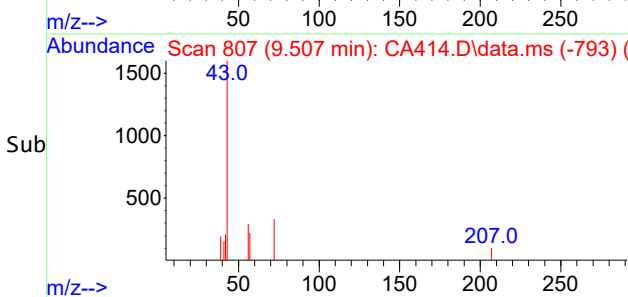
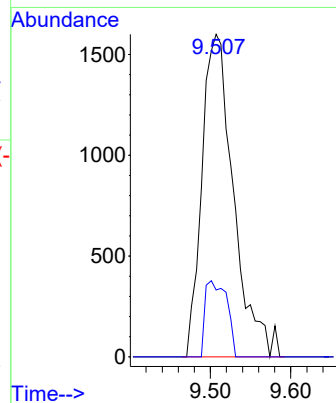
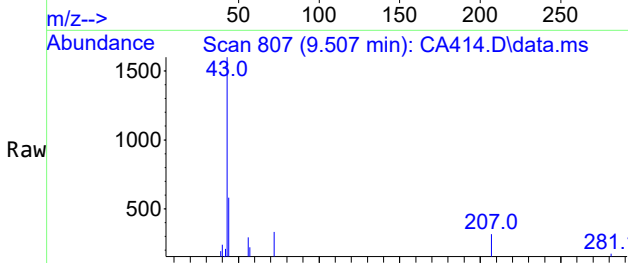
#9
Acetone
Concen: 4.82 ug/L
RT: 7.349 min Scan# 453
Delta R.T. -0.018 min
Lab File: CA414.D
Acq: 04 Apr 2024 14:17

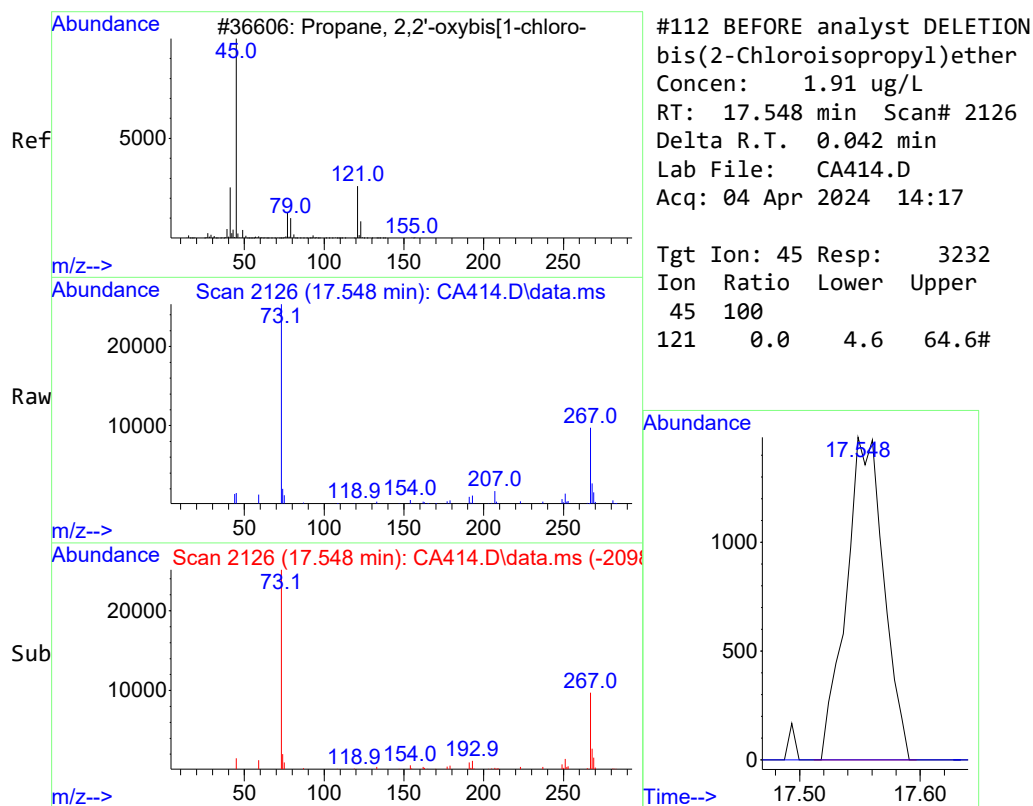
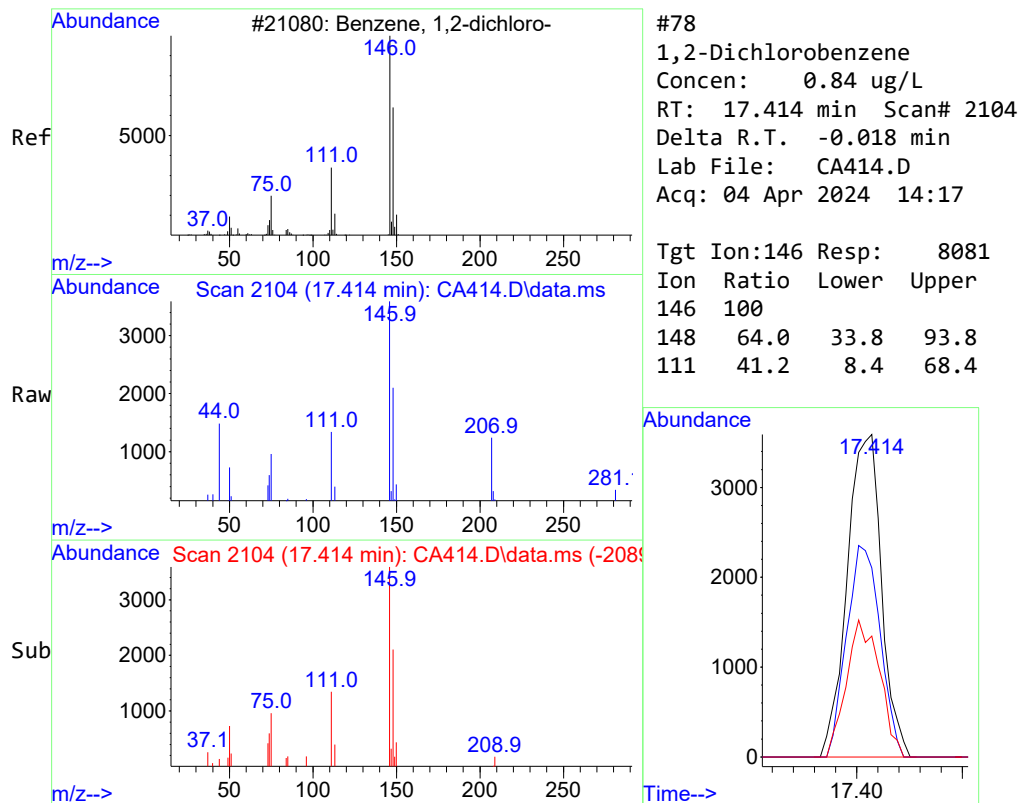
Tgt Ion: 43 Resp: 6336
Ion Ratio Lower Upper
43 100
58 22.6 2.6 62.6



#21
2-Butanone
Concen: 2.35 ug/L
RT: 9.507 min Scan# 807
Delta R.T. -0.018 min
Lab File: CA414.D
Acq: 04 Apr 2024 14:17

Tgt Ion: 43 Resp: 4374
Ion Ratio Lower Upper
43 100
72 16.0 0.0 58.1





Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660968004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 14:45	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:34	Aliquot:	5.8 g	Final Volume:	10 mL
Data File:	data\040424VC\CA415.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	86.2	ug/kg	28.7	86.2
74-87-3	Chloromethane	U	86.2	ug/kg	28.7	86.2
75-01-4	Vinyl chloride	U	86.2	ug/kg	28.7	86.2
74-83-9	Bromomethane	U	86.2	ug/kg	28.7	86.2
75-00-3	Chloroethane	U	86.2	ug/kg	28.7	86.2
75-69-4	Trichlorofluoromethane	U	86.2	ug/kg	28.7	86.2
67-64-1	Acetone	J	195	ug/kg	144	431
75-35-4	1,1-Dichloroethylene	U	86.2	ug/kg	28.7	86.2
74-88-4	Iodomethane	U	431	ug/kg	144	431
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	431	ug/kg	144	431
75-05-8	Acetonitrile	U	2160	ug/kg	718	2160
75-15-0	Carbon disulfide	U	431	ug/kg	144	431
75-09-2	Methylene chloride	U	431	ug/kg	144	431
156-60-5	trans-1,2-Dichloroethylene	U	86.2	ug/kg	28.7	86.2
108-05-4	Vinyl acetate	U	431	ug/kg	144	431
75-34-3	1,1-Dichloroethane	U	86.2	ug/kg	28.7	86.2
78-93-3	2-Butanone	JB	183	ug/kg	144	431
67-66-3	Chloroform	U	86.2	ug/kg	28.7	86.2
71-55-6	1,1,1-Trichloroethane	U	86.2	ug/kg	28.7	86.2
56-23-5	Carbon tetrachloride	U	86.2	ug/kg	28.7	86.2
107-06-2	1,2-Dichloroethane	U	86.2	ug/kg	28.7	86.2
71-43-2	Benzene	U	86.2	ug/kg	28.7	86.2
79-01-6	Trichloroethylene	U	86.2	ug/kg	28.7	86.2
78-87-5	1,2-Dichloropropane	U	86.2	ug/kg	28.7	86.2
74-95-3	Dibromomethane	U	86.2	ug/kg	28.7	86.2
75-27-4	Bromodichloromethane	U	86.2	ug/kg	28.7	86.2
10061-01-5	cis-1,3-Dichloropropylene	U	86.2	ug/kg	28.7	86.2
108-10-1	4-Methyl-2-pentanone	U	431	ug/kg	144	431
108-88-3	Toluene	U	86.2	ug/kg	28.7	86.2
10061-02-6	trans-1,3-Dichloropropylene	U	86.2	ug/kg	28.7	86.2
79-00-5	1,1,2-Trichloroethane	U	86.2	ug/kg	28.7	86.2
591-78-6	2-Hexanone	U	431	ug/kg	144	431
127-18-4	Tetrachloroethylene	U	86.2	ug/kg	28.7	86.2
124-48-1	Dibromochloromethane	U	86.2	ug/kg	28.7	86.2
106-93-4	1,2-Dibromoethane	U	86.2	ug/kg	28.7	86.2
108-90-7	Chlorobenzene	U	86.2	ug/kg	28.7	86.2
100-41-4	Ethylbenzene	U	86.2	ug/kg	28.7	86.2
100-42-5	Styrene	U	86.2	ug/kg	28.7	86.2

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660968004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 14:45	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:34	Aliquot:	5.8 g	Final Volume:	10 mL
Data File:	data\040424VC\CA415.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	86.2	ug/kg	28.7	86.2
79-34-5	1,1,2,2-Tetrachloroethane	U	86.2	ug/kg	28.7	86.2
96-18-4	1,2,3-Trichloropropane	U	86.2	ug/kg	28.7	86.2
96-12-8	1,2-Dibromo-3-chloropropane	U	86.2	ug/kg	43.1	86.2
107-02-8	Acrolein	U	431	ug/kg	144	431
107-05-1	Allyl chloride	U	431	ug/kg	144	431
107-13-1	Acrylonitrile	U	431	ug/kg	144	431
126-99-8	2-Chloro-1,3-butadiene	U	86.2	ug/kg	28.7	86.2
107-12-0	Propionitrile	U	431	ug/kg	144	431
126-98-7	Methacrylonitrile	U	431	ug/kg	144	431
78-83-1	Isobutyl alcohol	U	4310	ug/kg	1440	4310
80-62-6	Methyl methacrylate	U	431	ug/kg	144	431
97-63-2	Ethyl methacrylate	U	431	ug/kg	144	431
76-01-7	Pentachloroethane	U	431	ug/kg	144	431
110-57-6	trans-1,4-Dichloro-2-butene	U	431	ug/kg	144	431
1330-20-7	Xylenes (total)	U	259	ug/kg	86.2	259
630-20-6	1,1,1,2-Tetrachloroethane	U	86.2	ug/kg	28.7	86.2
120-82-1	1,2,4-Trichlorobenzene	U	86.2	ug/kg	28.7	86.2

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA415.D
Acq On : 04 Apr 2024 14:45
Operator : PXY1
InstName : VOAC
Sample : |660968004|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.8G/100UL N/A SOIL
ALS Vial : 10 Sample Multiplier: 1

MA
04/05/2024

Quant Time: Apr 05 09:41:14 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.903	10.934	1.000	979084	50.00	ug/L	-0.03
43) Chlorobenzene-d5	117	14.329	14.354	1.000	693688	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.908	16.933	1.000	350009	50.00	ug/L	-0.02
84) B Fluorobenzene	96	10.903	10.928	1.000	978782	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	117	14.329	14.348	1.000	693688	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.908	16.920	1.000	350015	50.00	ug/L	-0.01

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.519	10.543	0.965	316798	53.44	ug/L	-0.02
45) Toluene-d8	98	12.689	12.714	0.886	941101	52.51	ug/L	-0.02
63) Bromofluorobenzene	95	15.597	15.622	0.922	313302	51.95	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	107%
45) Toluene-d8	50.000	81 - 120	105%
63) Bromofluorobenzene	50.000	74 - 128	104%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.343	7.367	0.673	2965	2.26	ug/L	84
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.715	7.739	0.708	756	N.D.		
13) Methyl acetate	43	7.776	7.794	0.713	889	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.965	8.001	0.730	7947	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.666	8.690	0.795	2834	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.501	9.525	0.871	3941	2.12	ug/L	86
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.623	10.665	0.974	183	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA415.D
Acq On : 04 Apr 2024 14:45
Operator : PXY1
InstName : VOAC
Sample : |660968004|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.8G/100UL N/A SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 05 09:41:14 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.415	11.434	1.047	568	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.775	12.793	0.892	735	N.D.	
47) trans-1,3-Dichloroprop...	75	12.927	12.952	0.902	429	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.433	14.457	1.007	127	N.D.	
57) m,p-Xylenes	106	14.555	14.573	1.016	463	N.D.	
58) o-Xylene	91	15.018	15.037	1.048	407	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene	105	15.463	15.414	0.915	179	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.597	15.695	0.922	121	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.427	16.463	0.972	111	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene	146	16.939	16.957	1.002	221	N.D.	
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	17.408	17.432	1.030	10339	1.07 ug/L	98
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	19.548	19.578	1.156	262	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.987	20.017	1.182	1863	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA415.D
Acq On : 04 Apr 2024 14:45
Operator : PXY1
InstName : VOAC
Sample : |660968004|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.8G/100UL N/A SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 05 09:41:14 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

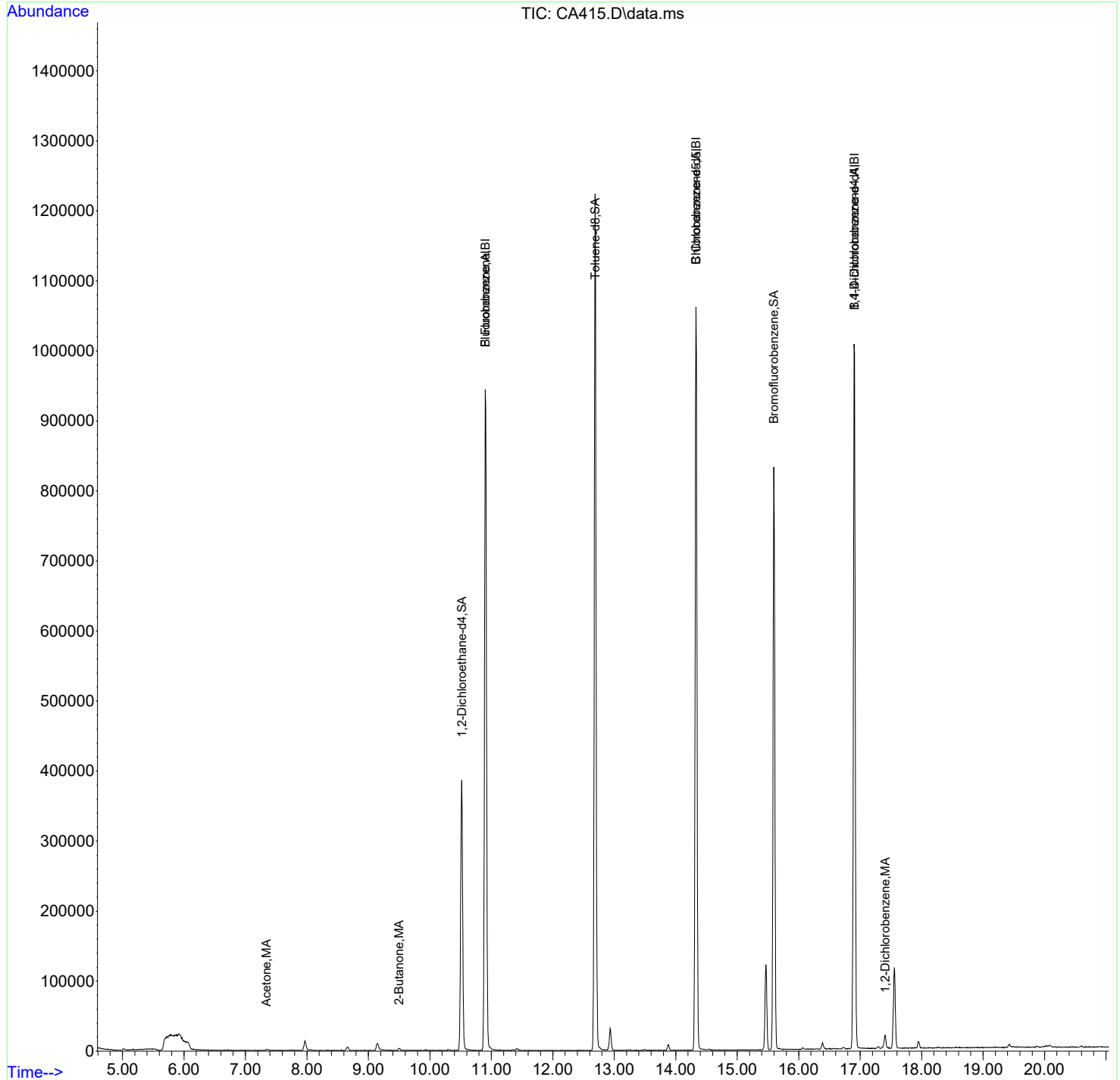
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.446	7.440	0.683	276	N.D.	
88) Allyl chloride	41	7.800	7.843	0.715	124	N.D.	
89) tert-Butyl Alcohol	59	8.056	7.983	0.739	1078	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.501	9.531	0.871	3941	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.928	9.940	0.911	509	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride	91	17.061	17.073	1.009	583	N.D.	
112) bis(2-Chloroisopropyl)...		0.000	17.506	0.000	0m	N.D.	d

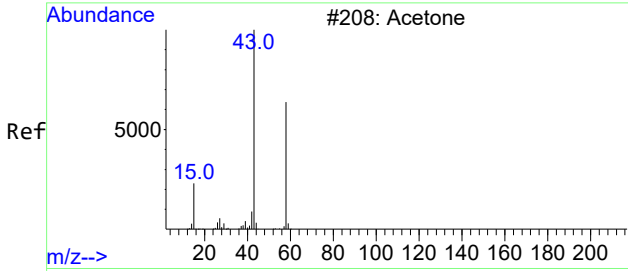
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA415.D
Acq On : 04 Apr 2024 14:45
Operator : PXY1
InstName : VOAC
Sample : |660968004|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.8G/100UL N/A SOIL
ALS Vial : 10 Sample Multiplier: 1

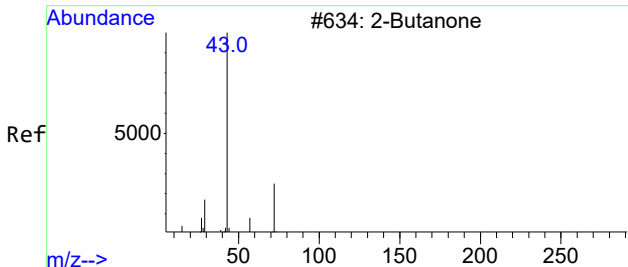
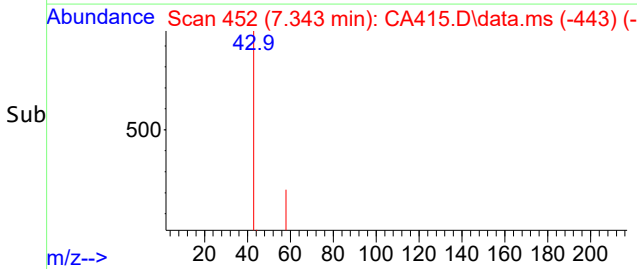
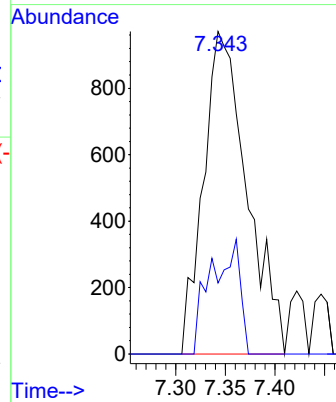
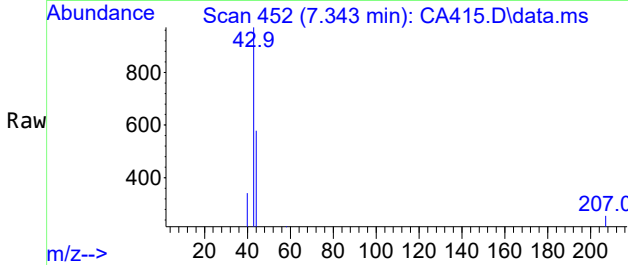
Quant Time: Apr 05 09:41:14 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





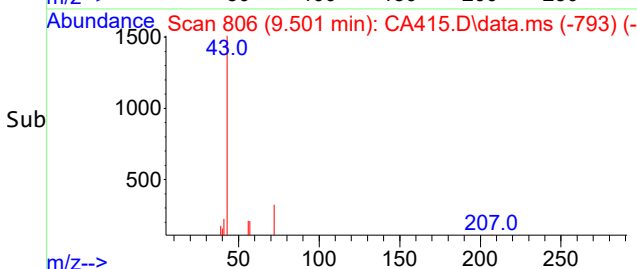
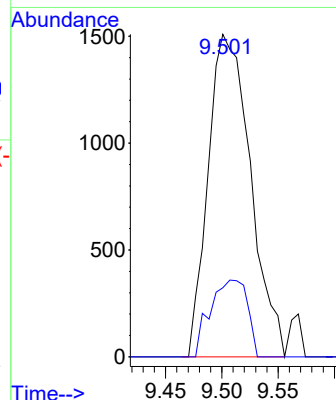
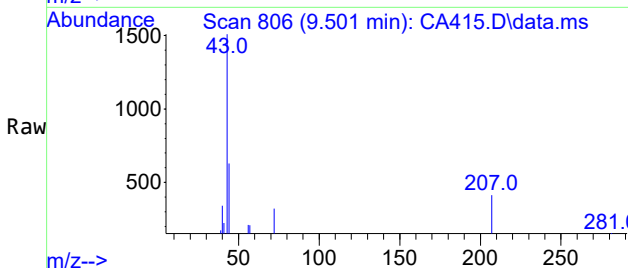
#9
Acetone
Concen: 2.26 ug/L
RT: 7.343 min Scan# 452
Delta R.T. -0.024 min
Lab File: CA415.D
Acq: 04 Apr 2024 14:45

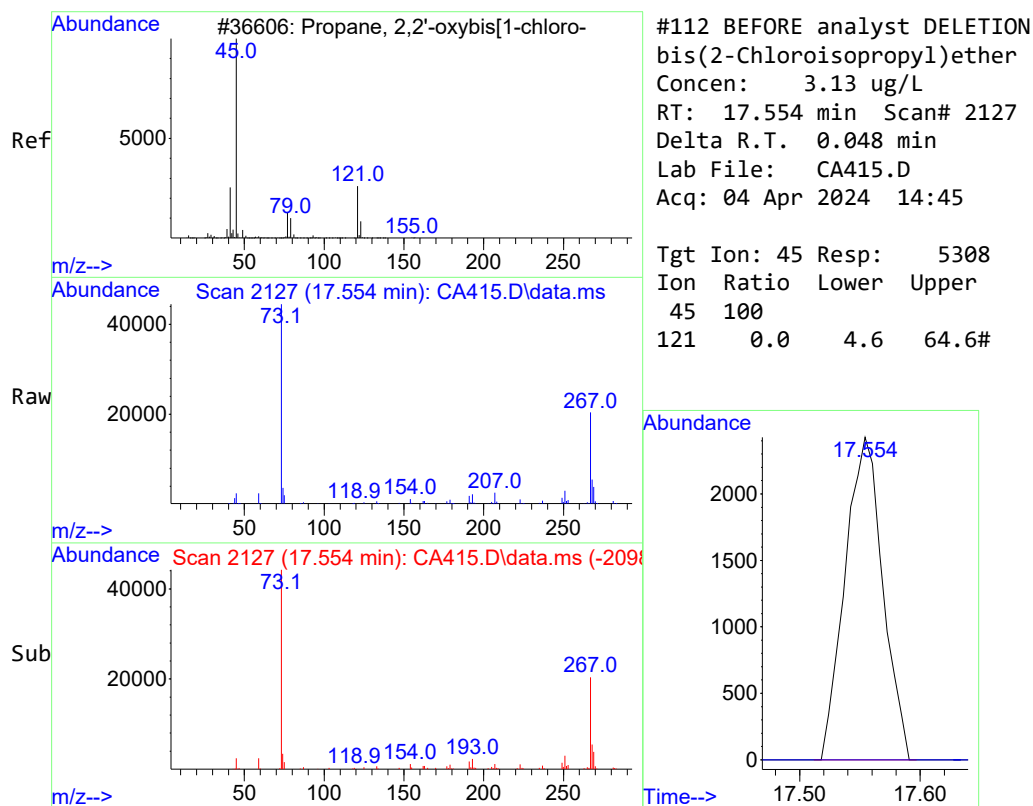
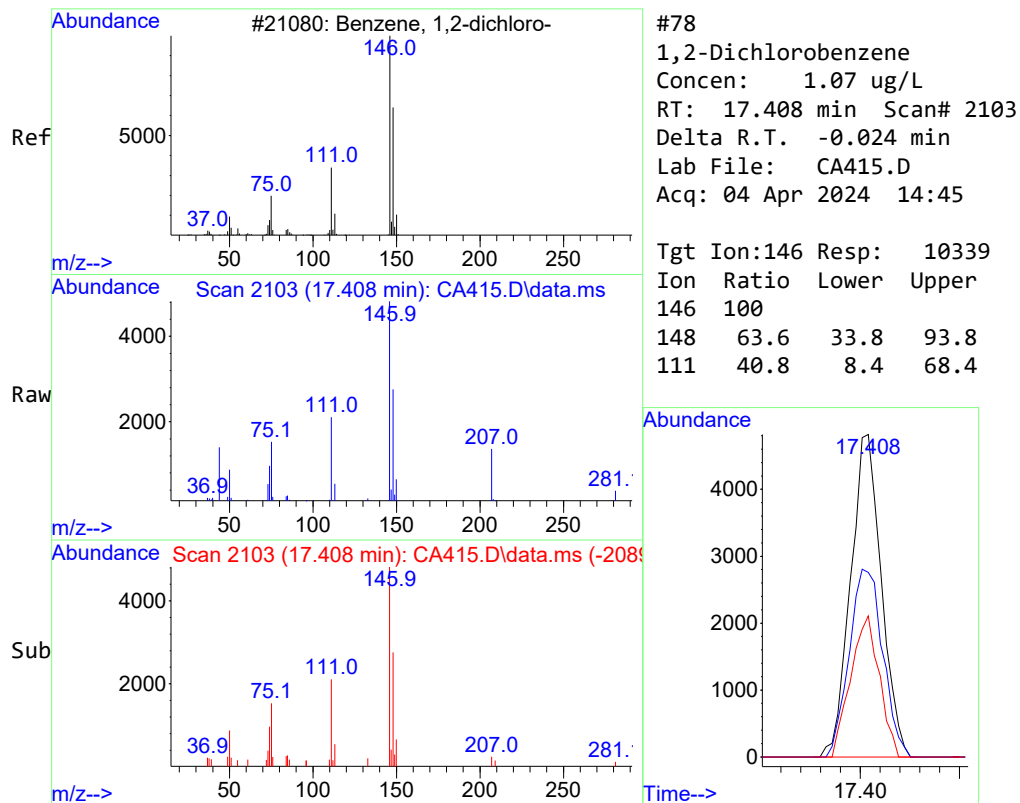
Tgt Ion: 43 Resp: 2965
Ion Ratio Lower Upper
43 100
58 23.7 2.6 62.6



#21
2-Butanone
Concen: 2.12 ug/L
RT: 9.501 min Scan# 806
Delta R.T. -0.024 min
Lab File: CA415.D
Acq: 04 Apr 2024 14:45

Tgt Ion: 43 Resp: 3941
Ion Ratio Lower Upper
43 100
72 20.8 0.0 58.1





Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660968005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 15:13	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:35	Aliquot:	5.8 g	Final Volume:	10 mL
Data File:	data\040424VC\CA416.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	86.2	ug/kg	28.7	86.2
74-87-3	Chloromethane	U	86.2	ug/kg	28.7	86.2
75-01-4	Vinyl chloride	U	86.2	ug/kg	28.7	86.2
74-83-9	Bromomethane	U	86.2	ug/kg	28.7	86.2
75-00-3	Chloroethane	U	86.2	ug/kg	28.7	86.2
75-69-4	Trichlorofluoromethane	U	86.2	ug/kg	28.7	86.2
67-64-1	Acetone	J	154	ug/kg	144	431
75-35-4	1,1-Dichloroethylene	U	86.2	ug/kg	28.7	86.2
74-88-4	Iodomethane	U	431	ug/kg	144	431
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	431	ug/kg	144	431
75-05-8	Acetonitrile	U	2160	ug/kg	718	2160
75-15-0	Carbon disulfide	U	431	ug/kg	144	431
75-09-2	Methylene chloride	U	431	ug/kg	144	431
156-60-5	trans-1,2-Dichloroethylene	U	86.2	ug/kg	28.7	86.2
108-05-4	Vinyl acetate	U	431	ug/kg	144	431
75-34-3	1,1-Dichloroethane	U	86.2	ug/kg	28.7	86.2
78-93-3	2-Butanone	JB	184	ug/kg	144	431
67-66-3	Chloroform	U	86.2	ug/kg	28.7	86.2
71-55-6	1,1,1-Trichloroethane	U	86.2	ug/kg	28.7	86.2
56-23-5	Carbon tetrachloride	U	86.2	ug/kg	28.7	86.2
107-06-2	1,2-Dichloroethane	U	86.2	ug/kg	28.7	86.2
71-43-2	Benzene	U	86.2	ug/kg	28.7	86.2
79-01-6	Trichloroethylene	U	86.2	ug/kg	28.7	86.2
78-87-5	1,2-Dichloropropane	U	86.2	ug/kg	28.7	86.2
74-95-3	Dibromomethane	U	86.2	ug/kg	28.7	86.2
75-27-4	Bromodichloromethane	U	86.2	ug/kg	28.7	86.2
10061-01-5	cis-1,3-Dichloropropylene	U	86.2	ug/kg	28.7	86.2
108-10-1	4-Methyl-2-pentanone	U	431	ug/kg	144	431
108-88-3	Toluene	U	86.2	ug/kg	28.7	86.2
10061-02-6	trans-1,3-Dichloropropylene	U	86.2	ug/kg	28.7	86.2
79-00-5	1,1,2-Trichloroethane	U	86.2	ug/kg	28.7	86.2
591-78-6	2-Hexanone	U	431	ug/kg	144	431
127-18-4	Tetrachloroethylene	U	86.2	ug/kg	28.7	86.2
124-48-1	Dibromochloromethane	U	86.2	ug/kg	28.7	86.2
106-93-4	1,2-Dibromoethane	U	86.2	ug/kg	28.7	86.2
108-90-7	Chlorobenzene	U	86.2	ug/kg	28.7	86.2
100-41-4	Ethylbenzene	U	86.2	ug/kg	28.7	86.2
100-42-5	Styrene	U	86.2	ug/kg	28.7	86.2

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660968005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 15:13	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:35	Aliquot:	5.8 g	Final Volume:	10 mL
Data File:	data\040424VC\CA416.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	86.2	ug/kg	28.7	86.2
79-34-5	1,1,2,2-Tetrachloroethane	U	86.2	ug/kg	28.7	86.2
96-18-4	1,2,3-Trichloropropane	U	86.2	ug/kg	28.7	86.2
96-12-8	1,2-Dibromo-3-chloropropane	U	86.2	ug/kg	43.1	86.2
107-02-8	Acrolein	U	431	ug/kg	144	431
107-05-1	Allyl chloride	U	431	ug/kg	144	431
107-13-1	Acrylonitrile	U	431	ug/kg	144	431
126-99-8	2-Chloro-1,3-butadiene	U	86.2	ug/kg	28.7	86.2
107-12-0	Propionitrile	U	431	ug/kg	144	431
126-98-7	Methacrylonitrile	U	431	ug/kg	144	431
78-83-1	Isobutyl alcohol	U	4310	ug/kg	1440	4310
80-62-6	Methyl methacrylate	U	431	ug/kg	144	431
97-63-2	Ethyl methacrylate	U	431	ug/kg	144	431
76-01-7	Pentachloroethane	U	431	ug/kg	144	431
110-57-6	trans-1,4-Dichloro-2-butene	U	431	ug/kg	144	431
1330-20-7	Xylenes (total)	U	259	ug/kg	86.2	259
630-20-6	1,1,1,2-Tetrachloroethane	U	86.2	ug/kg	28.7	86.2
120-82-1	1,2,4-Trichlorobenzene	U	86.2	ug/kg	28.7	86.2

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA416.D
Acq On : 04 Apr 2024 15:13
Operator : PXY1
InstName : VOAC
Sample : |660968005|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.8G/100UL N/A SOIL
ALS Vial : 11 Sample Multiplier: 1

MA
04/05/2024

Quant Time: Apr 05 09:41:43 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.903	10.934	1.000	963636	50.00	ug/L	-0.03
43) Chlorobenzene-d5	117	14.329	14.354	1.000	687817	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.908	16.933	1.000	345126	50.00	ug/L	-0.02
84) B Fluorobenzene	96	10.903	10.928	1.000	963636	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	117	14.329	14.348	1.000	687817	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.908	16.920	1.000	345126	50.00	ug/L	-0.01

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.519	10.543	0.965	319048	54.68	ug/L	-0.02
45) Toluene-d8	98	12.689	12.714	0.886	943346	53.09	ug/L	-0.02
63) Bromofluorobenzene	95	15.597	15.622	0.922	318214	53.51	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	109%
45) Toluene-d8	50.000	81 - 120	106%
63) Bromofluorobenzene	50.000	74 - 128	107%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.355	7.367	0.675	2309	1.79	ug/L	77
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.733	7.739	0.709	450	N.D.		
13) Methyl acetate	43	7.776	7.794	0.713	917	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.977	8.001	0.732	7688	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.666	8.690	0.795	2225	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.507	9.525	0.872	3912	2.14	ug/L	82
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.635	10.665	0.975	218	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA416.D
Acq On : 04 Apr 2024 15:13
Operator : PXY1
InstName : VOAC
Sample : |660968005|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.8G/100UL N/A SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 05 09:41:43 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.421	11.434	1.048	667	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.762	12.793	0.891	518	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.952	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone	43	13.488	13.384	0.941	123	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene		0.000	14.457	0.000	0	N.D.	
57) m,p-Xylenes	106	14.549	14.573	1.015	169	N.D.	
58) o-Xylene	91	15.006	15.037	1.047	135	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene	105	15.469	15.414	0.915	119	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	15.695	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	16.463	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene	146	16.932	16.957	1.001	117	N.D.	
77) n-Butylbenzene	91	17.256	17.280	1.021	129	N.D.	
78) 1,2-Dichlorobenzene	146	17.408	17.432	1.030	7833	0.82 ug/L	99
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.993	20.017	1.182	1793	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA416.D
Acq On : 04 Apr 2024 15:13
Operator : PXY1
InstName : VOAC
Sample : |660968005|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.8G/100UL N/A SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 05 09:41:43 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

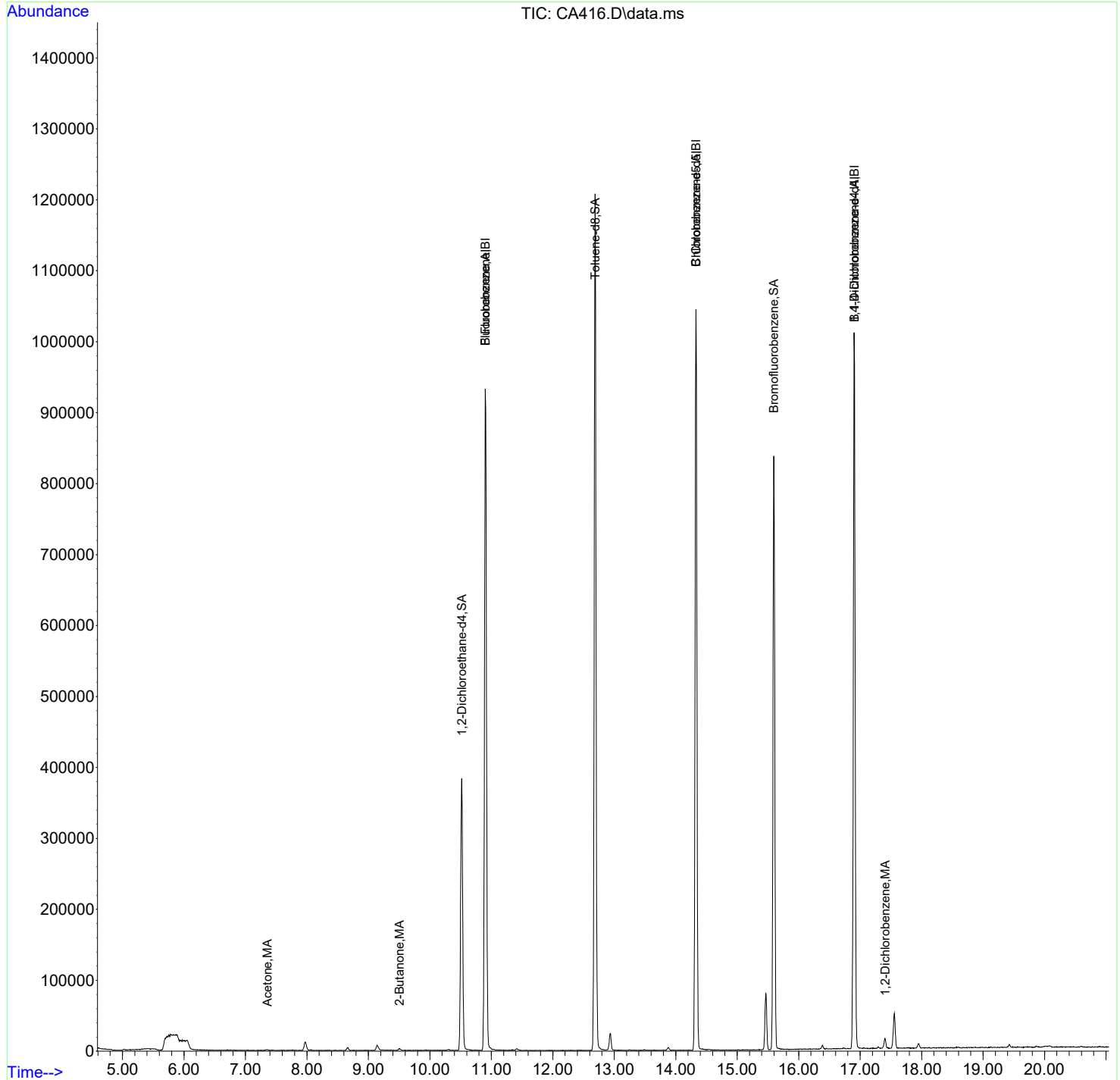
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.434	7.440	0.682	411	N.D.	
88) Allyl chloride	41	7.806	7.843	0.716	114	N.D.	
89) tert-Butyl Alcohol	59	7.971	7.983	0.731	195	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.507	9.531	0.872	3912	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.922	9.940	0.910	517	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride	91	17.060	17.073	1.009	436	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.554	17.506	1.038	2252	N.D.	

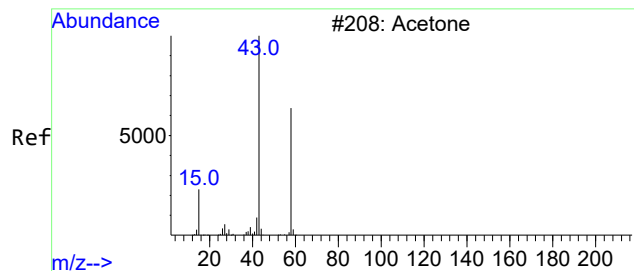
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

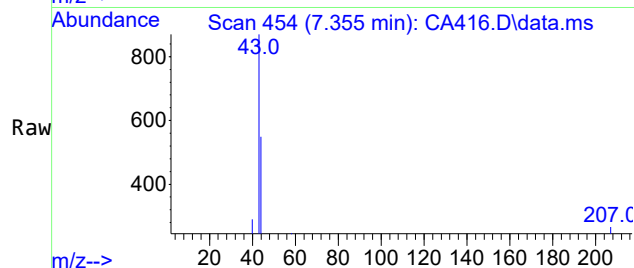
Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA416.D
Acq On : 04 Apr 2024 15:13
Operator : PXY1
InstName : VOAC
Sample : |660968005|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.8G/100UL N/A SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 05 09:41:43 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

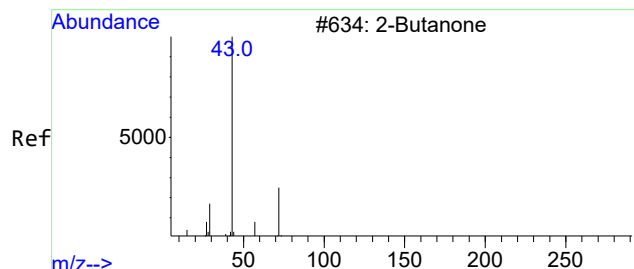
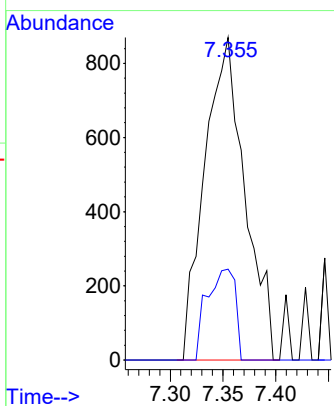
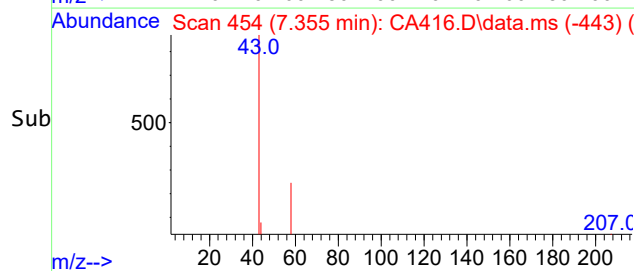




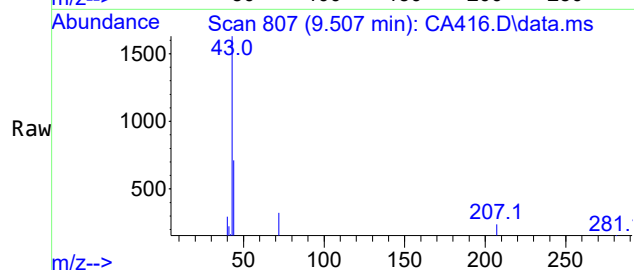
#9
Acetone
Concen: 1.79 ug/L
RT: 7.355 min Scan# 454
Delta R.T. -0.012 min
Lab File: CA416.D
Acq: 04 Apr 2024 15:13



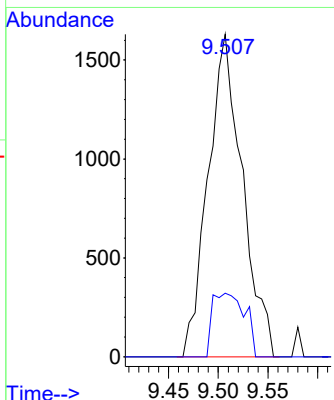
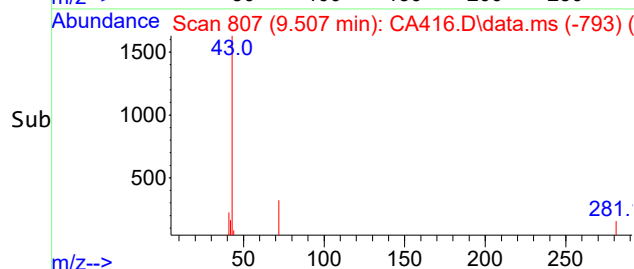
Tgt Ion: 43 Resp: 2309
Ion Ratio Lower Upper
43 100
58 19.7 2.6 62.6

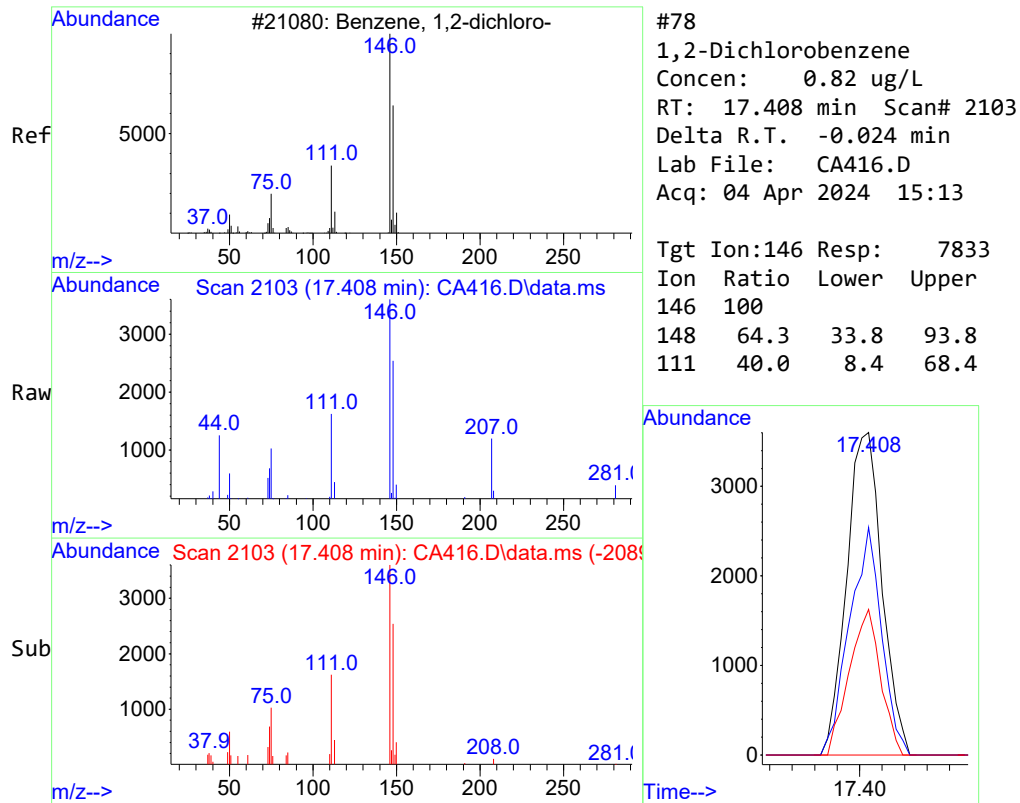


#21
2-Butanone
Concen: 2.14 ug/L
RT: 9.507 min Scan# 807
Delta R.T. -0.018 min
Lab File: CA416.D
Acq: 04 Apr 2024 15:13



Tgt Ion: 43 Resp: 3912
Ion Ratio Lower Upper
43 100
72 18.5 0.0 58.1





Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660968006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 15:41	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:36	Aliquot:	5.9 g	Final Volume:	10 mL
Data File:	data\040424VC\CA417.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	84.7	ug/kg	28.2	84.7
74-87-3	Chloromethane	U	84.7	ug/kg	28.2	84.7
75-01-4	Vinyl chloride	U	84.7	ug/kg	28.2	84.7
74-83-9	Bromomethane	U	84.7	ug/kg	28.2	84.7
75-00-3	Chloroethane	U	84.7	ug/kg	28.2	84.7
75-69-4	Trichlorofluoromethane	U	84.7	ug/kg	28.2	84.7
67-64-1	Acetone	J	149	ug/kg	141	424
75-35-4	1,1-Dichloroethylene	U	84.7	ug/kg	28.2	84.7
74-88-4	Iodomethane	U	424	ug/kg	141	424
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	424	ug/kg	141	424
75-05-8	Acetonitrile	U	2120	ug/kg	706	2120
75-15-0	Carbon disulfide	U	424	ug/kg	141	424
75-09-2	Methylene chloride	U	424	ug/kg	141	424
156-60-5	trans-1,2-Dichloroethylene	U	84.7	ug/kg	28.2	84.7
108-05-4	Vinyl acetate	U	424	ug/kg	141	424
75-34-3	1,1-Dichloroethane	U	84.7	ug/kg	28.2	84.7
78-93-3	2-Butanone	JB	176	ug/kg	141	424
67-66-3	Chloroform	U	84.7	ug/kg	28.2	84.7
71-55-6	1,1,1-Trichloroethane	U	84.7	ug/kg	28.2	84.7
56-23-5	Carbon tetrachloride	U	84.7	ug/kg	28.2	84.7
107-06-2	1,2-Dichloroethane	U	84.7	ug/kg	28.2	84.7
71-43-2	Benzene	U	84.7	ug/kg	28.2	84.7
79-01-6	Trichloroethylene	U	84.7	ug/kg	28.2	84.7
78-87-5	1,2-Dichloropropane	U	84.7	ug/kg	28.2	84.7
74-95-3	Dibromomethane	U	84.7	ug/kg	28.2	84.7
75-27-4	Bromodichloromethane	U	84.7	ug/kg	28.2	84.7
10061-01-5	cis-1,3-Dichloropropylene	U	84.7	ug/kg	28.2	84.7
108-10-1	4-Methyl-2-pentanone	U	424	ug/kg	141	424
108-88-3	Toluene	U	84.7	ug/kg	28.2	84.7
10061-02-6	trans-1,3-Dichloropropylene	U	84.7	ug/kg	28.2	84.7
79-00-5	1,1,2-Trichloroethane	U	84.7	ug/kg	28.2	84.7
591-78-6	2-Hexanone	U	424	ug/kg	141	424
127-18-4	Tetrachloroethylene	U	84.7	ug/kg	28.2	84.7
124-48-1	Dibromochloromethane	U	84.7	ug/kg	28.2	84.7
106-93-4	1,2-Dibromoethane	U	84.7	ug/kg	28.2	84.7
108-90-7	Chlorobenzene	U	84.7	ug/kg	28.2	84.7
100-41-4	Ethylbenzene	U	84.7	ug/kg	28.2	84.7
100-42-5	Styrene	U	84.7	ug/kg	28.2	84.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660968006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.EPA	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 15:41	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:36	Aliquot:	5.9 g	Final Volume:	10 mL
Data File:	data\040424VC\CA417.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	84.7	ug/kg	28.2	84.7
79-34-5	1,1,2,2-Tetrachloroethane	U	84.7	ug/kg	28.2	84.7
96-18-4	1,2,3-Trichloropropane	U	84.7	ug/kg	28.2	84.7
96-12-8	1,2-Dibromo-3-chloropropane	U	84.7	ug/kg	42.4	84.7
107-02-8	Acrolein	U	424	ug/kg	141	424
107-05-1	Allyl chloride	U	424	ug/kg	141	424
107-13-1	Acrylonitrile	U	424	ug/kg	141	424
126-99-8	2-Chloro-1,3-butadiene	U	84.7	ug/kg	28.2	84.7
107-12-0	Propionitrile	U	424	ug/kg	141	424
126-98-7	Methacrylonitrile	U	424	ug/kg	141	424
78-83-1	Isobutyl alcohol	U	4240	ug/kg	1410	4240
80-62-6	Methyl methacrylate	U	424	ug/kg	141	424
97-63-2	Ethyl methacrylate	U	424	ug/kg	141	424
76-01-7	Pentachloroethane	U	424	ug/kg	141	424
110-57-6	trans-1,4-Dichloro-2-butene	U	424	ug/kg	141	424
1330-20-7	Xylenes (total)	U	254	ug/kg	84.7	254
630-20-6	1,1,1,2-Tetrachloroethane	U	84.7	ug/kg	28.2	84.7
120-82-1	1,2,4-Trichlorobenzene	U	84.7	ug/kg	28.2	84.7

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA417.D
Acq On : 04 Apr 2024 15:41
Operator : PXY1
InstName : VOAC
Sample : |660968006|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.9G/100UL N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

MA
04/05/2024

Quant Time: Apr 05 09:42:06 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.903	10.934	1.000	951409	50.00	ug/L	-0.03
43) Chlorobenzene-d5	117	14.329	14.354	1.000	678490	50.00	ug/L	-0.02
60) 1,4-Dichlorobenzene-d4	152	16.902	16.933	1.000	340933	50.00	ug/L	-0.03
84) B Fluorobenzene	96	10.903	10.928	1.000	951269	50.00	ug/L	-0.03
103) B Chlorobenzene-d5	117	14.329	14.348	1.000	678061	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.902	16.920	1.000	340908	50.00	ug/L	-0.02

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.513	10.543	0.964	313024	54.34	ug/L	-0.03
45) Toluene-d8	98	12.689	12.714	0.886	926599	52.86	ug/L	-0.02
63) Bromofluorobenzene	95	15.597	15.622	0.923	315969	53.79	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	109%
45) Toluene-d8	50.000	81 - 120	106%
63) Bromofluorobenzene	50.000	74 - 128	108%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.343	7.367	0.673	2242	1.76	ug/L	74
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.708	7.739	0.707	248	N.D.		
13) Methyl acetate	43	7.775	7.794	0.713	970	N.D.		
14) Carbon disulfide		0.000	7.800	0.000	0	N.D.		
15) Methylene chloride	84	7.964	8.001	0.730	8103	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.659	8.690	0.794	2651	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.507	9.525	0.872	3754	2.08	ug/L	80
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene	78	10.647	10.665	0.977	257	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA417.D
Acq On : 04 Apr 2024 15:41
Operator : PXY1
InstName : VOAC
Sample : |660968006|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.9G/100UL N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 05 09:42:06 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.409	11.434	1.046	681	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.762	12.793	0.891	555	N.D.	
47) trans-1,3-Dichloroprop...	75	12.927	12.952	0.902	393	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone	43	13.488	13.384	0.941	211	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene		0.000	14.457	0.000	0	N.D.	
57) m,p-Xylenes		0.000	14.573	0.000	0	N.D.	
58) o-Xylene		0.000	15.037	0.000	0	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.597	15.695	0.923	193	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	16.128	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.432	16.463	0.972	139	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene	146	16.841	16.865	0.996	125	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene	91	17.262	17.280	1.021	174	N.D.	
78) 1,2-Dichlorobenzene	146	17.402	17.432	1.030	5601	0.59 ug/L	99
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	19.578	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.974	20.017	1.182	1238	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	20.401	0.000	0	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA417.D
Acq On : 04 Apr 2024 15:41
Operator : PXY1
InstName : VOAC
Sample : |660968006|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.9G/100UL N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 05 09:42:06 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

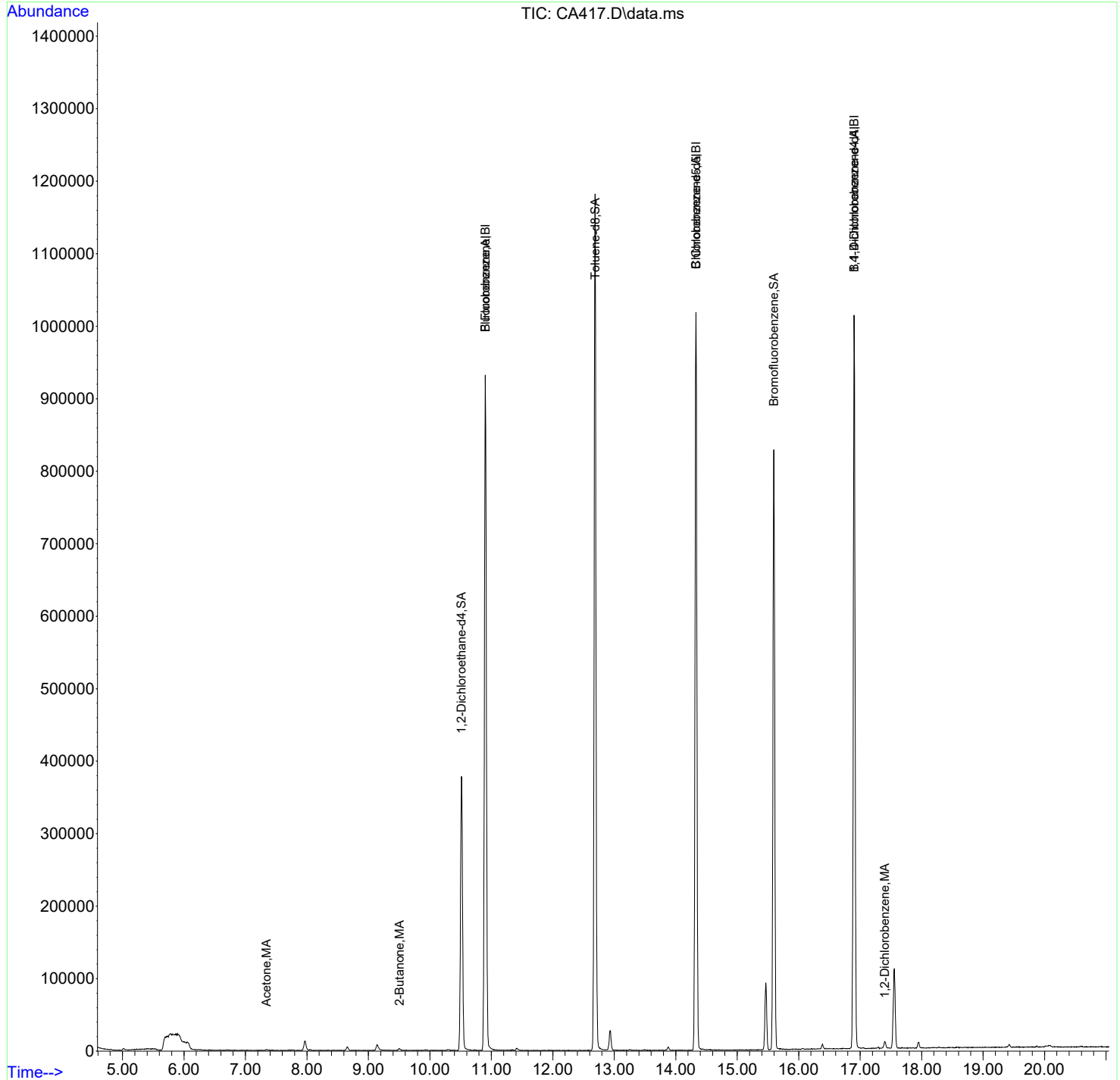
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.434	7.440	0.682	317	N.D.	
88) Allyl chloride	41	7.958	7.843	0.730	626	N.D.	
89) tert-Butyl Alcohol	59	8.062	7.983	0.739	606	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.507	9.531	0.872	3754	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.921	9.940	0.910	664	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride	91	17.048	17.073	1.009	311	N.D.	
112) bis(2-Chloroisopropyl)...		0.000	17.506	0.000	0m	N.D.	d

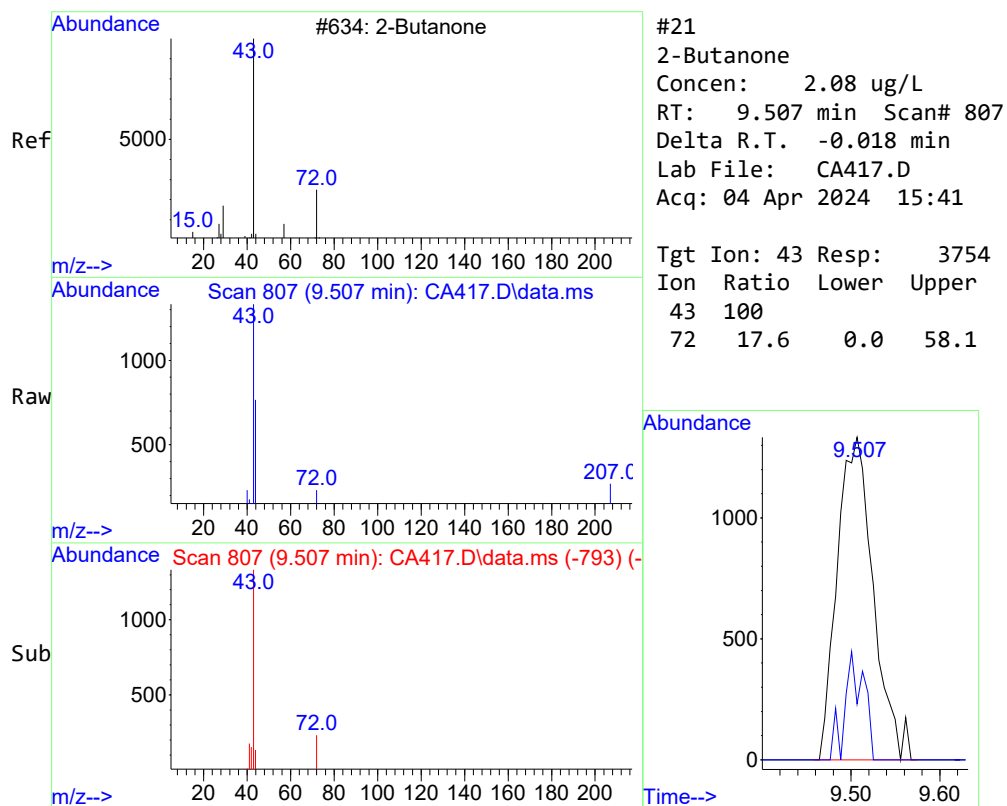
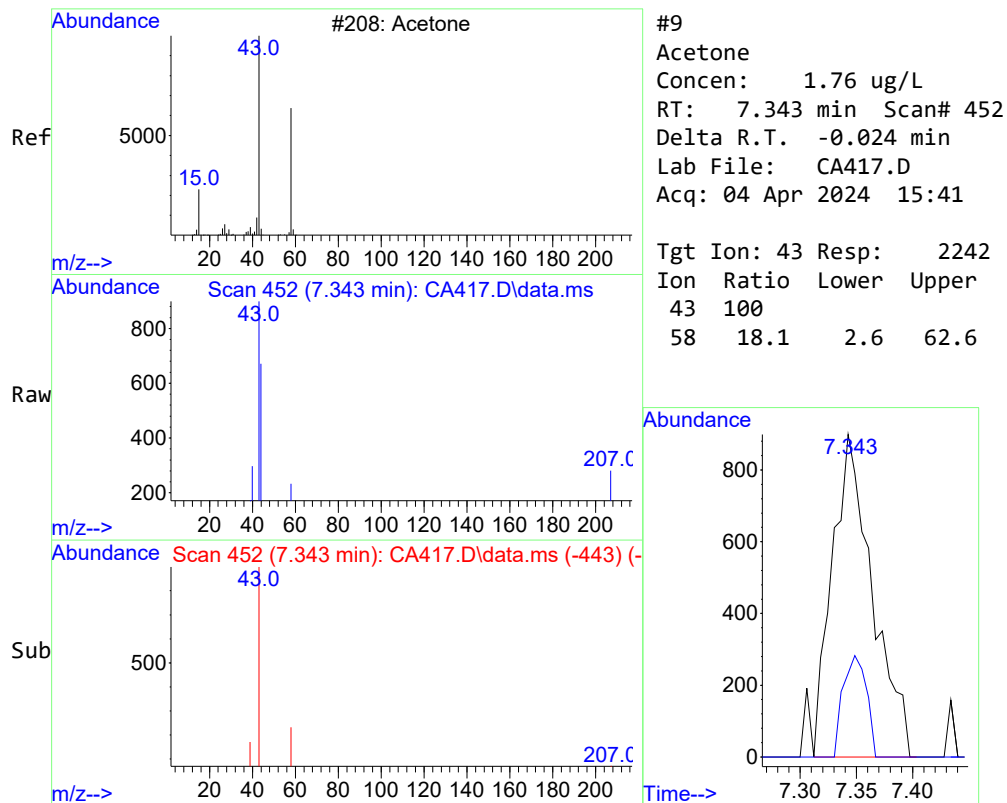
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

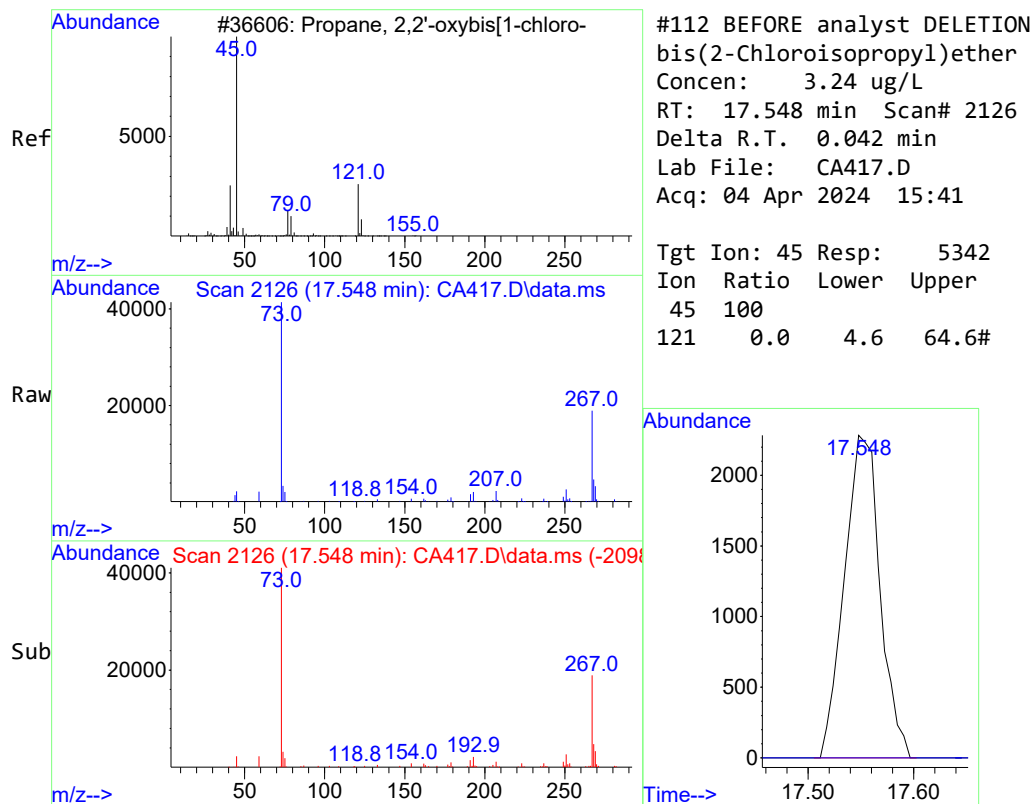
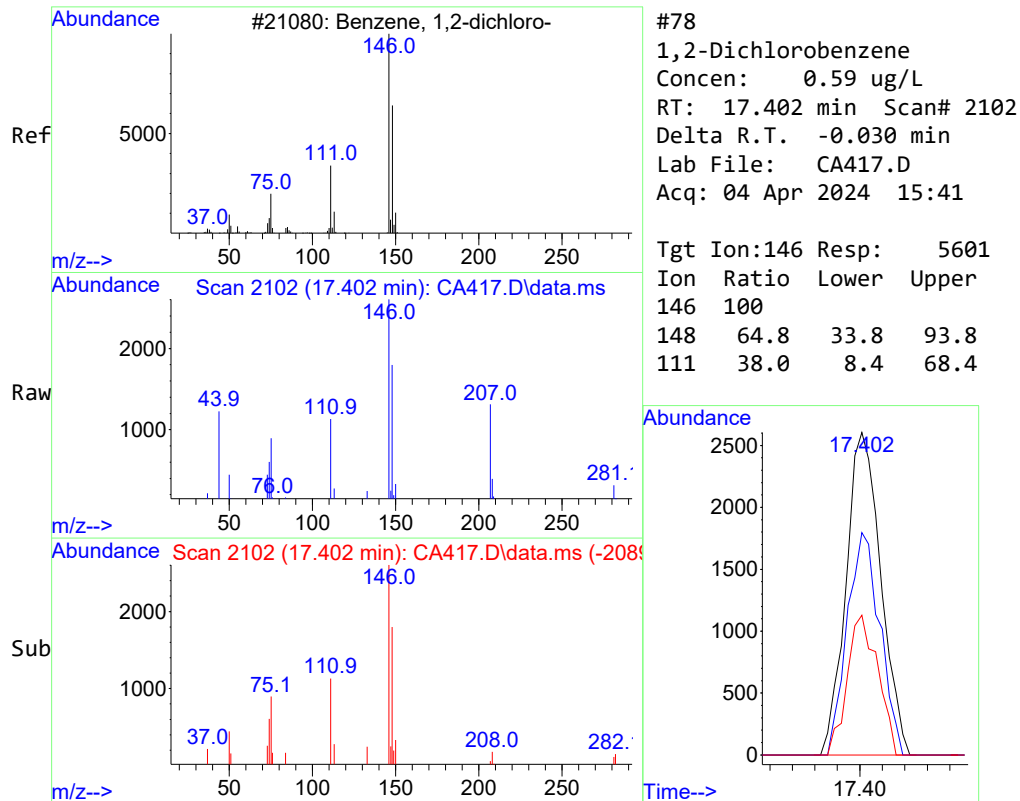
Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA417.D
Acq On : 04 Apr 2024 15:41
Operator : PXY1
InstName : VOAC
Sample : |660968006|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.9G/100UL N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 05 09:42:06 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE







Standards

Calibration History Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

03/19/2024

03/19/2024

Cal Lvl:8 Amt:0.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY102.D

Injection Date	Mix	Calibration File
18 Mar 2024 11:39	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY102.D

Cal Lvl:1 Amt:1.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY113.D

Injection Date	Mix	Calibration File
18 Mar 2024 12:07	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY103.D
18 Mar 2024 16:45	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY113.D

Cal Lvl:2 Amt:2.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY114.D

Injection Date	Mix	Calibration File
18 Mar 2024 12:35	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY104.D
18 Mar 2024 17:13	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY114.D

Cal Lvl:3 Amt:5.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY115.D

Injection Date	Mix	Calibration File
18 Mar 2024 13:03	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY105.D
18 Mar 2024 17:41	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY115.D

Cal Lvl:4 Amt:10.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY116.D

Injection Date	Mix	Calibration File
18 Mar 2024 13:31	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY106.D
18 Mar 2024 18:08	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY116.D

Cal Lvl:5 Amt:20.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY117.D

Injection Date	Mix	Calibration File
18 Mar 2024 13:59	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY107.D
18 Mar 2024 18:36	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY117.D

Cal Lvl:6 Amt:50.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY118.D

Injection Date	Mix	Calibration File
18 Mar 2024 14:26	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY108.D
18 Mar 2024 19:04	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY118.D

Cal Lvl:7 Amt:100.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY120.D

Injection Date	Mix	Calibration File
18 Mar 2024 15:22	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY110.D
18 Mar 2024 20:00	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY120.D

Calibration History Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

Cal Lvl:9 Amt:80.00 Last Updated with: D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY119.D

+-----+-----+-----+-----+			
Injection Date Mix Calibration File			
+-----+-----+-----+-----+			
18 Mar 2024 14:54	A	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY109.D	
18 Mar 2024 19:32	B	D:\MassHunter\GCMS\1\data\031824VC_ICAL\CY119.D	
+-----+-----+-----+-----+			

VOAC-031824-8260D.M Tue Mar 19 10:07:27 2024

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

03/19/2024

03/19/2024

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound		8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
	m1	m2	6	7	9							
2)MA	Dichlorodifluoromethane		0.2169275 0.3191540	0.2921838 0.2972206	0.2421437 0.3176297	0.2588222	0.2690702	0.2766	AVRG			13.1637
3)MA	Chloromethane		0.2633283 0.3374436	0.3411389 0.3096790	0.2817108 0.3307604	0.2926895	0.3075803	0.3080	AVRG			9.0225
4)MA	Vinyl chloride		0.2473146 0.3530661	0.3386604 0.3266320	0.2966808 0.3462512	0.3054208	0.3251208	0.3174	AVRG			10.7743
5)MA	Bromomethane		0.1799788 0.2546098	0.2476504 0.2383259	0.2290269 0.2506274	0.2301198	0.2365925	0.2334	AVRG			10.0728
6)MA	Chloroethane		0.1513103 0.2145132	0.2056946 0.2010782	0.1998490 0.2161632	0.1988736	0.2092793	0.1996	AVRG			10.3065
7)MA	Trichlorofluoromethane		0.3189467 0.4123609	0.4286196 0.3894931	0.3868460 0.4078599	0.3825819	0.3962472	0.3904	AVRG			8.3639
8)MA	Ethyl ether		0.1592000 0.2189505	0.2142602 0.2176536	0.2066682 0.2205992	0.2067492	0.2117521	0.2070	AVRG			9.6655
9)MA	Acetone		0.0959496 0.0602103	0.0725344 0.0601548	0.0652937 0.0613501	0.0604509	0.0599468	0.0670	AVRG	#		18.6211
10)MA	1,1-Dichloroethylene		0.3512867 0.3504119	0.3509934 0.3290451	0.3453134 0.3576593	0.3493454	0.3400560	0.3468	AVRG			2.5284
11)MA	Iodomethane		0.4611253 0.4855637	0.4398422 0.4614200	0.4723853 0.5000129	0.4783824	0.4697520	0.4711	AVRG			3.8244
12)MA	Acetonitrile		0.0294497 0.0256796	0.0273395 0.0249432	0.0267352 0.0266757	0.0258240	0.0261005	0.0266	AVRG			5.1510
13)MA	Methyl acetate		0.1595437 0.1532878	0.1527581 0.1511794	0.1526654 0.1544275	0.1511499	0.1486551	0.1530	AVRG			2.0779
14)MA	Carbon disulfide		0.6998237 0.7248677	0.6451402 0.6700667	0.7048089 0.7293298	0.7165171	0.6919336	0.6978	AVRG			4.0918
15)MA	Methylene chloride			12492	18447	39785	73884	137407		1/x		

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

Compound			8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
b	m1	m2	6	7	9							
0.0048	0.2609	0.00	312471	631498	522012					LINR	#	0.9986
16)MA tert-Butyl methyl ether				0.7081586	0.6791648	0.7298488	0.7334699	0.7322576				
			0.7320218	0.7248549	0.7556178				0.7244	AVRG		3.0940
17)MA trans-1,2-Dichloroethyle				0.3452327	0.3688385	0.3508649	0.3550436	0.3429426				
			0.3435170	0.3308495	0.3574153				0.3493	AVRG		3.2707
18)MA Hexane					0.4074037	0.3591362	0.3585072	0.3434006				
			0.3394498	0.3368362	0.3309269				0.3537	AVRG		7.3451
19)MA Vinyl acetate				0.3575438	0.5101400	0.5001175	0.4762391	0.5013358				
			0.5211934	0.4944380	0.5002834				0.4827	AVRG		10.8049
20)MA 1,1-Dichloroethane				0.4491267	0.4284808	0.4390645	0.4487456	0.4358762				
			0.4311206	0.4130671	0.4444487				0.4362	AVRG		2.7689
21)MA 2-Butanone				0.0975666	0.0964468	0.0927676	0.0903971	0.0921791				
			0.0970691	0.0954733	0.0967256				0.0948	AVRG		2.8199
22)MA cis-1,2-Dichloroethylene				0.4115530	0.4266566	0.4139861	0.4134048	0.4062207				
			0.4047676	0.3909700	0.4197329				0.4109	AVRG		2.6004
23)MA 2,2-Dichloropropane				0.3746433	0.3388191	0.3661799	0.3451532	0.3293794				
			0.3375068	0.3243606	0.3555190				0.3464	AVRG		5.1004
24)MA Bromochloromethane				0.1468967	0.1523377	0.1568643	0.1570369	0.1557698				
			0.1588102	0.1559121	0.1642679				0.1560	AVRG		3.2001
25)MA Chloroform				0.4563915	0.4449181	0.4592091	0.4664302	0.4544753				
			0.4539765	0.4442120	0.4742187				0.4567	AVRG		2.2130
26)MA 1,1,1-Trichloroethane				0.4313554	0.4048658	0.4185911	0.4208205	0.4086373				
			0.4111078	0.3936133	0.4233548				0.4140	AVRG		2.8758
27)MA Cyclohexane				0.4423306	0.4113495	0.4274640	0.4184965	0.4042582				
			0.4079407	0.3816487	0.4144435				0.4135	AVRG		4.2752
28)MA 1,1-Dichloropropene				0.3540207	0.3202403	0.3382616	0.3456457	0.3334512				
			0.3363067	0.3224189	0.3469930				0.3372	AVRG		3.4954

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

Compound			8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
b	m1	m2	6	7	9							
29)MA	Carbon tetrachloride		0.3667225	0.3788225 0.3553769	0.3581909 0.3790505	0.3788956	0.3800666	0.3683856	0.3707	AVRG		2.7036
30)SA	1,2-Dichloroethane-d4		0.3164376 0.3033186	0.3016363 0.3039626	0.2984423 0.3001406	0.2976516	0.3046247	0.2985983	0.3028	AVRG		1.8920
31)MA	1,2-Dichloroethane		0.3454557	0.3460529 0.3337968	0.3457786 0.3521238	0.3433238	0.3516125	0.3382461	0.3445	AVRG		1.7982
32)MA	Benzene		0.9771671	1.0114822 0.9376050	0.9694452 1.0008600	0.9847163	0.9868747	0.9635308	0.9790	AVRG		2.3406
33)MA	Cyclohexene		0.4808655	0.5289220 0.4591259	0.4857239 0.4927315	0.4942916	0.4915427	0.4792113	0.4891	AVRG		4.0213
34)MA	n-Butyl alcohol		0.0074887 0.0072330	0.0067195 0.0072462	0.0069033 0.0074725	0.0068115	0.0066954	0.0068225	0.0070	AVRG	#	4.5109
35)MA	Trichloroethylene		0.2720667	0.2796936 0.2639975	0.2778284 0.2836393	0.2812295	0.2841097	0.2721979	0.2768	AVRG		2.5053
36)MA	2-Pentanone		0.1738635	0.1673743	0.1744855 0.1570093	0.1648307	0.1618747	0.1641178	0.1662	AVRG		3.7901
37)MA	1,2-Dichloropropane		0.2583419	0.2448539 0.2439642	0.2366459 0.2604225	0.2501823	0.2542392	0.2465198	0.2494	AVRG		3.2029
38)MA	Methylcyclohexane		0.4553212	0.4840054 0.4364593	0.4547726 0.4717591	0.4765538	0.4729098	0.4591698	0.4639	AVRG		3.2993
39)MA	Dibromomethane		0.1669874	0.1637697 0.1613686	0.1582861 0.1695856	0.1653843	0.1619618	0.1616314	0.1636	AVRG		2.1949
40)MA	Bromodichloromethane		0.3595720	0.3549972 0.3495672	0.3449459 0.3703481	0.3470462	0.3566960	0.3499592	0.3541	AVRG		2.3205
41)MA	2-Chloroethylvinyl ether		0.0116338	0.0059134 0.0102020	0.0108538 0.0091012	0.0117570	0.0102363	0.0096517	0.0099	AVRG	# #	18.7299
42)MA	cis-1,3-Dichloropropylene		0.4403226	0.3996013 0.4202636	0.4083555 0.4447764	0.4068782	0.4180122	0.4114415	0.4187	AVRG		3.8454

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound		8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
	m1	m2	6	7	9							
44)MA	4-Methyl-2-pentanone		0.1040079	0.0950948 0.1027111	0.1018886 0.1050406	0.1008295	0.1009475	0.1009415	0.1014	AVRG		2.9459
45)SA	Toluene-d8		1.3371605 1.2965958	1.2616187 1.2931531	1.2613565 1.3023327	1.2746122	1.3165211	1.2823137	1.2917	AVRG		1.9407
46)MA	Toluene		1.2951343	1.3494283 1.2417769	1.2887857 1.3359954	1.2998740	1.3255829	1.2814521	1.3023	AVRG		2.6340
47)MA	trans-1,3-Dichloropropyl		0.4721093	0.4454972 0.4488508	0.4559616 0.4749321	0.4484029	0.4597077	0.4530614	0.4573	AVRG		2.4034
48)MA	1,1,2-Trichloroethane		0.2284503	0.2248484 0.2201461	0.2266111 0.2322999	0.2195911	0.2279776	0.2201331	0.2250	AVRG		2.0790
49)MA	2-Hexanone		0.1684654	0.1559747 0.1602933	0.1616042 0.1644256	0.1588656	0.1605324	0.1579916	0.1610	AVRG		2.4327
50)MA	1,3-Dichloropropane		0.4509912	0.4123830 0.4302235	0.4301711 0.4546124	0.4293320	0.4387517	0.4339626	0.4351	AVRG		3.0658
51)MA	Tetrachloroethylene		0.3045029	0.3218740 0.2918109	0.3180502 0.3192169	0.3153556	0.3179713	0.3101095	0.3124	AVRG		3.2001
52)MA	Dibromochloromethane		0.3726056	0.3303698 0.3649909	0.3503316 0.3845534	0.3587224	0.3663424	0.3618708	0.3612	AVRG		4.4288
53)MA	1,2-Dibromoethane		0.2968965	0.2800709 0.2879536	0.2923831 0.3015713	0.2822586	0.2928972	0.2824715	0.2896	AVRG		2.6539
54)MA	Chlorobenzene		0.9108668	0.9008418 0.8813975	0.9125896 0.9462939	0.8977949	0.9245694	0.9015765	0.9095	AVRG		2.1421
55)MA	1,1,1,2-Tetrachloroethan		0.3620313	0.3593327 0.3610578	0.3623754 0.3860893	0.3698812	0.3772495	0.3680543	0.3683	AVRG		2.5273
56)MA	Ethylbenzene		1.4524059	1.4982009 1.3887463	1.4817087 1.4991515	1.4351591	1.4672178	1.4299540	1.4566	AVRG		2.6047
57)MA	m,p-Xylenes			0.6054446	0.5931450	0.5826241	0.5902933	0.5736662				

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound		8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
	m1	m2	6	7	9							
			0.5804490	0.5516171	0.5992125				0.5846	AVRG		2.8786
58)MA	o-Xylene			1.2787589	1.2217551	1.2233603	1.2563777	1.2113280				
			1.1953830	1.1629015	1.2515765				1.2252	AVRG		3.0091
59)MA	Styrene			0.9131510	0.9060001	0.9400328	0.9682892	0.9635919				
			0.9968629	0.9583266	1.0283372				0.9593	AVRG		4.2469
61)MA	Bromoform			0.4072071	0.4235097	0.4230364	0.4169013	0.4311460				
			0.4646467	0.4616584	0.4769177				0.4381	AVRG		5.8880
62)MA	Isopropylbenzene			2.6401913	2.7099296	2.6633252	2.6692361	2.6617975				
			2.6763676	2.6009730	2.8086365				2.6788	AVRG		2.2751
63)SA	Bromofluorobenzene			0.8148371	0.8521302	0.8442927	0.8520498	0.8472591				
			0.8888739	0.8738561	0.8777752				0.8615	AVRG		3.0900
64)MA	1,1,2,2-Tetrachloroethan			0.5906830	0.6298746	0.6077669	0.5917339	0.5983868				
			0.6192003	0.6116396	0.6279075				0.6096	AVRG		2.5173
65)MA	1,2,3-Trichloropropane			0.1840475	0.1932228	0.1895244	0.1936137	0.1868914				
			0.1997012	0.1950267	0.2033212				0.1932	AVRG		3.3048
66)MA	Bromobenzene			0.7152866	0.7708298	0.7557094	0.7562318	0.7511251				
			0.7850176	0.7579021	0.8126957				0.7631	AVRG		3.6926
67)MA	n-Propylbenzene			2.9712154	3.0529978	3.0117718	3.0038798	2.9844766				
			3.0464849	2.9094530	3.1657850				3.0183	AVRG		2.4796
68)MA	1,3,5-Trimethylbenzene			2.2842627	2.3588301	2.3200334	2.3431073	2.3311922				
			2.3435997	2.2684083	2.4709973				2.3401	AVRG		2.6167
69)MA	2-Chlorotoluene			0.6805021	0.6646195	0.6671673	0.6719657	0.6637717				
			0.6760196	0.6457039	0.7039379				0.6717	AVRG		2.4815
70)MA	4-Chlorotoluene			1.8219394	1.8632537	1.8276307	1.8275021	1.8220514				
			1.8695169	1.7713314	1.9309534				1.8418	AVRG		2.5411
71)MA	tert-Butylbenzene			0.4932701	0.5436781	0.5295859	0.5368326	0.5286134				
			0.5292150	0.5160766	0.5645262				0.5302	AVRG		3.8855

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound		8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
	m1	m2	6	7	9							
72)MA	1,2,4-Trimethylbenzene		2.3770372	2.3611805	2.4843240	2.3737291	2.3870386	2.3968375	2.3977	AVRG		2.9250
73)MA	sec-Butylbenzene		2.9239767	2.9352878	2.9979385	2.9614439	2.9594936	2.9198166	2.9497	AVRG		2.7052
74)MA	4-Isopropyltoluene		2.6124352	2.5987928	2.6547844	2.6232553	2.6184292	2.6261989	2.6265	AVRG		2.8554
75)MA	1,3-Dichlorobenzene		1.4131932	1.4176718	1.4524996	1.4142681	1.4135193	1.3937486	1.4150	AVRG		2.7285
76)MA	1,4-Dichlorobenzene		1.4099536	1.4150589	1.4933001	1.4189590	1.4065150	1.3970346	1.4187	AVRG		3.2832
77)MA	n-Butylbenzene		2.2510946	2.3223950	2.3622230	2.3121294	2.3021974	2.2817119	2.2940	AVRG		3.5702
78)MA	1,2-Dichlorobenzene		1.3829733	1.3631271	1.4051280	1.3804011	1.3761803	1.3666058	1.3811	AVRG		2.5160
79)MA	1,2-Dibromo-3-chloroprop		0.1725824	0.1597147	0.1740680	0.1740429	0.1588498	0.1655132	0.1702	AVRG		4.8397
80)MA	1,2,4-Trichlorobenzene		1.1350290	1.1314755	1.1557722	1.1507724	1.1197597	1.1456481	1.1439	AVRG		3.9384
81)MA	Hexachlorobutadiene		0.6609917	0.7027119	0.6653925	0.6750541	0.6707296	0.6622264	0.6644	AVRG		5.0052
82)MA	Naphthalene		2.2972843	2.1879113	2.2259921	2.2167830	2.1707124	2.2266493	2.2543	AVRG		3.9417
83)MA	1,2,3-Trichlorobenzene		1.0525321	1.0702353	1.0496908	1.0914408	1.0465236	1.0458323	1.0607	AVRG		3.2583
85)B	Acrolein		0.0245291	0.0249919	0.0251928	0.0253925	0.0251514	0.0265642	0.0264	AVRG		7.7809
86)B	Trichlorotrifluoroethane		0.1043247	0.1224231	0.1020322	0.1072415	0.1080012	0.0983069	0.1070	AVRG		6.5756

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

Compound			8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
b	m1	m2	6	7	9							
87)B	Isopropyl Alcohol		0.0146384	0.0207511 0.0154337	0.0144960 0.0152520	0.0136253	0.0138632	0.0147994	0.0154	AVRG		14.7486
88)B	Allyl chloride		0.3722878	0.3468165 0.3745337	0.3567870 0.3668880	0.3622975	0.3713028	0.3624174	0.3642	AVRG		2.5291
89)B	tert-Butyl Alcohol		0.0269169	0.0362262 0.0273991	0.0267403 0.0277935	0.0256252	0.0260957	0.0274404	0.0280	AVRG		12.0915
90)B	Acrylonitrile		0.0768309	0.0760532 0.0768474	0.0735886 0.0779734	0.0749442	0.0749251	0.0783454	0.0762	AVRG		2.1399
91)B	Isopropyl ether		0.7445343	0.5510510 0.7488369	0.7427503 0.7568966	0.7436467	0.7430914	0.7430132	0.7217	AVRG		9.5786
92)B	2-Chloro-1,3-butadiene		0.3126203	0.3400461 0.3125272	0.3092897 0.3079325	0.3043512	0.3140478	0.3057781	0.3133	AVRG		3.6159
93)B	Ethyl tert-butyl ether		0.6567189	0.4395346 0.6561388	0.6529577 0.6594295	0.6480018	0.6481154	0.6525990	0.6267	AVRG		12.0838
94)B	Ethyl acetate		0.1843635	0.2029827 0.1820018	0.1908144 0.1951466	0.1930205	0.1822475	0.1957665	0.1908	AVRG		3.9066
95)B	Propionitrile		0.0293484	0.0360074 0.0296127	0.0296815 0.0301882	0.0280320	0.0283131	0.0299822	0.0301	AVRG		8.2551
96)B	Methacrylonitrile		0.1253434	0.1175793 0.1254254	0.1258869 0.1300266	0.1279422	0.1240844	0.1295621	0.1257	AVRG		3.1161
97)B	Tetrahydrofuran		0.0624157	0.0759879 0.0612471	0.0639673 0.0640758	0.0616955	0.0592612	0.0640206	0.0641	AVRG		7.9462
98)B	Isobutyl alcohol		0.0075548	0.0113889 0.0077285	0.0079543 0.0079823	0.0076330	0.0075983	0.0079297	0.0082	AVRG	# #	15.7044
99)B	Methyl tert-amyl ether		0.6563358	0.4334390 0.6522697	0.6456116 0.6566189	0.6541293	0.6514451	0.6560088	0.6257	AVRG		12.4306
100)B	Methyl methacrylate			0.1210843	0.1413389	0.1535077	0.1447051	0.1527536				

Response Factor Report VOAC

GEL Laboratories, LLC

Method File : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

Last Update : Tue Mar 19 09:59:33 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(x^2)$

b	Compound		8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
	m1	m2	6	7	9							
			0.1490492	0.1538558	0.1680615				0.1480	AVRG		9.0999
101)B	1,4-Dioxane			0.0035093	0.0024333	0.0022810	0.0022227	0.0023310				
			0.0023398	0.0024664	0.0024663				0.0025	AVRG	# #	16.5490
102)B	2-Nitropropane			0.0710570	0.0665857	0.0677581	0.0649701	0.0687959				
			0.0674202	0.0678502	0.0730760				0.0684	AVRG		3.7375
104)B	Ethyl methacrylate			0.2856536	0.3480719	0.3637942	0.3677286	0.3826886				
			0.3704224	0.3789686	0.4047777				0.3628	AVRG		9.7020
106)B	1-Chlorohexane			0.6986393	0.4724536	0.4832710	0.4783845	0.4873950				
			0.4721744	0.4820864	0.4861372				0.5076	AVRG	#	15.2522
107)B	cis-1,4-Dichloro-2-buten			0.1778748	0.1799738	0.1839763	0.1869046	0.1989303				
			0.1934749	0.1967520	0.2047679				0.1903	AVRG		5.0552
108)B	Cyclohexanone			0.0196011	0.0137156	0.0118769	0.0119530	0.0135050				
			0.0144551	0.0145135	0.0143283				0.0142	AVRG	#	16.8873
109)B	trans-1,4-Dichloro-2-but			0.1528183	0.1530612	0.1571903	0.1615251	0.1700041				
			0.1639951	0.1650684	0.1723386				0.1620	AVRG		4.4994
110)B	Pentachloroethane			0.4626936	0.5151273	0.5124610	0.5453181	0.5527208				
			0.5627742	0.5565706	0.5254769				0.5291	AVRG		6.2290
111)B	Benzyl chloride			1.2072938	1.2968895	1.2888226	1.3387873	1.3891690				
			1.3564343	1.3337375	1.3365242				1.3185	AVRG		4.1658
112)B	bis(2-Chloroisopropyl)et			0.2945069	0.2444082	0.2213894	0.2300875	0.2423030				
			0.2383346	0.2338343	0.2307251				0.2419	AVRG		9.2904

(#) = Out of Range (\$) = Individual RF Out of Range

AVRG = Average, LINR = Linear Regression, $1/x$ = the inverse of concentration, $1/x^2$ = the inverse square of concentration

PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY102.D
Acq On : 18 Mar 2024 11:39
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-01|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD0005 5UL/5ML N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 09:59:48 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.952	10.934	1.000	1169899	50.00	ug/L	0.02
43) Chlorobenzene-d5	117	14.366	14.354	1.000	957446	50.00	ug/L	0.01
60) 1,4-Dichlorobenzene-d4	152	16.939	16.933	1.000	547189	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.952	10.928	1.000	0m	50.00	ug/L	0.02
103) B Chlorobenzene-d5	117	14.366	14.348	1.000	0m	50.00	ug/L	0.02
105) B 1,4-Dichlorobenzene-d4	152	16.939	16.920	1.000	0m	50.00	ug/L	0.02
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.562	10.543	0.964	370200	52.26	ug/L	0.02
45) Toluene-d8	98	12.726	12.714	0.886	1280259	51.76	ug/L	0.01
63) Bromofluorobenzene	95	15.628	15.622	0.923	493619	52.36	ug/L	0.00
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.819	4.782	0.440	2509	0.39	ug/L	85
3) Chloromethane	50	5.215	5.203	0.476	3564	0.49	ug/L	98
4) Vinyl chloride	62	5.453	5.422	0.498	2966	0.40	ug/L	96
5) Bromomethane	94	6.105	6.075	0.557	2354	0.43	ug/L	# 68
6) Chloroethane	64	6.227	6.197	0.569	2041	0.44	ug/L	99
7) Trichlorofluoromethane	101	6.648	6.629	0.607	3917	0.43	ug/L	94
8) Ethyl ether	59	7.001	6.971	0.639	2056	0.42	ug/L	88
9) Acetone	43	7.398	7.367	0.675	8197	5.23	ug/L	92
10) 1,1-Dichloroethylene	61	7.410	7.392	0.677	4711	0.58	ug/L	97
11) Iodomethane	142	7.678	7.654	0.701	29342	2.66	ug/L	99
12) Acetonitrile	41	7.763	7.739	0.709	11059	17.77	ug/L	90
13) Methyl acetate	43	7.824	7.794	0.714	11316	3.16	ug/L	95
14) Carbon disulfide	76	7.824	7.800	0.714	44981	2.75	ug/L	99
15) Methylene chloride	84	8.020	8.001	0.732	8998	0.55	ug/L	97
16) tert-Butyl methyl ether	73	8.355	8.330	0.763	9095	0.54	ug/L	80
17) trans-1,2-Dichloroethy...	61	8.398	8.373	0.767	4653	0.57	ug/L	97
18) Hexane	57	8.715	8.690	0.796	7992	N.D.		
19) Vinyl acetate	43	8.873	8.849	0.810	23439	2.08	ug/L	96
20) 1,1-Dichloroethane	63	8.922	8.897	0.815	5435	0.53	ug/L	98
21) 2-Butanone	43	9.556	9.525	0.873	7409	3.34	ug/L	88
22) cis-1,2-Dichloroethylene	61	9.611	9.586	0.878	5112	0.53	ug/L	92
23) 2,2-Dichloropropane	77	9.641	9.623	0.880	4285	0.53	ug/L	78
24) Bromochloromethane	128	9.903	9.885	0.904	1721	0.47	ug/L	92
25) Chloroform	83	9.934	9.922	0.907	5963	0.56	ug/L	100
26) 1,1,1-Trichloroethane	97	10.251	10.232	0.936	5384	0.56	ug/L	95
27) Cyclohexane	56	10.367	10.342	0.947	5933	0.61	ug/L	98
28) 1,1-Dichloropropene	75	10.415	10.403	0.951	4472	0.57	ug/L	# 98
29) Carbon tetrachloride	117	10.464	10.446	0.955	4674	0.54	ug/L	97
31) 1,2-Dichloroethane	62	10.653	10.635	0.973	4710	0.58	ug/L	99
32) Benzene	78	10.684	10.665	0.976	12518	0.55	ug/L	# 81
33) Cyclohexene	67	10.806	10.793	0.987	7001	0.61	ug/L	91
34) n-Butyl alcohol	56	11.037	11.019	1.008	8761	53.16	ug/L	86
35) Trichloroethylene	95	11.373	11.354	1.038	3893	0.60	ug/L	93
36) 2-Pentanone	43	11.458	11.434	1.046	12312	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY102.D
Acq On : 18 Mar 2024 11:39
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-01|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD0005 5UL/5ML N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 19 09:59:48 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.635	11.616	1.062	3039	0.52 ug/L	99
38) Methylcyclohexane	83	11.641	11.635	1.063	6374	0.59 ug/L	66
39) Dibromomethane	93	11.781	11.763	1.076	1823	0.48 ug/L	91
40) Bromodichloromethane	83	11.897	11.885	1.086	4424	0.53 ug/L	97
41) 2-Chloroethylvinyl ether	63	12.135	12.122	1.108	253	N.D.	
42) cis-1,3-Dichloropropylene	75	12.385	12.372	1.131	5101	0.52 ug/L	74
44) 4-Methyl-2-pentanone	58	12.482	12.470	0.869	5215	2.68 ug/L	99
46) Toluene	91	12.811	12.793	0.892	14315	0.57 ug/L #	100
47) trans-1,3-Dichloroprop...	75	12.970	12.952	0.903	4905	0.56 ug/L	93
48) 1,1,2-Trichloroethane	83	13.201	13.189	0.919	2190	0.51 ug/L	88
49) 2-Hexanone	43	13.397	13.384	0.933	8597	2.79 ug/L	95
50) 1,3-Dichloropropane	76	13.409	13.397	0.933	4486	0.54 ug/L	84
51) Tetrachloroethylene	164	13.451	13.439	0.936	3565	0.60 ug/L	96
52) Dibromochloromethane	129	13.695	13.689	0.953	3389	0.49 ug/L	99
53) 1,2-Dibromoethane	107	13.890	13.872	0.967	2824	0.51 ug/L	97
54) Chlorobenzene	112	14.403	14.390	1.003	9332	0.54 ug/L #	22
55) 1,1,1,2-Tetrachloroethane	131	14.457	14.445	1.006	3769	0.53 ug/L #	66
56) Ethylbenzene	91	14.470	14.457	1.007	16728	0.60 ug/L	96
57) m,p-Xylenes	106	14.585	14.573	1.015	14195	1.27 ug/L	100
58) o-Xylene	91	15.043	15.037	1.047	13405	0.57 ug/L	100
59) Styrene	104	15.049	15.037	1.048	9722	0.53 ug/L	97
61) Bromoform	173	15.317	15.305	0.904	2348	0.49 ug/L	87
62) Isopropylbenzene	105	15.427	15.414	0.911	15593	0.53 ug/L	98
64) 1,1,2,2-Tetrachloroethane	83	15.701	15.695	0.927	3782	0.57 ug/L	93
65) 1,2,3-Trichloropropane	110	15.799	15.792	0.933	1076	0.51 ug/L	93
66) Bromobenzene	156	15.853	15.847	0.936	4623	0.55 ug/L	95
67) n-Propylbenzene	91	15.872	15.866	0.937	19125	0.58 ug/L	99
68) 1,3,5-Trimethylbenzene	105	16.030	16.024	0.946	13561	0.53 ug/L	97
69) 2-Chlorotoluene	126	16.030	16.024	0.946	3976	0.54 ug/L	87
70) 4-Chlorotoluene	91	16.140	16.128	0.953	11855	0.59 ug/L	97
71) tert-Butylbenzene	134	16.433	16.420	0.970	3202	0.55 ug/L	94
72) 1,2,4-Trimethylbenzene	105	16.469	16.463	0.972	14693	0.56 ug/L	98
73) sec-Butylbenzene	105	16.670	16.664	0.984	18285	0.57 ug/L	100
74) 4-Isopropyltoluene	119	16.805	16.792	0.992	16111	0.56 ug/L	97
75) 1,3-Dichlorobenzene	146	16.878	16.865	0.996	8980	0.58 ug/L	84
76) 1,4-Dichlorobenzene	146	16.969	16.957	1.002	8959	0.58 ug/L #	8
77) n-Butylbenzene	91	17.286	17.280	1.021	14652	0.58 ug/L	98
78) 1,2-Dichlorobenzene	146	17.439	17.432	1.030	8313	0.55 ug/L	97
79) 1,2-Dibromo-3-chloropr...	157	18.390	18.383	1.086	875	0.47 ug/L	82
80) 1,2,4-Trichlorobenzene	180	19.591	19.578	1.157	7308	0.58 ug/L	98
81) Hexachlorobutadiene	225	19.792	19.780	1.168	4304	0.59 ug/L	92
82) Naphthalene	128	20.030	20.017	1.182	13750	0.56 ug/L	97
83) 1,2,3-Trichlorobenzene	180	20.408	20.401	1.205	6425	0.55 ug/L	97
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	7.385	7.355	0.674	0m	N.D.	d	
87) Isopropyl Alcohol	7.477	7.440	0.683	0m	N.D.	d	
88) Allyl chloride	7.763	7.843	0.709	0m	N.D.	d	
89) tert-Butyl Alcohol	8.013	7.983	0.732	0m	N.D.	d	
90) Acrylonitrile	0.000	8.257	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY102.D
Acq On : 18 Mar 2024 11:39
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-01|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD0005 SUL/5ML N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

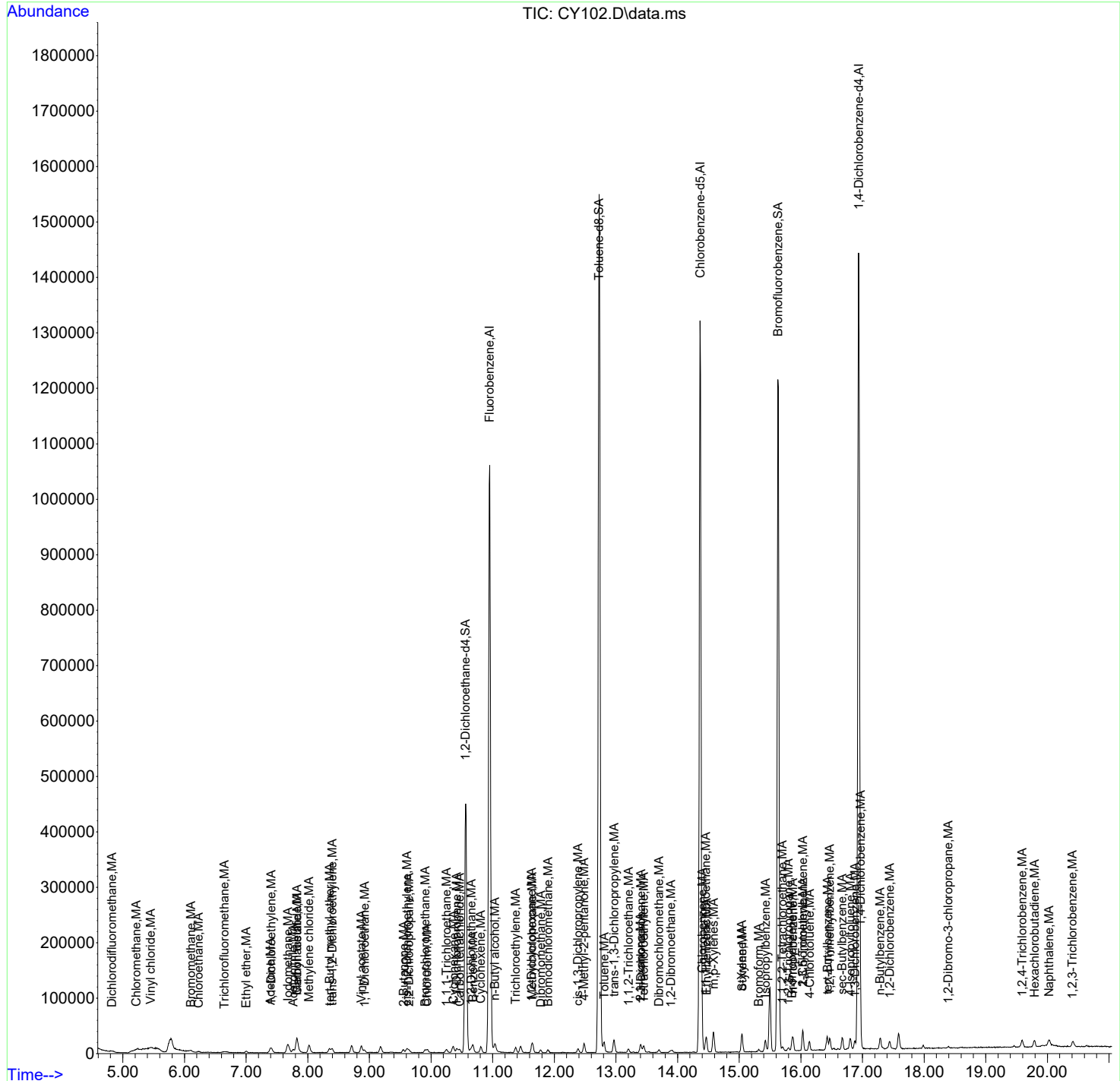
Quant Time: Mar 19 09:59:48 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.342	9.312	0.853	0m	N.D.	d
94) Ethyl acetate		9.556	9.531	0.873	0m	N.D.	d
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		9.824	9.794	0.897	0m	N.D.	d
97) Tetrahydrofuran		9.983	9.940	0.911	0m	N.D.	d
98) Isobutyl alcohol		10.361	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.684	10.671	0.976	0m	N.D.	d
100) Methyl methacrylate		11.647	11.580	1.063	0m	N.D.	d
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		12.135	12.086	1.108	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.256	14.238	0.842	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		17.085	17.073	1.009	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		17.585	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

Quant Time: Mar 19 09:59:48 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY103.D
Acq On : 18 Mar 2024 12:07
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-02|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD001 SUL/5ML N/A MIX[A]
ALS Vial : 3 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 09:59:51 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.946	10.934	1.000	1280151	50.00	ug/L	0.01
43) Chlorobenzene-d5	117	14.366	14.354	1.000	1035809	50.00	ug/L	0.01
60) 1,4-Dichlorobenzene-d4	152	16.939	16.933	1.000	612342	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.946	10.928	1.000	0m	50.00	ug/L	0.02
103) B Chlorobenzene-d5	117	14.366	14.348	1.000	0m	50.00	ug/L	0.02
105) B 1,4-Dichlorobenzene-d4	152	16.939	16.920	1.000	0m	50.00	ug/L	0.02
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.556	10.543	0.964	386140	49.81	ug/L	0.01
45) Toluene-d8	98	12.726	12.714	0.886	1306796	48.83	ug/L	0.01
63) Bromofluorobenzene	95	15.628	15.622	0.923	498959	47.29	ug/L	0.00
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.807	4.782	0.439	5554	0.78	ug/L	95
3) Chloromethane	50	5.221	5.203	0.477	6742	0.85	ug/L	98
4) Vinyl chloride	62	5.447	5.422	0.498	6332	0.78	ug/L	96
5) Bromomethane	94	6.087	6.075	0.556	4608	0.77	ug/L	# 3
6) Chloroethane	64	6.221	6.197	0.568	3874	0.76	ug/L	99
7) Trichlorofluoromethane	101	6.623	6.629	0.605	8166	0.82	ug/L	98
8) Ethyl ether	59	6.983	6.971	0.638	4076	0.77	ug/L	94
9) Acetone	43	7.385	7.367	0.675	12283	7.16	ug/L	91
10) 1,1-Dichloroethylene	61	7.404	7.392	0.676	8994	1.01	ug/L	99
11) Iodomethane	142	7.672	7.654	0.701	59031	4.89	ug/L	100
12) Acetonitrile	41	7.757	7.739	0.709	18850	27.69	ug/L	93
13) Methyl acetate	43	7.812	7.794	0.714	20424	5.22	ug/L	99
14) Carbon disulfide	76	7.812	7.800	0.714	89588	5.01	ug/L	99
15) Methylene chloride	84	8.013	8.001	0.732	12492	0.95	ug/L	97
16) tert-Butyl methyl ether	73	8.343	8.330	0.762	18131	0.98	ug/L	88
17) trans-1,2-Dichloroethy...	61	8.391	8.373	0.767	8839	0.99	ug/L	95
18) Hexane	57	8.702	8.690	0.795	12580	N.D.		
19) Vinyl acetate	43	8.861	8.849	0.810	45771	3.70	ug/L	97
20) 1,1-Dichloroethane	63	8.910	8.897	0.814	11499	1.03	ug/L	99
21) 2-Butanone	43	9.544	9.525	0.872	12490	5.14	ug/L	96
22) cis-1,2-Dichloroethylene	61	9.598	9.586	0.877	10537	1.00	ug/L	98
23) 2,2-Dichloropropane	77	9.635	9.623	0.880	9592	1.08	ug/L	87
24) Bromochloromethane	128	9.897	9.885	0.904	3761	0.94	ug/L	96
25) Chloroform	83	9.934	9.922	0.908	11685	1.00	ug/L	99
26) 1,1,1-Trichloroethane	97	10.245	10.232	0.936	11044	1.04	ug/L	98
27) Cyclohexane	56	10.354	10.342	0.946	11325	1.07	ug/L	99
28) 1,1-Dichloropropene	75	10.415	10.403	0.952	9064	1.05	ug/L	# 97
29) Carbon tetrachloride	117	10.458	10.446	0.955	9699	1.02	ug/L	98
31) 1,2-Dichloroethane	62	10.647	10.635	0.973	8860	1.00	ug/L	97
32) Benzene	78	10.678	10.665	0.975	25897	1.03	ug/L	# 81
33) Cyclohexene	67	10.806	10.793	0.987	13542	1.08	ug/L	99
34) n-Butyl alcohol	56	11.031	11.019	1.008	17204	95.40	ug/L	92
35) Trichloroethylene	95	11.366	11.354	1.038	7161	1.01	ug/L	98
36) 2-Pentanone	43	11.446	11.434	1.046	22117	5.20	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY103.D
Acq On : 18 Mar 2024 12:07
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-02|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD001 5UL/5ML N/A MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 19 09:59:51 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.629	11.616	1.062	6269	0.98 ug/L	88
38) Methylcyclohexane	83	11.647	11.635	1.064	12392	1.04 ug/L	70
39) Dibromomethane	93	11.775	11.763	1.076	4193	1.00 ug/L	96
40) Bromodichloromethane	83	11.891	11.885	1.086	9089	1.00 ug/L	98
41) 2-Chloroethylvinyl ether	63	12.128	12.122	1.108	757	2.98 ug/L #	43
42) cis-1,3-Dichloropropylene	75	12.378	12.372	1.131	10231	0.95 ug/L	84
44) 4-Methyl-2-pentanone	58	12.482	12.470	0.869	9850	4.69 ug/L	91
46) Toluene	91	12.805	12.793	0.891	27955	1.04 ug/L #	100
47) trans-1,3-Dichloroprop...	75	12.958	12.952	0.902	9229	0.97 ug/L	96
48) 1,1,2-Trichloroethane	83	13.201	13.189	0.919	4658	1.00 ug/L	98
49) 2-Hexanone	43	13.390	13.384	0.932	16156	4.84 ug/L	97
50) 1,3-Dichloropropane	76	13.409	13.397	0.933	8543	0.95 ug/L	91
51) Tetrachloroethylene	164	13.451	13.439	0.936	6668	1.03 ug/L	98
52) Dibromochloromethane	129	13.695	13.689	0.953	6844	0.91 ug/L	98
53) 1,2-Dibromoethane	107	13.884	13.872	0.966	5802	0.97 ug/L	98
54) Chlorobenzene	112	14.402	14.390	1.003	18662	0.99 ug/L #	56
55) 1,1,1,2-Tetrachloroethane	131	14.457	14.445	1.006	7444	0.98 ug/L #	65
56) Ethylbenzene	91	14.463	14.457	1.007	31037	1.03 ug/L	94
57) m,p-Xylenes	106	14.579	14.573	1.015	25085	2.07 ug/L	93
58) o-Xylene	91	15.043	15.037	1.047	26491	1.04 ug/L	98
59) Styrene	104	15.043	15.037	1.047	18917	0.95 ug/L	98
61) Bromoform	173	15.317	15.305	0.904	4987	0.93 ug/L	98
62) Isopropylbenzene	105	15.421	15.414	0.910	32334	0.99 ug/L	98
64) 1,1,2,2-Tetrachloroethane	83	15.707	15.695	0.927	7234	0.97 ug/L	99
65) 1,2,3-Trichloropropane	110	15.799	15.792	0.933	2254	0.95 ug/L	87
66) Bromobenzene	156	15.853	15.847	0.936	8760	0.94 ug/L	93
67) n-Propylbenzene	91	15.872	15.866	0.937	36388	0.98 ug/L	100
68) 1,3,5-Trimethylbenzene	105	16.030	16.024	0.946	27975	0.98 ug/L	97
69) 2-Chlorotoluene	126	16.030	16.024	0.946	8334	1.01 ug/L	98
70) 4-Chlorotoluene	91	16.134	16.128	0.952	22313	0.99 ug/L	93
71) tert-Butylbenzene	134	16.426	16.420	0.970	6041	0.93 ug/L	90
72) 1,2,4-Trimethylbenzene	105	16.469	16.463	0.972	28917	0.98 ug/L	99
73) sec-Butylbenzene	105	16.670	16.664	0.984	35948	1.00 ug/L	98
74) 4-Isopropyltoluene	119	16.798	16.792	0.992	31827	0.99 ug/L	98
75) 1,3-Dichlorobenzene	146	16.872	16.865	0.996	17362	1.00 ug/L	85
76) 1,4-Dichlorobenzene	146	16.963	16.957	1.001	17330	1.00 ug/L #	68
77) n-Butylbenzene	91	17.286	17.280	1.021	28442	1.01 ug/L	99
78) 1,2-Dichlorobenzene	146	17.439	17.432	1.030	16694	0.99 ug/L	98
79) 1,2-Dibromo-3-chloropr...	157	18.390	18.383	1.086	1956	0.94 ug/L	82
80) 1,2,4-Trichlorobenzene	180	19.591	19.578	1.157	13857	0.99 ug/L	98
81) Hexachlorobutadiene	225	19.792	19.780	1.168	8606	1.06 ug/L	95
82) Naphthalene	128	20.023	20.017	1.182	26795	0.97 ug/L	100
83) 1,2,3-Trichlorobenzene	180	20.414	20.401	1.205	13107	1.01 ug/L	99
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	7.367	7.355	0.673	0m	N.D. d		
87) Isopropyl Alcohol	7.434	7.440	0.679	0m	N.D. d		
88) Allyl chloride	0.000	7.843	0.000	0	N.D.		
89) tert-Butyl Alcohol	8.013	7.983	0.732	0m	N.D. d		
90) Acrylonitrile	0.000	8.257	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY103.D
Acq On : 18 Mar 2024 12:07
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-02|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD001 SUL/5ML N/A MIX[A]
ALS Vial : 3 Sample Multiplier: 1

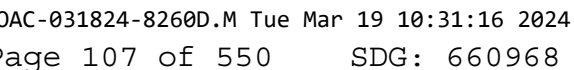
Quant Time: Mar 19 09:59:51 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.861	8.873	0.810	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.336	9.312	0.853	0m	N.D.	d
94) Ethyl acetate		9.544	9.531	0.872	0m	N.D.	d
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		9.806	9.794	0.896	0m	N.D.	d
97) Tetrahydrofuran		9.976	9.940	0.911	0m	N.D.	d
98) Isobutyl alcohol		10.287	10.263	0.940	0m	N.D.	d
99) Methyl tert-amyl ether		10.678	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.647	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		12.128	12.086	1.108	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		15.427	15.439	0.911	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		17.097	17.073	1.009	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		17.573	17.506	1.037	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

Quant Time: Mar 19 09:59:51 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY104.D
Acq On : 18 Mar 2024 12:35
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-03|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD002 SUL/5ML N/A MIX[A]
ALS Vial : 4 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 09:59:53 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.940	10.934	1.000	1260850	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.360	14.354	1.000	1012969	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.933	16.933	1.000	582100	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.940	10.928	1.000	0m	50.00	ug/L	0.01
103) B Chlorobenzene-d5	117	14.360	14.348	1.000	0m	50.00	ug/L	0.01
105) B 1,4-Dichlorobenzene-d4	152	16.933	16.920	1.000	0m	50.00	ug/L	0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.556	10.543	0.965	376291	49.29	ug/L	0.01
45) Toluene-d8	98	12.720	12.714	0.886	1277715	48.82	ug/L	0.00
63) Bromofluorobenzene	95	15.628	15.622	0.923	496025	49.46	ug/L	0.00
Target Compounds								
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.801	4.782	0.439	14736	2.11	ug/L	97
3) Chloromethane	50	5.221	5.203	0.477	17205	2.21	ug/L	98
4) Vinyl chloride	62	5.441	5.422	0.497	17080	2.13	ug/L	98
5) Bromomethane	94	6.087	6.075	0.556	12490	2.12	ug/L	96
6) Chloroethane	64	6.215	6.197	0.568	10374	2.06	ug/L	100
7) Trichlorofluoromethane	101	6.636	6.629	0.607	21617	2.20	ug/L	98
8) Ethyl ether	59	6.989	6.971	0.639	10806	2.07	ug/L	92
9) Acetone	43	7.385	7.367	0.675	18291	10.83	ug/L	97
10) 1,1-Dichloroethylene	61	7.404	7.392	0.677	17702	2.02	ug/L	98
11) Iodomethane	142	7.666	7.654	0.701	110915	9.34	ug/L	100
12) Acetonitrile	41	7.757	7.739	0.709	34471	51.40	ug/L	96
13) Methyl acetate	43	7.812	7.794	0.714	38521	9.99	ug/L	98
14) Carbon disulfide	76	7.812	7.800	0.714	162685	9.25	ug/L	100
15) Methylene chloride	84	8.013	8.001	0.733	18447	1.88	ug/L	99
16) tert-Butyl methyl ether	73	8.343	8.330	0.763	34253	1.88	ug/L	93
17) trans-1,2-Dichloroethy...	61	8.391	8.373	0.767	18602	2.11	ug/L	99
18) Hexane	57	8.702	8.690	0.795	20547	2.30	ug/L	97
19) Vinyl acetate	43	8.861	8.849	0.810	128642	10.57	ug/L	98
20) 1,1-Dichloroethane	63	8.910	8.897	0.814	21610	1.96	ug/L	99
21) 2-Butanone	43	9.544	9.525	0.872	24321	10.17	ug/L	97
22) cis-1,2-Dichloroethylene	61	9.598	9.586	0.877	21518	2.08	ug/L	99
23) 2,2-Dichloropropane	77	9.635	9.623	0.881	17088	1.96	ug/L	92
24) Bromochloromethane	128	9.891	9.885	0.904	7683	1.95	ug/L	98
25) Chloroform	83	9.934	9.922	0.908	22439	1.95	ug/L	100
26) 1,1,1-Trichloroethane	97	10.239	10.232	0.936	20419	1.96	ug/L	98
27) Cyclohexane	56	10.348	10.342	0.946	20746	1.99	ug/L	99
28) 1,1-Dichloropropene	75	10.409	10.403	0.952	16151	1.90	ug/L #	98
29) Carbon tetrachloride	117	10.452	10.446	0.955	18065	1.93	ug/L	100
31) 1,2-Dichloroethane	62	10.641	10.635	0.973	17439	2.01	ug/L	99
32) Benzene	78	10.671	10.665	0.975	48893	1.98	ug/L #	82
33) Cyclohexene	67	10.799	10.793	0.987	24497	1.99	ug/L	97
34) n-Butyl alcohol	56	11.031	11.019	1.008	34816	196.01	ug/L	91
35) Trichloroethylene	95	11.366	11.354	1.039	14012	2.01	ug/L	100
36) 2-Pentanone	43	11.446	11.434	1.046	44000	10.50	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY104.D
Acq On : 18 Mar 2024 12:35
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-03|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD002 SUL/5ML N/A MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 19 09:59:53 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.629	11.616	1.063	11935	1.90	ug/L 89
38) Methylcyclohexane	83	11.641	11.635	1.064	22936	1.96	ug/L 72
39) Dibromomethane	93	11.775	11.763	1.076	7983	1.93	ug/L 94
40) Bromodichloromethane	83	11.891	11.885	1.087	17397	1.95	ug/L 98
41) 2-Chloroethylvinyl ether	63	12.129	12.122	1.109	2737	10.94	ug/L 94
42) cis-1,3-Dichloropropylene	75	12.378	12.372	1.132	20595	1.95	ug/L 94
44) 4-Methyl-2-pentanone	58	12.482	12.470	0.869	20642	10.04	ug/L 96
46) Toluene	91	12.805	12.793	0.892	52220	1.98	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.958	12.952	0.902	18475	1.99	ug/L 97
48) 1,1,2-Trichloroethane	83	13.195	13.189	0.919	9182	2.01	ug/L 99
49) 2-Hexanone	43	13.390	13.384	0.932	32740	10.04	ug/L 98
50) 1,3-Dichloropropane	76	13.403	13.397	0.933	17430	1.98	ug/L 95
51) Tetrachloroethylene	164	13.445	13.439	0.936	12887	2.04	ug/L 99
52) Dibromochloromethane	129	13.689	13.689	0.953	14195	1.94	ug/L 100
53) 1,2-Dibromoethane	107	13.878	13.872	0.966	11847	2.02	ug/L 96
54) Chlorobenzene	112	14.396	14.390	1.003	36977	2.01	ug/L 80
55) 1,1,1,2-Tetrachloroethane	131	14.451	14.445	1.006	14683	1.97	ug/L # 66
56) Ethylbenzene	91	14.463	14.457	1.007	60037	2.03	ug/L 94
57) m,p-Xylenes	106	14.579	14.573	1.015	48067	4.06	ug/L 99
58) o-Xylene	91	15.037	15.037	1.047	49504	1.99	ug/L 100
59) Styrene	104	15.037	15.037	1.047	36710	1.89	ug/L 97
61) Bromoform	173	15.317	15.305	0.905	9861	1.93	ug/L 93
62) Isopropylbenzene	105	15.421	15.414	0.911	63098	2.02	ug/L 98
64) 1,1,2,2-Tetrachloroethane	83	15.701	15.695	0.927	14666	2.07	ug/L 95
65) 1,2,3-Trichloropropane	110	15.792	15.792	0.933	4499	2.00	ug/L # 79
66) Bromobenzene	156	15.853	15.847	0.936	17948	2.02	ug/L 98
67) n-Propylbenzene	91	15.872	15.866	0.937	71086	2.02	ug/L 100
68) 1,3,5-Trimethylbenzene	105	16.024	16.024	0.946	54923	2.02	ug/L 99
69) 2-Chlorotoluene	126	16.024	16.024	0.946	15475	1.98	ug/L 93
70) 4-Chlorotoluene	91	16.134	16.128	0.953	43384	2.02	ug/L 96
71) tert-Butylbenzene	134	16.427	16.420	0.970	12659	2.05	ug/L 99
72) 1,2,4-Trimethylbenzene	105	16.469	16.463	0.973	57845	2.07	ug/L 96
73) sec-Butylbenzene	105	16.670	16.664	0.985	69804	2.03	ug/L 100
74) 4-Isopropyltoluene	119	16.798	16.792	0.992	61814	2.02	ug/L 98
75) 1,3-Dichlorobenzene	146	16.872	16.865	0.996	33820	2.05	ug/L 84
76) 1,4-Dichlorobenzene	146	16.963	16.957	1.002	34770	2.11	ug/L # 73
77) n-Butylbenzene	91	17.286	17.280	1.021	55002	2.06	ug/L 99
78) 1,2-Dichlorobenzene	146	17.432	17.432	1.030	32717	2.03	ug/L 98
79) 1,2-Dibromo-3-chloropr...	157	18.396	18.383	1.086	4053	2.05	ug/L 87
80) 1,2,4-Trichlorobenzene	180	19.584	19.578	1.157	26911	2.02	ug/L 99
81) Hexachlorobutadiene	225	19.786	19.780	1.169	15493	2.00	ug/L 92
82) Naphthalene	128	20.023	20.017	1.183	51830	1.97	ug/L 99
83) 1,2,3-Trichlorobenzene	180	20.407	20.401	1.205	24441	1.98	ug/L 94
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.355	0.000	0	N.D.		
87) Isopropyl Alcohol	7.422	7.440	0.678	0m	N.D.	d	
88) Allyl chloride	0.000	7.843	0.000	0	N.D.		
89) tert-Butyl Alcohol	8.007	7.983	0.732	0m	N.D.	d	
90) Acrylonitrile	0.000	8.257	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY104.D
Acq On : 18 Mar 2024 12:35
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-03|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD002 SUL/5ML N/A MIX[A]
ALS Vial : 4 Sample Multiplier: 1

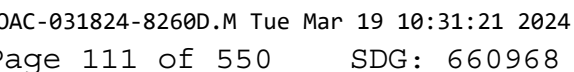
Quant Time: Mar 19 09:59:53 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.855	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.336	9.312	0.853	0m	N.D.	d
94) Ethyl acetate		9.544	9.531	0.872	0m	N.D.	d
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		9.787	9.794	0.895	0m	N.D.	d
97) Tetrahydrofuran		9.964	9.940	0.911	0m	N.D.	d
98) Isobutyl alcohol		10.354	10.263	0.947	0m	N.D.	d
99) Methyl tert-amyl ether		10.678	10.671	0.976	0m	N.D.	d
100) Methyl methacrylate		11.641	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		12.129	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		15.421	15.439	0.911	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		17.073	17.073	1.008	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		17.585	17.506	1.039	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

Quant Time: Mar 19 09:59:53 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY105.D
Acq On : 18 Mar 2024 13:03
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-04|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 SUL/5ML N/A MIX[A]
ALS Vial : 5 Sample Multiplier: 1

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03/19/2024

Quant Time: Mar 19 09:59:55 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.940	10.934	1.000	1246491	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.360	14.354	1.000	1000997	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.932	16.933	1.000	581983	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.940	10.928	1.000	0m	50.00	ug/L	0.01
103) B Chlorobenzene-d5	117	14.360	14.348	1.000	0m	50.00	ug/L	0.01
105) B 1,4-Dichlorobenzene-d4	152	16.932	16.920	1.000	0m	50.00	ug/L	0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.549	10.543	0.964	371020	49.16	ug/L	0.00
45) Toluene-d8	98	12.720	12.714	0.886	1275883	49.34	ug/L	0.00
63) Bromofluorobenzene	95	15.622	15.622	0.923	491364	49.00	ug/L	0.00
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.788	4.782	0.438	30183	4.38	ug/L	100
3) Chloromethane	50	5.209	5.203	0.476	35115	4.57	ug/L	100
4) Vinyl chloride	62	5.428	5.422	0.496	36981	4.67	ug/L	99
5) Bromomethane	94	6.069	6.075	0.555	28548	4.91	ug/L	96
6) Chloroethane	64	6.209	6.197	0.568	24911	5.01	ug/L	99
7) Trichlorofluoromethane	101	6.629	6.629	0.606	48220	4.95	ug/L	99
8) Ethyl ether	59	6.977	6.971	0.638	25761	4.99	ug/L	94
9) Acetone	43	7.373	7.367	0.674	40694	24.37	ug/L	95
10) 1,1-Dichloroethylene	61	7.391	7.392	0.676	43043	4.98	ug/L	99
11) Iodomethane	142	7.660	7.654	0.700	294412	25.07	ug/L	100
12) Acetonitrile	41	7.745	7.739	0.708	83313	125.67	ug/L	99
13) Methyl acetate	43	7.800	7.794	0.713	95148	24.95	ug/L	100
14) Carbon disulfide	76	7.806	7.800	0.714	439269	25.25	ug/L	100
15) Methylene chloride	84	8.001	8.001	0.731	39785	5.19	ug/L	99
16) tert-Butyl methyl ether	73	8.336	8.330	0.762	90975	5.04	ug/L	97
17) trans-1,2-Dichloroethy...	61	8.379	8.373	0.766	43735	5.02	ug/L	99
18) Hexane	57	8.696	8.690	0.795	44766	5.08	ug/L	97
19) Vinyl acetate	43	8.855	8.849	0.809	311696	25.90	ug/L	99
20) 1,1-Dichloroethane	63	8.903	8.897	0.814	54729	5.03	ug/L	100
21) 2-Butanone	43	9.531	9.525	0.871	57817	24.46	ug/L	100
22) cis-1,2-Dichloroethylene	61	9.592	9.586	0.877	51603	5.04	ug/L	100
23) 2,2-Dichloropropane	77	9.629	9.623	0.880	45644	5.28	ug/L	96
24) Bromochloromethane	128	9.891	9.885	0.904	19553	5.03	ug/L	99
25) Chloroform	83	9.928	9.922	0.907	57240	5.03	ug/L	99
26) 1,1,1-Trichloroethane	97	10.232	10.232	0.935	52177	5.05	ug/L	99
27) Cyclohexane	56	10.342	10.342	0.945	53283	5.17	ug/L	99
28) 1,1-Dichloropropene	75	10.409	10.403	0.952	42164	5.02	ug/L #	98
29) Carbon tetrachloride	117	10.446	10.446	0.955	47229	5.11	ug/L	99
31) 1,2-Dichloroethane	62	10.641	10.635	0.973	42795	4.98	ug/L	99
32) Benzene	78	10.665	10.665	0.975	122744	5.03	ug/L #	83
33) Cyclohexene	67	10.799	10.793	0.987	61613	5.05	ug/L	100
34) n-Butyl alcohol	56	11.025	11.019	1.008	84905	483.52	ug/L	94
35) Trichloroethylene	95	11.360	11.354	1.038	35055	5.08	ug/L	99
36) 2-Pentanone	43	11.440	11.434	1.046	102730	24.79	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY105.D
Acq On : 18 Mar 2024 13:03
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-04|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 SUL/5ML N/A MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 19 09:59:55 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.622	11.616	1.062	31185	5.02 ug/L	89
38) Methylcyclohexane	83	11.635	11.635	1.064	59402	5.14 ug/L	75
39) Dibromomethane	93	11.763	11.763	1.075	20615	5.05 ug/L	98
40) Bromodichloromethane	83	11.885	11.885	1.086	43259	4.90 ug/L	99
41) 2-Chloroethylvinyl ether	63	12.128	12.122	1.109	5862	23.71 ug/L	98
42) cis-1,3-Dichloropropylene	75	12.378	12.372	1.132	50717	4.86 ug/L	97
44) 4-Methyl-2-pentanone	58	12.476	12.470	0.869	50465	24.85 ug/L	96
46) Toluene	91	12.799	12.793	0.891	130117	4.99 ug/L #	100
47) trans-1,3-Dichloroprop...	75	12.958	12.952	0.902	44885	4.90 ug/L	98
48) 1,1,2-Trichloroethane	83	13.195	13.189	0.919	21981	4.88 ug/L	95
49) 2-Hexanone	43	13.384	13.384	0.932	79512	24.67 ug/L	99
50) 1,3-Dichloropropane	76	13.403	13.397	0.933	42976	4.93 ug/L	96
51) Tetrachloroethylene	164	13.445	13.439	0.936	31567	5.05 ug/L	99
52) Dibromochloromethane	129	13.689	13.689	0.953	35908	4.97 ug/L	100
53) 1,2-Dibromoethane	107	13.878	13.872	0.966	28254	4.87 ug/L	100
54) Chlorobenzene	112	14.396	14.390	1.003	89869	4.94 ug/L	92
55) 1,1,1,2-Tetrachloroethane	131	14.451	14.445	1.006	37025	5.02 ug/L	97
56) Ethylbenzene	91	14.463	14.457	1.007	143659	4.93 ug/L	94
57) m,p-Xylenes	106	14.579	14.573	1.015	116641	9.97 ug/L	100
58) o-Xylene	91	15.036	15.037	1.047	122458	4.99 ug/L	100
59) Styrene	104	15.036	15.037	1.047	94097	4.90 ug/L	99
61) Bromoform	173	15.311	15.305	0.904	24620	4.83 ug/L	91
62) Isopropylbenzene	105	15.421	15.414	0.911	155001	4.97 ug/L	99
64) 1,1,2,2-Tetrachloroethane	83	15.695	15.695	0.927	35371	4.98 ug/L	95
65) 1,2,3-Trichloropropane	110	15.792	15.792	0.933	11030	4.91 ug/L	97
66) Bromobenzene	156	15.853	15.847	0.936	43981	4.95 ug/L	99
67) n-Propylbenzene	91	15.866	15.866	0.937	175280	4.99 ug/L	100
68) 1,3,5-Trimethylbenzene	105	16.024	16.024	0.946	135022	4.96 ug/L	99
69) 2-Chlorotoluene	126	16.024	16.024	0.946	38828	4.97 ug/L	96
70) 4-Chlorotoluene	91	16.134	16.128	0.953	106365	4.96 ug/L	97
71) tert-Butylbenzene	134	16.426	16.420	0.970	30821	4.99 ug/L	99
72) 1,2,4-Trimethylbenzene	105	16.463	16.463	0.972	138147	4.95 ug/L	99
73) sec-Butylbenzene	105	16.664	16.664	0.984	172351	5.02 ug/L	100
74) 4-Isopropyltoluene	119	16.798	16.792	0.992	152669	4.99 ug/L	99
75) 1,3-Dichlorobenzene	146	16.871	16.865	0.996	82308	5.00 ug/L	85
76) 1,4-Dichlorobenzene	146	16.963	16.957	1.002	82581	5.00 ug/L #	75
77) n-Butylbenzene	91	17.280	17.280	1.021	134562	5.04 ug/L	100
78) 1,2-Dichlorobenzene	146	17.432	17.432	1.030	80337	5.00 ug/L	99
79) 1,2-Dibromo-3-chloropr...	157	18.390	18.383	1.086	10129	5.11 ug/L	97
80) 1,2,4-Trichlorobenzene	180	19.584	19.578	1.157	66973	5.03 ug/L	99
81) Hexachlorobutadiene	225	19.779	19.780	1.168	39287	5.08 ug/L	93
82) Naphthalene	128	20.017	20.017	1.182	129013	4.92 ug/L	99
83) 1,2,3-Trichlorobenzene	180	20.407	20.401	1.205	63520	5.15 ug/L	97
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.355	0.000	0	N.D.		
87) Isopropyl Alcohol	7.416	7.440	0.678	0m	N.D. d		
88) Allyl chloride	0.000	7.843	0.000	0	N.D.		
89) tert-Butyl Alcohol	8.007	7.983	0.732	0m	N.D. d		
90) Acrylonitrile	8.336	8.257	0.762	0m	N.D. d		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY105.D
Acq On : 18 Mar 2024 13:03
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-04|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 SUL/5ML N/A MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 19 09:59:55 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

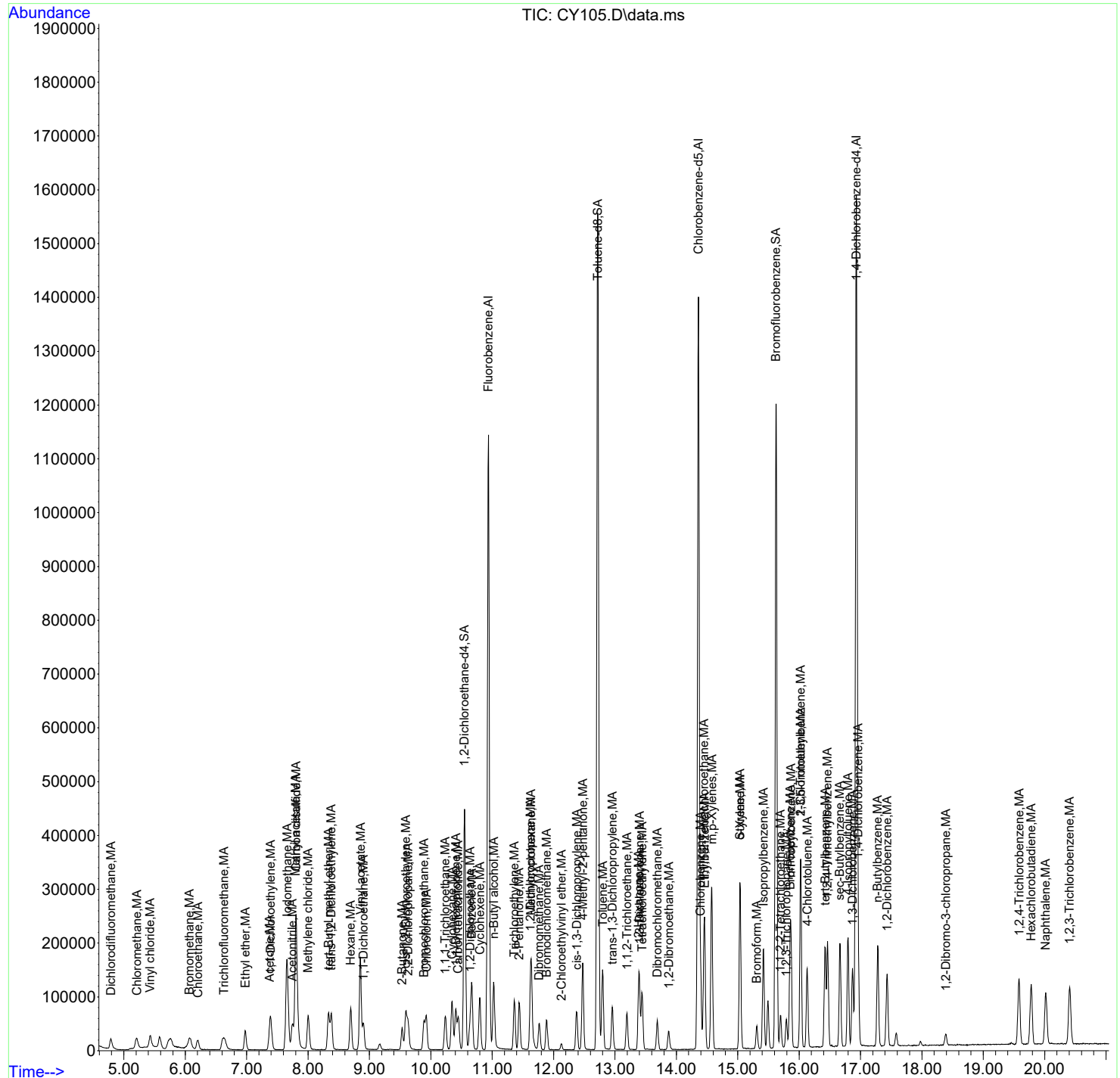
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.842	8.873	0.808	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.318	9.312	0.852	0m	N.D.	d
94) Ethyl acetate		9.531	9.531	0.871	0m	N.D.	d
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		9.806	9.794	0.896	0m	N.D.	d
97) Tetrahydrofuran		9.952	9.940	0.910	0m	N.D.	d
98) Isobutyl alcohol		10.275	10.263	0.939	0m	N.D.	d
99) Methyl tert-amyl ether		10.671	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.635	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		12.128	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		15.414	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride		17.097	17.073	1.010	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		17.591	17.506	1.039	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY105.D
Acq On : 18 Mar 2024 13:03
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-04|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 5UL/5ML N/A MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 19 09:59:55 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY106.D
Acq On : 18 Mar 2024 13:31
Operator : PXY1
InstName : VOAC
Sample : |WVM240318-05|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 SUL/5ML N/A MIX[A]
ALS Vial : 6 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 09:59:58 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.940	10.934	1.000	1228469	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.360	14.354	1.000	984680	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.933	16.933	1.000	582500	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.940	10.928	1.000	0m	50.00	ug/L	0.01
103) B Chlorobenzene-d5	117	14.360	14.348	1.000	0m	50.00	ug/L	0.01
105) B 1,4-Dichlorobenzene-d4	152	16.933	16.920	1.000	0m	50.00	ug/L	0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.550	10.543	0.964	374222	50.31	ug/L	0.00
45) Toluene-d8	98	12.720	12.714	0.886	1296352	50.96	ug/L	0.00
63) Bromofluorobenzene	95	15.622	15.622	0.923	496319	49.45	ug/L	0.00
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.801	4.782	0.439	63591	9.36	ug/L	98
3) Chloromethane	50	5.215	5.203	0.477	71912	9.50	ug/L	99
4) Vinyl chloride	62	5.441	5.422	0.497	75040	9.62	ug/L	100
5) Bromomethane	94	6.087	6.075	0.556	56539	9.86	ug/L	99
6) Chloroethane	64	6.215	6.197	0.568	48862	9.96	ug/L	100
7) Trichlorofluoromethane	101	6.636	6.629	0.607	93998	9.80	ug/L	99
8) Ethyl ether	59	6.983	6.971	0.638	50797	9.99	ug/L	94
9) Acetone	43	7.379	7.367	0.675	74262	45.12	ug/L	97
10) 1,1-Dichloroethylene	61	7.398	7.392	0.676	85832	10.07	ug/L	99
11) Iodomethane	142	7.660	7.654	0.700	587678	50.78	ug/L	100
12) Acetonitrile	41	7.751	7.739	0.709	158620	242.77	ug/L	100
13) Methyl acetate	43	7.806	7.794	0.714	185683	49.41	ug/L	99
14) Carbon disulfide	76	7.812	7.800	0.714	880219	51.34	ug/L	100
15) Methylene chloride	84	8.007	8.001	0.732	73884	10.60	ug/L	99
16) tert-Butyl methyl ether	73	8.336	8.330	0.762	180209	10.12	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.385	8.373	0.766	87232	10.16	ug/L	99
18) Hexane	57	8.702	8.690	0.795	88083	10.14	ug/L	98
19) Vinyl acetate	43	8.855	8.849	0.809	585045	49.33	ug/L	100
20) 1,1-Dichloroethane	63	8.903	8.897	0.814	110254	10.29	ug/L	99
21) 2-Butanone	43	9.531	9.525	0.871	111050	47.66	ug/L	98
22) cis-1,2-Dichloroethylene	61	9.592	9.586	0.877	101571	10.06	ug/L	99
23) 2,2-Dichloropropane	77	9.629	9.623	0.880	84802	9.96	ug/L	96
24) Bromochloromethane	128	9.891	9.885	0.904	38583	10.07	ug/L	98
25) Chloroform	83	9.928	9.922	0.907	114599	10.21	ug/L	100
26) 1,1,1-Trichloroethane	97	10.239	10.232	0.936	103393	10.16	ug/L	99
27) Cyclohexane	56	10.348	10.342	0.946	102822	10.12	ug/L	99
28) 1,1-Dichloropropene	75	10.409	10.403	0.952	84923	10.25	ug/L #	100
29) Carbon tetrachloride	117	10.452	10.446	0.955	93380	10.25	ug/L	100
31) 1,2-Dichloroethane	62	10.641	10.635	0.973	86389	10.21	ug/L	99
32) Benzene	78	10.671	10.665	0.975	242469	10.08	ug/L #	83
33) Cyclohexene	67	10.799	10.793	0.987	120769	10.05	ug/L	100
34) n-Butyl alcohol	56	11.025	11.019	1.008	164503	950.57	ug/L	97
35) Trichloroethylene	95	11.360	11.354	1.038	69804	10.26	ug/L	100
36) 2-Pentanone	43	11.440	11.434	1.046	198858	48.69	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY106.D
Acq On : 18 Mar 2024 13:31
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-05|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 5UL/5ML N/A MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 19 09:59:58 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.622	11.616	1.062	62465	10.19	ug/L 88
38) Methylcyclohexane	83	11.641	11.635	1.064	116191	10.19	ug/L 75
39) Dibromomethane	93	11.763	11.763	1.075	39793	9.90	ug/L 96
40) Bromodichloromethane	83	11.891	11.885	1.087	87638	10.07	ug/L 99
41) 2-Chloroethylvinyl ether	63	12.129	12.122	1.109	12575	51.60	ug/L 99
42) cis-1,3-Dichloropropylene	75	12.378	12.372	1.132	102703	9.98	ug/L 99
44) 4-Methyl-2-pentanone	58	12.476	12.470	0.869	99401	49.76	ug/L 98
46) Toluene	91	12.799	12.793	0.891	261055	10.18	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.958	12.952	0.902	90533	10.05	ug/L 98
48) 1,1,2-Trichloroethane	83	13.189	13.189	0.918	44897	10.13	ug/L 99
49) 2-Hexanone	43	13.384	13.384	0.932	158073	49.85	ug/L 98
50) 1,3-Dichloropropane	76	13.403	13.397	0.933	86406	10.09	ug/L 99
51) Tetrachloroethylene	164	13.439	13.439	0.936	62620	10.18	ug/L 100
52) Dibromochloromethane	129	13.689	13.689	0.953	72146	10.14	ug/L 99
53) 1,2-Dibromoethane	107	13.872	13.872	0.966	57682	10.12	ug/L 99
54) Chlorobenzene	112	14.396	14.390	1.003	182081	10.17	ug/L 96
55) 1,1,1,2-Tetrachloroethane	131	14.445	14.445	1.006	74294	10.24	ug/L 98
56) Ethylbenzene	91	14.457	14.457	1.007	288948	10.07	ug/L 92
57) m,p-Xylenes	106	14.573	14.573	1.015	232500	20.20	ug/L 97
58) o-Xylene	91	15.037	15.037	1.047	247426	10.25	ug/L 99
59) Styrene	104	15.037	15.037	1.047	190691	10.09	ug/L 98
61) Bromoform	173	15.311	15.305	0.904	48569	9.52	ug/L 92
62) Isopropylbenzene	105	15.414	15.414	0.910	310966	9.96	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.695	15.695	0.927	68937	9.71	ug/L 100
65) 1,2,3-Trichloropropane	110	15.792	15.792	0.933	22556	10.02	ug/L 96
66) Bromobenzene	156	15.847	15.847	0.936	88101	9.91	ug/L 99
67) n-Propylbenzene	91	15.866	15.866	0.937	349952	9.95	ug/L 99
68) 1,3,5-Trimethylbenzene	105	16.024	16.024	0.946	272972	10.01	ug/L 99
69) 2-Chlorotoluene	126	16.024	16.024	0.946	78284	10.00	ug/L 97
70) 4-Chlorotoluene	91	16.128	16.128	0.952	212904	9.92	ug/L 96
71) tert-Butylbenzene	134	16.420	16.420	0.970	62541	10.12	ug/L 99
72) 1,2,4-Trimethylbenzene	105	16.463	16.463	0.972	278090	9.96	ug/L 100
73) sec-Butylbenzene	105	16.664	16.664	0.984	344781	10.03	ug/L 100
74) 4-Isopropyltoluene	119	16.792	16.792	0.992	305047	9.97	ug/L 99
75) 1,3-Dichlorobenzene	146	16.872	16.865	0.996	164675	9.99	ug/L 86
76) 1,4-Dichlorobenzene	146	16.963	16.957	1.002	163859	9.91	ug/L 95
77) n-Butylbenzene	91	17.280	17.280	1.021	268206	10.04	ug/L 100
78) 1,2-Dichlorobenzene	146	17.432	17.432	1.030	160325	9.96	ug/L 100
79) 1,2-Dibromo-3-chloropr...	157	18.390	18.383	1.086	18506	9.33	ug/L 97
80) 1,2,4-Trichlorobenzene	180	19.578	19.578	1.156	130452	9.79	ug/L 99
81) Hexachlorobutadiene	225	19.780	19.780	1.168	78140	10.09	ug/L 93
82) Naphthalene	128	20.017	20.017	1.182	252888	9.63	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.407	20.401	1.205	121920	9.87	ug/L 97
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.355	0.000	0	N.D.		
87) Isopropyl Alcohol	7.422	7.440	0.678	0m	N.D.	d	
88) Allyl chloride	0.000	7.843	0.000	0	N.D.		
89) tert-Butyl Alcohol	8.001	7.983	0.731	0m	N.D.	d	
90) Acrylonitrile	8.336	8.257	0.762	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY106.D
Acq On : 18 Mar 2024 13:31
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-05|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 5UL/5ML N/A MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 19 09:59:58 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

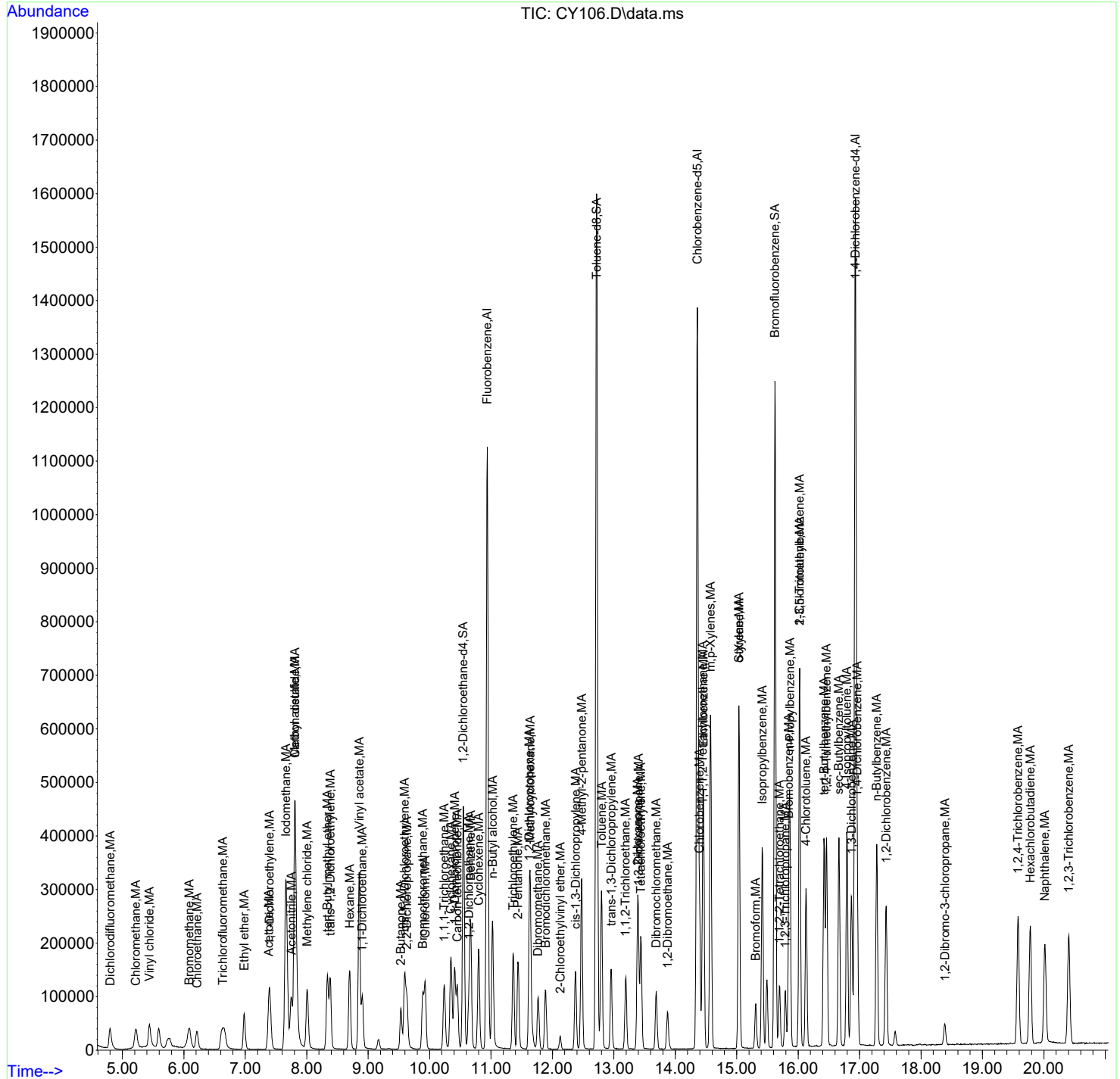
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.855	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.324	9.312	0.852	0m	N.D.	d
94) Ethyl acetate		9.531	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.537	9.592	0.872	0m	N.D.	d
96) Methacrylonitrile		9.806	9.794	0.896	0m	N.D.	d
97) Tetrahydrofuran		9.940	9.940	0.909	0m	N.D.	d
98) Isobutyl alcohol		10.348	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.665	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.635	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		12.019	12.086	1.099	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		15.421	15.439	0.911	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.506	16.487	0.975	0m	N.D.	d
111) Benzyl chloride		17.073	17.073	1.008	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		17.573	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

```
Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY106.D
Acq On    : 18 Mar 2024 13:31
Operator  : PX11
InstName  : VOAC
Sample    : |WCVM240318-05|ICAL|1|VOAF|1|VOA8260D|
Misc      : VSTD010 5UL/5ML N/A MIX[A]
ALS Vial  : 6 Sample Multiplier: 1
```

Quant Time: Mar 19 09:59:58 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY107.D
Acq On : 18 Mar 2024 13:59
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-06|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD020 SUL/5ML N/A MIX[A]
ALS Vial : 7 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 10:00:00 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.940	10.934	1.000	1244545	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.360	14.354	1.000	998623	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.932	16.933	1.000	575936	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.940	10.928	1.000	0m	50.00	ug/L	0.01
103) B Chlorobenzene-d5	117	14.360	14.348	1.000	0m	50.00	ug/L	0.01
105) B 1,4-Dichlorobenzene-d4	152	16.932	16.920	1.000	0m	50.00	ug/L	0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.549	10.543	0.964	371619	49.31	ug/L	0.00
45) Toluene-d8	98	12.720	12.714	0.886	1280548	49.64	ug/L	0.00
63) Bromofluorobenzene	95	15.622	15.622	0.923	487967	49.18	ug/L	0.00
Target Compounds								
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.794	4.782	0.438	133948	19.45	ug/L	99
3) Chloromethane	50	5.215	5.203	0.477	153119	19.97	ug/L	100
4) Vinyl chloride	62	5.441	5.422	0.497	161851	20.49	ug/L	100
5) Bromomethane	94	6.087	6.075	0.556	117780	20.28	ug/L	97
6) Chloroethane	64	6.215	6.197	0.568	104183	20.97	ug/L	100
7) Trichlorofluoromethane	101	6.641	6.629	0.607	197259	20.30	ug/L	100
8) Ethyl ether	59	6.983	6.971	0.638	105414	20.46	ug/L	93
9) Acetone	43	7.379	7.367	0.675	149213	89.49	ug/L	98
10) 1,1-Dichloroethylene	61	7.397	7.392	0.676	169286	19.61	ug/L	100
11) Iodomethane	142	7.660	7.654	0.700	1169255	99.72	ug/L	100
12) Acetonitrile	41	7.745	7.739	0.708	324833	490.73	ug/L	99
13) Methyl acetate	43	7.806	7.794	0.714	370016	97.19	ug/L	100
14) Carbon disulfide	76	7.812	7.800	0.714	1722285	99.16	ug/L	100
15) Methylene chloride	84	8.007	8.001	0.732	137407	20.24	ug/L	99
16) tert-Butyl methyl ether	73	8.336	8.330	0.762	364531	20.22	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.379	8.373	0.766	170723	19.63	ug/L	99
18) Hexane	57	8.696	8.690	0.795	170951	19.42	ug/L	99
19) Vinyl acetate	43	8.855	8.849	0.809	1247870	103.87	ug/L	100
20) 1,1-Dichloroethane	63	8.903	8.897	0.814	216987	19.98	ug/L	99
21) 2-Butanone	43	9.531	9.525	0.871	229442	97.21	ug/L	99
22) cis-1,2-Dichloroethylene	61	9.592	9.586	0.877	202224	19.77	ug/L	100
23) 2,2-Dichloropropane	77	9.629	9.623	0.880	163971	19.01	ug/L	99
24) Bromochloromethane	128	9.891	9.885	0.904	77545	19.97	ug/L	99
25) Chloroform	83	9.928	9.922	0.907	226246	19.90	ug/L	100
26) 1,1,1-Trichloroethane	97	10.238	10.232	0.936	203427	19.74	ug/L	100
27) Cyclohexane	56	10.348	10.342	0.946	201247	19.55	ug/L	98
28) 1,1-Dichloropropene	75	10.409	10.403	0.952	165998	19.78	ug/L	# 100
29) Carbon tetrachloride	117	10.452	10.446	0.955	183389	19.88	ug/L	100
31) 1,2-Dichloroethane	62	10.641	10.635	0.973	168385	19.63	ug/L	99
32) Benzene	78	10.665	10.665	0.975	479663	19.68	ug/L	99
33) Cyclohexene	67	10.799	10.793	0.987	238560	19.60	ug/L	99
34) n-Butyl alcohol	56	11.025	11.019	1.008	339636	1937.21	ug/L	97
35) Trichloroethylene	95	11.360	11.354	1.038	135505	19.66	ug/L	99
36) 2-Pentanone	43	11.439	11.434	1.046	408504	98.73	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY107.D
Acq On : 18 Mar 2024 13:59
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-06|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD020 5UL/5ML N/A MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 19 10:00:00 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.622	11.616	1.062	122722	19.77	ug/L 86
38) Methylcyclohexane	83	11.634	11.635	1.064	228583	19.80	ug/L 76
39) Dibromomethane	93	11.769	11.763	1.076	80463	19.76	ug/L 97
40) Bromodichloromethane	83	11.884	11.885	1.086	174216	19.76	ug/L 100
41) 2-Chloroethylvinyl ether	63	12.122	12.122	1.108	24024	97.31	ug/L 99
42) cis-1,3-Dichloropropylene	75	12.372	12.372	1.131	204823	19.65	ug/L 99
44) 4-Methyl-2-pentanone	58	12.476	12.470	0.869	201605	99.52	ug/L 98
46) Toluene	91	12.799	12.793	0.891	511875	19.68	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.957	12.952	0.902	180975	19.81	ug/L 99
48) 1,1,2-Trichloroethane	83	13.195	13.189	0.919	87932	19.57	ug/L 96
49) 2-Hexanone	43	13.384	13.384	0.932	315548	98.12	ug/L 99
50) 1,3-Dichloropropane	76	13.402	13.397	0.933	173346	19.95	ug/L 100
51) Tetrachloroethylene	164	13.439	13.439	0.936	123873	19.86	ug/L 99
52) Dibromochloromethane	129	13.689	13.689	0.953	144549	20.04	ug/L 99
53) 1,2-Dibromoethane	107	13.872	13.872	0.966	112833	19.51	ug/L 99
54) Chlorobenzene	112	14.390	14.390	1.002	360134	19.83	ug/L 98
55) 1,1,1,2-Tetrachloroethane	131	14.445	14.445	1.006	147019	19.99	ug/L 100
56) Ethylbenzene	91	14.457	14.457	1.007	571194	19.63	ug/L 93
57) m,p-Xylenes	106	14.573	14.573	1.015	458301	39.25	ug/L 98
58) o-Xylene	91	15.036	15.037	1.047	483864	19.77	ug/L 100
59) Styrene	104	15.036	15.037	1.047	384906	20.09	ug/L 99
61) Bromoform	173	15.311	15.305	0.904	99325	19.68	ug/L 94
62) Isopropylbenzene	105	15.414	15.414	0.910	613210	19.87	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.695	15.695	0.927	137853	19.63	ug/L 100
65) 1,2,3-Trichloropropane	110	15.792	15.792	0.933	43055	19.35	ug/L 97
66) Bromobenzene	156	15.847	15.847	0.936	173040	19.69	ug/L 99
67) n-Propylbenzene	91	15.865	15.866	0.937	687547	19.78	ug/L 99
68) 1,3,5-Trimethylbenzene	105	16.024	16.024	0.946	537047	19.92	ug/L 99
69) 2-Chlorotoluene	126	16.024	16.024	0.946	152916	19.76	ug/L 97
70) 4-Chlorotoluene	91	16.128	16.128	0.952	419754	19.79	ug/L 97
71) tert-Butylbenzene	134	16.420	16.420	0.970	121779	19.94	ug/L 99
72) 1,2,4-Trimethylbenzene	105	16.463	16.463	0.972	552170	19.99	ug/L 99
73) sec-Butylbenzene	105	16.664	16.664	0.984	672651	19.80	ug/L 100
74) 4-Isopropyltoluene	119	16.792	16.792	0.992	605009	20.00	ug/L 99
75) 1,3-Dichlorobenzene	146	16.871	16.865	0.996	321084	19.70	ug/L 86
76) 1,4-Dichlorobenzene	146	16.963	16.957	1.002	321841	19.69	ug/L 97
77) n-Butylbenzene	91	17.280	17.280	1.021	525648	19.89	ug/L 100
78) 1,2-Dichlorobenzene	146	17.432	17.432	1.030	314831	19.79	ug/L 99
79) 1,2-Dibromo-3-chloropr...	157	18.389	18.383	1.086	38130	19.45	ug/L 99
80) 1,2,4-Trichlorobenzene	180	19.578	19.578	1.156	263928	20.03	ug/L 100
81) Hexachlorobutadiene	225	19.779	19.780	1.168	152560	19.93	ug/L 94
82) Naphthalene	128	20.017	20.017	1.182	512963	19.75	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.407	20.401	1.205	240933	19.72	ug/L 96
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.355	0.000	0	N.D.		
87) Isopropyl Alcohol	7.416	7.440	0.678	0m	N.D.	d	
88) Allyl chloride	0.000	7.843	0.000	0	N.D.		
89) tert-Butyl Alcohol	8.013	7.983	0.733	0m	N.D.	d	
90) Acrylonitrile	8.336	8.257	0.762	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY107.D
Acq On : 18 Mar 2024 13:59
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-06|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD020 SUL/5ML N/A MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 19 10:00:00 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

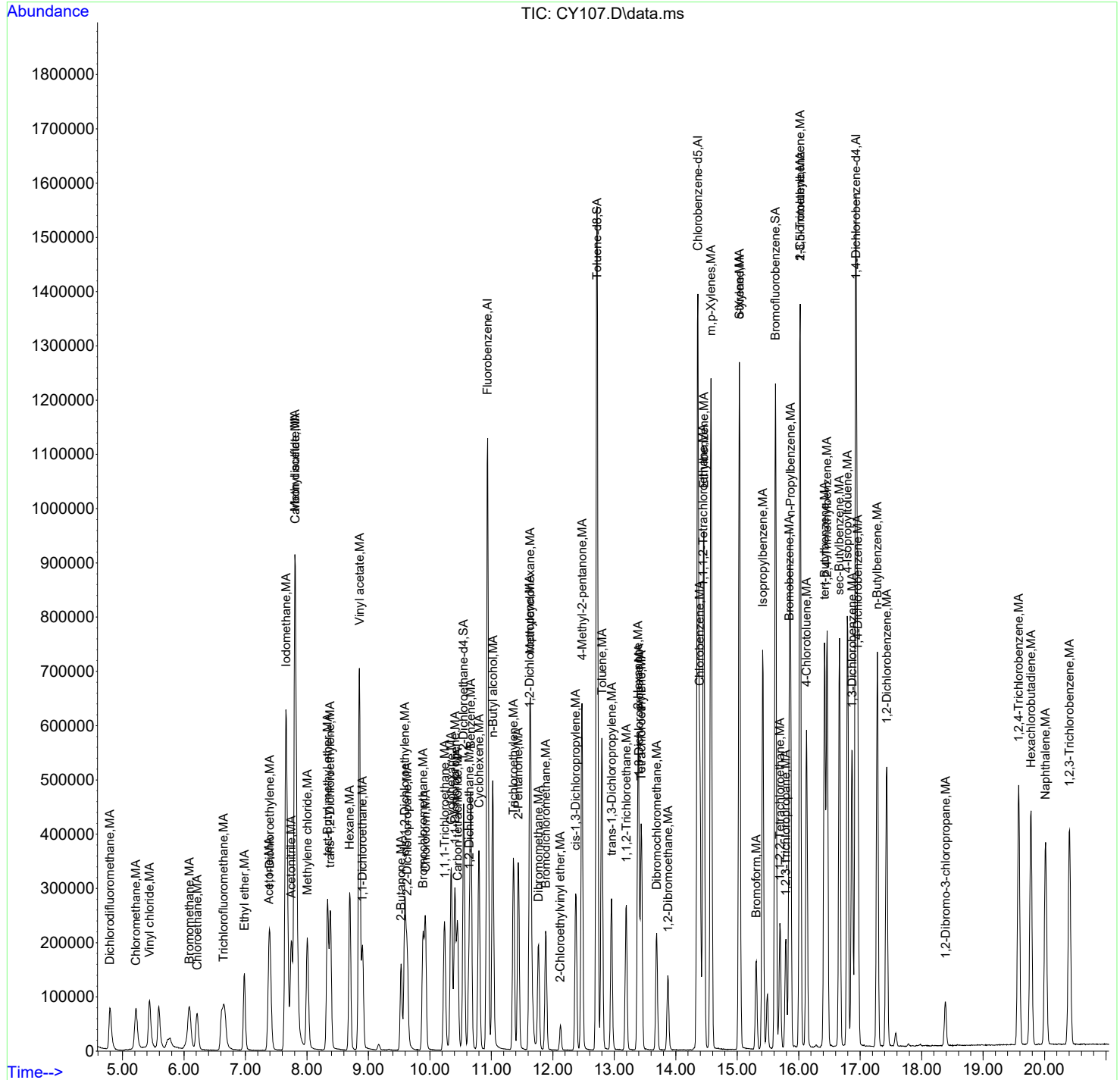
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.855	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.324	9.312	0.852	0m	N.D.	d
94) Ethyl acetate		9.531	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.537	9.592	0.872	0m	N.D.	d
96) Methacrylonitrile		9.873	9.794	0.902	0m	N.D.	d
97) Tetrahydrofuran		9.928	9.940	0.907	0m	N.D.	d
98) Isobutyl alcohol		10.348	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.665	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.634	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.763	11.696	1.075	0m	N.D.	d
102) 2-Nitropropane		12.122	12.086	1.108	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.299	14.238	0.844	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.414	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.499	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.572	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY107.D
Acq On : 18 Mar 2024 13:59
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-06|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD020 5UL/5ML N/A MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 19 10:00:00 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY108.D
Acq On : 18 Mar 2024 14:26
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-07|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[A]
ALS Vial : 8 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 10:00:02 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.934	10.934	1.000	1169849	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.354	14.354	1.000	981150	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.933	16.933	1.000	548845	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.934	10.928	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.354	14.348	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.933	16.920	1.000	0m	50.00	ug/L	0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.543	10.543	0.964	354837	50.09	ug/L	0.00
45) Toluene-d8	98	12.714	12.714	0.886	1272155	50.19	ug/L	0.00
63) Bromofluorobenzene	95	15.622	15.622	0.923	487854	51.59	ug/L	0.00
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.782	4.782	0.437	373362	57.68	ug/L	100
3) Chloromethane	50	5.203	5.203	0.476	394758	54.77	ug/L	100
4) Vinyl chloride	62	5.422	5.422	0.496	413034	55.62	ug/L	100
5) Bromomethane	94	6.075	6.075	0.556	297855	54.55	ug/L	99
6) Chloroethane	64	6.197	6.197	0.567	250948	53.74	ug/L	100
7) Trichlorofluoromethane	101	6.629	6.629	0.606	482400	52.82	ug/L	100
8) Ethyl ether	59	6.971	6.971	0.638	256139	52.89	ug/L	94
9) Acetone	43	7.367	7.367	0.674	352185	224.71	ug/L	99
10) 1,1-Dichloroethylene	61	7.392	7.392	0.676	409929	50.53	ug/L	99
11) Iodomethane	142	7.654	7.654	0.700	2840181	257.70	ug/L	100
12) Acetonitrile	41	7.739	7.739	0.708	751030	1207.04	ug/L	100
13) Methyl acetate	43	7.794	7.794	0.713	896618	250.54	ug/L	100
14) Carbon disulfide	76	7.800	7.800	0.713	4239929	259.69	ug/L	100
15) Methylene chloride	84	8.001	8.001	0.732	312471	50.26	ug/L	100
16) tert-Butyl methyl ether	73	8.330	8.330	0.762	856355	50.52	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.373	8.373	0.766	401863	49.17	ug/L	100
18) Hexane	57	8.690	8.690	0.795	397105	47.99	ug/L	100
19) Vinyl acetate	43	8.849	8.849	0.809	3048588	269.96	ug/L	100
20) 1,1-Dichloroethane	63	8.897	8.897	0.814	504346	49.41	ug/L	100
21) 2-Butanone	43	9.525	9.525	0.871	567781	255.91	ug/L	99
22) cis-1,2-Dichloroethylene	61	9.586	9.586	0.877	473517	49.25	ug/L	100
23) 2,2-Dichloropropane	77	9.623	9.623	0.880	394832	48.71	ug/L	99
24) Bromochloromethane	128	9.885	9.885	0.904	185784	50.90	ug/L	100
25) Chloroform	83	9.922	9.922	0.907	531084	49.70	ug/L	99
26) 1,1,1-Trichloroethane	97	10.232	10.232	0.936	480934	49.65	ug/L	99
27) Cyclohexane	56	10.342	10.342	0.946	477229	49.33	ug/L	99
28) 1,1-Dichloropropene	75	10.403	10.403	0.951	393428	49.87	ug/L #	99
29) Carbon tetrachloride	117	10.446	10.446	0.955	429010	49.47	ug/L	99
31) 1,2-Dichloroethane	62	10.635	10.635	0.973	404131	50.13	ug/L	100
32) Benzene	78	10.665	10.665	0.975	1143138	49.91	ug/L	99
33) Cyclohexene	67	10.793	10.793	0.987	562540	49.16	ug/L	99
34) n-Butyl alcohol	56	11.019	11.019	1.008	846156	5134.45	ug/L	99
35) Trichloroethylene	95	11.354	11.354	1.038	318277	49.14	ug/L	97
36) 2-Pentanone	43	11.434	11.434	1.046	1016970	261.49	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY108.D
Acq On : 18 Mar 2024 14:26
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-07|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 19 10:00:02 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.616	11.616	1.062	302221	51.79	ug/L 88
38) Methylcyclohexane	83	11.635	11.635	1.064	532657	49.08	ug/L 75
39) Dibromomethane	93	11.763	11.763	1.076	195350	51.03	ug/L 97
40) Bromodichloromethane	83	11.885	11.885	1.087	420645	50.77	ug/L 99
41) 2-Chloroethylvinyl ether	63	12.122	12.122	1.109	68049	293.23	ug/L 100
42) cis-1,3-Dichloropropylene	75	12.372	12.372	1.132	515111	52.58	ug/L 99
44) 4-Methyl-2-pentanone	58	12.470	12.470	0.869	510237	256.35	ug/L 100
46) Toluene	91	12.793	12.793	0.891	1270721	49.73	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.952	12.952	0.902	463210	51.62	ug/L 100
48) 1,1,2-Trichloroethane	83	13.189	13.189	0.919	224144	50.77	ug/L 96
49) 2-Hexanone	43	13.384	13.384	0.932	826449	261.56	ug/L 100
50) 1,3-Dichloropropane	76	13.397	13.397	0.933	442490	51.83	ug/L 100
51) Tetrachloroethylene	164	13.439	13.439	0.936	298763	48.74	ug/L 100
52) Dibromochloromethane	129	13.689	13.689	0.954	365582	51.58	ug/L 100
53) 1,2-Dibromoethane	107	13.872	13.872	0.966	291300	51.27	ug/L 100
54) Chlorobenzene	112	14.390	14.390	1.003	893697	50.08	ug/L 100
55) 1,1,1,2-Tetrachloroethane	131	14.445	14.445	1.006	355207	49.15	ug/L 100
56) Ethylbenzene	91	14.457	14.457	1.007	1425028	49.86	ug/L 92
57) m,p-Xylenes	106	14.573	14.573	1.015	1139015	99.30	ug/L 99
58) o-Xylene	91	15.037	15.037	1.048	1172850	48.78	ug/L 100
59) Styrene	104	15.037	15.037	1.048	978072	51.96	ug/L 100
61) Bromoform	173	15.305	15.305	0.904	255019	53.03	ug/L 93
62) Isopropylbenzene	105	15.414	15.414	0.910	1468911	49.95	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.695	15.695	0.927	339845	50.78	ug/L 100
65) 1,2,3-Trichloropropane	110	15.792	15.792	0.933	109605	51.69	ug/L 99
66) Bromobenzene	156	15.847	15.847	0.936	430853	51.44	ug/L 100
67) n-Propylbenzene	91	15.866	15.866	0.937	1672048	50.47	ug/L 99
68) 1,3,5-Trimethylbenzene	105	16.024	16.024	0.946	1286273	50.08	ug/L 100
69) 2-Chlorotoluene	126	16.024	16.024	0.946	371030	50.32	ug/L 98
70) 4-Chlorotoluene	91	16.128	16.128	0.952	1026075	50.75	ug/L 96
71) tert-Butylbenzene	134	16.420	16.420	0.970	290457	49.90	ug/L 100
72) 1,2,4-Trimethylbenzene	105	16.463	16.463	0.972	1304625	49.57	ug/L 100
73) sec-Butylbenzene	105	16.664	16.664	0.984	1604810	49.56	ug/L 100
74) 4-Isopropyltoluene	119	16.792	16.792	0.992	1433822	49.73	ug/L 100
75) 1,3-Dichlorobenzene	146	16.865	16.865	0.996	775624	49.94	ug/L 86
76) 1,4-Dichlorobenzene	146	16.957	16.957	1.001	773846	49.69	ug/L 97
77) n-Butylbenzene	91	17.280	17.280	1.021	1235502	49.06	ug/L 100
78) 1,2-Dichlorobenzene	146	17.432	17.432	1.030	759038	50.07	ug/L 100
79) 1,2-Dibromo-3-chloropr...	157	18.383	18.383	1.086	94721	50.69	ug/L 100
80) 1,2,4-Trichlorobenzene	180	19.578	19.578	1.156	622955	49.61	ug/L 100
81) Hexachlorobutadiene	225	19.780	19.780	1.168	362782	49.74	ug/L 93
82) Naphthalene	128	20.017	20.017	1.182	1260853	50.95	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.401	20.401	1.205	577677	49.62	ug/L 96
85) Acrolein		7.184	7.166	0.657	0m	N.D.	d
86) Trichlorotrifluoroethane		7.361	7.355	0.673	0m	N.D.	d
87) Isopropyl Alcohol		7.410	7.440	0.678	0m	N.D.	d
88) Allyl chloride		7.995	7.843	0.731	0m	N.D.	d
89) tert-Butyl Alcohol		7.995	7.983	0.731	0m	N.D.	d
90) Acrylonitrile		8.330	8.257	0.762	0m	N.D.	d

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY108.D
Acq On : 18 Mar 2024 14:26
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-07|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 19 10:00:02 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

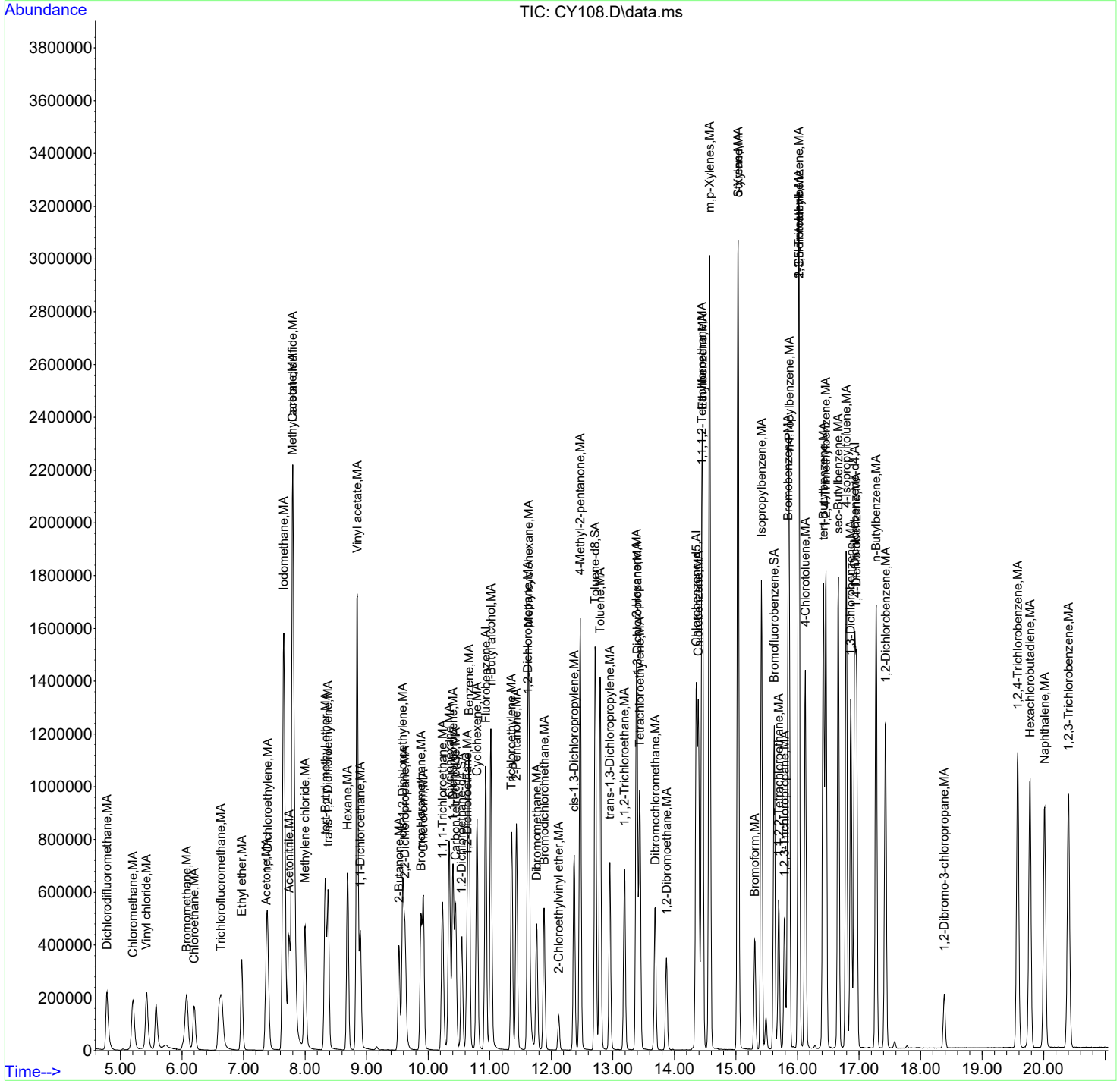
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.842	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate		9.525	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.525	9.592	0.871	0m	N.D.	d
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran		9.909	9.940	0.906	0m	N.D.	d
98) Isobutyl alcohol		10.257	10.263	0.938	0m	N.D.	d
99) Methyl tert-amyl ether		10.665	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.635	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.757	11.696	1.075	0m	N.D.	d
102) 2-Nitropropane		12.122	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.244	14.238	0.841	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.414	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.487	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.573	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

```
Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY108.D
Acq On    : 18 Mar 2024  14:26
Operator  : PX11
InstName  : VOAC
Sample    : |WCVM240318-07|ICAL|1|VOAF|1|VOA8260D|
Misc      : VSTD050 5UL/5ML N/A MIX[A]
ALS Vial  : 8   Sample Multiplier: 1
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Quant Time: Mar 19 10:00:02 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY109.D
Acq On : 18 Mar 2024 14:54
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-08|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD080 4UL/5ML N/A MIX[A]
ALS Vial : 9 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 10:00:04 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.933	10.934	1.000	1193774	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.354	14.354	1.000	983992	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.932	16.933	1.000	553742	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.933	10.928	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.354	14.348	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.932	16.920	1.000	0m	50.00	ug/L	0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.543	10.543	0.964	358300	49.57	ug/L	0.00
45) Toluene-d8	98	12.714	12.714	0.886	1281485	50.41	ug/L	0.00
63) Bromofluorobenzene	95	15.622	15.622	0.923	486061	50.95	ug/L	0.00
Target Compounds								
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.782	4.782	0.437	606685	91.85	ug/L	99
3) Chloromethane	50	5.203	5.203	0.476	631765	85.90	ug/L	100
4) Vinyl chloride	62	5.428	5.422	0.496	661353	87.27	ug/L	100
5) Bromomethane	94	6.075	6.075	0.556	478708	85.92	ug/L	99
6) Chloroethane	64	6.203	6.197	0.567	412880	86.64	ug/L	100
7) Trichlorofluoromethane	101	6.635	6.629	0.607	779028	83.58	ug/L	99
8) Ethyl ether	59	6.971	6.971	0.638	421353	85.26	ug/L	95
9) Acetone	43	7.367	7.367	0.674	585905	366.34	ug/L	100
10) 1,1-Dichloroethylene	61	7.385	7.392	0.675	683143	82.51	ug/L	100
11) Iodomethane	142	7.654	7.654	0.700	4775219	424.58	ug/L	100
12) Acetonitrile	41	7.739	7.739	0.708	1273791	2006.19	ug/L	100
13) Methyl acetate	43	7.794	7.794	0.713	1474812	403.84	ug/L	99
14) Carbon disulfide	76	7.800	7.800	0.713	6965240	418.07	ug/L	100
15) Methylene chloride	84	8.001	8.001	0.732	522012	82.88	ug/L	100
16) tert-Butyl methyl ether	73	8.330	8.330	0.762	1443259	83.44	ug/L	99
17) trans-1,2-Dichloroethy...	61	8.373	8.373	0.766	682677	81.85	ug/L	100
18) Hexane	57	8.690	8.690	0.795	632083	74.86	ug/L	100
19) Vinyl acetate	43	8.842	8.849	0.809	4777803	414.60	ug/L	100
20) 1,1-Dichloroethane	63	8.897	8.897	0.814	848914	81.51	ug/L	100
21) 2-Butanone	43	9.525	9.525	0.871	923748	408.00	ug/L	99
22) cis-1,2-Dichloroethylene	61	9.586	9.586	0.877	801706	81.72	ug/L	99
23) 2,2-Dichloropropane	77	9.623	9.623	0.880	679055	82.10	ug/L	100
24) Bromochloromethane	128	9.885	9.885	0.904	313758	84.25	ug/L	100
25) Chloroform	83	9.921	9.922	0.907	905776	83.06	ug/L	100
26) 1,1,1-Trichloroethane	97	10.232	10.232	0.936	808624	81.80	ug/L	99
27) Cyclohexane	56	10.342	10.342	0.946	791603	80.18	ug/L	98
28) 1,1-Dichloropropene	75	10.403	10.403	0.951	662770	82.33	ug/L #	99
29) Carbon tetrachloride	117	10.446	10.446	0.955	724001	81.80	ug/L	99
31) 1,2-Dichloroethane	62	10.635	10.635	0.973	672570	81.76	ug/L	100
32) Benzene	78	10.665	10.665	0.975	1911681	81.79	ug/L	100
33) Cyclohexene	67	10.793	10.793	0.987	941136	80.60	ug/L	100
34) n-Butyl alcohol	56	11.019	11.019	1.008	1427267	8487.05	ug/L	100
35) Trichloroethylene	95	11.354	11.354	1.038	541762	81.96	ug/L	98
36) 2-Pentanone	43	11.433	11.434	1.046	1499469	377.83	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY109.D
Acq On : 18 Mar 2024 14:54
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-08|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD080 4UL/5ML N/A MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 19 10:00:04 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.622	11.616	1.063	497417	83.54	ug/L 88
38) Methylcyclohexane	83	11.635	11.635	1.064	901078	81.36	ug/L 75
39) Dibromomethane	93	11.763	11.763	1.076	323915	82.92	ug/L 97
40) Bromodichloromethane	83	11.885	11.885	1.087	707379	83.66	ug/L 99
41) 2-Chloroethylvinyl ether	63	12.122	12.122	1.109	86918	367.03	ug/L 99
42) cis-1,3-Dichloropropylene	75	12.372	12.372	1.132	849540	84.98	ug/L 99
44) 4-Methyl-2-pentanone	58	12.470	12.470	0.869	826873	414.23	ug/L 100
46) Toluene	91	12.793	12.793	0.891	2103374	82.07	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.951	12.952	0.902	747727	83.08	ug/L 100
48) 1,1,2-Trichloroethane	83	13.189	13.189	0.919	365730	82.59	ug/L 97
49) 2-Hexanone	43	13.384	13.384	0.932	1294348	408.46	ug/L 100
50) 1,3-Dichloropropane	76	13.396	13.397	0.933	715736	83.60	ug/L 98
51) Tetrachloroethylene	164	13.439	13.439	0.936	502571	81.76	ug/L 100
52) Dibromochloromethane	129	13.689	13.689	0.954	605436	85.17	ug/L 100
53) 1,2-Dibromoethane	107	13.872	13.872	0.966	474790	83.32	ug/L 100
54) Chlorobenzene	112	14.390	14.390	1.003	1489833	83.24	ug/L 100
55) 1,1,1,2-Tetrachloroethane	131	14.445	14.445	1.006	607854	83.87	ug/L 99
56) Ethylbenzene	91	14.457	14.457	1.007	2360245	82.34	ug/L 92
57) m,p-Xylenes	106	14.573	14.573	1.015	1886785	164.01	ug/L 98
58) o-Xylene	91	15.036	15.037	1.048	1970466	81.72	ug/L 100
59) Styrene	104	15.036	15.037	1.048	1619001	85.76	ug/L 100
61) Bromoform	173	15.305	15.305	0.904	422543	87.08	ug/L 93
62) Isopropylbenzene	105	15.414	15.414	0.910	2488416	83.88	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.695	15.695	0.927	556318	82.40	ug/L 100
65) 1,2,3-Trichloropropane	110	15.792	15.792	0.933	180140	84.20	ug/L 99
66) Bromobenzene	156	15.847	15.847	0.936	720038	85.20	ug/L 99
67) n-Propylbenzene	91	15.866	15.866	0.937	2804845	83.91	ug/L 99
68) 1,3,5-Trimethylbenzene	105	16.024	16.024	0.946	2189272	84.48	ug/L 99
69) 2-Chlorotoluene	126	16.024	16.024	0.946	623680	83.84	ug/L 97
70) 4-Chlorotoluene	91	16.128	16.128	0.952	1710800	83.87	ug/L 96
71) tert-Butylbenzene	134	16.420	16.420	0.970	500163	85.18	ug/L 99
72) 1,2,4-Trimethylbenzene	105	16.463	16.463	0.972	2224891	83.79	ug/L 100
73) sec-Butylbenzene	105	16.664	16.664	0.984	2739057	83.85	ug/L 100
74) 4-Isopropyltoluene	119	16.792	16.792	0.992	2458881	84.53	ug/L 100
75) 1,3-Dichlorobenzene	146	16.865	16.865	0.996	1304533	83.25	ug/L 86
76) 1,4-Dichlorobenzene	146	16.957	16.957	1.001	1302230	82.88	ug/L 98
77) n-Butylbenzene	91	17.280	17.280	1.021	2122634	83.55	ug/L 100
78) 1,2-Dichlorobenzene	146	17.426	17.432	1.029	1282195	83.83	ug/L 100
79) 1,2-Dibromo-3-chloropr...	157	18.383	18.383	1.086	162156	86.01	ug/L 99
80) 1,2,4-Trichlorobenzene	180	19.578	19.578	1.156	1095804	86.49	ug/L 100
81) Hexachlorobutadiene	225	19.779	19.780	1.168	609835	82.88	ug/L 93
82) Naphthalene	128	20.011	20.017	1.182	2172353	87.01	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.401	20.401	1.205	994361	84.65	ug/L 96
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	7.361	7.355	0.673	0m	N.D.	d	
87) Isopropyl Alcohol	7.404	7.440	0.677	0m	N.D.	d	
88) Allyl chloride	0.000	7.843	0.000	0	N.D.		
89) tert-Butyl Alcohol	8.001	7.983	0.732	0m	N.D.	d	
90) Acrylonitrile	8.330	8.257	0.762	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY109.D
Acq On : 18 Mar 2024 14:54
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-08|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD080 4UL/5ML N/A MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 19 10:00:04 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

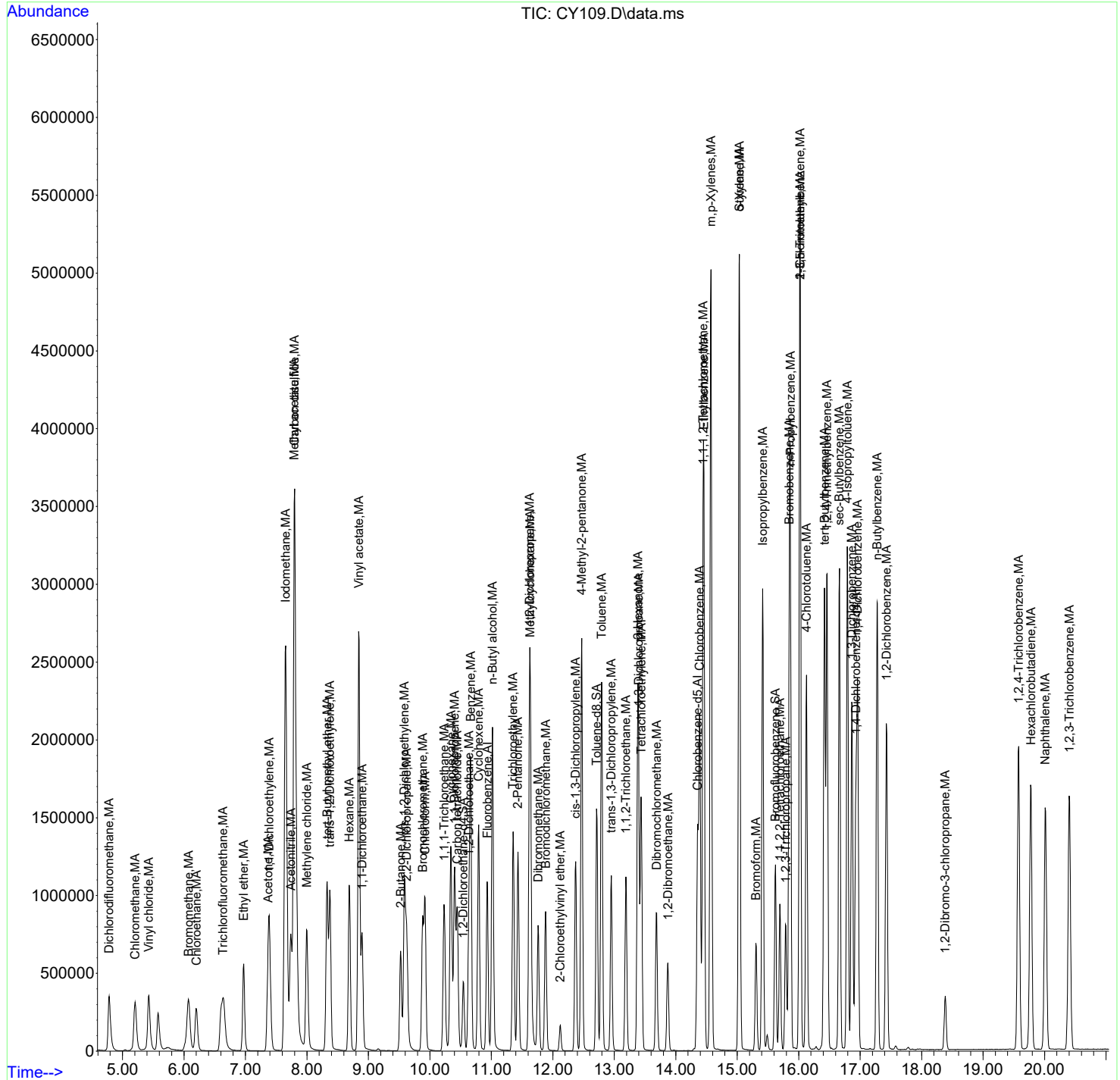
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.842	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.324	9.312	0.853	0m	N.D.	d
94) Ethyl acetate		9.525	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.525	9.592	0.871	0m	N.D.	d
96) Methacrylonitrile		9.848	9.794	0.901	0m	N.D.	d
97) Tetrahydrofuran		9.921	9.940	0.907	0m	N.D.	d
98) Isobutyl alcohol		10.238	10.263	0.936	0m	N.D.	d
99) Methyl tert-amyl ether		10.659	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.635	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.763	11.696	1.076	0m	N.D.	d
102) 2-Nitropropane		12.122	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.293	14.238	0.844	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.414	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.493	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.585	17.506	1.039	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY109.D
Acq On : 18 Mar 2024 14:54
Operator : PXY1
InstName : VOAC
Sample : |WCVL240318-08|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD080 4UL/5ML N/A MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 19 10:00:04 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY110.D
Acq On : 18 Mar 2024 15:22
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-09|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[A]
ALS Vial : 10 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 10:00:06 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.934	10.934	1.000	1248601	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.354	14.354	1.000	1034797	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.926	16.933	1.000	580036	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.934	10.928	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.354	14.348	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.926	16.920	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.543	10.543	0.964	379528	50.20	ug/L	0.00
45) Toluene-d8	98	12.714	12.714	0.886	1338151	50.05	ug/L	0.00
63) Bromofluorobenzene	95	15.622	15.622	0.923	506868	50.72	ug/L	0.00
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.782	4.782	0.437	742220	107.44	ug/L	100 A
3) Chloromethane	50	5.203	5.203	0.476	773331	100.53	ug/L	100 A
4) Vinyl chloride	62	5.428	5.422	0.496	815666	102.91	ug/L	100 A
5) Bromomethane	94	6.075	6.075	0.556	595148	102.13	ug/L	99 A
6) Chloroethane	64	6.203	6.197	0.567	502133	100.74	ug/L	99 A
7) Trichlorofluoromethane	101	6.636	6.629	0.607	972643	99.78	ug/L	100
8) Ethyl ether	59	6.971	6.971	0.638	543525	105.16	ug/L	95 A
9) Acetone	43	7.367	7.367	0.674	751094	449.01	ug/L	100
10) 1,1-Dichloroethylene	61	7.391	7.392	0.676	821692	94.89	ug/L	99
11) Iodomethane	142	7.654	7.654	0.700	5761295	489.77	ug/L	100
12) Acetonitrile	41	7.739	7.739	0.708	1557206	2344.87	ug/L	100
13) Methyl acetate	43	7.794	7.794	0.713	1887628	494.18	ug/L	99
14) Carbon disulfide	76	7.806	7.800	0.714	8366460	480.12	ug/L	100
15) Methylene chloride	84	8.001	8.001	0.732	631498	96.00	ug/L	99
16) tert-Butyl methyl ether	73	8.330	8.330	0.762	1810109	100.06	ug/L	99 A
17) trans-1,2-Dichloroethy...	61	8.373	8.373	0.766	826198	94.71	ug/L	100
18) Hexane	57	8.690	8.690	0.795	841148	95.24	ug/L	99
19) Vinyl acetate	43	8.842	8.849	0.809	6173558	512.20	ug/L	100 A
20) 1,1-Dichloroethane	63	8.897	8.897	0.814	1031512	94.69	ug/L	100
21) 2-Butanone	43	9.525	9.525	0.871	1192080	503.40	ug/L	99 A
22) cis-1,2-Dichloroethylene	61	9.586	9.586	0.877	976331	95.15	ug/L	99
23) 2,2-Dichloropropane	77	9.623	9.623	0.880	809994	93.63	ug/L	99
24) Bromochloromethane	128	9.885	9.885	0.904	389344	99.95	ug/L	99
25) Chloroform	83	9.921	9.922	0.907	1109287	97.26	ug/L	100
26) 1,1,1-Trichloroethane	97	10.232	10.232	0.936	982932	95.07	ug/L	99
27) Cyclohexane	56	10.342	10.342	0.946	953054	92.30	ug/L	98
28) 1,1-Dichloropropene	75	10.403	10.403	0.951	805145	95.63	ug/L #	99
29) Carbon tetrachloride	117	10.446	10.446	0.955	887448	95.87	ug/L	99
31) 1,2-Dichloroethane	62	10.635	10.635	0.973	833558	96.88	ug/L	100
32) Benzene	78	10.665	10.665	0.975	2341389	95.78	ug/L	99
33) Cyclohexene	67	10.793	10.793	0.987	1146530	93.88	ug/L	100
34) n-Butyl alcohol	56	11.019	11.019	1.008	1809531	10287.64	ug/L	100 A
35) Trichloroethylene	95	11.354	11.354	1.038	659255	95.36	ug/L	98
36) 2-Pentanone	43	11.433	11.434	1.046	2089837	503.47	ug/L	100 A

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY110.D
Acq On : 18 Mar 2024 15:22
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-09|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 10:00:06 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.616	11.616	1.062	609228	97.82	ug/L 87
38) Methylcyclohexane	83	11.635	11.635	1.064	1089927	94.09	ug/L 76
39) Dibromomethane	93	11.763	11.763	1.076	402970	98.62	ug/L 97
40) Bromodichloromethane	83	11.885	11.885	1.087	872940	98.71	ug/L 100
41) 2-Chloroethylvinyl ether	63	12.122	12.122	1.109	127382	514.28	ug/L 100 A
42) cis-1,3-Dichloropropylene	75	12.372	12.372	1.132	1049483	100.37	ug/L 99 A
44) 4-Methyl-2-pentanone	58	12.470	12.470	0.869	1062851	506.30	ug/L 99 A
46) Toluene	91	12.793	12.793	0.891	2569974	95.36	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.951	12.952	0.902	928939	98.15	ug/L 100
48) 1,1,2-Trichloroethane	83	13.189	13.189	0.919	455613	97.84	ug/L 97
49) 2-Hexanone	43	13.378	13.384	0.932	1658710	497.75	ug/L 99
50) 1,3-Dichloropropane	76	13.396	13.397	0.933	890388	98.89	ug/L 99
51) Tetrachloroethylene	164	13.439	13.439	0.936	603930	93.42	ug/L 100
52) Dibromochloromethane	129	13.683	13.689	0.953	755383	101.04	ug/L 100 A
53) 1,2-Dibromoethane	107	13.872	13.872	0.966	595947	99.44	ug/L 100
54) Chlorobenzene	112	14.390	14.390	1.003	1824135	96.91	ug/L 99
55) 1,1,1,2-Tetrachloroethane	131	14.445	14.445	1.006	747243	98.04	ug/L 100
56) Ethylbenzene	91	14.457	14.457	1.007	2874141	95.34	ug/L 93
57) m,p-Xylenes	106	14.573	14.573	1.015	2283247	188.73	ug/L 98
58) o-Xylene	91	15.030	15.037	1.047	2406734	94.92	ug/L 100
59) Styrene	104	15.036	15.037	1.048	1983347	99.90	ug/L 100
61) Bromoform	173	15.305	15.305	0.904	535557	105.37	ug/L 93 A
62) Isopropylbenzene	105	15.414	15.414	0.911	3017316	97.09	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.695	15.695	0.927	709546	100.33	ug/L 100 A
65) 1,2,3-Trichloropropane	110	15.786	15.792	0.933	226245	100.96	ug/L 99 A
66) Bromobenzene	156	15.847	15.847	0.936	879221	99.32	ug/L 99
67) n-Propylbenzene	91	15.866	15.866	0.937	3375175	96.40	ug/L 99
68) 1,3,5-Trimethylbenzene	105	16.018	16.024	0.946	2631517	96.94	ug/L 100
69) 2-Chlorotoluene	126	16.024	16.024	0.947	749063	96.13	ug/L 97
70) 4-Chlorotoluene	91	16.128	16.128	0.953	2054872	96.18	ug/L 96
71) tert-Butylbenzene	134	16.420	16.420	0.970	598686	97.33	ug/L 99
72) 1,2,4-Trimethylbenzene	105	16.457	16.463	0.972	2656591	95.51	ug/L 100
73) sec-Butylbenzene	105	16.664	16.664	0.985	3257269	95.19	ug/L 100
74) 4-Isopropyltoluene	119	16.792	16.792	0.992	2903021	95.28	ug/L 100
75) 1,3-Dichlorobenzene	146	16.865	16.865	0.996	1557310	94.87	ug/L 86
76) 1,4-Dichlorobenzene	146	16.957	16.957	1.002	1553694	94.40	ug/L 98
77) n-Butylbenzene	91	17.274	17.280	1.021	2464524	92.61	ug/L 100
78) 1,2-Dichlorobenzene	146	17.426	17.432	1.030	1539228	96.07	ug/L 99
79) 1,2-Dibromo-3-chloropr...	157	18.383	18.383	1.086	201868	102.22	ug/L 99 A
80) 1,2,4-Trichlorobenzene	180	19.578	19.578	1.157	1248601	94.09	ug/L 100
81) Hexachlorobutadiene	225	19.773	19.780	1.168	684473	88.80	ug/L 93
82) Naphthalene	128	20.011	20.017	1.182	2618433	100.13	ug/L 100 A
83) 1,2,3-Trichlorobenzene	180	20.401	20.401	1.205	1167829	94.91	ug/L 96
85) Acrolein	0.000	7.166	0.000	0	0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.355	0.000	0	0	N.D.	
87) Isopropyl Alcohol	7.404	7.440	0.677	0m	0	N.D. d	
88) Allyl chloride	7.995	7.843	0.731	0m	0	N.D. d	
89) tert-Butyl Alcohol	0.000	7.983	0.000	0	0	N.D.	
90) Acrylonitrile	8.324	8.257	0.761	0m	0	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY110.D
Acq On : 18 Mar 2024 15:22
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-09|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 10:00:06 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

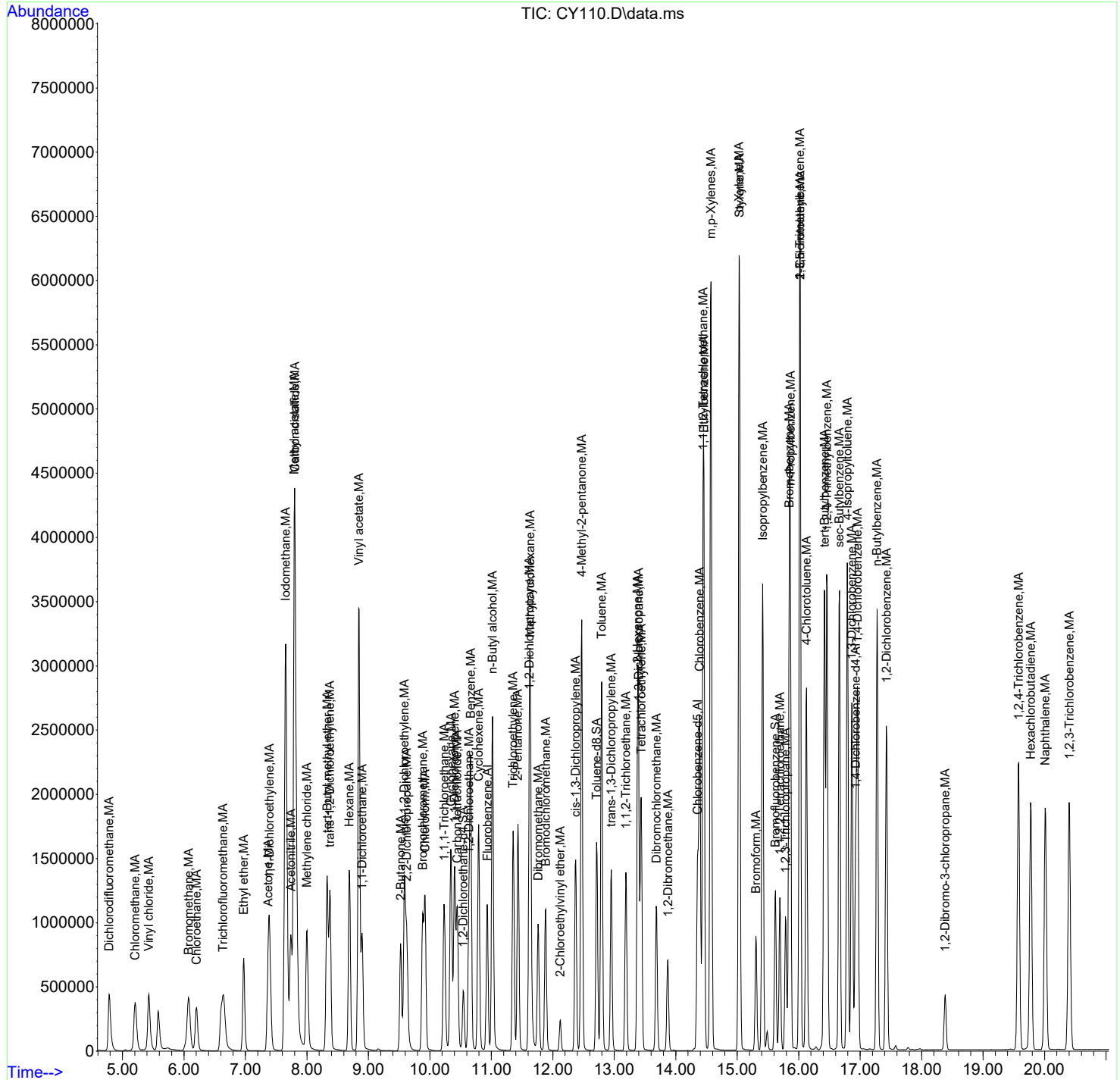
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.842	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		9.324	9.312	0.853	0m	N.D.	d
94) Ethyl acetate		9.525	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.525	9.592	0.871	0m	N.D.	d
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran		9.921	9.940	0.907	0m	N.D.	d
98) Isobutyl alcohol		10.342	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.665	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.635	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.763	11.696	1.076	0m	N.D.	d
102) 2-Nitropropane		12.122	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.299	14.238	0.845	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.414	15.439	0.911	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.487	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.573	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY110.D
Acq On : 18 Mar 2024 15:22
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-09|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 10:00:06 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Instrument ID: VOAC.I
Data File: data\031824VC_ICAL\CY112.D
Lab Sample ID WCV240318-10
Quant Type ISTD

Client SDG: 660968
Injection Date: 18-MAR-24 16:17
Init. Cal. Date(s) 18-MAR-24 11:39 - 18-MAR-24 20:00
Method: data\031824VC_ICAL\VOAC-031824-8260D.M
Method Update: 19-MAR-24 09:59

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S 1,2-Dichloroethane-d4	0.3028	0.30755		.01		1.56869	30		Averaged
S Toluene-d8	1.2917	1.33091		.01		3.03553	30		Averaged
S Bromofluorobenzene	0.8615	0.88373		.01		2.58038	30		Averaged
Dichlorodifluoromethane	0.2766	0.3275		.01		18.40202	30		Averaged
Chloromethane	0.308	0.30129		.1		-2.17857	30		Averaged
Vinyl chloride	0.3174	0.31412		.01		-1.0334	30		Averaged
Bromomethane	0.2334	0.24382		.01		4.46444	30		Averaged
Chloroethane	0.1996	0.2157		.01		8.06613	30		Averaged
Trichlorofluoromethane	0.3904	0.41401		.01		6.04764	30		Averaged
Acetone	0.067	0.06026		.01		-10.0597	30		Averaged
1,1-Dichloroethylene	0.3468	0.35316		.01		1.83391	30		Averaged
Iodomethane	0.4711	0.51221		.01		8.72639	30		Averaged
Acetonitrile	0.0266	0.02597		.01		-2.36842	30		Averaged
Carbon disulfide	0.6978	0.80262		.01		15.0215	30		Averaged
Methylene chloride	50	51.29	50			2.58	30		Linear
trans-1,2-Dichloroethylene	0.3493	0.34964		.01		0.09734	30		Averaged
Vinyl acetate	0.4827	0.47138		.01		-2.34514	30		Averaged
1,1-Dichloroethane	0.4362	0.43963		.1		0.78634	30		Averaged
2-Butanone	0.0948	0.09199		.01		-2.96414	30		Averaged
Chloroform	0.4567	0.46697		.01		2.24874	30		Averaged
1,1,1-Trichloroethane	0.414	0.40871		.01		-1.27778	30		Averaged
Carbon tetrachloride	0.3707	0.37795		.01		1.95576	30		Averaged
1,2-Dichloroethane	0.3445	0.336		.01		-2.46734	30		Averaged
Benzene	0.979	0.97291		.01		-0.62206	30		Averaged
Trichloroethylene	0.2768	0.27191		.01		-1.76662	30		Averaged
1,2-Dichloropropane	0.2494	0.25165		.01		0.90217	30		Averaged
Dibromomethane	0.1636	0.16523		.01		0.99633	30		Averaged
Bromodichloromethane	0.3541	0.36333		.01		2.60661	30		Averaged
cis-1,3-Dichloropropylene	0.4187	0.42499		.01		1.50227	30		Averaged
4-Methyl-2-pentanone	0.1014	0.10287		.01		1.4497	30		Averaged
Toluene	1.3023	1.29141		.01		-0.83621	30		Averaged
trans-1,3-Dichloropropylene	0.4573	0.4649		.01		1.66193	30		Averaged
1,1,2-Trichloroethane	0.225	0.22386		.01		-0.50667	30		Averaged
2-Hexanone	0.161	0.15609		.01		-3.04969	30		Averaged
Tetrachloroethylene	0.3124	0.31259		.01		0.06082	30		Averaged
Dibromochloromethane	0.3612	0.37614		.01		4.13621	30		Averaged
1,2-Dibromoethane	0.2896	0.29316		.01		1.22928	30		Averaged

Continuing Calibration Summary

Instrument ID: VOAC.I

Injection Date: 18-MAR-24 16:17

Data File: data\031824VC_ICAL\CY112.D

Init. Cal. Date(s) 18-MAR-24 11:39 18-MAR-24 20:00

Lab Sample ID WCV240318-10

Method: data\031824VC_ICAL\VOAC-031824-8260D.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Chlorobenzene	0.9095	0.91506		.3		0.61132	30		Averaged
1,1,1,2-Tetrachloroethane	0.3683	0.37504		.01		1.83003	30		Averaged
Ethylbenzene	1.4566	1.43397		.01		-1.55362	30		Averaged
m,p-Xylenes	0.5846	0.57224		.01		-2.11427	30		Averaged
Styrene	0.9593	0.96149		.01		0.22829	30		Averaged
o-Xylene	1.2252	1.21035		.01		-1.21205	30		Averaged
Bromoform	0.4381	0.45771		.1		4.47615	30		Averaged
1,1,2,2-Tetrachloroethane	0.6096	0.60711		.3		-0.40846	30		Averaged
1,2,3-Trichloropropane	0.1932	0.19644		.01		1.67702	30		Averaged
1,2-Dibromo-3-chloropropane	0.1702	0.18142		.01		6.59224	30		Averaged
1,2,4-Trichlorobenzene	1.1439	1.16979		.01		2.26331	30		Averaged

PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY112.D
Acq On : 18 Mar 2024 16:17
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-10|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[A]
ALS Vial : 12 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 10:00:10 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.934	10.934	1.000	1178811	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.354	14.354	1.000	945542	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.926	16.933	1.000	526660	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.934	10.928	1.000	1178386	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.354	14.348	1.000	945542	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.926	16.920	1.000	528979	50.00	ug/L	0.00

System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.543	10.543	0.964	362541	50.79	ug/L	0.00
45) Toluene-d8	98	12.714	12.714	0.886	1258429	51.52	ug/L	0.00
63) Bromofluorobenzene	95	15.616	15.622	0.923	465423	51.29	ug/L	0.00

Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.788	4.782	0.438	386061	59.19	ug/L	100
3) Chloromethane	50	5.209	5.203	0.476	355169	48.90	ug/L	99
4) Vinyl chloride	62	5.428	5.422	0.496	370285	49.48	ug/L	100
5) Bromomethane	94	6.081	6.075	0.556	287423	52.24	ug/L	98
6) Chloroethane	64	6.203	6.197	0.567	254269	54.03	ug/L	99
7) Trichlorofluoromethane	101	6.642	6.629	0.607	488038	53.03	ug/L	100
8) Ethyl ether	59	6.971	6.971	0.638	239024	48.98	ug/L	95
9) Acetone	43	7.367	7.367	0.674	355193	224.91	ug/L	99
10) 1,1-Dichloroethylene	61	7.391	7.392	0.676	416310	50.92	ug/L	99
11) Iodomethane	142	7.654	7.654	0.700	3019014	271.84	ug/L	100
12) Acetonitrile	41	7.739	7.739	0.708	765267	1220.58	ug/L	100
13) Methyl acetate	43	7.794	7.794	0.713	886124	245.72	ug/L	99
14) Carbon disulfide	76	7.800	7.800	0.713	4730670	287.55	ug/L	100
15) Methylene chloride	84	8.001	8.001	0.732	321163	51.29	ug/L	100
16) tert-Butyl methyl ether	73	8.330	8.330	0.762	830019	48.60	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.373	8.373	0.766	412159	50.04	ug/L	100
18) Hexane	57	8.690	8.690	0.795	364463	43.71	ug/L	100
19) Vinyl acetate	43	8.842	8.849	0.809	2778318	244.15	ug/L	100
20) 1,1-Dichloroethane	63	8.897	8.897	0.814	518237	50.39	ug/L	100
21) 2-Butanone	43	9.525	9.525	0.871	542204	242.52	ug/L	99
22) cis-1,2-Dichloroethylene	61	9.586	9.586	0.877	480664	49.62	ug/L	99
23) 2,2-Dichloropropane	77	9.623	9.623	0.880	395899	48.47	ug/L	99
24) Bromochloromethane	128	9.879	9.885	0.904	189469	51.52	ug/L	98
25) Chloroform	83	9.922	9.922	0.907	550468	51.12	ug/L	99
26) 1,1,1-Trichloroethane	97	10.232	10.232	0.936	481794	49.36	ug/L	100
27) Cyclohexane	56	10.342	10.342	0.946	482289	49.47	ug/L	98
28) 1,1-Dichloropropene	75	10.397	10.403	0.951	395629	49.77	ug/L #	99
29) Carbon tetrachloride	117	10.446	10.446	0.955	445535	50.98	ug/L	100
31) 1,2-Dichloroethane	62	10.635	10.635	0.973	396086	48.76	ug/L	100
32) Benzene	78	10.659	10.665	0.975	1146882	49.69	ug/L	99
33) Cyclohexene	67	10.793	10.793	0.987	528452	45.83	ug/L	99
34) n-Butyl alcohol	56	11.019	11.019	1.008	830404	5000.56	ug/L	99
35) Trichloroethylene	95	11.354	11.354	1.038	320532	49.11	ug/L	97
36) 2-Pentanone	43	11.433	11.434	1.046	819571	209.13	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY112.D
Acq On : 18 Mar 2024 16:17
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-10|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[A]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 19 10:00:10 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.616	11.616	1.062	296653	50.45	ug/L 87
38) Methylcyclohexane	83	11.629	11.635	1.064	536584	49.06	ug/L 75
39) Dibromomethane	93	11.763	11.763	1.076	194777	50.49	ug/L 97
40) Bromodichloromethane	83	11.879	11.885	1.086	428301	51.30	ug/L 100
41) 2-Chloroethylvinyl ether	63	12.116	12.122	1.108	70024	299.45	ug/L 100
42) cis-1,3-Dichloropropylene	75	12.366	12.372	1.131	500978	50.75	ug/L 100
44) 4-Methyl-2-pentanone	58	12.470	12.470	0.869	486336	253.54	ug/L 100
46) Toluene	91	12.793	12.793	0.891	1221086	49.58	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.951	12.952	0.902	439580	50.83	ug/L 100
48) 1,1,2-Trichloroethane	83	13.189	13.189	0.919	211666	49.74	ug/L 98
49) 2-Hexanone	43	13.378	13.384	0.932	737952	242.35	ug/L 100
50) 1,3-Dichloropropane	76	13.397	13.397	0.933	414930	50.43	ug/L 98
51) Tetrachloroethylene	164	13.433	13.439	0.936	295565	50.04	ug/L 100
52) Dibromochloromethane	129	13.683	13.689	0.953	355658	52.07	ug/L 100
53) 1,2-Dibromoethane	107	13.866	13.872	0.966	277196	50.62	ug/L 99
54) Chlorobenzene	112	14.390	14.390	1.003	865232	50.31	ug/L 100
55) 1,1,1,2-Tetrachloroethane	131	14.445	14.445	1.006	354612	50.92	ug/L 100
56) Ethylbenzene	91	14.451	14.457	1.007	1355875	49.22	ug/L 92
57) m,p-Xylenes	106	14.567	14.573	1.015	1082150	97.89	ug/L 98
58) o-Xylene	91	15.030	15.037	1.047	1144435	49.39	ug/L 100
59) Styrene	104	15.030	15.037	1.047	909125	50.11	ug/L 99
61) Bromoform	173	15.305	15.305	0.904	241056	52.23	ug/L 93
62) Isopropylbenzene	105	15.408	15.414	0.910	1446302	51.26	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.689	15.695	0.927	319738	49.79	ug/L 100
65) 1,2,3-Trichloropropane	110	15.786	15.792	0.933	103456	50.85	ug/L 98
66) Bromobenzene	156	15.841	15.847	0.936	407649	50.72	ug/L 100
67) n-Propylbenzene	91	15.859	15.866	0.937	1604309	50.46	ug/L 99
68) 1,3,5-Trimethylbenzene	105	16.018	16.024	0.946	1259183	51.09	ug/L 100
69) 2-Chlorotoluene	126	16.018	16.024	0.946	362154	51.19	ug/L 97
70) 4-Chlorotoluene	91	16.122	16.128	0.952	986782	50.87	ug/L 96
71) tert-Butylbenzene	134	16.414	16.420	0.970	288891	51.73	ug/L 99
72) 1,2,4-Trimethylbenzene	105	16.457	16.463	0.972	1273048	50.41	ug/L 100
73) sec-Butylbenzene	105	16.658	16.664	0.984	1582962	50.95	ug/L 99
74) 4-Isopropyltoluene	119	16.792	16.792	0.992	1422427	51.42	ug/L 100
75) 1,3-Dichlorobenzene	146	16.865	16.865	0.996	751777	50.44	ug/L 86
76) 1,4-Dichlorobenzene	146	16.957	16.957	1.002	750564	50.23	ug/L 98
77) n-Butylbenzene	91	17.274	17.280	1.021	1213528	50.22	ug/L 100
78) 1,2-Dichlorobenzene	146	17.426	17.432	1.030	734508	50.49	ug/L 99
79) 1,2-Dibromo-3-chloropr...	157	18.383	18.383	1.086	95549	53.29	ug/L 99
80) 1,2,4-Trichlorobenzene	180	19.572	19.578	1.156	616081	51.13	ug/L 99
81) Hexachlorobutadiene	225	19.773	19.780	1.168	377252	53.90	ug/L 93
82) Naphthalene	128	20.011	20.017	1.182	1240863	52.26	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.401	20.401	1.205	582867	52.17	ug/L 97
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	7.373	7.355	0.674	0m	N.D.	d	
87) Isopropyl Alcohol	7.404	7.440	0.677	0m	N.D.	d	
88) Allyl chloride	0.000	7.843	0.000	0	N.D.		
89) tert-Butyl Alcohol	7.995	7.983	0.731	0m	N.D.	d	
90) Acrylonitrile	8.330	8.257	0.762	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY112.D
Acq On : 18 Mar 2024 16:17
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-10|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[A]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 19 10:00:10 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

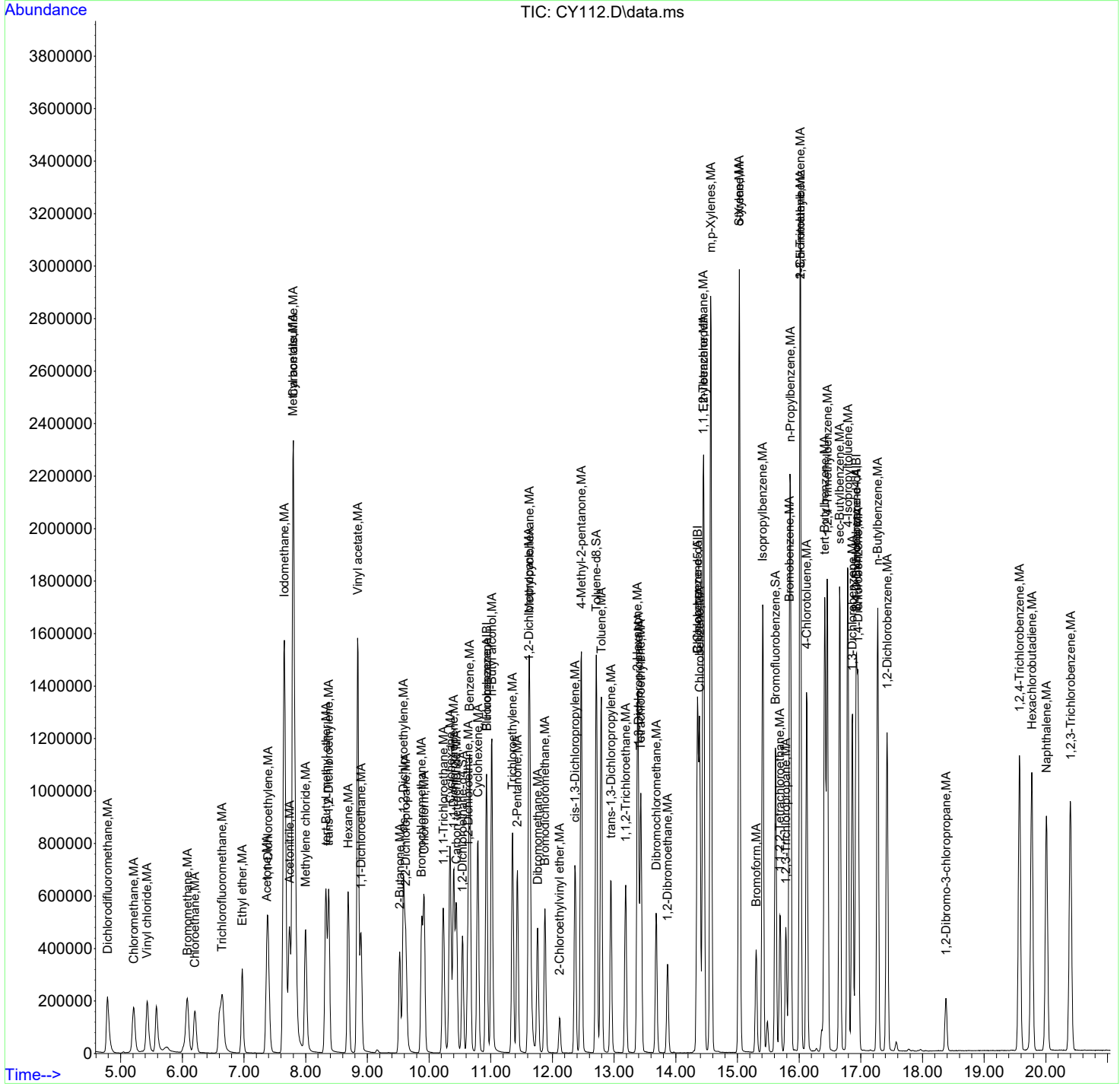
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.842	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate		9.525	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.531	9.592	0.872	0m	N.D.	d
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran		9.928	9.940	0.908	0m	N.D.	d
98) Isobutyl alcohol		10.251	10.263	0.938	0m	N.D.	d
99) Methyl tert-amyl ether		10.659	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.629	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.750	11.696	1.075	0m	N.D.	d
102) 2-Nitropropane		12.116	12.086	1.108	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.244	14.238	0.842	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.408	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.494	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		17.091	17.073	1.010	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		17.567	17.506	1.038	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

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Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY112.D
Acq On    : 18 Mar 2024 16:17
Operator  : PX1
InstName  : VOAC
Sample    : |WCVM240318-10|ICV|1|VOAF|1|VOA8260D|
Misc      : ICV SUL/5ML N/A MIX[A]
ALS Vial  : 12 Sample Multiplier: 1
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Quant Time: Mar 19 10:00:10 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY113.D
Acq On : 18 Mar 2024 16:45
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-11|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 SUL/5ML N/A MIX[B]
ALS Vial : 13 Sample Multiplier: 1

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03/19/2024

Quant Time: Mar 19 10:00:12 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.927	10.934	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.354	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.926	16.933	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.927	10.928	1.000	918699	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.354	14.348	1.000	635770	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.926	16.920	1.000	346817	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.543	10.543	0.965	0d	0.00	ug/L	
45) Toluene-d8	98	12.714	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.616	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.782	4.782	0.438	0m	N.D.	d	
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone		7.367	7.367	0.674	0m	N.D.	d	
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		7.641	7.654	0.699	0m	N.D.	d	
12) Acetonitrile		7.745	7.739	0.709	0m	N.D.	d	
13) Methyl acetate		7.794	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.794	7.800	0.713	0m	N.D.	d	
15) Methylene chloride		7.989	8.001	0.731	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		8.373	8.373	0.766	0m	N.D.	d	
18) Hexane		8.678	8.690	0.794	0m	N.D.	d	
19) Vinyl acetate		8.855	8.849	0.810	0m	N.D.	d	
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone		9.537	9.525	0.873	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.537	9.586	0.873	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.915	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.275	10.342	0.940	0m	N.D.	d	
28) 1,1-Dichloropropene		10.403	10.403	0.952	0m	N.D.	d	
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.629	10.635	0.973	0m	N.D.	d	
32) Benzene		10.653	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.787	10.793	0.987	0m	N.D.	d	
34) n-Butyl alcohol		11.019	11.019	1.008	0m	N.D.	d	
35) Trichloroethylene		11.360	11.354	1.040	0m	N.D.	d	
36) 2-Pentanone		11.433	11.434	1.046	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY113.D
Acq On : 18 Mar 2024 16:45
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-11|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 SUL/5ML N/A MIX[B]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 19 10:00:12 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.622	11.635	1.064	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		11.885	11.885	1.088	0m	N.D.	d
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		12.366	12.372	1.132	0m	N.D.	d
44) 4-Methyl-2-pentanone		12.470	12.470	0.869	0m	N.D.	d
46) Toluene		12.793	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.951	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		13.183	13.189	0.918	0m	N.D.	d
49) 2-Hexanone		13.384	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		13.397	13.397	0.933	0m	N.D.	d
51) Tetrachloroethylene		13.427	13.439	0.935	0m	N.D.	d
52) Dibromochloromethane		13.683	13.689	0.953	0m	N.D.	d
53) 1,2-Dibromoethane		13.866	13.872	0.966	0m	N.D.	d
54) Chlorobenzene		14.384	14.390	1.002	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene		14.451	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.567	14.573	1.015	0m	N.D.	d
58) o-Xylene		0.000	15.037	0.000	0	N.D.	
59) Styrene		15.030	15.037	1.047	0m	N.D.	d
61) Bromoform		15.305	15.305	0.904	0m	N.D.	d
62) Isopropylbenzene		0.000	15.414	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		15.689	15.695	0.927	0m	N.D.	d
65) 1,2,3-Trichloropropane		15.780	15.792	0.932	0m	N.D.	d
66) Bromobenzene		15.847	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		15.853	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		16.018	16.024	0.946	0m	N.D.	d
70) 4-Chlorotoluene		16.128	16.128	0.953	0m	N.D.	d
71) tert-Butylbenzene		16.420	16.420	0.970	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.457	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		16.786	16.792	0.992	0m	N.D.	d
75) 1,3-Dichlorobenzene		0.000	16.865	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.957	0.000	0	N.D.	
77) n-Butylbenzene		17.274	17.280	1.021	0m	N.D.	d
78) 1,2-Dichlorobenzene		17.420	17.432	1.029	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		18.383	18.383	1.086	0m	N.D.	d
80) 1,2,4-Trichlorobenzene		19.572	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.773	19.780	1.168	0m	N.D.	d
82) Naphthalene		20.011	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.401	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.178	7.166	0.657	2296	4.74 ug/L	90
86) Trichlorotrifluoroethane	85	7.355	7.355	0.673	11247	5.72 ug/L	96
87) Isopropyl Alcohol	45	7.446	7.440	0.681	19064	67.56 ug/L #	58
88) Allyl chloride	41	7.843	7.843	0.718	31862	4.76 ug/L #	79
89) tert-Butyl Alcohol	59	7.989	7.983	0.731	33281	64.62 ug/L	91
90) Acrylonitrile	53	8.263	8.257	0.756	6987	4.99 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY113.D
Acq On : 18 Mar 2024 16:45
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-11|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 SUL/5ML N/A MIX[B]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 19 10:00:12 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

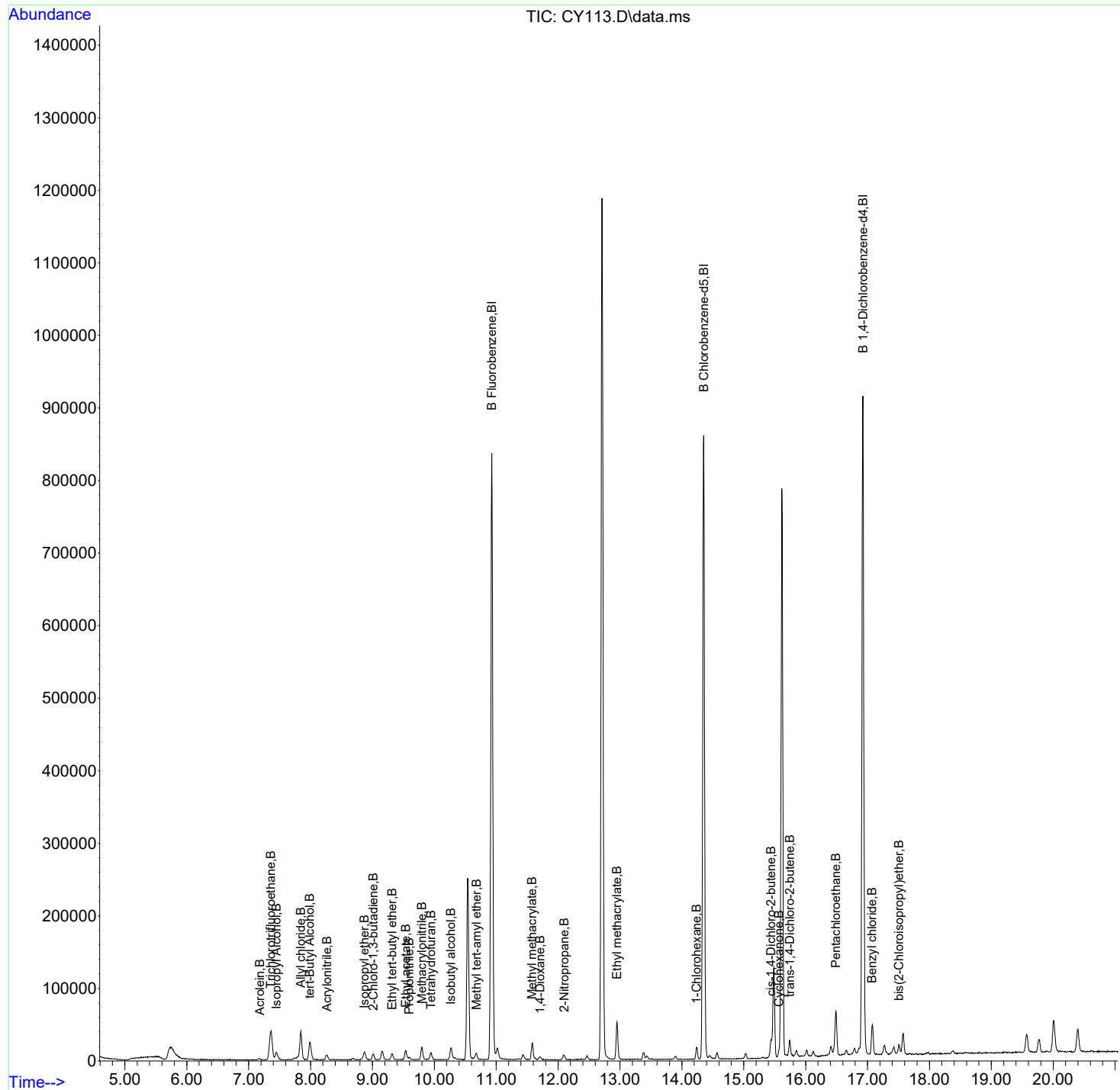
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
91) Isopropyl ether	45	8.873	8.873	0.812	10125	0.76 ug/L	#	58
92) 2-Chloro-1,3-butadiene	53	9.013	9.013	0.825	6248	1.09 ug/L		90
93) Ethyl tert-butyl ether	59	9.318	9.312	0.853	8076	0.70 ug/L		97
94) Ethyl acetate	43	9.537	9.531	0.873	18648	5.32 ug/L		97
95) Propionitrile	54	9.592	9.592	0.878	3308	5.97 ug/L		95
96) Methacrylonitrile	41	9.800	9.794	0.897	10802	4.68 ug/L		97
97) Tetrahydrofuran	42	9.946	9.940	0.910	6981	5.93 ug/L		93
98) Isobutyl alcohol	41	10.269	10.263	0.940	10463	69.27 ug/L		94
99) Methyl tert-amyl ether	73	10.684	10.671	0.978	7964	0.69 ug/L		96
100) Methyl methacrylate	69	11.580	11.580	1.060	11124	4.09 ug/L		93
101) 1,4-Dioxane	88	11.708	11.696	1.071	3224	70.01 ug/L		100
102) 2-Nitropropane	43	12.098	12.086	1.107	6528	5.19 ug/L		93
104) Ethyl methacrylate	69	12.951	12.945	0.902	18161	3.94 ug/L		90
106) 1-Chlorohexane	55	14.238	14.238	0.841	4846	1.38 ug/L	#	80
107) cis-1,4-Dichloro-2-butene	53	15.439	15.439	0.912	6169	4.67 ug/L		94
108) Cyclohexanone	42	15.567	15.567	0.920	3399	34.40 ug/L	#	83
109) trans-1,4-Dichloro-2-b...	53	15.744	15.738	0.930	5300	4.72 ug/L		89
110) Pentachloroethane	167	16.487	16.487	0.974	16047	4.37 ug/L		93
111) Benzyl chloride	91	17.073	17.073	1.009	41871	4.58 ug/L		97
112) bis(2-Chloroisopropyl)...	45	17.506	17.506	1.034	10214	6.09 ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY113.D
Acq On : 18 Mar 2024 16:45
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-11|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD005 5UL/5ML N/A MIX[B]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 19 10:00:12 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY114.D
Acq On : 18 Mar 2024 17:13
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-12|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 5UL/5ML N/A MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:14 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.934	10.934	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.354	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.926	16.933	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.934	10.928	1.000	1296600	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.354	14.348	1.000	1015954	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.926	16.920	1.000	590058	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.543	10.543	0.964	0d	0.00	ug/L	
45) Toluene-d8	98	12.714	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.616	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone		7.367	7.367	0.674	0m	N.D.	d	
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		7.648	7.654	0.699	0m	N.D.	d	
12) Acetonitrile		7.739	7.739	0.708	0m	N.D.	d	
13) Methyl acetate		7.800	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.849	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		8.001	8.001	0.732	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.684	8.690	0.794	0m	N.D.	d	
19) Vinyl acetate		8.873	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone		9.537	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.537	9.586	0.872	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.915	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.342	10.342	0.946	0m	N.D.	d	
28) 1,1-Dichloropropene		10.397	10.403	0.951	0m	N.D.	d	
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.629	10.635	0.972	0m	N.D.	d	
32) Benzene		10.659	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.787	10.793	0.987	0m	N.D.	d	
34) n-Butyl alcohol		11.031	11.019	1.009	0m	N.D.	d	
35) Trichloroethylene		11.354	11.354	1.038	0m	N.D.	d	
36) 2-Pentanone		11.433	11.434	1.046	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY114.D
Acq On : 18 Mar 2024 17:13
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-12|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 5UL/5ML N/A MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 19 10:00:14 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.641	11.635	1.065	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		12.360	12.372	1.130	0m	N.D.	d
44) 4-Methyl-2-pentanone		12.464	12.470	0.868	0m	N.D.	d
46) Toluene		12.787	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.951	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.384	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		13.396	13.397	0.933	0m	N.D.	d
51) Tetrachloroethylene		13.433	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.390	14.390	1.003	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene		14.451	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.573	14.573	1.015	0m	N.D.	d
58) o-Xylene		15.030	15.037	1.047	0m	N.D.	d
59) Styrene		15.036	15.037	1.048	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.408	15.414	0.910	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.689	15.695	0.927	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		15.847	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		15.859	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		16.018	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.018	16.024	0.946	0m	N.D.	d
70) 4-Chlorotoluene		16.122	16.128	0.952	0m	N.D.	d
71) tert-Butylbenzene		16.426	16.420	0.970	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.451	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		16.725	16.792	0.988	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.853	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.951	16.957	1.001	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.426	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		18.383	18.383	1.086	0m	N.D.	d
80) 1,2,4-Trichlorobenzene		19.572	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.773	19.780	1.168	0m	N.D.	d
82) Naphthalene		20.011	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.395	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.178	7.166	0.657	6533	9.56	ug/L 92
86) Trichlorotrifluoroethane	85	7.355	7.355	0.673	26459	9.54	ug/L 93
87) Isopropyl Alcohol	45	7.452	7.440	0.682	37591	94.39	ug/L 97
88) Allyl chloride	41	7.849	7.843	0.718	92522	9.80	ug/L 95
89) tert-Butyl Alcohol	59	7.989	7.983	0.731	69343	95.40	ug/L 92
90) Acrylonitrile	53	8.263	8.257	0.756	19083	9.66	ug/L 99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY114.D
Acq On : 18 Mar 2024 17:13
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-12|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 5UL/5ML N/A MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 19 10:00:14 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

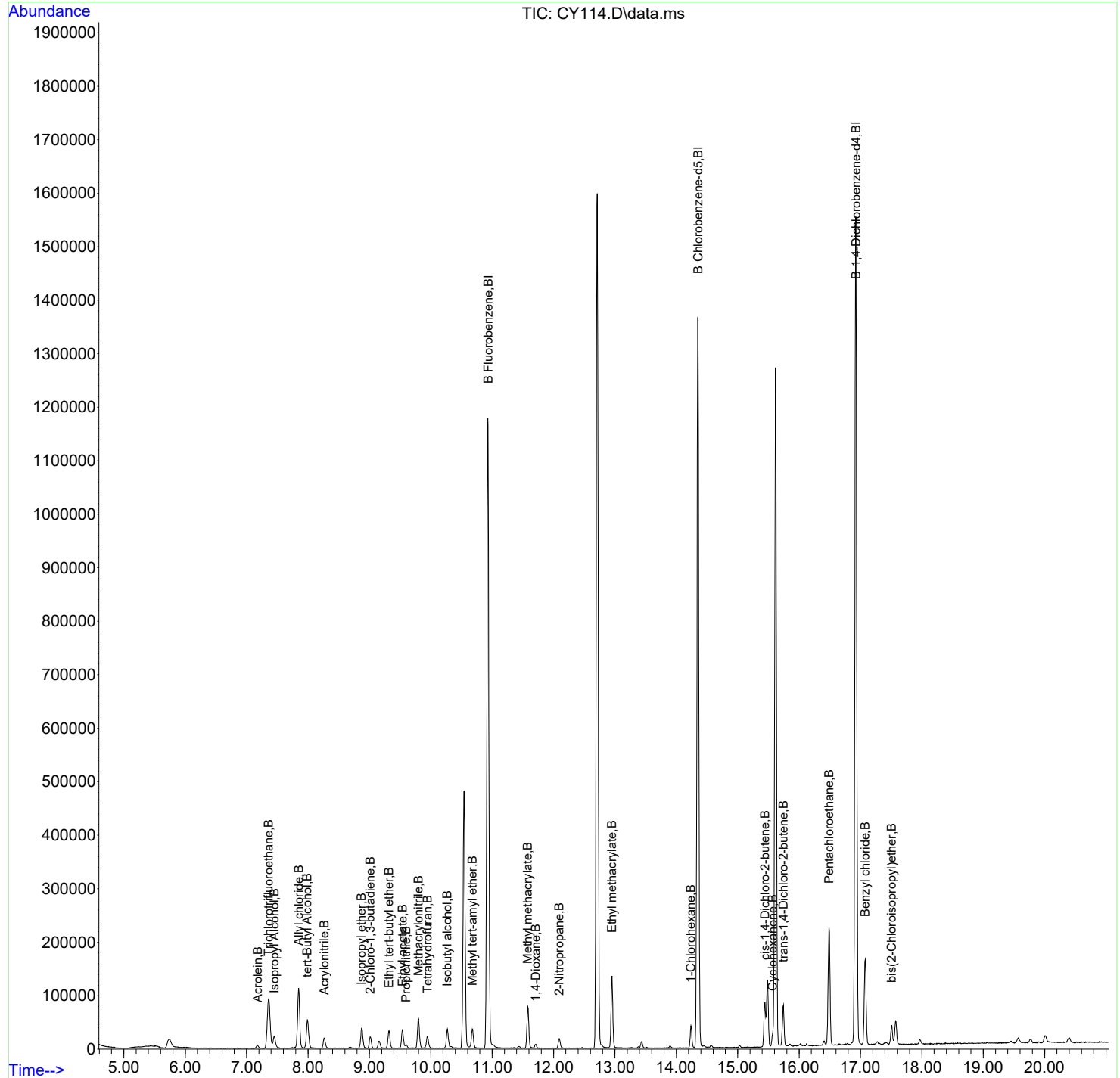
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.873	8.873	0.812	38522	2.06 ug/L	95
92) 2-Chloro-1,3-butadiene	53	9.013	9.013	0.824	16041	1.97 ug/L	99
93) Ethyl tert-butyl ether	59	9.318	9.312	0.852	33865	2.08 ug/L	99
94) Ethyl acetate	43	9.537	9.531	0.872	49482	10.00 ug/L	99
95) Propionitrile	54	9.598	9.592	0.878	7697	9.85 ug/L	99
96) Methacrylonitrile	41	9.800	9.794	0.896	32645	10.01 ug/L	98
97) Tetrahydrofuran	42	9.946	9.940	0.910	16588	9.98 ug/L	99
98) Isobutyl alcohol	41	10.269	10.263	0.939	20627	96.75 ug/L	93
99) Methyl tert-amyl ether	73	10.677	10.671	0.977	33484	2.06 ug/L	98
100) Methyl methacrylate	69	11.580	11.580	1.059	36652	9.55 ug/L	96
101) 1,4-Dioxane	88	11.708	11.696	1.071	6310	97.09 ug/L	96
102) 2-Nitropropane	43	12.092	12.086	1.106	17267	9.73 ug/L	93
104) Ethyl methacrylate	69	12.951	12.945	0.902	70725	9.60 ug/L	98
106) 1-Chlorohexane	55	14.238	14.238	0.841	11151	1.86 ug/L	95
107) cis-1,4-Dichloro-2-butene	53	15.445	15.439	0.912	21239	9.46 ug/L	97
108) Cyclohexanone	42	15.567	15.567	0.920	8093	48.15 ug/L	92
109) trans-1,4-Dichloro-2-b...	53	15.744	15.738	0.930	18063	9.45 ug/L	99
110) Pentachloroethane	167	16.487	16.487	0.974	60791	9.74 ug/L	94
111) Benzyl chloride	91	17.079	17.073	1.009	153048	9.84 ug/L	100
112) bis(2-Chloroisopropyl)...	45	17.505	17.506	1.034	28843	10.10 ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY114.D
Acq On : 18 Mar 2024 17:13
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-12|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD010 5UL/5ML N/A MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 19 10:00:14 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY115.D
Acq On : 18 Mar 2024 17:41
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-13|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD025 SUL/5ML N/A MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:16 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.927	10.934	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.347	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.926	16.933	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.927	10.928	1.000	1294163	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.347	14.348	1.000	1044673	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.926	16.920	1.000	613155	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.964	0d	0.00	ug/L	
45) Toluene-d8	98	12.708	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.616	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.782	4.782	0.438	0m	N.D.	d	
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone		7.355	7.367	0.673	0m	N.D.	d	
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile		7.733	7.739	0.708	0m	N.D.	d	
13) Methyl acetate		7.788	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.843	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.995	8.001	0.732	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.684	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.873	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		9.013	8.897	0.825	0m	N.D.	d	
21) 2-Butanone		9.531	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.537	9.586	0.873	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.909	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.269	10.342	0.940	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene		10.659	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.781	10.793	0.987	0m	N.D.	d	
34) n-Butyl alcohol		11.019	11.019	1.008	0m	N.D.	d	
35) Trichloroethylene		11.348	11.354	1.038	0m	N.D.	d	
36) 2-Pentanone		11.574	11.434	1.059	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY115.D
Acq On : 18 Mar 2024 17:41
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-13|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD025 5UL/5ML N/A MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 19 10:00:16 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.586	11.635	1.060	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.781	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.933	12.952	0.901	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.378	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		13.433	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.390	14.390	1.003	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.433	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		14.457	14.457	1.008	0m	N.D.	d
57) m,p-Xylenes		14.573	14.573	1.016	0m	N.D.	d
58) o-Xylene		15.030	15.037	1.048	0m	N.D.	d
59) Styrene		15.024	15.037	1.047	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.408	15.414	0.910	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.737	15.695	0.930	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		15.847	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		15.859	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		16.012	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.012	16.024	0.946	0m	N.D.	d
70) 4-Chlorotoluene		16.122	16.128	0.952	0m	N.D.	d
71) tert-Butylbenzene		16.408	16.420	0.969	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.445	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		16.652	16.664	0.984	0m	N.D.	d
74) 4-Isopropyltoluene		16.786	16.792	0.992	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.865	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.945	16.957	1.001	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.426	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.560	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.773	19.780	1.168	0m	N.D.	d
82) Naphthalene		20.005	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.389	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.172	7.166	0.656	16431	24.08	ug/L 100
86) Trichlorotrifluoroethane	85	7.343	7.355	0.672	69394	25.06	ug/L 97
87) Isopropyl Alcohol	45	7.440	7.440	0.681	88167	221.80	ug/L 97
88) Allyl chloride	41	7.843	7.843	0.718	234436	24.87	ug/L 98
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	165816	228.55	ug/L 98
90) Acrylonitrile	53	8.257	8.257	0.756	48495	24.59	ug/L 99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY115.D
Acq On : 18 Mar 2024 17:41
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-13|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD025 5UL/5ML N/A MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 19 10:00:16 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

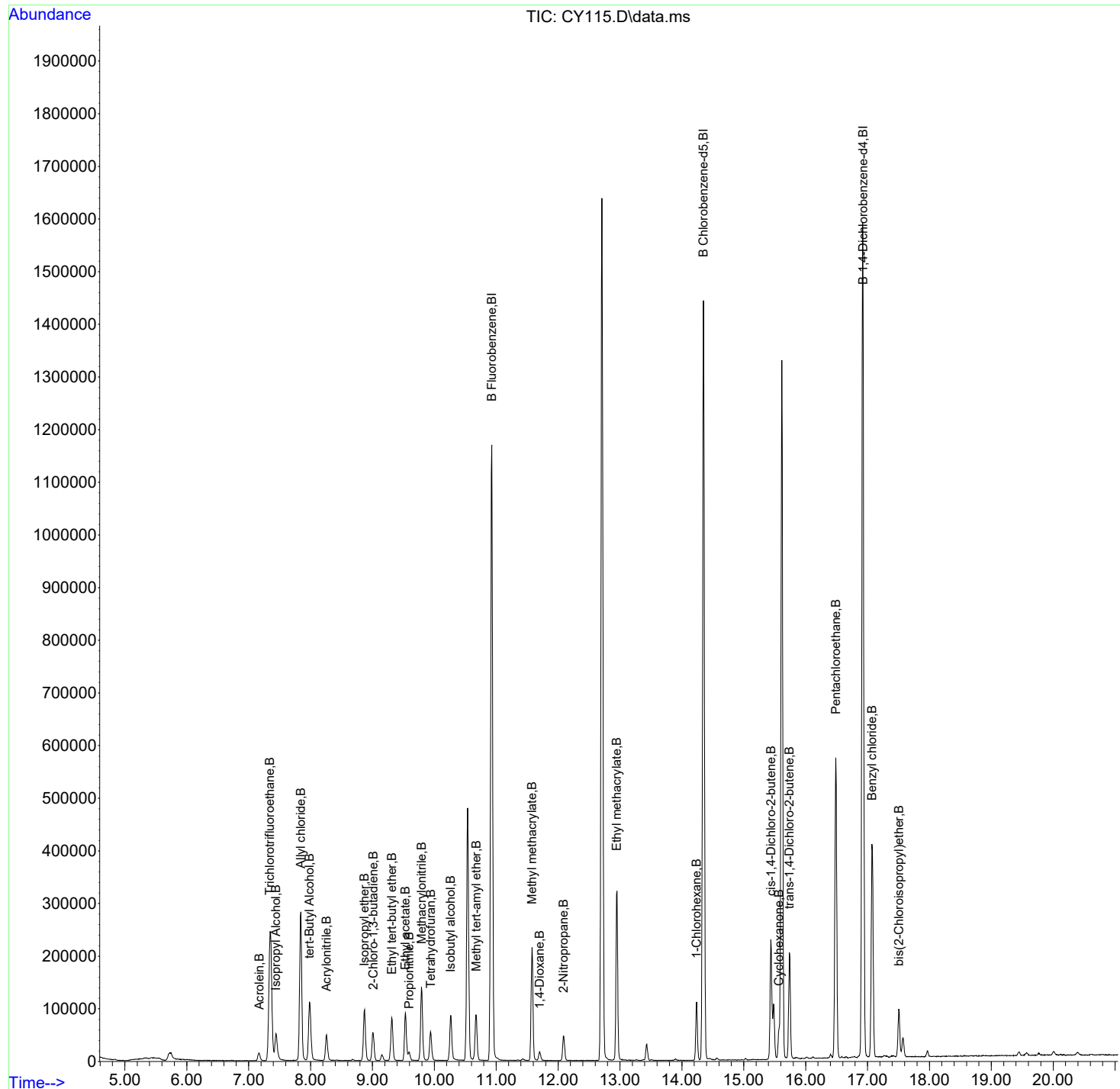
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.873	8.873	0.812	96240	5.15 ug/L	98
92) 2-Chloro-1,3-butadiene	53	9.013	9.013	0.825	39388	4.86 ug/L	99
93) Ethyl tert-butyl ether	59	9.312	9.312	0.852	83862	5.17 ug/L	99
94) Ethyl acetate	43	9.531	9.531	0.872	124900	25.29 ug/L	99
95) Propionitrile	54	9.592	9.592	0.878	18139	23.25 ug/L	98
96) Methacrylonitrile	41	9.793	9.794	0.896	82789	25.44 ug/L	100
97) Tetrahydrofuran	42	9.940	9.940	0.910	39922	24.07 ug/L	100
98) Isobutyl alcohol	41	10.263	10.263	0.939	49392	232.11 ug/L	95
99) Methyl tert-amyl ether	73	10.677	10.671	0.977	84655	5.23 ug/L	99
100) Methyl methacrylate	69	11.580	11.580	1.060	99332	25.92 ug/L	98
101) 1,4-Dioxane	88	11.702	11.696	1.071	14760	227.53 ug/L	98
102) 2-Nitropropane	43	12.086	12.086	1.106	43845	24.75 ug/L	99
104) Ethyl methacrylate	69	12.945	12.945	0.902	190023	25.07 ug/L	98
106) 1-Chlorohexane	55	14.238	14.238	0.841	29632	4.76 ug/L	99
107) cis-1,4-Dichloro-2-butene	53	15.439	15.439	0.912	56403	24.17 ug/L	99
108) Cyclohexanone	42	15.567	15.567	0.920	18206	104.23 ug/L	94
109) trans-1,4-Dichloro-2-b...	53	15.737	15.738	0.930	48191	24.26 ug/L	97
110) Pentachloroethane	167	16.487	16.487	0.974	157109	24.21 ug/L	97
111) Benzyl chloride	91	17.073	17.073	1.009	395124	24.44 ug/L	100
112) bis(2-Chloroisopropyl)...	45	17.505	17.506	1.034	67873	22.88 ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY115.D
Acq On : 18 Mar 2024 17:41
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-13|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD025 5UL/5ML N/A MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 19 10:00:16 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY116.D
Acq On : 18 Mar 2024 18:08
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-14|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.927	10.934	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.347	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.927	10.928	1.000	1321439	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.347	14.348	1.000	1022145	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	603479	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.964	0d	0.00	ug/L	
45) Toluene-d8	98	12.708	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.616	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		6.971	6.971	0.638	0m	N.D.	d	
9) Acetone		7.355	7.367	0.673	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.349	7.392	0.673	0m	N.D.	d	
11) Iodomethane		7.647	7.654	0.700	0m	N.D.	d	
12) Acetonitrile		7.684	7.739	0.703	0m	N.D.	d	
13) Methyl acetate		7.788	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.843	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.989	8.001	0.731	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		8.373	8.373	0.766	0m	N.D.	d	
18) Hexane		8.684	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.867	8.849	0.811	0m	N.D.	d	
20) 1,1-Dichloroethane		9.001	8.897	0.824	0m	N.D.	d	
21) 2-Butanone		9.531	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.531	9.586	0.872	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.921	9.922	0.908	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.336	10.342	0.946	0m	N.D.	d	
28) 1,1-Dichloropropene		10.379	10.403	0.950	0m	N.D.	d	
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.623	10.635	0.972	0m	N.D.	d	
32) Benzene		10.659	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.775	10.793	0.986	0m	N.D.	d	
34) n-Butyl alcohol		11.019	11.019	1.008	0m	N.D.	d	
35) Trichloroethylene		11.348	11.354	1.038	0m	N.D.	d	
36) 2-Pentanone		11.433	11.434	1.046	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY116.D
Acq On : 18 Mar 2024 18:08
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-14|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 19 10:00:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.574	11.635	1.059	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.787	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.939	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.378	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		13.433	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.384	14.390	1.003	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.439	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		14.451	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.567	14.573	1.015	0m	N.D.	d
58) o-Xylene		15.030	15.037	1.048	0m	N.D.	d
59) Styrene		15.024	15.037	1.047	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.414	15.414	0.911	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.737	15.695	0.930	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		15.841	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		15.853	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		16.012	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.018	16.024	0.947	0m	N.D.	d
70) 4-Chlorotoluene		16.122	16.128	0.953	0m	N.D.	d
71) tert-Butylbenzene		16.487	16.420	0.974	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.451	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		16.652	16.664	0.984	0m	N.D.	d
74) 4-Isopropyltoluene		16.780	16.792	0.992	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.865	16.865	0.997	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.957	16.957	1.002	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.426	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.566	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.767	19.780	1.168	0m	N.D.	d
82) Naphthalene		20.011	20.017	1.183	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.389	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.166	7.166	0.656	33236	47.70	ug/L 98
86) Trichlorotrifluoroethane	85	7.349	7.355	0.673	142717	50.47	ug/L 98
87) Isopropyl Alcohol	45	7.440	7.440	0.681	183194	451.35	ug/L 99
88) Allyl chloride	41	7.843	7.843	0.718	490654	50.98	ug/L 99
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	344839	465.50	ug/L 98
90) Acrylonitrile	53	8.257	8.257	0.756	99009	49.17	ug/L 99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY116.D
Acq On : 18 Mar 2024 18:08
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-14|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 19 10:00:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

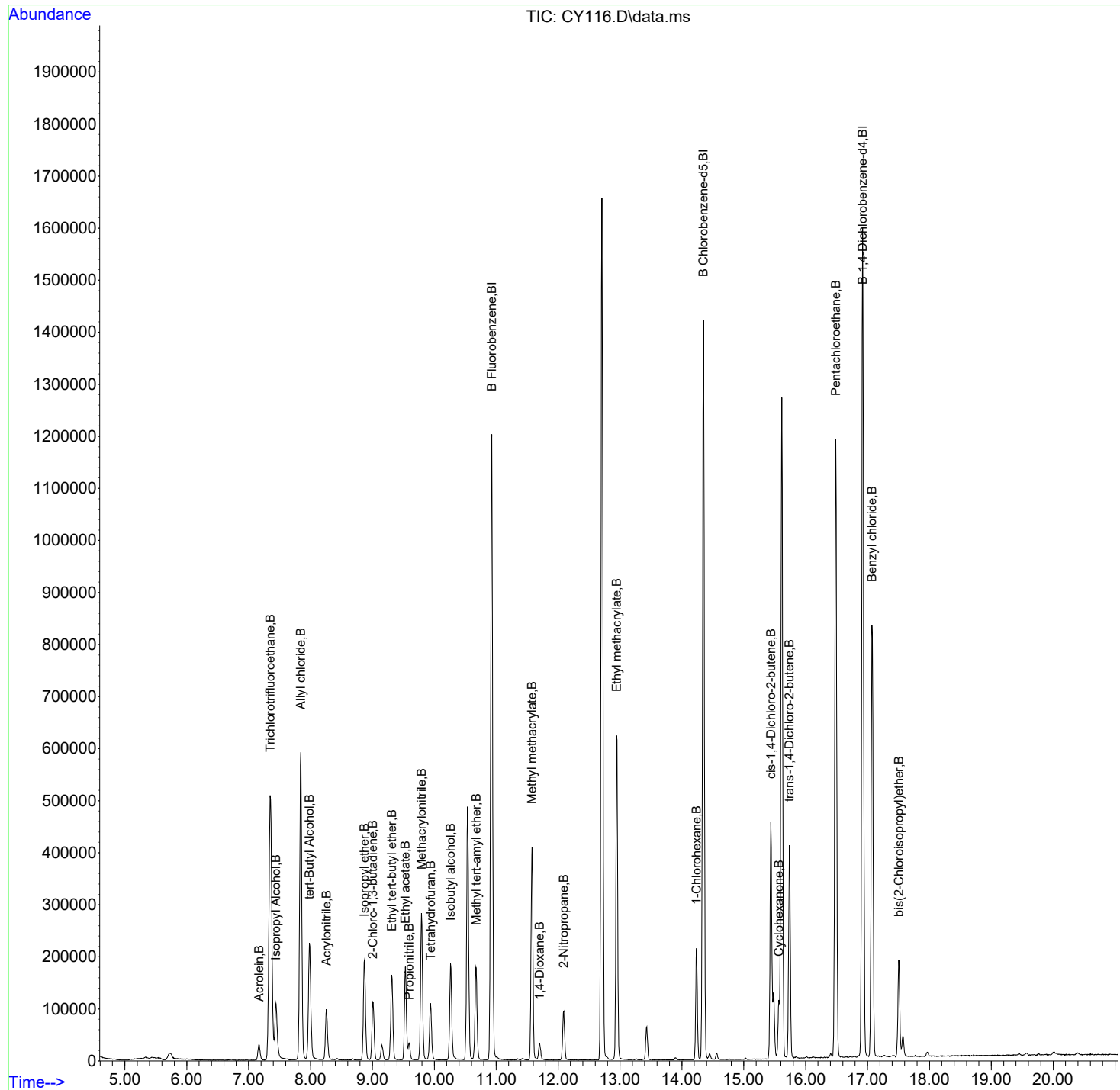
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.873	8.873	0.812	196390	10.30	ug/L 99
92) 2-Chloro-1,3-butadiene	53	9.007	9.013	0.824	82999	10.02	ug/L 99
93) Ethyl tert-butyl ether	59	9.312	9.312	0.852	171289	10.34	ug/L 99
94) Ethyl acetate	43	9.531	9.531	0.872	240829	47.76	ug/L 100
95) Propionitrile	54	9.592	9.592	0.878	37414	46.96	ug/L 98
96) Methacrylonitrile	41	9.793	9.794	0.896	163970	49.35	ug/L 98
97) Tetrahydrofuran	42	9.940	9.940	0.910	78310	46.24	ug/L 99
98) Isobutyl alcohol	41	10.263	10.263	0.939	100407	462.11	ug/L 98
99) Methyl tert-amyl ether	73	10.677	10.671	0.977	172169	10.41	ug/L 99
100) Methyl methacrylate	69	11.580	11.580	1.060	191219	48.87	ug/L 98
101) 1,4-Dioxane	88	11.702	11.696	1.071	29372	443.44	ug/L 98
102) 2-Nitropropane	43	12.092	12.086	1.107	85854	47.47	ug/L 97
104) Ethyl methacrylate	69	12.945	12.945	0.902	375872	50.68	ug/L 98
106) 1-Chlorohexane	55	14.238	14.238	0.841	57739	9.43	ug/L 98
107) cis-1,4-Dichloro-2-butene	53	15.439	15.439	0.912	112793	49.10	ug/L 99
108) Cyclohexanone	42	15.567	15.567	0.920	36067	209.80	ug/L 97
109) trans-1,4-Dichloro-2-b...	53	15.737	15.738	0.930	97477	49.85	ug/L 97
110) Pentachloroethane	167	16.487	16.487	0.974	329088	51.53	ug/L 98
111) Benzyl chloride	91	17.073	17.073	1.009	807930	50.77	ug/L 100
112) bis(2-Chloroisopropyl)...	45	17.505	17.506	1.035	138853	47.55	ug/L 99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY116.D
Acq On : 18 Mar 2024 18:08
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-14|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD050 5UL/5ML N/A MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 19 10:00:18 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY117.D
Acq On : 18 Mar 2024 18:36
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-15|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[B]
ALS Vial : 17 Sample Multiplier: 1

ell

03/19/2024

Quant Time: Mar 19 10:00:20 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.928	10.934	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.348	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.928	10.928	1.000	1345363	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.348	14.348	1.000	1031728	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	585680	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.964	0d	0.00	ug/L	
45) Toluene-d8	98	12.708	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.616	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.782	4.782	0.438	0m	N.D.	d	
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		6.971	6.971	0.638	0m	N.D.	d	
9) Acetone		7.361	7.367	0.674	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.355	7.392	0.673	0m	N.D.	d	
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile		7.733	7.739	0.708	0m	N.D.	d	
13) Methyl acetate		7.788	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.843	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.989	8.001	0.731	0m	N.D.	d	
16) tert-Butyl methyl ether		8.324	8.330	0.762	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.690	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.873	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		9.007	8.897	0.824	0m	N.D.	d	
21) 2-Butanone		9.531	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.531	9.586	0.872	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.915	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.263	10.342	0.939	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.623	10.635	0.972	0m	N.D.	d	
32) Benzene		10.653	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.781	10.793	0.987	0m	N.D.	d	
34) n-Butyl alcohol		11.031	11.019	1.009	0m	N.D.	d	
35) Trichloroethylene		11.348	11.354	1.038	0m	N.D.	d	
36) 2-Pentanone		11.434	11.434	1.046	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY117.D
Acq On : 18 Mar 2024 18:36
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-15|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 19 10:00:20 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.574	11.635	1.059	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.793	12.793	0.892	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.958	12.952	0.903	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.378	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		13.390	13.397	0.933	0m	N.D.	d
51) Tetrachloroethylene		13.433	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.372	14.390	1.002	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.439	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		14.451	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.561	14.573	1.015	0m	N.D.	d
58) o-Xylene		15.030	15.037	1.048	0m	N.D.	d
59) Styrene		15.030	15.037	1.048	0m	N.D.	d
61) Bromoform		15.299	15.305	0.904	0m	N.D.	d
62) Isopropylbenzene		15.408	15.414	0.911	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.683	15.695	0.927	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		15.835	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		15.853	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		16.012	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.012	16.024	0.946	0m	N.D.	d
70) 4-Chlorotoluene		16.122	16.128	0.953	0m	N.D.	d
71) tert-Butylbenzene		16.408	16.420	0.970	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.457	16.463	0.973	0m	N.D.	d
73) sec-Butylbenzene		16.658	16.664	0.985	0m	N.D.	d
74) 4-Isopropyltoluene		16.786	16.792	0.992	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.859	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.951	16.957	1.002	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.420	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.572	19.578	1.157	0m	N.D.	d
81) Hexachlorobutadiene		19.773	19.780	1.169	0m	N.D.	d
82) Naphthalene		20.011	20.017	1.183	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.383	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.172	7.166	0.656	71477	100.76	ug/L 98
86) Trichlorotrifluoroethane	85	7.349	7.355	0.673	264517	91.89	ug/L 97
87) Isopropyl Alcohol	45	7.440	7.440	0.681	398211	963.67	ug/L 100
88) Allyl chloride	41	7.843	7.843	0.718	975166	99.52	ug/L 99
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	738347	978.98	ug/L 98
90) Acrylonitrile	53	8.257	8.257	0.756	210806	102.83	ug/L 99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY117.D
Acq On : 18 Mar 2024 18:36
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-15|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 19 10:00:20 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

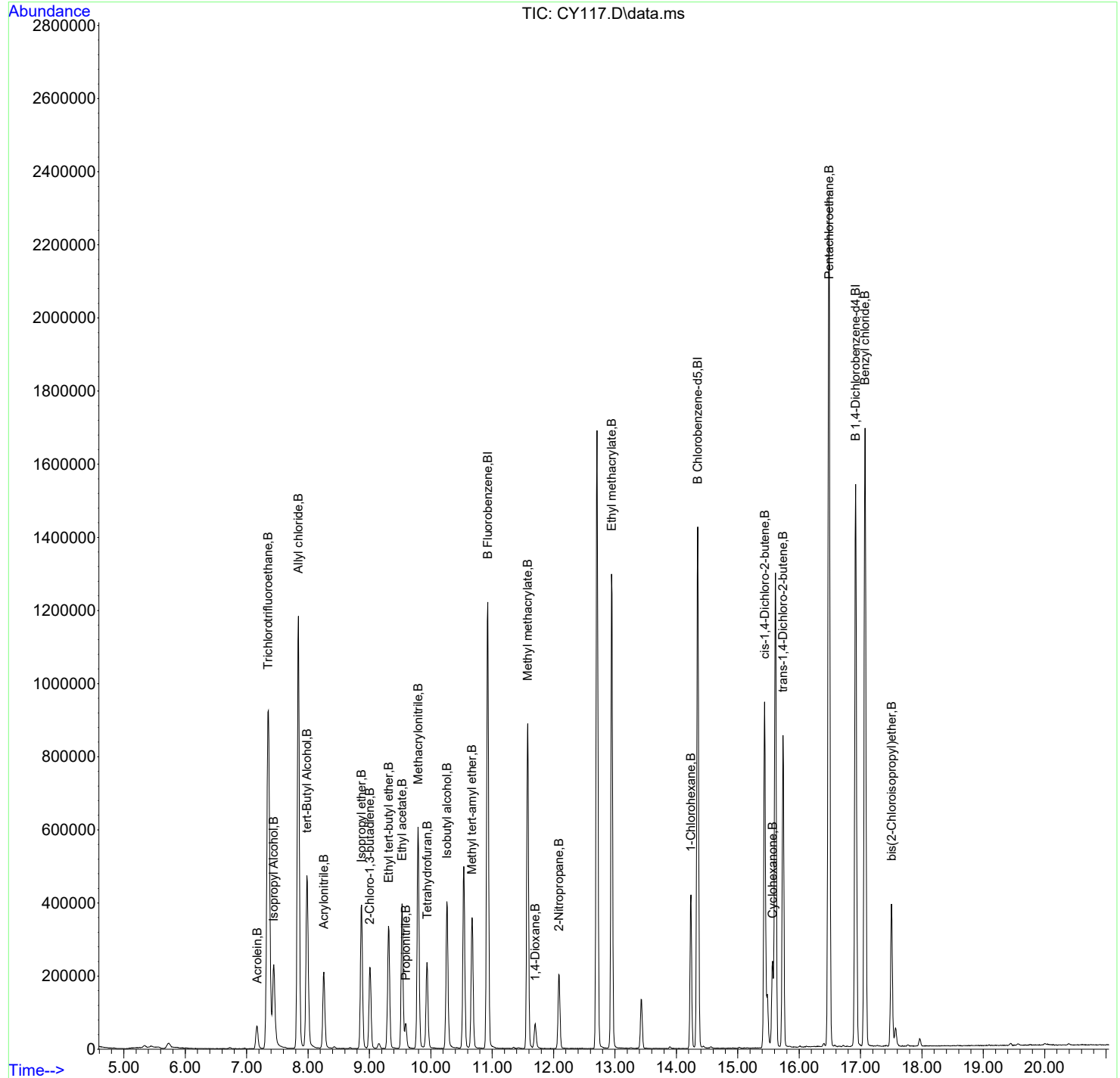
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.873	8.873	0.812	399849	20.59 ug/L	100
92) 2-Chloro-1,3-butadiene	53	9.007	9.013	0.824	164553	19.52 ug/L	100
93) Ethyl tert-butyl ether	59	9.312	9.312	0.852	351193	20.83 ug/L	99
94) Ethyl acetate	43	9.531	9.531	0.872	526754	102.61 ug/L	100
95) Propionitrile	54	9.592	9.592	0.878	80674	99.46 ug/L	99
96) Methacrylonitrile	41	9.794	9.794	0.896	348616	103.05 ug/L	98
97) Tetrahydrofuran	42	9.940	9.940	0.910	172262	99.90 ug/L	100
98) Isobutyl alcohol	41	10.263	10.263	0.939	213367	964.54 ug/L	100
99) Methyl tert-amyl ether	73	10.671	10.671	0.977	353028	20.97 ug/L	100
100) Methyl methacrylate	69	11.580	11.580	1.060	411018	103.18 ug/L	99
101) 1,4-Dioxane	88	11.702	11.696	1.071	62722	930.10 ug/L	99
102) 2-Nitropropane	43	12.086	12.086	1.106	185111	100.52 ug/L	99
104) Ethyl methacrylate	69	12.945	12.945	0.902	789661	105.49 ug/L	99
106) 1-Chlorohexane	55	14.238	14.238	0.841	114183	19.21 ug/L	98
107) cis-1,4-Dichloro-2-butene	53	15.439	15.439	0.912	233019	104.52 ug/L	99
108) Cyclohexanone	42	15.567	15.567	0.920	79096	474.07 ug/L	99
109) trans-1,4-Dichloro-2-b...	53	15.738	15.738	0.930	199136	104.94 ug/L	99
110) Pentachloroethane	167	16.487	16.487	0.974	647435	104.46 ug/L	99
111) Benzyl chloride	91	17.073	17.073	1.009	1627217	105.36 ug/L	100
112) bis(2-Chloroisopropyl)...	45	17.506	17.506	1.035	283824	100.15 ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY117.D
Acq On : 18 Mar 2024 18:36
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-15|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD100 5UL/5ML N/A MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 19 10:00:20 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY118.D
Acq On : 18 Mar 2024 19:04
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-16|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD250 5UL/5ML N/A MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:22 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.928	10.934	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	14.348	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.928	10.928	1.000	1286756	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.348	14.348	1.000	996877	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	561712	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.964	0d	0.00	ug/L	
45) Toluene-d8	98	12.708	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.610	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.782	4.782	0.438	0m	N.D.	d	
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		6.965	6.971	0.637	0m	N.D.	d	
9) Acetone		7.361	7.367	0.674	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.355	7.392	0.673	0m	N.D.	d	
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile		7.843	7.739	0.718	0m	N.D.	d	
13) Methyl acetate		7.794	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.843	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.995	8.001	0.732	0m	N.D.	d	
16) tert-Butyl methyl ether		8.324	8.330	0.762	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.696	8.690	0.796	0m	N.D.	d	
19) Vinyl acetate		8.873	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		9.007	8.897	0.824	0m	N.D.	d	
21) 2-Butanone		9.531	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.531	9.586	0.872	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.915	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.263	10.342	0.939	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.629	10.635	0.973	0m	N.D.	d	
32) Benzene		10.665	10.665	0.976	0m	N.D.	d	
33) Cyclohexene		10.769	10.793	0.985	0m	N.D.	d	
34) n-Butyl alcohol		11.013	11.019	1.008	0m	N.D.	d	
35) Trichloroethylene		11.348	11.354	1.038	0m	N.D.	d	
36) 2-Pentanone		11.434	11.434	1.046	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY118.D
Acq On : 18 Mar 2024 19:04
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-16|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD250 5UL/5ML N/A MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 19 10:00:22 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.574	11.635	1.059	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.787	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.945	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.378	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		13.427	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.378	14.390	1.002	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.439	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		0.000	14.457	0.000	0	N.D.	
57) m,p-Xylenes		14.561	14.573	1.015	0m	N.D.	d
58) o-Xylene		15.030	15.037	1.048	0m	N.D.	d
59) Styrene		15.030	15.037	1.048	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.415	15.414	0.911	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.738	15.695	0.930	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		15.841	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		16.012	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.018	16.024	0.947	0m	N.D.	d
70) 4-Chlorotoluene		16.122	16.128	0.953	0m	N.D.	d
71) tert-Butylbenzene		16.487	16.420	0.974	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.457	16.463	0.973	0m	N.D.	d
73) sec-Butylbenzene		16.658	16.664	0.985	0m	N.D.	d
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		16.853	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.951	16.957	1.002	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.420	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.572	19.578	1.157	0m	N.D.	d
81) Hexachlorobutadiene		19.767	19.780	1.168	0m	N.D.	d
82) Naphthalene		20.005	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.395	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.166	7.166	0.656	157815	232.60	ug/L 100
86) Trichlorotrifluoroethane	85	7.355	7.355	0.673	671202	243.78	ug/L 96
87) Isopropyl Alcohol	45	7.440	7.440	0.681	941800	2382.95	ug/L 100
88) Allyl chloride	41	7.843	7.843	0.718	2395218	255.58	ug/L 100
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	1731773	2400.75	ug/L 99
90) Acrylonitrile	53	8.257	8.257	0.756	494313	252.11	ug/L 100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY118.D
Acq On : 18 Mar 2024 19:04
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-16|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD250 5UL/5ML N/A MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 19 10:00:22 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

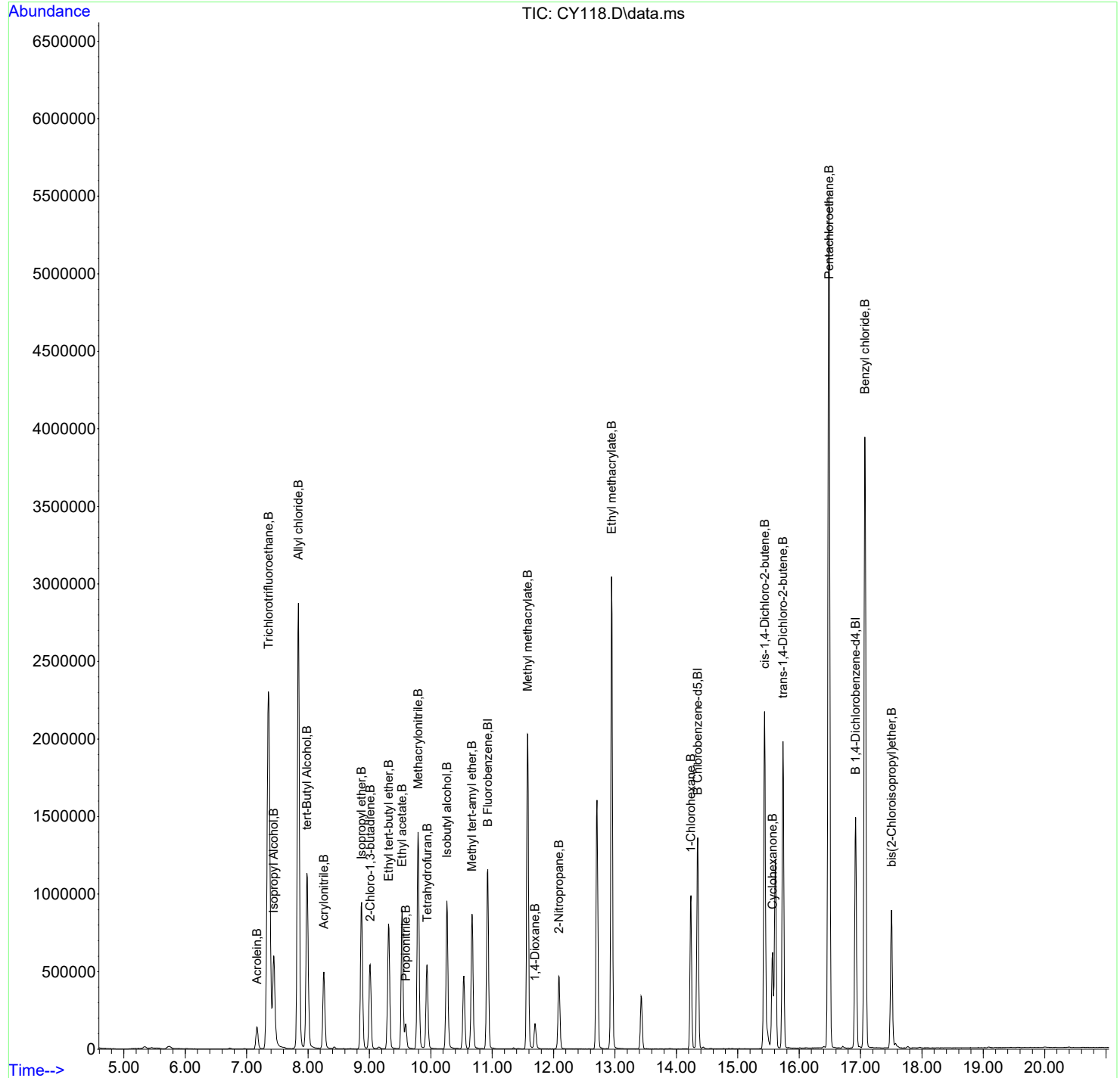
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.873	8.873	0.812	958034	51.58	ug/L 100
92) 2-Chloro-1,3-butadiene	53	9.013	9.013	0.825	402266	49.89	ug/L 100
93) Ethyl tert-butyl ether	59	9.312	9.312	0.852	845037	52.40	ug/L 100
94) Ethyl acetate	43	9.531	9.531	0.872	1186154	241.58	ug/L 100
95) Propionitrile	54	9.592	9.592	0.878	188821	243.39	ug/L 100
96) Methacrylonitrile	41	9.794	9.794	0.896	806432	249.23	ug/L 99
97) Tetrahydrofuran	42	9.940	9.940	0.910	401569	243.49	ug/L 100
98) Isobutyl alcohol	41	10.263	10.263	0.939	486061	2297.35	ug/L 99
99) Methyl tert-amyl ether	73	10.671	10.671	0.977	844544	52.45	ug/L 100
100) Methyl methacrylate	69	11.580	11.580	1.060	958950	251.70	ug/L 100
101) 1,4-Dioxane	88	11.696	11.696	1.070	150537	2333.97	ug/L 100
102) 2-Nitropropane	43	12.086	12.086	1.106	433767	246.28	ug/L 100
104) Ethyl methacrylate	69	12.945	12.945	0.902	1846328	255.28	ug/L 100
106) 1-Chlorohexane	55	14.238	14.238	0.841	265226	46.51	ug/L 98
107) cis-1,4-Dichloro-2-butene	53	15.439	15.439	0.912	543386	254.13	ug/L 100
108) Cyclohexanone	42	15.567	15.567	0.920	202990	1268.56	ug/L 100
109) trans-1,4-Dichloro-2-b...	53	15.738	15.738	0.930	460590	253.08	ug/L 100
110) Pentachloroethane	167	16.487	16.487	0.974	1580585	265.89	ug/L 100
111) Benzyl chloride	91	17.073	17.073	1.009	3809627	257.20	ug/L 100
112) bis(2-Chloroisopropyl)...	45	17.506	17.506	1.035	669377	246.27	ug/L 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY118.D
Acq On : 18 Mar 2024 19:04
Operator : PXY1
InstName : VOAC
Sample : |WCV M240318-16|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD250 5UL/5ML N/A MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 19 10:00:22 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY119.D
Acq On : 18 Mar 2024 19:32
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-17|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD300 3UL/5ML N/A MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:25 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.921	10.934	1.000	0m	50.00	ug/L	-0.01
43) Chlorobenzene-d5	117	14.348	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.921	10.928	1.000	1284973	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.348	14.348	1.000	1042032	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	602702	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.531	10.543	0.964	0d	0.00	ug/L	
45) Toluene-d8	98	12.708	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.610	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		6.959	6.971	0.637	0m	N.D.	d	
9) Acetone		7.349	7.367	0.673	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.349	7.392	0.673	0m	N.D.	d	
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile		7.703	7.739	0.705	0m	N.D.	d	
13) Methyl acetate		7.782	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.837	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.983	8.001	0.731	0m	N.D.	d	
16) tert-Butyl methyl ether		8.330	8.330	0.763	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.684	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.867	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		9.007	8.897	0.825	0m	N.D.	d	
21) 2-Butanone		9.525	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.531	9.586	0.873	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.909	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.257	10.342	0.939	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.623	10.635	0.973	0m	N.D.	d	
32) Benzene		10.647	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.775	10.793	0.987	0m	N.D.	d	
34) n-Butyl alcohol		11.019	11.019	1.009	0m	N.D.	d	
35) Trichloroethylene		11.348	11.354	1.039	0m	N.D.	d	
36) 2-Pentanone		11.574	11.434	1.060	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY119.D
Acq On : 18 Mar 2024 19:32
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-17|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD300 3UL/5ML N/A MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 19 10:00:25 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.574	11.635	1.060	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		12.354	12.372	1.131	0m	N.D.	d
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.781	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.946	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.378	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		13.391	13.397	0.933	0m	N.D.	d
51) Tetrachloroethylene		13.427	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.378	14.390	1.002	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.439	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		0.000	14.457	0.000	0	N.D.	
57) m,p-Xylenes		14.561	14.573	1.015	0m	N.D.	d
58) o-Xylene		15.024	15.037	1.047	0m	N.D.	d
59) Styrene		15.018	15.037	1.047	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.408	15.414	0.911	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.738	15.695	0.930	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		15.835	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		16.018	16.024	0.947	0m	N.D.	d
69) 2-Chlorotoluene		16.012	16.024	0.946	0m	N.D.	d
70) 4-Chlorotoluene		16.116	16.128	0.952	0m	N.D.	d
71) tert-Butylbenzene		16.481	16.420	0.974	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.457	16.463	0.973	0m	N.D.	d
73) sec-Butylbenzene		16.652	16.664	0.984	0m	N.D.	d
74) 4-Isopropyltoluene		16.902	16.792	0.999	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.859	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.957	16.957	1.002	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.420	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.566	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.761	19.780	1.168	0m	N.D.	d
82) Naphthalene		20.005	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.395	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.160	7.166	0.656	229985	339.45	ug/L 99
86) Trichlorotrifluoroethane	85	7.349	7.355	0.673	822848	299.27	ug/L 96
87) Isopropyl Alcohol	45	7.434	7.440	0.681	1175908	2979.42	ug/L 100
88) Allyl chloride	41	7.837	7.843	0.718	2828647	302.24	ug/L 100
89) tert-Butyl Alcohol	59	7.977	7.983	0.730	2142832	2974.72	ug/L 99
90) Acrylonitrile	53	8.251	8.257	0.756	601162	307.03	ug/L 100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY119.D
Acq On : 18 Mar 2024 19:32
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-17|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD300 3UL/5ML N/A MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 19 10:00:25 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

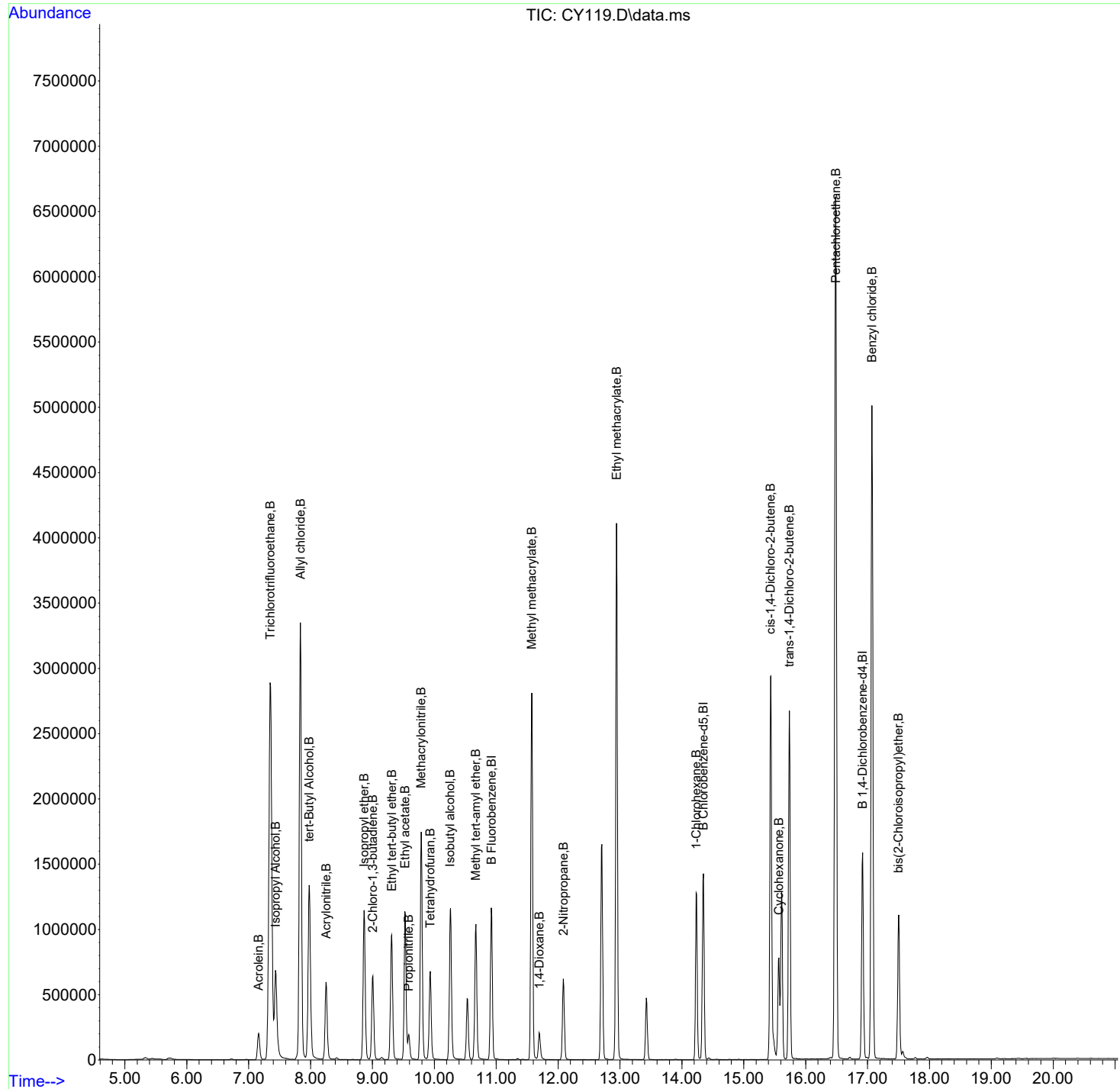
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.867	8.873	0.812	1167110	62.92	ug/L 99
92) 2-Chloro-1,3-butadiene	53	9.007	9.013	0.825	474822	58.97	ug/L 100
93) Ethyl tert-butyl ether	59	9.312	9.312	0.853	1016819	63.13	ug/L 100
94) Ethyl acetate	43	9.525	9.531	0.872	1504549	306.85	ug/L 100
95) Propionitrile	54	9.586	9.592	0.878	232746	300.42	ug/L 99
96) Methacrylonitrile	41	9.788	9.794	0.896	1002484	310.25	ug/L 99
97) Tetrahydrofuran	42	9.934	9.940	0.910	494014	299.96	ug/L 99
98) Isobutyl alcohol	41	10.257	10.263	0.939	615423	2912.81	ug/L 99
99) Methyl tert-amyl ether	73	10.672	10.671	0.977	1012485	62.96	ug/L 100
100) Methyl methacrylate	69	11.574	11.580	1.060	1295727	340.56	ug/L 100
101) 1,4-Dioxane	88	11.696	11.696	1.071	190150	2952.24	ug/L 99
102) 2-Nitropropane	43	12.086	12.086	1.107	563404	320.33	ug/L 99
104) Ethyl methacrylate	69	12.946	12.945	0.902	2530748	334.75	ug/L 100
106) 1-Chlorohexane	55	14.232	14.238	0.841	351595	57.47	ug/L 97
107) cis-1,4-Dichloro-2-butene	53	15.433	15.439	0.912	740484	322.75	ug/L 99
108) Cyclohexanone	42	15.567	15.567	0.920	259071	1508.92	ug/L 100
109) trans-1,4-Dichloro-2-b...	53	15.738	15.738	0.930	623213	319.15	ug/L 99
110) Pentachloroethane	167	16.488	16.487	0.974	1900236	297.92	ug/L 99
111) Benzyl chloride	91	17.073	17.073	1.009	4833155	304.11	ug/L 100
112) bis(2-Chloroisopropyl)...	45	17.500	17.506	1.034	834351	286.08	ug/L 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY119.D
Acq On : 18 Mar 2024 19:32
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-17|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD300 3UL/5ML N/A MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 19 10:00:25 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY120.D
Acq On : 18 Mar 2024 20:00
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-18|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD500 5UL/5ML N/A MIX[B]
ALS Vial : 20 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:27 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.921	10.934	1.000	0m	50.00	ug/L	-0.01
43) Chlorobenzene-d5	117	14.347	14.354	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.921	10.928	1.000	1255726	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.347	14.348	1.000	983227	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	560747	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.965	0d	0.00	ug/L	
45) Toluene-d8	98	12.708	12.714	0.886	0d	0.00	ug/L	
63) Bromofluorobenzene	95	15.609	15.622	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.782	4.782	0.438	0m	N.D.	d	
3) Chloromethane		5.343	5.203	0.489	0m	N.D.	d	
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		6.971	6.971	0.638	0m	N.D.	d	
9) Acetone		7.355	7.367	0.673	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.349	7.392	0.673	0m	N.D.	d	
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile		7.733	7.739	0.708	0m	N.D.	d	
13) Methyl acetate		7.788	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.836	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.995	8.001	0.732	0m	N.D.	d	
16) tert-Butyl methyl ether		8.318	8.330	0.762	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.684	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.867	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		9.007	8.897	0.825	0m	N.D.	d	
21) 2-Butanone		9.531	9.525	0.873	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.531	9.586	0.873	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.909	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.409	10.342	0.953	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.635	10.635	0.974	0m	N.D.	d	
32) Benzene		10.653	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		0.000	10.793	0.000	0	N.D.		
34) n-Butyl alcohol		11.013	11.019	1.008	0m	N.D.	d	
35) Trichloroethylene		11.348	11.354	1.039	0m	N.D.	d	
36) 2-Pentanone		11.433	11.434	1.047	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY120.D
Acq On : 18 Mar 2024 20:00
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-18|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD500 5UL/5ML N/A MIX[B]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 19 10:00:27 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.574	11.635	1.060	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		12.372	12.372	1.133	0m	N.D.	d
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.787	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.939	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.378	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		13.390	13.397	0.933	0m	N.D.	d
51) Tetrachloroethylene		13.427	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.378	14.390	1.002	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.433	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		14.445	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.555	14.573	1.014	0m	N.D.	d
58) o-Xylene		15.030	15.037	1.048	0m	N.D.	d
59) Styrene		15.036	15.037	1.048	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.408	15.414	0.911	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.737	15.695	0.930	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.866	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		16.012	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.018	16.024	0.947	0m	N.D.	d
70) 4-Chlorotoluene		16.115	16.128	0.952	0m	N.D.	d
71) tert-Butylbenzene		16.487	16.420	0.974	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.451	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		16.646	16.664	0.984	0m	N.D.	d
74) 4-Isopropyltoluene		16.865	16.792	0.997	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.859	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.951	16.957	1.002	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.420	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.566	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.779	19.780	1.169	0m	N.D.	d
82) Naphthalene		20.011	20.017	1.183	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.383	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.166	7.166	0.656	367380	554.86	ug/L 99 A
86) Trichlorotrifluoroethane	85	7.355	7.355	0.673	1341619	499.31	ug/L 96
87) Isopropyl Alcohol	45	7.440	7.440	0.681	1938052	5024.85	ug/L 100 A
88) Allyl chloride	41	7.836	7.843	0.718	4703117	514.23	ug/L 99 A
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	3440574	4887.51	ug/L 99
90) Acrylonitrile	53	8.251	8.257	0.755	964993	504.32	ug/L 100 A

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY120.D
Acq On : 18 Mar 2024 20:00
Operator : PX1
InstName : VOAC
Sample : |WCV240318-18|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD500 5UL/5ML N/A MIX[B]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 19 10:00:27 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

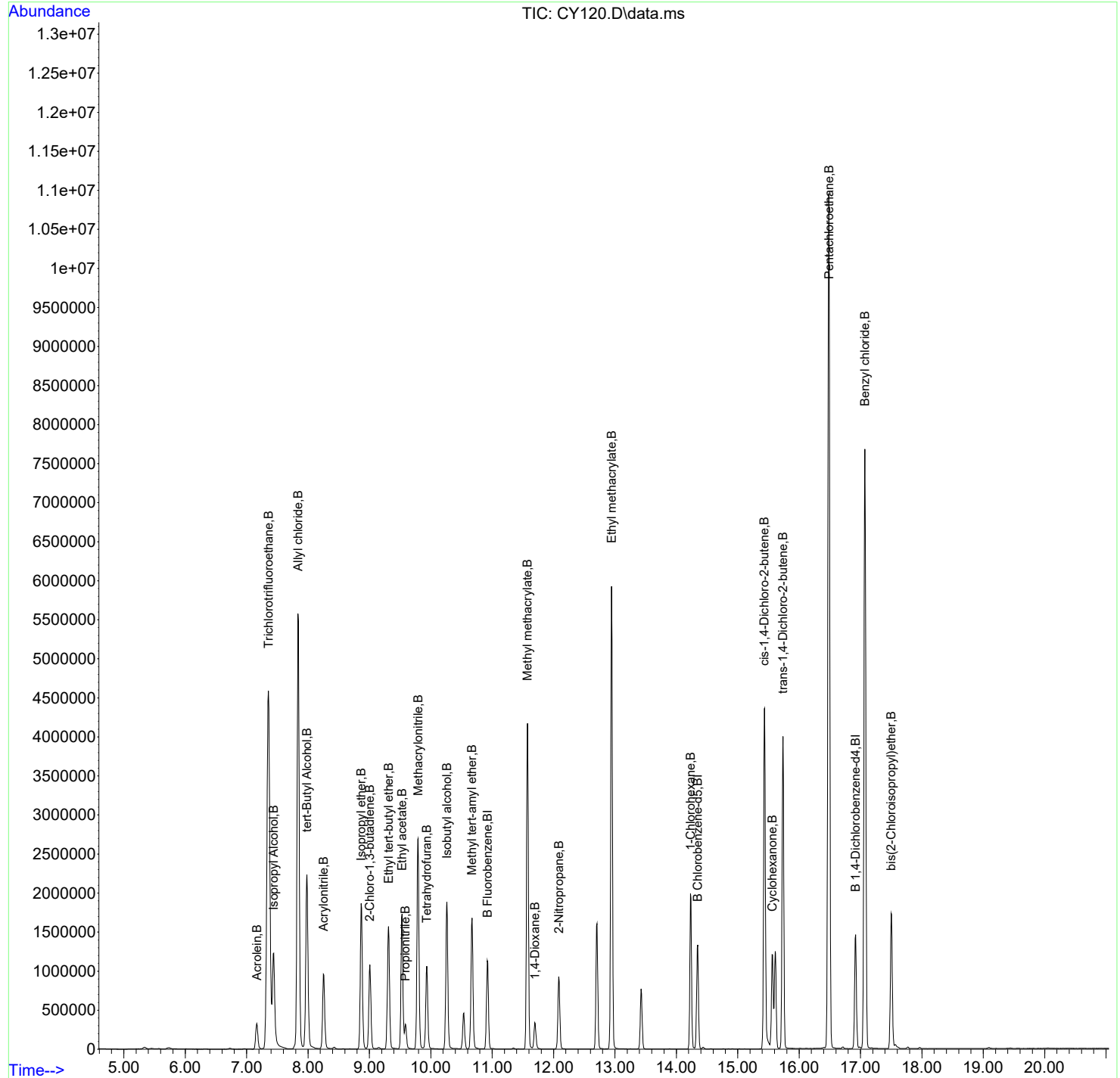
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.867	8.873	0.812	1880668	103.76	ug/L 99 A
92) 2-Chloro-1,3-butadiene	53	9.007	9.013	0.825	784897	99.75	ug/L 99
93) Ethyl tert-butyl ether	59	9.312	9.312	0.853	1647861	104.70	ug/L 100 A
94) Ethyl acetate	43	9.531	9.531	0.873	2285444	476.96	ug/L 100
95) Propionitrile	54	9.586	9.592	0.878	371854	491.16	ug/L 99
96) Methacrylonitrile	41	9.793	9.794	0.897	1574999	498.78	ug/L 100
97) Tetrahydrofuran	42	9.934	9.940	0.910	769096	477.87	ug/L 99
98) Isobutyl alcohol	41	10.263	10.263	0.940	970493	4700.35	ug/L 99
99) Methyl tert-amyl ether	73	10.671	10.671	0.977	1638144	104.24	ug/L 100 A
100) Methyl methacrylate	69	11.574	11.580	1.060	1932007	519.63	ug/L 99 A
101) 1,4-Dioxane	88	11.696	11.696	1.071	309707	4920.45	ug/L 99
102) 2-Nitropropane	43	12.086	12.086	1.107	852013	495.70	ug/L 100
104) Ethyl methacrylate	69	12.945	12.945	0.902	3726122	522.34	ug/L 99 A
106) 1-Chlorohexane	55	14.232	14.238	0.841	540657	94.98	ug/L 97
107) cis-1,4-Dichloro-2-butene	53	15.433	15.439	0.912	1103281	516.87	ug/L 99 A
108) Cyclohexanone	42	15.561	15.567	0.920	406921	2547.38	ug/L 100 A
109) trans-1,4-Dichloro-2-b...	53	15.737	15.738	0.930	925616	509.47	ug/L 98 A
110) Pentachloroethane	167	16.487	16.487	0.974	3120953	525.92	ug/L 99 A
111) Benzyl chloride	91	17.073	17.073	1.009	7478893	505.79	ug/L 100 A
112) bis(2-Chloroisopropyl)...	45	17.499	17.506	1.034	1311219	483.23	ug/L 99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY120.D
Acq On : 18 Mar 2024 20:00
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-18|ICAL|1|VOAF|1|VOA8260D|
Misc : VSTD500 5UL/5ML N/A MIX[B]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 19 10:00:27 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 660968
Instrument ID: VOAC.I
Injection Date: 18-MAR-24 20:56
Data File: data\031824VC_ICAL\CY122.D
Init. Cal. Date(s): 18-MAR-24 11:39 - 18-MAR-24 20:00
Lab Sample ID: WCV240318-19
Method: data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Type: ISTD
Method Update: 19-MAR-24 09:59

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S 1,2-Dichloroethane-d4	0.3028	0.30063		.01		-0.71664	30		Averaged
S Toluene-d8	1.2917	1.34893		.01		4.4306	30		Averaged
S Bromofluorobenzene	0.8615	0.88913		.01		3.2072	30		Averaged
Acrolein	0.0264	0.03241		.01		22.76515	30		Averaged
Allyl chloride	0.3642	0.34923		.01		-4.11038	30		Averaged
Acrylonitrile	0.0762	0.07369		.01		-3.29396	30		Averaged
2-Chloro-1,3-butadiene	0.3133	0.31231		.01		-0.31599	30		Averaged
Propionitrile	0.0301	0.0293		.01		-2.65781	30		Averaged
Methacrylonitrile	0.1257	0.12156		.01		-3.29356	30		Averaged
Isobutyl alcohol	0.0082	0.00755		.01		-7.92683	30		Averaged
Methyl methacrylate	0.148	0.1454		.01		-1.75676	30		Averaged
Ethyl methacrylate	0.3628	0.36297		.01		0.04686	30		Averaged
trans-1,4-Dichloro-2-butene	0.162	0.16251		.01		0.31481	30		Averaged
Pentachloroethane	0.5291	0.53754		.01		1.59516	30		Averaged
bis(2-Chloro-1-methylethyl)eth	0.2419	0.24092		.01		-0.40513	30		Averaged

PS

03/19/2024

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY122.D
Acq On : 18 Mar 2024 20:56
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-19|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Cell

03/19/2024

Quant Time: Mar 19 10:00:31 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.921	10.934	1.000	1288673	50.00	ug/L	-0.01
43) Chlorobenzene-d5	117	14.342	14.354	1.000	987081	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	553986	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.921	10.928	1.000	1288673	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.342	14.348	1.000	987081	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	554422	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.531	10.543	0.964	387408	49.65	ug/L	-0.01
45) Toluene-d8	98	12.702	12.714	0.886	1331507	52.21	ug/L	-0.01
63) Bromofluorobenzene	95	15.610	15.622	0.923	492563	51.61	ug/L	-0.01

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		6.630	6.629	0.607	0m	N.D.	d	
8) Ethyl ether		6.959	6.971	0.637	0m	N.D.	d	
9) Acetone		7.355	7.367	0.673	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.343	7.392	0.672	0m	N.D.	d	
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile		7.715	7.739	0.706	0m	N.D.	d	
13) Methyl acetate		7.788	7.794	0.713	0m	N.D.	d	
14) Carbon disulfide		7.843	7.800	0.718	0m	N.D.	d	
15) Methylene chloride		7.995	8.001	0.732	0m	N.D.	d	
16) tert-Butyl methyl ether		8.318	8.330	0.762	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane		8.684	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.867	8.849	0.812	0m	N.D.	d	
20) 1,1-Dichloroethane		9.007	8.897	0.825	0m	N.D.	d	
21) 2-Butanone		9.531	9.525	0.873	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.531	9.586	0.873	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		9.909	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		10.257	10.342	0.939	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.617	10.635	0.972	0m	N.D.	d	
32) Benzene		10.653	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		0.000	10.793	0.000	0	N.D.		
34) n-Butyl alcohol		11.019	11.019	1.009	0m	N.D.	d	
35) Trichloroethylene		11.342	11.354	1.039	0m	N.D.	d	
36) 2-Pentanone		11.421	11.434	1.046	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY122.D
Acq On : 18 Mar 2024 20:56
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-19|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 19 10:00:31 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		11.574	11.635	1.060	0m	N.D.	d
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene		12.787	12.793	0.892	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.945	12.952	0.903	0m	N.D.	d
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		13.384	13.384	0.933	0m	N.D.	d
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		13.427	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		14.384	14.390	1.003	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.433	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		14.445	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.561	14.573	1.015	0m	N.D.	d
58) o-Xylene		15.024	15.037	1.048	0m	N.D.	d
59) Styrene		15.018	15.037	1.047	0m	N.D.	d
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene		15.402	15.414	0.910	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.732	15.695	0.930	0m	N.D.	d
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene		15.847	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		16.012	16.024	0.946	0m	N.D.	d
69) 2-Chlorotoluene		16.018	16.024	0.947	0m	N.D.	d
70) 4-Chlorotoluene		16.116	16.128	0.952	0m	N.D.	d
71) tert-Butylbenzene		16.481	16.420	0.974	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.451	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		16.646	16.664	0.984	0m	N.D.	d
74) 4-Isopropyltoluene		16.902	16.792	0.999	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.853	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.951	16.957	1.002	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.420	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		19.566	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.767	19.780	1.168	0m	N.D.	d
82) Naphthalene		19.999	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.395	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.166	7.166	0.656	208837	307.35	ug/L 100
86) Trichlorotrifluoroethane	85	7.355	7.355	0.673	627803	227.68	ug/L 97
87) Isopropyl Alcohol	45	7.440	7.440	0.681	979548	2474.77	ug/L 100
88) Allyl chloride	41	7.837	7.843	0.718	2250197	239.74	ug/L 100
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	1815737	2513.40	ug/L 99
90) Acrylonitrile	53	8.251	8.257	0.756	474801	241.80	ug/L 100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY122.D
Acq On : 18 Mar 2024 20:56
Operator : PXY1
InstName : VOAC
Sample : |WCVM240318-19|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 19 10:00:31 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

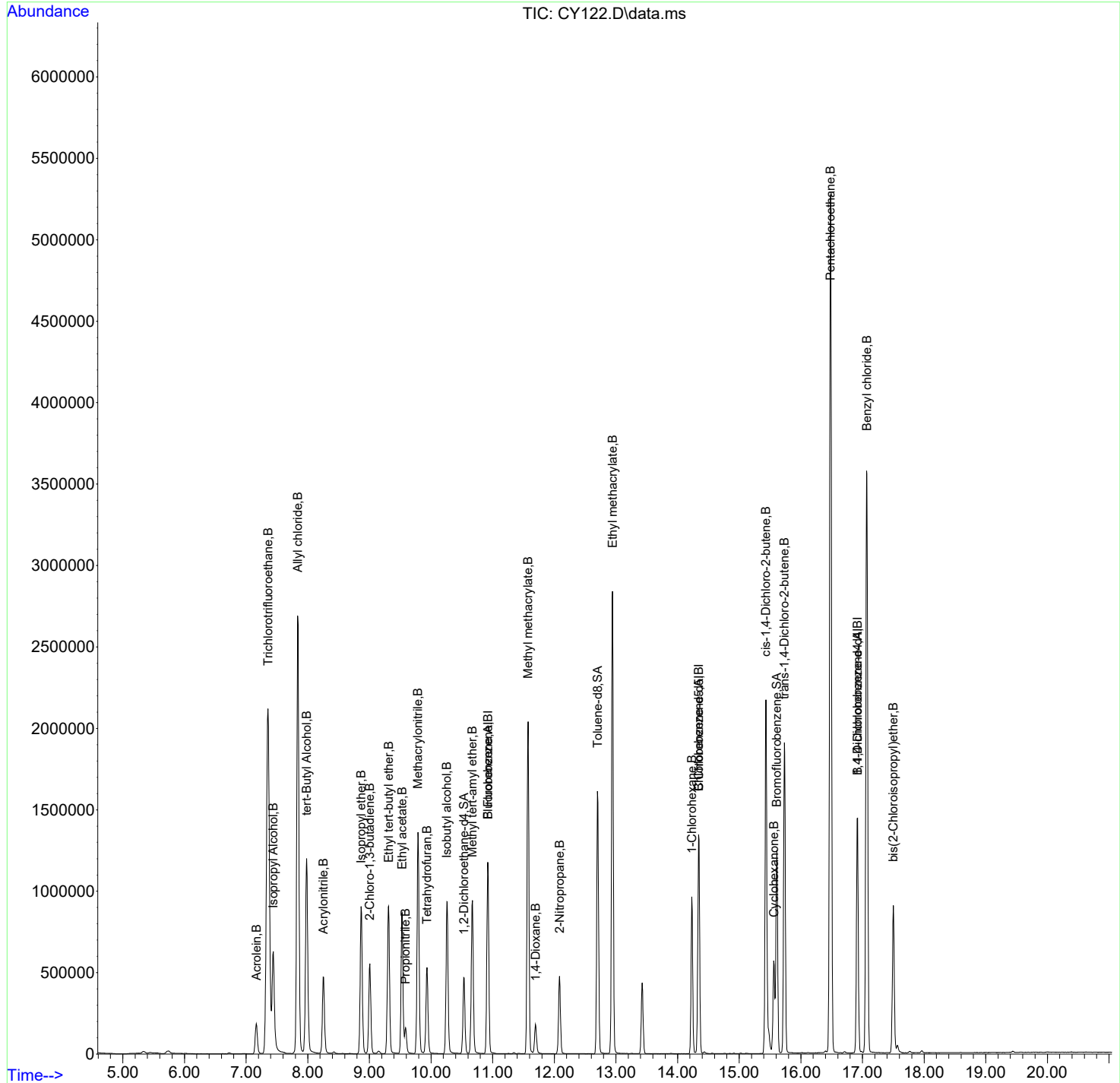
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether	45	8.867	8.873	0.812	918239	49.36	ug/L 99
92) 2-Chloro-1,3-butadiene	53	9.007	9.013	0.825	402461	49.84	ug/L 100
93) Ethyl tert-butyl ether	59	9.312	9.312	0.853	955118	59.13	ug/L 100
94) Ethyl acetate	43	9.531	9.531	0.873	1152922	234.46	ug/L 100
95) Propionitrile	54	9.586	9.592	0.878	188812	243.01	ug/L 99
96) Methacrylonitrile	41	9.788	9.794	0.896	783277	241.71	ug/L 99
97) Tetrahydrofuran	42	9.934	9.940	0.910	386844	234.21	ug/L 100
98) Isobutyl alcohol	41	10.257	10.263	0.939	486437	2295.71	ug/L 99
99) Methyl tert-amyl ether	73	10.672	10.671	0.977	922566	57.21	ug/L 100
100) Methyl methacrylate	69	11.574	11.580	1.060	936892	245.54	ug/L 99
101) 1,4-Dioxane	88	11.696	11.696	1.071	163939	2537.98	ug/L 100
102) 2-Nitropropane	43	12.086	12.086	1.107	431092	244.40	ug/L 100
104) Ethyl methacrylate	69	12.945	12.945	0.903	1791400	250.14	ug/L 100
106) 1-Chlorohexane	55	14.232	14.238	0.841	256157	45.51	ug/L 98
107) cis-1,4-Dichloro-2-butene	53	15.433	15.439	0.912	535376	253.67	ug/L 100
108) Cyclohexanone	42	15.561	15.567	0.920	189180	1197.80	ug/L 99
109) trans-1,4-Dichloro-2-b...	53	15.732	15.738	0.930	450489	250.78	ug/L 100
110) Pentachloroethane	167	16.481	16.487	0.974	1490121	253.97	ug/L 100
111) Benzyl chloride	91	17.073	17.073	1.009	3494096	239.00	ug/L 100
112) bis(2-Chloroisopropyl)...	45	17.500	17.506	1.034	667865	248.94	ug/L 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY122.D
Acq On : 18 Mar 2024 20:56
Operator : PXY1
InstName : VOAC
Sample : |WCV240318-19|ICV|1|VOAF|1|VOA8260D|
Misc : ICV 5UL/5ML N/A MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 19 10:00:31 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Instrument ID: VOAC.I
Data File: data\040424VC\CA407.D
Lab Sample ID WCV M240404-01
Quant Type ISTD

Client SDG: 660968
Injection Date: 04-APR-24 11:02
Init. Cal. Date(s) 18-MAR-24 11:39 - 18-MAR-24 20:00
Method: data\031824VC_ICAL\VOAC-031824-8260D.M
Method Update: 19-MAR-24 09:59

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S 1,2-Dichloroethane-d4	0.3028	0.32162		.01		6.21532	20		Averaged
S Toluene-d8	1.2917	1.33966		.01		3.71294	20		Averaged
S Bromofluorobenzene	0.8615	0.88266		.01		2.45618	20		Averaged
Dichlorodifluoromethane	0.2766	0.32436		.01		17.26681	20		Averaged
Chloromethane	0.308	0.29424		.1		-4.46753	20		Averaged
Vinyl chloride	0.3174	0.30979		.01		-2.39761	20		Averaged
Bromomethane	0.2334	0.23276		.01		-0.27421	20		Averaged
Chloroethane	0.1996	0.21698		.01		8.70741	20		Averaged
Trichlorofluoromethane	0.3904	0.43313		.01		10.94518	20		Averaged
Acetone	0.067	0.07026		.01		4.86567	20		Averaged
1,1-Dichloroethylene	0.3468	0.41561		.01		19.84141	20		Averaged
Iodomethane	0.4711	0.50305		.01		6.782	20		Averaged
Acetonitrile	0.0266	0.02923		.01		9.88722	20		Averaged
Carbon disulfide	0.6978	0.89224		.01		27.86472	20	*	Averaged
Methylene chloride	50	52.16	50			4.32	20		Linear
trans-1,2-Dichloroethylene	0.3493	0.3923		.01		12.31033	20		Averaged
Vinyl acetate	0.4827	0.51595		.01		6.88834	20		Averaged
1,1-Dichloroethane	0.4362	0.49272		.1		12.95736	20		Averaged
2-Butanone	0.0948	0.10801		.01		13.9346	20		Averaged
Chloroform	0.4567	0.49531		.01		8.45413	20		Averaged
1,1,1-Trichloroethane	0.414	0.4464		.01		7.82609	20		Averaged
Carbon tetrachloride	0.3707	0.41548		.01		12.07985	20		Averaged
1,2-Dichloroethane	0.3445	0.37393		.01		8.54282	20		Averaged
Benzene	0.979	1.02033		.01		4.22165	20		Averaged
Trichloroethylene	0.2768	0.28876		.01		4.32081	20		Averaged
1,2-Dichloropropane	0.2494	0.27193		.01		9.03368	20		Averaged
Dibromomethane	0.1636	0.17319		.01		5.86186	20		Averaged
Bromodichloromethane	0.3541	0.38091		.01		7.57131	20		Averaged
cis-1,3-Dichloropropylene	0.4187	0.4435		.01		5.9231	20		Averaged
4-Methyl-2-pentanone	0.1014	0.11839		.01		16.75542	20		Averaged
Toluene	1.3023	1.45372		.01		11.62712	20		Averaged
trans-1,3-Dichloropropylene	0.4573	0.52601		.01		15.02515	20		Averaged
1,1,2-Trichloroethane	0.225	0.2477		.01		10.08889	20		Averaged
2-Hexanone	0.161	0.20336		.01		26.31056	20	*	Averaged
Tetrachloroethylene	0.3124	0.3271		.01		4.70551	20		Averaged
Dibromochloromethane	0.3612	0.37882		.01		4.87818	20		Averaged
1,2-Dibromoethane	0.2896	0.31138		.01		7.52072	20		Averaged

Continuing Calibration Summary

Instrument ID: VOAC.I

Injection Date: 04-APR-24 11:02

Data File: data\040424VC\CA407.D

Init. Cal. Date(s) 18-MAR-24 11:39 18-MAR-24 20:00

Lab Sample ID WCVL240404-01

Method: data\031824VC_ICAL\VOAC-031824-8260D.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Chlorobenzene	0.9095	0.96812		.3		6.4453	20		Averaged
1,1,1,2-Tetrachloroethane	0.3683	0.38136		.01		3.54602	20		Averaged
Ethylbenzene	1.4566	1.61706		.01		11.01606	20		Averaged
m,p-Xylenes	0.5846	0.62936		.01		7.65652	20		Averaged
Styrene	0.9593	1.00895		.01		5.17565	20		Averaged
o-Xylene	1.2252	1.30969		.01		6.89602	20		Averaged
Bromoform	0.4381	0.46672		.1		6.53276	20		Averaged
1,1,2,2-Tetrachloroethane	0.6096	0.70971		.3		16.42224	20		Averaged
1,2,3-Trichloropropane	0.1932	0.21632		.01		11.96687	20		Averaged
1,2-Dibromo-3-chloropropane	0.1702	0.17285		.01		1.55699	20		Averaged
1,2,4-Trichlorobenzene	1.1439	1.15515		.01		0.98348	20		Averaged

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA407.D
Acq On : 04 Apr 2024 11:02
Operator : PXY1
InstName : VOAC
Sample : |WCV240404-01|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

MA
04/05/2024

Quant Time: Apr 04 11:24:21 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.921	10.934	1.000	919031	50.00	ug/L	-0.01
43) Chlorobenzene-d5	117	14.341	14.354	1.000	694448	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	362790	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.921	10.928	1.000	918625	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.341	14.348	1.000	694448	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	363127	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.965	295575	53.11	ug/L	0.00
45) Toluene-d8	98	12.702	12.714	0.886	930324	51.85	ug/L	-0.01
63) Bromofluorobenzene	95	15.610	15.622	0.923	320220	51.23	ug/L	-0.01
Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.776	4.782	0.437	298093	58.62	ug/L	100
3) Chloromethane	50	5.191	5.203	0.475	270416	47.76	ug/L	99
4) Vinyl chloride	62	5.410	5.422	0.495	284707	48.80	ug/L	100
5) Bromomethane	94	6.062	6.075	0.555	213915	49.87	ug/L	100
6) Chloroethane	64	6.191	6.197	0.567	199409	54.35	ug/L	99
7) Trichlorofluoromethane	101	6.617	6.629	0.606	398059	55.48	ug/L	99
8) Ethyl ether	59	6.965	6.971	0.638	175726	46.19	ug/L	89
9) Acetone	43	7.361	7.367	0.674	322874	262.23	ug/L	94
10) 1,1-Dichloroethylene	61	7.379	7.392	0.676	381961	59.93	ug/L	94
11) Iodomethane	142	7.641	7.654	0.700	2311607	266.98	ug/L	95
12) Acetonitrile	41	7.733	7.739	0.708	671626	1374.02	ug/L	99
13) Methyl acetate	43	7.788	7.794	0.713	794143	282.47	ug/L	97
14) Carbon disulfide	76	7.794	7.800	0.714	4100001	319.66	ug/L	100
15) Methylene chloride	84	7.989	8.001	0.731	254550	52.16	ug/L	90
16) tert-Butyl methyl ether	73	8.318	8.330	0.762	657953	49.41	ug/L	99
17) trans-1,2-Dichloroethy...	61	8.361	8.373	0.766	360533	56.15	ug/L	94
18) Hexane	57	8.684	8.690	0.795	252762	38.88	ug/L	94
19) Vinyl acetate	43	8.836	8.849	0.809	2370868	267.24	ug/L	97
20) 1,1-Dichloroethane	63	8.885	8.897	0.814	452826	56.47	ug/L	99
21) 2-Butanone	43	9.513	9.525	0.871	496310	284.74	ug/L	96
22) cis-1,2-Dichloroethylene	61	9.574	9.586	0.877	408041	54.03	ug/L	95
23) 2,2-Dichloropropane	77	9.611	9.623	0.880	319321	50.15	ug/L	90
24) Bromochloromethane	128	9.873	9.885	0.904	137068	47.81	ug/L #	86
25) Chloroform	83	9.909	9.922	0.907	455208	54.22	ug/L	99
26) 1,1,1-Trichloroethane	97	10.220	10.232	0.936	410256	53.91	ug/L	96
27) Cyclohexane	56	10.330	10.342	0.946	426480	56.11	ug/L	97
28) 1,1-Dichloropropene	75	10.391	10.403	0.951	345710	55.78	ug/L #	97
29) Carbon tetrachloride	117	10.434	10.446	0.955	381843	56.04	ug/L	99
31) 1,2-Dichloroethane	62	10.623	10.635	0.973	343653	54.26	ug/L	100
32) Benzene	78	10.653	10.665	0.975	937719	52.11	ug/L	97
33) Cyclohexene	67	10.781	10.793	0.987	468551	52.12	ug/L	96
34) n-Butyl alcohol	56	11.007	11.019	1.008	711080	5492.40	ug/L	94
35) Trichloroethylene	95	11.342	11.354	1.039	265379	52.15	ug/L	97
36) 2-Pentanone	43	11.427	11.434	1.046	610056	199.67	ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA407.D
Acq On : 04 Apr 2024 11:02
Operator : PXY1
InstName : VOAC
Sample : |WCV M240404-01|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 11:24:21 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane	63	11.610	11.616	1.063	249909	54.52	ug/L 87
38) Methylcyclohexane	83	11.622	11.635	1.064	460310	53.99	ug/L 74
39) Dibromomethane	93	11.750	11.763	1.076	159166	52.92	ug/L 92
40) Bromodichloromethane	83	11.872	11.885	1.087	350068	53.78	ug/L 100
41) 2-Chloroethylvinyl ether	63	12.110	12.122	1.109	38700	212.27	ug/L 97
42) cis-1,3-Dichloropropylene	75	12.360	12.372	1.132	407588	52.96	ug/L 92
44) 4-Methyl-2-pentanone	58	12.458	12.470	0.869	411095	291.81	ug/L 88
46) Toluene	91	12.781	12.793	0.891	1009533	55.82	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.939	12.952	0.902	365287	57.51	ug/L 93
48) 1,1,2-Trichloroethane	83	13.177	13.189	0.919	172015	55.04	ug/L 99
49) 2-Hexanone	43	13.372	13.384	0.932	706128	315.74	ug/L 94
50) 1,3-Dichloropropane	76	13.384	13.397	0.933	344018	56.93	ug/L 94
51) Tetrachloroethylene	164	13.427	13.439	0.936	227152	52.36	ug/L 96
52) Dibromochloromethane	129	13.671	13.689	0.953	263069	52.44	ug/L 99
53) 1,2-Dibromoethane	107	13.860	13.872	0.966	216237	53.77	ug/L 100
54) Chlorobenzene	112	14.378	14.390	1.003	672311	53.22	ug/L 98
55) 1,1,1,2-Tetrachloroethane	131	14.433	14.445	1.006	264838	51.78	ug/L 100
56) Ethylbenzene	91	14.445	14.457	1.007	1122963	55.51	ug/L 94
57) m,p-Xylenes	106	14.561	14.573	1.015	874118	107.66	ug/L 96
58) o-Xylene	91	15.024	15.037	1.048	909514	53.45	ug/L 99
59) Styrene	104	15.024	15.037	1.048	700665	52.59	ug/L 96
61) Bromoform	173	15.293	15.305	0.904	169320	53.26	ug/L 93
62) Isopropylbenzene	105	15.402	15.414	0.910	1154634	59.40	ug/L 100
64) 1,1,2,2-Tetrachloroethane	83	15.683	15.695	0.927	257476	58.21	ug/L 100
65) 1,2,3-Trichloropropane	110	15.780	15.792	0.933	78478	55.99	ug/L 93
66) Bromobenzene	156	15.835	15.847	0.936	296416	53.53	ug/L 93
67) n-Propylbenzene	91	15.853	15.866	0.937	1343507	61.35	ug/L 98
68) 1,3,5-Trimethylbenzene	105	16.012	16.024	0.946	989213	58.26	ug/L 99
69) 2-Chlorotoluene	126	16.012	16.024	0.946	281425	57.74	ug/L 92
70) 4-Chlorotoluene	91	16.116	16.128	0.952	782045	58.52	ug/L 98
71) tert-Butylbenzene	134	16.408	16.420	0.970	220053	57.20	ug/L 96
72) 1,2,4-Trimethylbenzene	105	16.451	16.463	0.972	982723	56.49	ug/L 99
73) sec-Butylbenzene	105	16.652	16.664	0.984	1263181	59.02	ug/L 99
74) 4-Isopropyltoluene	119	16.780	16.792	0.992	1098799	57.66	ug/L 98
75) 1,3-Dichlorobenzene	146	16.853	16.865	0.996	556466	54.20	ug/L 85
76) 1,4-Dichlorobenzene	146	16.945	16.957	1.001	553348	53.75	ug/L 97
77) n-Butylbenzene	91	17.268	17.280	1.021	1003869	60.31	ug/L 98
78) 1,2-Dichlorobenzene	146	17.414	17.432	1.029	530810	52.97	ug/L 99
79) 1,2-Dibromo-3-chloropr...	157	18.371	18.383	1.086	62709	50.77	ug/L 93
80) 1,2,4-Trichlorobenzene	180	19.566	19.578	1.156	419078	50.49	ug/L 100
81) Hexachlorobutadiene	225	19.761	19.780	1.168	249126	51.68	ug/L 93
82) Naphthalene	128	19.999	20.017	1.182	867311	53.02	ug/L 99
83) 1,2,3-Trichlorobenzene	180	20.389	20.401	1.205	385038	50.03	ug/L 96
85) Acrolein	0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane	7.343	7.355	0.672	0m	N.D.	d	
87) Isopropyl Alcohol	7.398	7.440	0.677	0m	N.D.	d	
88) Allyl chloride	0.000	7.843	0.000	0	N.D.		
89) tert-Butyl Alcohol	7.983	7.983	0.731	0m	N.D.	d	
90) Acrylonitrile	8.318	8.257	0.762	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA407.D
Acq On : 04 Apr 2024 11:02
Operator : PXY1
InstName : VOAC
Sample : |WCVM240404-01|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 11:24:21 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
91) Isopropyl ether		8.836	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate		9.513	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.513	9.592	0.871	0m	N.D.	d
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran		9.909	9.940	0.907	0m	N.D.	d
98) Isobutyl alcohol		10.330	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.647	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.622	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.750	11.696	1.076	0m	N.D.	d
102) 2-Nitropropane		12.110	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.232	14.238	0.841	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.402	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.475	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.573	17.506	1.039	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\

Data File : CA407.D

Acq On : 04 Apr 2024 11:02

Operator : PXY1

InstName : VOAC

Sample : |WCVM240404-01|CCV|1|VOAF|1|VOA8260D|

Misc : CCV/LCS 5G/5ML N/A SOIL MIX[A]

ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 11:24:21 2024

Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M

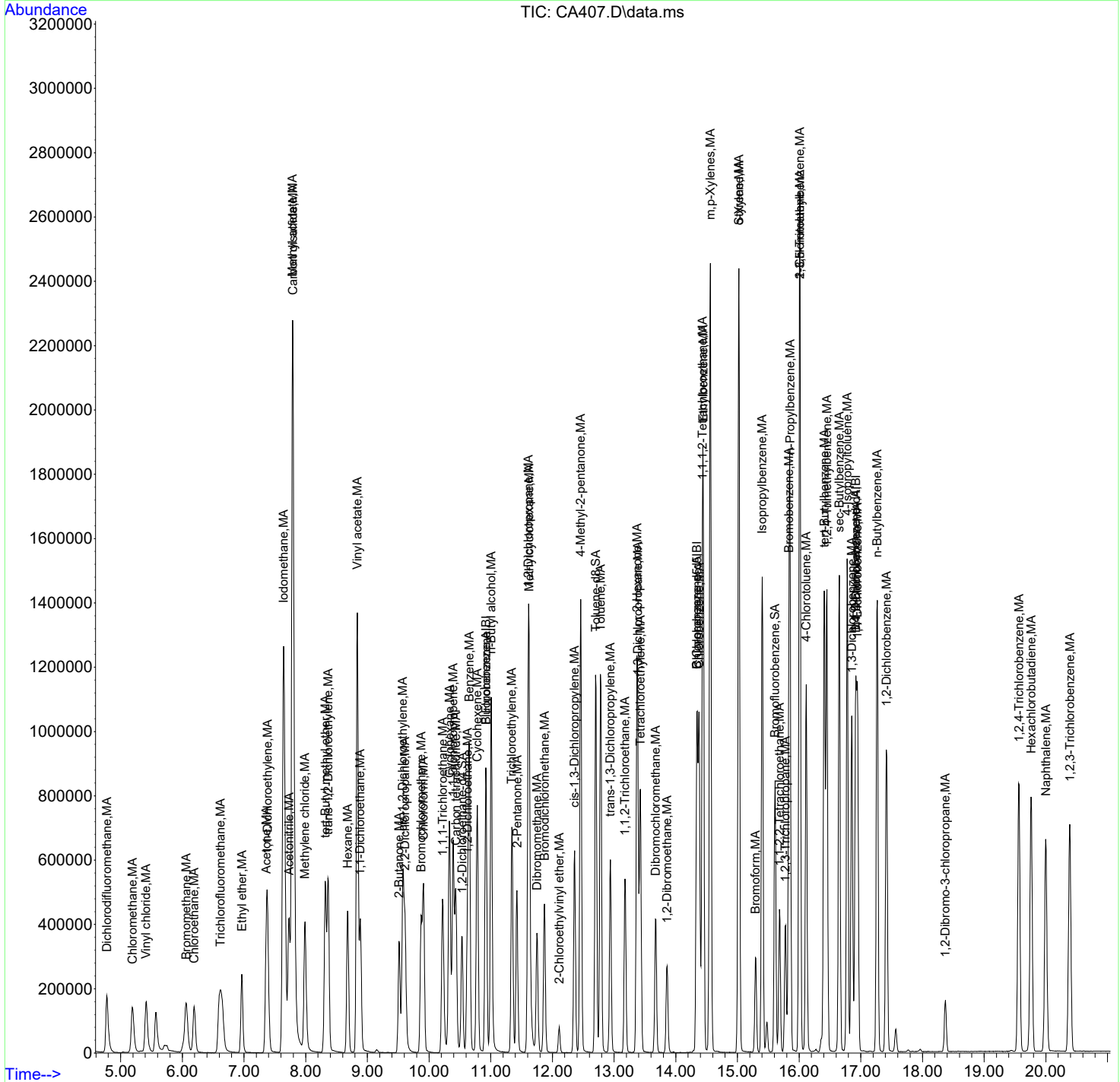
Quant Title : Volatile Organics

SubList :

QLast Update : Tue Mar 19 09:59:33 2024

Response via : Initial Calibration

Integrator: RTE



Continuing Calibration Summary

Client SDG: 660968
Instrument ID: VOAC.I
Injection Date: 04-APR-24 11:30
Data File: data\040424VC\CA408.D
Init. Cal. Date(s): 18-MAR-24 11:39 - 18-MAR-24 20:00
Lab Sample ID: WCV M240404-02
Method: data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Type: ISTD
Method Update: 19-MAR-24 09:59

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S 1,2-Dichloroethane-d4	0.3028	0.32747		.01		8.14729	20		Averaged
S Toluene-d8	1.2917	1.36041		.01		5.31935	20		Averaged
S Bromofluorobenzene	0.8615	0.9925		.01		15.20604	20		Averaged
Acrolein	0.0264	0.03501		.01		32.61364	20	*	Averaged
Allyl chloride	0.3642	0.3858		.01		5.93081	20		Averaged
Acrylonitrile	0.0762	0.07706		.01		1.12861	20		Averaged
2-Chloro-1,3-butadiene	0.3133	0.35566		.01		13.52059	20		Averaged
Propionitrile	0.0301	0.03036		.01		0.86379	20		Averaged
Methacrylonitrile	0.1257	0.1375		.01		9.38743	20		Averaged
Isobutyl alcohol	0.0082	0.00823		.01		0.36585	20		Averaged
Methyl methacrylate	0.148	0.16235		.01		9.69595	20		Averaged
Ethyl methacrylate	0.3628	0.41299		.01		13.83407	20		Averaged
trans-1,4-Dichloro-2-butene	0.162	0.22271		.01		37.47531	20	*	Averaged
Pentachloroethane	0.5291	0.55807		.01		5.47534	20		Averaged
bis(2-Chloro-1-methylethyl)eth	0.2419	0.28085		.01		16.10169	20		Averaged

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA408.D
Acq On : 04 Apr 2024 11:30
Operator : PXY1
InstName : VOAC
Sample : |WCVM240404-02|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[B]
ALS Vial : 3 Sample Multiplier: 1

MA

04/05/2024

Quant Time: Apr 04 12:06:39 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.921	10.934	1.000	938812	50.00	ug/L	-0.01
43) Chlorobenzene-d5	117	14.341	14.354	1.000	714337	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.914	16.933	1.000	351658	50.00	ug/L	-0.02
84) B Fluorobenzene	96	10.921	10.928	1.000	938650	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.341	14.348	1.000	714337	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.914	16.920	1.000	351658	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.531	10.543	0.964	307429	54.08	ug/L	-0.01
45) Toluene-d8	98	12.701	12.714	0.886	971791	52.66	ug/L	-0.01
63) Bromofluorobenzene	95	15.609	15.622	0.923	349019	57.61	ug/L	-0.01

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.788	4.782	0.438	0m	N.D.	d	
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		6.605	6.629	0.605	0m	N.D.	d	
8) Ethyl ether		6.952	6.971	0.637	0m	N.D.	d	
9) Acetone		7.349	7.367	0.673	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.349	7.392	0.673	0m	N.D.	d	
11) Iodomethane		7.629	7.654	0.699	0m	N.D.	d	
12) Acetonitrile		7.727	7.739	0.707	0m	N.D.	d	
13) Methyl acetate		7.775	7.794	0.712	0m	N.D.	d	
14) Carbon disulfide		7.830	7.800	0.717	0m	N.D.	d	
15) Methylene chloride		7.983	8.001	0.731	0m	N.D.	d	
16) tert-Butyl methyl ether		8.312	8.330	0.761	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		8.361	8.373	0.766	0m	N.D.	d	
18) Hexane		8.678	8.690	0.795	0m	N.D.	d	
19) Vinyl acetate		8.861	8.849	0.811	0m	N.D.	d	
20) 1,1-Dichloroethane		8.885	8.897	0.814	0m	N.D.	d	
21) 2-Butanone		9.525	9.525	0.872	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.525	9.586	0.872	0m	N.D.	d	
23) 2,2-Dichloropropane		9.617	9.623	0.881	0m	N.D.	d	
24) Bromochloromethane		9.873	9.885	0.904	0m	N.D.	d	
25) Chloroform		9.903	9.922	0.907	0m	N.D.	d	
26) 1,1,1-Trichloroethane		10.220	10.232	0.936	0m	N.D.	d	
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		10.385	10.403	0.951	0m	N.D.	d	
29) Carbon tetrachloride		10.434	10.446	0.955	0m	N.D.	d	
31) 1,2-Dichloroethane		10.616	10.635	0.972	0m	N.D.	d	
32) Benzene		10.647	10.665	0.975	0m	N.D.	d	
33) Cyclohexene		10.781	10.793	0.987	0m	N.D.	d	
34) n-Butyl alcohol		11.007	11.019	1.008	0m	N.D.	d	
35) Trichloroethylene		11.342	11.354	1.039	0m	N.D.	d	
36) 2-Pentanone		11.421	11.434	1.046	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA408.D
Acq On : 04 Apr 2024 11:30
Operator : PXY1
InstName : VOAC
Sample : |WCVM240404-02|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 12:06:39 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
37) 1,2-Dichloropropane		11.598	11.616	1.062	0m	N.D.	d
38) Methylcyclohexane		11.567	11.635	1.059	0m	N.D.	d
39) Dibromomethane		11.750	11.763	1.076	0m	N.D.	d
40) Bromodichloromethane		11.860	11.885	1.086	0m	N.D.	d
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		12.366	12.372	1.132	0m	N.D.	d
44) 4-Methyl-2-pentanone		12.458	12.470	0.869	0m	N.D.	d
46) Toluene		12.781	12.793	0.891	0m	N.D.	d
47) trans-1,3-Dichloroprop...		12.939	12.952	0.902	0m	N.D.	d
48) 1,1,2-Trichloroethane		13.171	13.189	0.918	0m	N.D.	d
49) 2-Hexanone		13.372	13.384	0.932	0m	N.D.	d
50) 1,3-Dichloropropane		13.378	13.397	0.933	0m	N.D.	d
51) Tetrachloroethylene		13.421	13.439	0.936	0m	N.D.	d
52) Dibromochloromethane		13.677	13.689	0.954	0m	N.D.	d
53) 1,2-Dibromoethane		13.854	13.872	0.966	0m	N.D.	d
54) Chlorobenzene		14.378	14.390	1.003	0m	N.D.	d
55) 1,1,1,2-Tetrachloroethane		14.427	14.445	1.006	0m	N.D.	d
56) Ethylbenzene		14.445	14.457	1.007	0m	N.D.	d
57) m,p-Xylenes		14.555	14.573	1.015	0m	N.D.	d
58) o-Xylene		15.018	15.037	1.047	0m	N.D.	d
59) Styrene		15.018	15.037	1.047	0m	N.D.	d
61) Bromoform		15.286	15.305	0.904	0m	N.D.	d
62) Isopropylbenzene		15.402	15.414	0.911	0m	N.D.	d
64) 1,1,2,2-Tetrachloroethane		15.689	15.695	0.928	0m	N.D.	d
65) 1,2,3-Trichloropropane		15.780	15.792	0.933	0m	N.D.	d
66) Bromobenzene		15.835	15.847	0.936	0m	N.D.	d
67) n-Propylbenzene		15.853	15.866	0.937	0m	N.D.	d
68) 1,3,5-Trimethylbenzene		16.012	16.024	0.947	0m	N.D.	d
69) 2-Chlorotoluene		16.006	16.024	0.946	0m	N.D.	d
70) 4-Chlorotoluene		16.115	16.128	0.953	0m	N.D.	d
71) tert-Butylbenzene		16.408	16.420	0.970	0m	N.D.	d
72) 1,2,4-Trimethylbenzene		16.445	16.463	0.972	0m	N.D.	d
73) sec-Butylbenzene		16.646	16.664	0.984	0m	N.D.	d
74) 4-Isopropyltoluene		16.780	16.792	0.992	0m	N.D.	d
75) 1,3-Dichlorobenzene		16.853	16.865	0.996	0m	N.D.	d
76) 1,4-Dichlorobenzene		16.945	16.957	1.002	0m	N.D.	d
77) n-Butylbenzene		0.000	17.280	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		17.414	17.432	1.030	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		18.365	18.383	1.086	0m	N.D.	d
80) 1,2,4-Trichlorobenzene		19.560	19.578	1.156	0m	N.D.	d
81) Hexachlorobutadiene		19.761	19.780	1.168	0m	N.D.	d
82) Naphthalene		19.999	20.017	1.182	0m	N.D.	d
83) 1,2,3-Trichlorobenzene		20.389	20.401	1.205	0m	N.D.	d
85) Acrolein	56	7.160	7.166	0.656	164318	332.01	ug/L 98
86) Trichlorotrifluoroethane	85	7.349	7.355	0.673	551035	274.36	ug/L 91
87) Isopropyl Alcohol	45	7.434	7.440	0.681	695265	2411.57	ug/L 98
88) Allyl chloride	41	7.830	7.843	0.717	1810646	264.85	ug/L 91
89) tert-Butyl Alcohol	59	7.977	7.983	0.730	1300175	2470.87	ug/L 96
90) Acrylonitrile	53	8.245	8.257	0.755	361660	252.86	ug/L 99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA408.D
Acq On : 04 Apr 2024 11:30
Operator : PXY1
InstName : VOAC
Sample : |WCVM240404-02|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 12:06:39 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

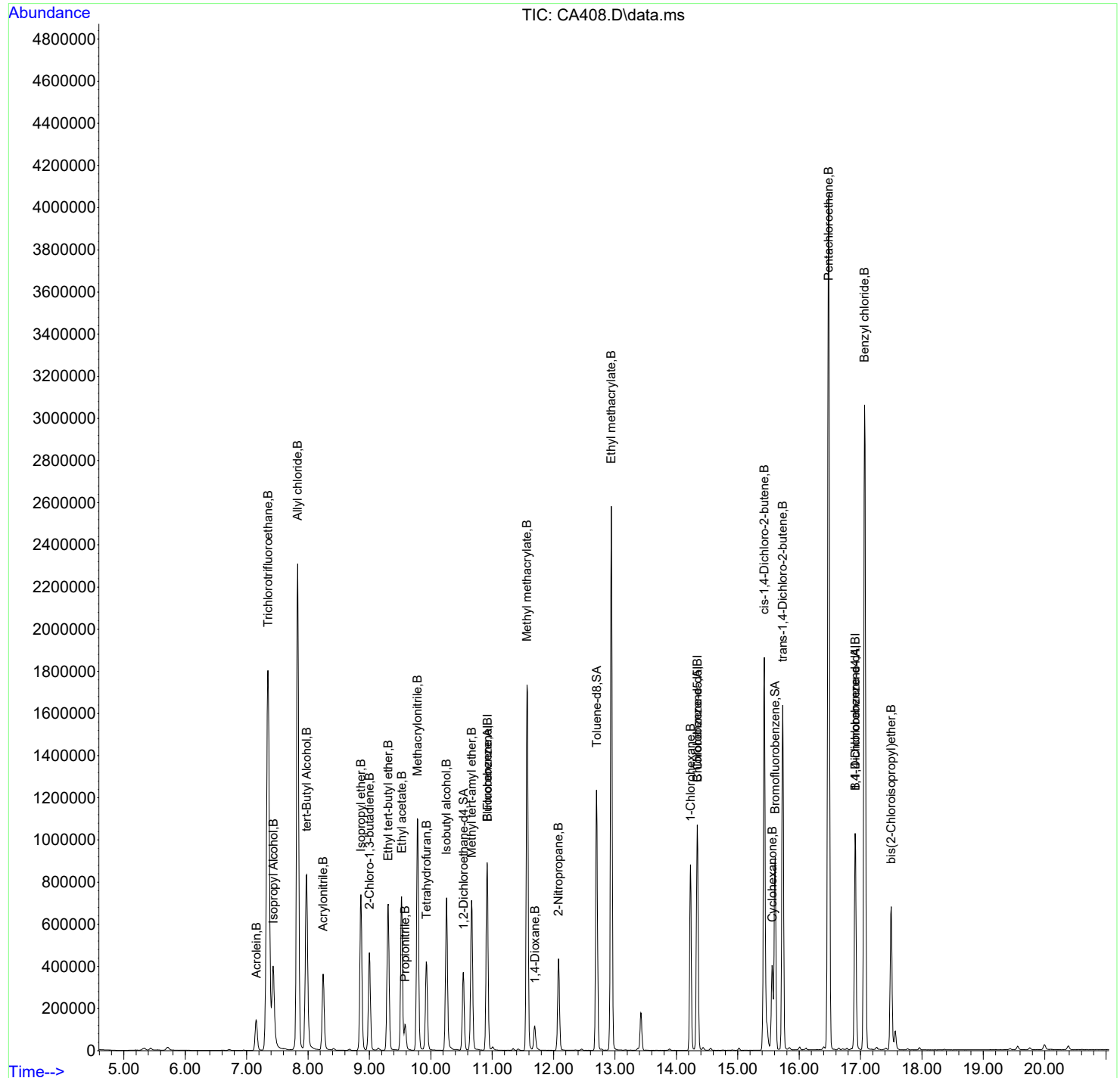
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
91) Isopropyl ether	45	8.861	8.873	0.811	739480	54.58	ug/L	95
92) 2-Chloro-1,3-butadiene	53	9.001	9.013	0.824	333837	56.76	ug/L	92
93) Ethyl tert-butyl ether	59	9.306	9.312	0.852	714598	60.74	ug/L	98
94) Ethyl acetate	43	9.525	9.531	0.872	992667	277.15	ug/L	96
95) Propionitrile	54	9.580	9.592	0.877	142499	251.80	ug/L	99
96) Methacrylonitrile	41	9.781	9.794	0.896	645329	273.40	ug/L	96
97) Tetrahydrofuran	42	9.927	9.940	0.909	310196	257.84	ug/L	95
98) Isobutyl alcohol	41	10.257	10.263	0.939	386456	2503.97	ug/L	96
99) Methyl tert-amyl ether	73	10.665	10.671	0.977	668567	56.91	ug/L	99
100) Methyl methacrylate	69	11.567	11.580	1.059	761971	274.17	ug/L	92
101) 1,4-Dioxane	88	11.695	11.696	1.071	103263	2194.77	ug/L	95
102) 2-Nitropropane	43	12.080	12.086	1.106	374036	291.12	ug/L	97
104) Ethyl methacrylate	69	12.939	12.945	0.902	1475063	284.61	ug/L	93
106) 1-Chlorohexane	55	14.232	14.238	0.841	234006	65.55	ug/L	96
107) cis-1,4-Dichloro-2-butene	53	15.433	15.439	0.912	465666	347.87	ug/L	93
108) Cyclohexanone	42	15.561	15.567	0.920	140878	1406.29	ug/L	91
109) trans-1,4-Dichloro-2-b...	53	15.731	15.738	0.930	391587	343.69	ug/L	92
110) Pentachloroethane	167	16.481	16.487	0.974	981254	263.67	ug/L	92
111) Benzyl chloride	91	17.066	17.073	1.009	2782375	300.05	ug/L	98
112) bis(2-Chloroisopropyl)...	45	17.499	17.506	1.035	493812	290.19	ug/L	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA408.D
Acq On : 04 Apr 2024 11:30
Operator : PXY1
InstName : VOAC
Sample : |WCV M240404-02|CCV|1|VOAF|1|VOA8260D|
Misc : CCV/LCS 5G/5ML N/A SOIL MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 12:06:39 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Quality Control Data

PS

03/19/2024

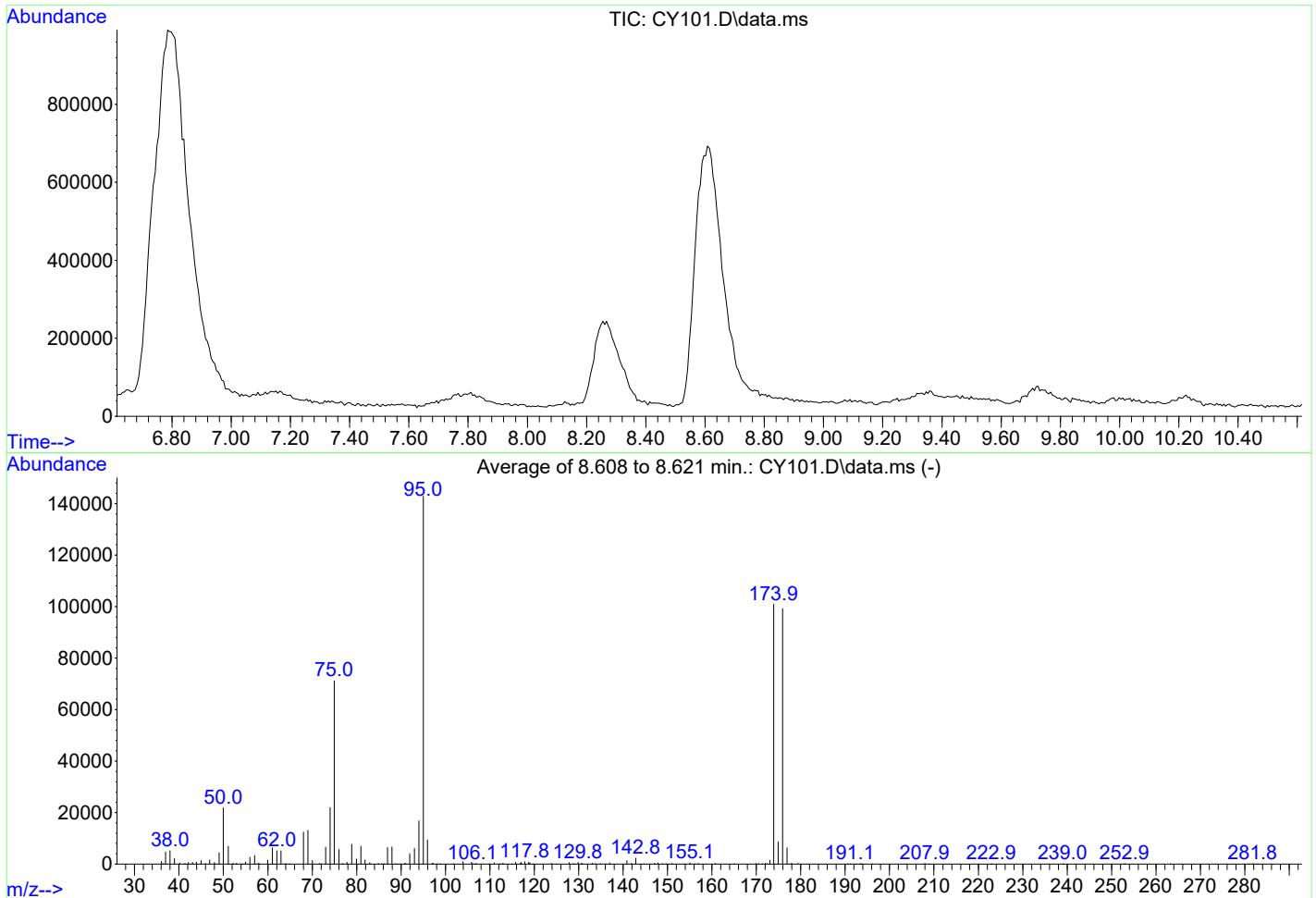
Data Path : D:\MassHunter\GCMS\1\data\031824VC_ICAL\
Data File : CY101.D
Acq On : 18 Mar 2024 11:14
Operator : PXY1
Sample : |IVM240304-01|BFB|1|VOAF|1|VOA8260D|
Misc : BFB 1UL/10ML N/A
ALS Vial : 1 Sample Multiplier: 1

Cell

03/19/2024

Integration File:

Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Title : Volatile Organics SubList :
Last Update : Tue Mar 19 09:59:33 2024



AutoFind: Scans 486, 487, 488; Background Corrected with Scan 467

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
Mass	Mass	Limit%	Limit%	Abn%	Abn	Pass/Fail
95	174	50	200	141.6	142848	PASS
96	95	5	9	6.5	9263	PASS
173	174	0.00	2	1.5	1546	PASS
174	95	50	200	70.6	100907	PASS
175	174	5	9	8.6	8670	PASS
176	174	95	105	98.3	99205	PASS
177	176	5	10	6.3	6290	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Matrix:	MISC SOLID
Lab Sample ID:	1205694059		
Client Sample:	QC for batch 2591975	Client:	PERM001
Client ID:	MB for batch 2591975	Method:	SW846 8260D
Batch ID:	2591977	Inst:	VOAC.I
Run Date:	04/04/2024 12:26	Analyst:	PXY1
Prep Date:	04/04/2024 08:01	Aliquot:	5 g
Data File:	data\040424VC\CA410P.D	Column:	DB-624
		Purge Vol:	5 mL
		Final Volume:	5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.333	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.333	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.333	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.333	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.333	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.333	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.67	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.333	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.67	5.00
75-05-8	Acetonitrile	U	25.0	ug/kg	8.33	25.0
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	5.00	ug/kg	1.67	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.67	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	1.67	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.333	1.00
108-05-4	Vinyl acetate	U	5.00	ug/kg	1.67	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.333	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.67	5.00
67-66-3	Chloroform	U	1.00	ug/kg	0.333	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.333	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.333	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.333	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.333	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.333	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.333	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.333	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.333	1.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.333	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.67	5.00
108-88-3	Toluene	U	1.00	ug/kg	0.333	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.333	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.333	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.67	5.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.333	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.333	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.333	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.333	1.00
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.333	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.333	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Matrix:	MISC SOLID
Lab Sample ID:	1205694059		
Client Sample:	QC for batch 2591975	Client:	PERM001
Client ID:	MB for batch 2591975	Method:	SW846 8260D
Batch ID:	2591977	Inst:	VOAC.I
Run Date:	04/04/2024 12:26	Analyst:	PXY1
Prep Date:	04/04/2024 08:01	Aliquot:	5 g
Data File:	data\040424VC\CA410P.D	Column:	DB-624
		Project:	PERM00224
		SOP Ref:	GL-OA-E-038
		Dilution:	1
		Purge Vol:	5 mL
		Final Volume:	5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	1.00	ug/kg	0.333	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.333	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.333	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.500	1.00
107-02-8	Acrolein	U	5.00	ug/kg	1.67	5.00
107-05-1	Allyl chloride	U	5.00	ug/kg	1.67	5.00
107-13-1	Acrylonitrile	U	5.00	ug/kg	1.67	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/kg	0.333	1.00
107-12-0	Propionitrile	U	5.00	ug/kg	1.67	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/kg	1.67	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/kg	16.7	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/kg	1.67	5.00
97-63-2	Ethyl methacrylate	U	5.00	ug/kg	1.67	5.00
76-01-7	Pentachloroethane	U	5.00	ug/kg	1.67	5.00
110-57-6	trans-1,4-Dichloro-2-butene	U	5.00	ug/kg	1.67	5.00
1330-20-7	Xylenes (total)	U	3.00	ug/kg	1.00	3.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/kg	0.333	1.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.333	1.00

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA410P.D
Acq On : 04 Apr 2024 12:26
Operator : PXY1
InstName : VOAC
Sample : |1205694059|2591977|1|VOAF|1|VOA8260D_S|
Misc : GEL 5G/5ML N/A SOIL
ALS Vial : 5 Sample Multiplier: 1

MA
04/05/2024

Quant Time: Apr 04 13:45:17 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.915	10.934	1.000	946213	50.00	ug/L	-0.02
43) Chlorobenzene-d5	117	14.341	14.354	1.000	663760	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.914	16.933	1.000	337143	50.00	ug/L	-0.02
84) B Fluorobenzene	96	10.915	10.928	1.000	945815	50.00	ug/L	-0.01
103) B Chlorobenzene-d5	117	14.341	14.348	1.000	663760	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.914	16.920	1.000	337143	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.531	10.543	0.965	312259	54.50	ug/L	-0.01
45) Toluene-d8	98	12.701	12.714	0.886	924476	53.91	ug/L	-0.01
63) Bromofluorobenzene	95	15.603	15.622	0.923	305991	52.68	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	109%
45) Toluene-d8	50.000	81 - 120	108%
63) Bromofluorobenzene	50.000	74 - 128	105%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.361	7.367	0.674	1729	N.D.		
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.721	7.739	0.707	437	N.D.		
13) Methyl acetate	43	7.788	7.794	0.713	418	N.D.		
14) Carbon disulfide	76	7.788	7.800	0.713	290	N.D.		
15) Methylene chloride	84	7.983	8.001	0.731	6479	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.672	8.690	0.794	1189	N.D.		
19) Vinyl acetate	43	8.842	8.849	0.810	124	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.531	9.525	0.873	712	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene		0.000	10.665	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA410P.D
Acq On : 04 Apr 2024 12:26
Operator : PXY1
InstName : VOAC
Sample : |1205694059|2591977|1|VOAF|1|VOA8260D_S|
Misc : GEL 5G/5ML N/A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 13:45:17 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol	56	11.013	11.019	1.009	202	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone		0.000	11.434	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.781	12.793	0.891	187	N.D.	
47) trans-1,3-Dichloroprop...	75	12.939	12.952	0.902	366	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene	91	14.445	14.457	1.007	256	N.D.	
57) m,p-Xylenes	106	14.561	14.573	1.015	251	N.D.	
58) o-Xylene	91	15.012	15.037	1.047	117	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene	105	15.481	15.414	0.915	121	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	15.695	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene	91	15.841	15.866	0.937	517	N.D.	
68) 1,3,5-Trimethylbenzene	105	16.012	16.024	0.947	125	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene	91	16.115	16.128	0.953	553	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.451	16.463	0.973	372	N.D.	
73) sec-Butylbenzene	105	16.646	16.664	0.984	600	N.D.	
74) 4-Isopropyltoluene	119	16.780	16.792	0.992	720	N.D.	
75) 1,3-Dichlorobenzene	146	16.847	16.865	0.996	354	N.D.	
76) 1,4-Dichlorobenzene	146	16.938	16.957	1.001	547	N.D.	
77) n-Butylbenzene	91	17.262	17.280	1.021	1052	N.D.	
78) 1,2-Dichlorobenzene	146	17.414	17.432	1.030	415	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	19.554	19.578	1.156	1002	N.D.	
81) Hexachlorobutadiene	225	19.755	19.780	1.168	142	N.D.	
82) Naphthalene	128	19.999	20.017	1.182	3492	N.D.	
83) 1,2,3-Trichlorobenzene	180	20.377	20.401	1.205	891	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA410P.D
Acq On : 04 Apr 2024 12:26
Operator : PXY1
InstName : VOAC
Sample : |1205694059|2591977|1|VOAF|1|VOA8260D_S|
Misc : GEL 5G/5ML N/A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 13:45:17 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

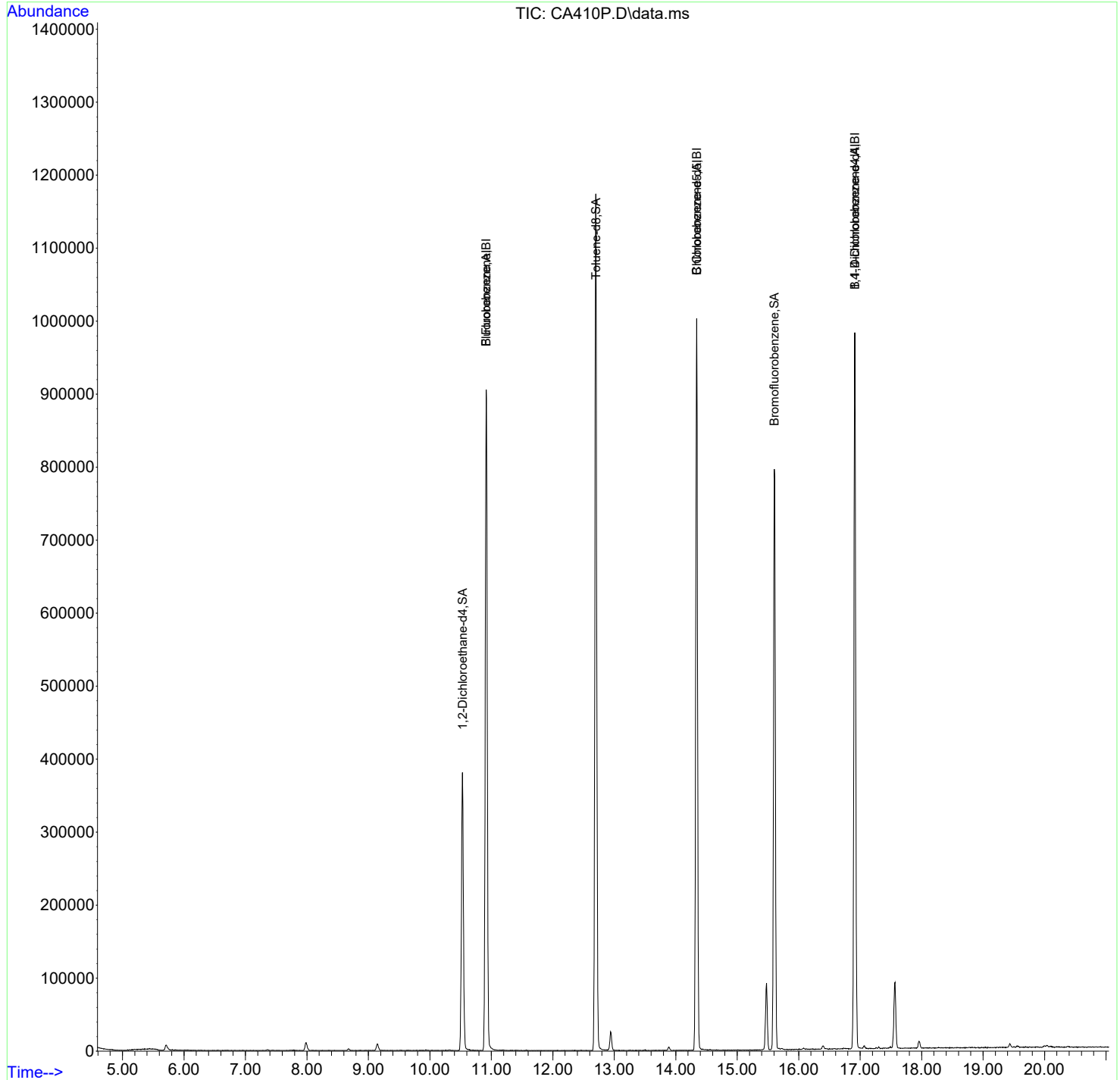
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.440	7.440	0.682	567	N.D.	
88) Allyl chloride		0.000	7.843	0.000	0	N.D.	
89) tert-Butyl Alcohol	59	7.983	7.983	0.731	562	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.531	9.531	0.873	712	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile	41	9.787	9.794	0.897	116	N.D.	
97) Tetrahydrofuran	42	9.940	9.940	0.911	628	N.D.	
98) Isobutyl alcohol	41	10.251	10.263	0.939	112	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate	69	12.939	12.945	0.902	383	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene	53	15.427	15.439	0.912	191	N.D.	
108) Cyclohexanone	42	15.561	15.567	0.920	301	N.D.	
109) trans-1,4-Dichloro-2-b...	53	15.731	15.738	0.930	347	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride	91	17.067	17.073	1.009	4817	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.493	17.506	1.034	1771	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA410P.D
Acq On : 04 Apr 2024 12:26
Operator : PXY1
InstName : VOAC
Sample : |1205694059|2591977|1|VOAF|1|VOA8260D_S|
Misc : GEL 5G/5ML N/A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 13:45:17 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Matrix:	MISC SOLID
Lab Sample ID:	1205694060		
Client Sample:	QC for batch 2591975	Client:	PERM001
Client ID:	HB for batch 2591975	Method:	SW846 8260D
Batch ID:	2591977	Inst:	VOAC.I
Run Date:	04/04/2024 12:54	Analyst:	PXY1
Prep Date:	04/04/2024 08:30	Aliquot:	5 g
Data File:	data\040424VC\CA411.D	Column:	DB-624
		Project:	PERM00224
		SOP Ref:	GL-OA-E-038
		Dilution:	50
		Purge Vol:	5 mL
		Final Volume:	10 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	100	ug/kg	33.3	100
74-87-3	Chloromethane	U	100	ug/kg	33.3	100
75-01-4	Vinyl chloride	U	100	ug/kg	33.3	100
74-83-9	Bromomethane	U	100	ug/kg	33.3	100
75-00-3	Chloroethane	U	100	ug/kg	33.3	100
75-69-4	Trichlorofluoromethane	U	100	ug/kg	33.3	100
67-64-1	Acetone	U	500	ug/kg	167	500
75-35-4	1,1-Dichloroethylene	U	100	ug/kg	33.3	100
74-88-4	Iodomethane	U	500	ug/kg	167	500
75-05-8	Acetonitrile	U	2500	ug/kg	833	2500
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	500	ug/kg	167	500
75-15-0	Carbon disulfide	U	500	ug/kg	167	500
75-09-2	Methylene chloride	U	500	ug/kg	167	500
156-60-5	trans-1,2-Dichloroethylene	U	100	ug/kg	33.3	100
108-05-4	Vinyl acetate	U	500	ug/kg	167	500
75-34-3	1,1-Dichloroethane	U	100	ug/kg	33.3	100
78-93-3	2-Butanone	J	224	ug/kg	167	500
67-66-3	Chloroform	U	100	ug/kg	33.3	100
71-55-6	1,1,1-Trichloroethane	U	100	ug/kg	33.3	100
56-23-5	Carbon tetrachloride	U	100	ug/kg	33.3	100
107-06-2	1,2-Dichloroethane	U	100	ug/kg	33.3	100
71-43-2	Benzene	U	100	ug/kg	33.3	100
79-01-6	Trichloroethylene	U	100	ug/kg	33.3	100
78-87-5	1,2-Dichloropropane	U	100	ug/kg	33.3	100
74-95-3	Dibromomethane	U	100	ug/kg	33.3	100
75-27-4	Bromodichloromethane	U	100	ug/kg	33.3	100
10061-01-5	cis-1,3-Dichloropropylene	U	100	ug/kg	33.3	100
108-10-1	4-Methyl-2-pentanone	U	500	ug/kg	167	500
108-88-3	Toluene	U	100	ug/kg	33.3	100
10061-02-6	trans-1,3-Dichloropropylene	U	100	ug/kg	33.3	100
79-00-5	1,1,2-Trichloroethane	U	100	ug/kg	33.3	100
591-78-6	2-Hexanone	U	500	ug/kg	167	500
127-18-4	Tetrachloroethylene	U	100	ug/kg	33.3	100
124-48-1	Dibromochloromethane	U	100	ug/kg	33.3	100
106-93-4	1,2-Dibromoethane	U	100	ug/kg	33.3	100
108-90-7	Chlorobenzene	U	100	ug/kg	33.3	100
100-41-4	Ethylbenzene	U	100	ug/kg	33.3	100
100-42-5	Styrene	U	100	ug/kg	33.3	100

Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660968

Lab Sample ID: 1205694060

Client Sample: QC for batch 2591975

Client ID: HB for batch 2591975

Batch ID: 2591977

Run Date: 04/04/2024 12:54

Prep Date: 04/04/2024 08:30

Data File: data\040424VC\CA411.D

Client: PERM001

Method: SW846 8260D

Inst: VOAC.I

Analyst: PXY1

Aliquot: 5 g

Column: DB-624

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-038

Dilution: 50

Purge Vol: 5 mL

Final Volume: 10 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform	U	100	ug/kg	33.3	100
79-34-5	1,1,2,2-Tetrachloroethane	U	100	ug/kg	33.3	100
96-18-4	1,2,3-Trichloropropane	U	100	ug/kg	33.3	100
96-12-8	1,2-Dibromo-3-chloropropane	U	100	ug/kg	50.0	100
107-02-8	Acrolein	U	500	ug/kg	167	500
107-05-1	Allyl chloride	U	500	ug/kg	167	500
107-13-1	Acrylonitrile	U	500	ug/kg	167	500
126-99-8	2-Chloro-1,3-butadiene	U	100	ug/kg	33.3	100
107-12-0	Propionitrile	U	500	ug/kg	167	500
126-98-7	Methacrylonitrile	U	500	ug/kg	167	500
78-83-1	Isobutyl alcohol	U	5000	ug/kg	1670	5000
80-62-6	Methyl methacrylate	U	500	ug/kg	167	500
97-63-2	Ethyl methacrylate	U	500	ug/kg	167	500
76-01-7	Pentachloroethane	U	500	ug/kg	167	500
110-57-6	trans-1,4-Dichloro-2-butene	U	500	ug/kg	167	500
1330-20-7	Xylenes (total)	U	300	ug/kg	100	300
120-82-1	1,2,4-Trichlorobenzene	U	100	ug/kg	33.3	100
630-20-6	1,1,1,2-Tetrachloroethane	U	100	ug/kg	33.3	100

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA411.D
Acq On : 04 Apr 2024 12:54
Operator : PXY1
InstName : VOAC
Sample : |1205694060|2591977|50|VOAF|1|VOA8260D_S|
Misc : GEL 5.0G/100UL N/A SOIL HB
ALS Vial : 6 Sample Multiplier: 1

MA

04/05/2024

Quant Time: Apr 04 13:45:30 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.915	10.934	1.000	956056	50.00	ug/L	-0.02
43) Chlorobenzene-d5	117	14.341	14.354	1.000	698713	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.914	16.933	1.000	348445	50.00	ug/L	-0.02
84) B Fluorobenzene	96	10.915	10.928	1.000	955885	50.00	ug/L	-0.01
103) B Chlorobenzene-d5	117	14.341	14.348	1.000	698511	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.914	16.920	1.000	348421	50.00	ug/L	0.00

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.525	10.543	0.964	307687	53.15	ug/L	-0.02
45) Toluene-d8	98	12.695	12.714	0.885	956685	53.00	ug/L	-0.02
63) Bromofluorobenzene	95	15.603	15.622	0.923	324320	54.02	ug/L	-0.02

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	106%
45) Toluene-d8	50.000	81 - 120	106%
63) Bromofluorobenzene	50.000	74 - 128	108%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.782	0.000	0	N.D.		
3) Chloromethane		0.000	5.203	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.422	0.000	0	N.D.		
5) Bromomethane		0.000	6.075	0.000	0	N.D.		
6) Chloroethane		0.000	6.197	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.629	0.000	0	N.D.		
8) Ethyl ether		0.000	6.971	0.000	0	N.D.		
9) Acetone	43	7.355	7.367	0.674	1830	N.D.		
10) 1,1-Dichloroethylene		0.000	7.392	0.000	0	N.D.		
11) Iodomethane		0.000	7.654	0.000	0	N.D.		
12) Acetonitrile	41	7.708	7.739	0.706	819	N.D.		
13) Methyl acetate	43	7.782	7.794	0.713	714	N.D.		
14) Carbon disulfide	76	7.788	7.800	0.713	177	N.D.		
15) Methylene chloride	84	7.977	8.001	0.731	8322	N.D.		
16) tert-Butyl methyl ether		0.000	8.330	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.373	0.000	0	N.D.		
18) Hexane	57	8.659	8.690	0.793	1459	N.D.		
19) Vinyl acetate		0.000	8.849	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.897	0.000	0	N.D.		
21) 2-Butanone	43	9.513	9.525	0.872	4065	2.24	ug/L	79
22) cis-1,2-Dichloroethylene		0.000	9.586	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.623	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.885	0.000	0	N.D.		
25) Chloroform		0.000	9.922	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	10.232	0.000	0	N.D.		
27) Cyclohexane		0.000	10.342	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	10.403	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	10.446	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.635	0.000	0	N.D.		
32) Benzene		0.000	10.665	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA411.D
Acq On : 04 Apr 2024 12:54
Operator : PXY1
InstName : VOAC
Sample : |1205694060|2591977|50|VOAF|1|VOA8260D_S|
Misc : GEL 5.0G/100UL N/A SOIL HB
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 13:45:30 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene		0.000	10.793	0.000	0	N.D.	
34) n-Butyl alcohol		0.000	11.019	0.000	0	N.D.	
35) Trichloroethylene		0.000	11.354	0.000	0	N.D.	
36) 2-Pentanone	43	11.427	11.434	1.047	797	N.D.	
37) 1,2-Dichloropropane		0.000	11.616	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.635	0.000	0	N.D.	
39) Dibromomethane		0.000	11.763	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.885	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	12.122	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	12.372	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	12.470	0.000	0	N.D.	
46) Toluene	91	12.775	12.793	0.891	623	N.D.	
47) trans-1,3-Dichloroprop...	75	12.939	12.952	0.902	377	N.D.	
48) 1,1,2-Trichloroethane		0.000	13.189	0.000	0	N.D.	
49) 2-Hexanone		0.000	13.384	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	13.397	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	13.439	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.689	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.872	0.000	0	N.D.	
54) Chlorobenzene		0.000	14.390	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	14.445	0.000	0	N.D.	
56) Ethylbenzene		0.000	14.457	0.000	0	N.D.	
57) m,p-Xylenes		0.000	14.573	0.000	0	N.D.	
58) o-Xylene		0.000	15.037	0.000	0	N.D.	
59) Styrene		0.000	15.037	0.000	0	N.D.	
61) Bromoform		0.000	15.305	0.000	0	N.D.	
62) Isopropylbenzene	105	15.469	15.414	0.915	248	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	15.603	15.695	0.923	144	N.D.	
65) 1,2,3-Trichloropropane		0.000	15.792	0.000	0	N.D.	
66) Bromobenzene		0.000	15.847	0.000	0	N.D.	
67) n-Propylbenzene	91	15.841	15.866	0.937	237	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	16.024	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	16.024	0.000	0	N.D.	
70) 4-Chlorotoluene	91	16.115	16.128	0.953	382	N.D.	
71) tert-Butylbenzene		0.000	16.420	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	16.445	16.463	0.972	270	N.D.	
73) sec-Butylbenzene		0.000	16.664	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	16.792	0.000	0	N.D.	
75) 1,3-Dichlorobenzene	146	16.853	16.865	0.996	214	N.D.	
76) 1,4-Dichlorobenzene	146	16.938	16.957	1.001	321	N.D.	
77) n-Butylbenzene	91	17.249	17.280	1.020	356	N.D.	
78) 1,2-Dichlorobenzene	146	17.414	17.432	1.030	325	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	18.383	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	19.548	19.578	1.156	622	N.D.	
81) Hexachlorobutadiene		0.000	19.780	0.000	0	N.D.	
82) Naphthalene	128	19.993	20.017	1.182	2325	N.D.	
83) 1,2,3-Trichlorobenzene	180	20.383	20.401	1.205	410	N.D.	
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA411.D
Acq On : 04 Apr 2024 12:54
Operator : PXY1
InstName : VOAC
Sample : |1205694060|2591977|50|VOAF|1|VOA8260D_S|
Misc : GEL 5.0G/100UL N/A SOIL HB
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 13:45:30 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

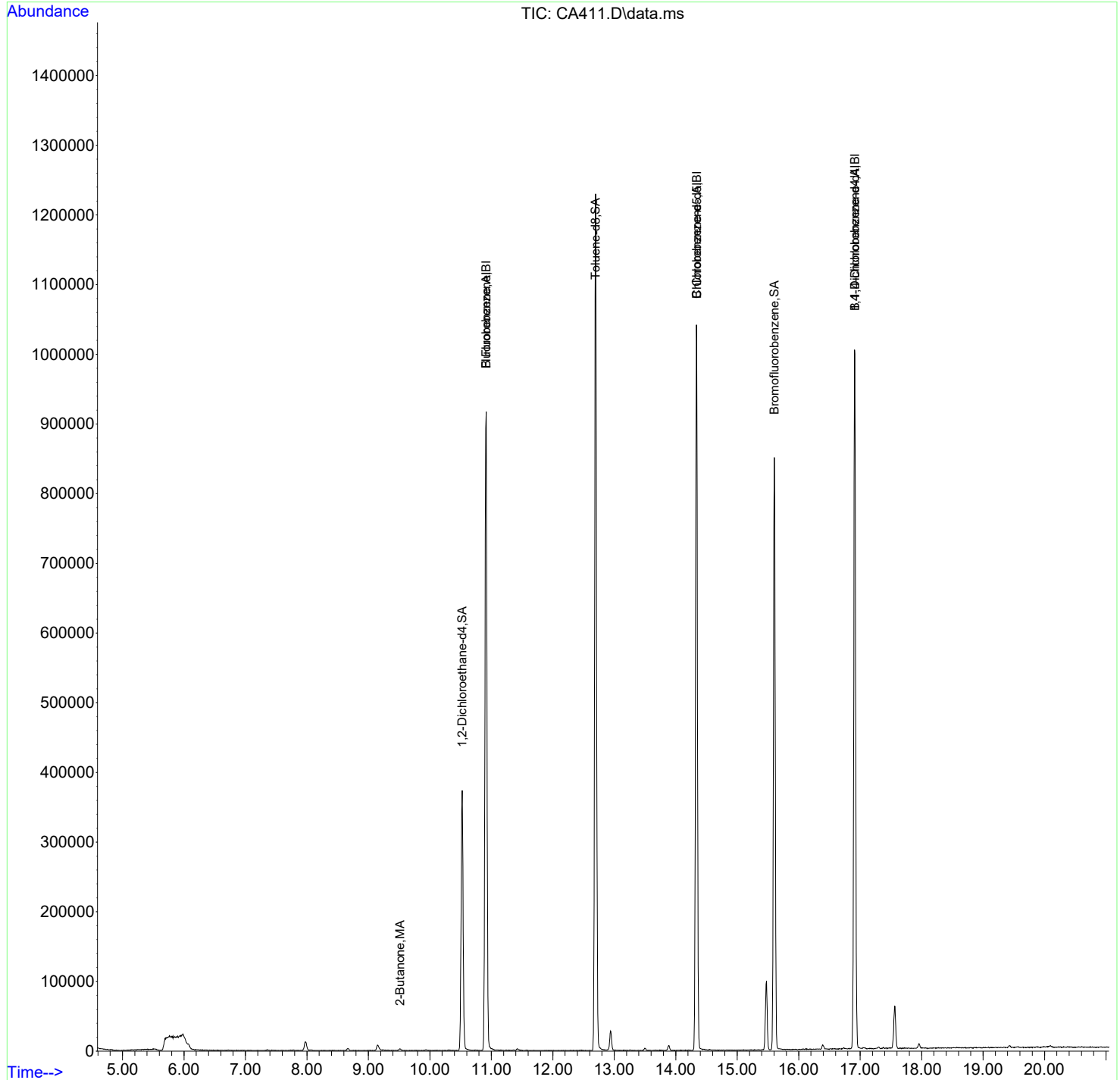
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol	45	7.434	7.440	0.681	553	N.D.	
88) Allyl chloride	41	7.983	7.843	0.731	476	N.D.	
89) tert-Butyl Alcohol	59	8.068	7.983	0.739	627	N.D.	
90) Acrylonitrile		0.000	8.257	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.873	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate	43	9.513	9.531	0.872	4065	N.D.	
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.940	9.940	0.911	569	N.D.	
98) Isobutyl alcohol		0.000	10.263	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.671	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.580	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.696	0.000	0	N.D.	
102) 2-Nitropropane		0.000	12.086	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	15.439	0.000	0	N.D.	
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		0.000	16.487	0.000	0	N.D.	
111) Benzyl chloride	91	17.066	17.073	1.009	2239	N.D.	
112) bis(2-Chloroisopropyl)...	45	17.487	17.506	1.034	636	N.D.	

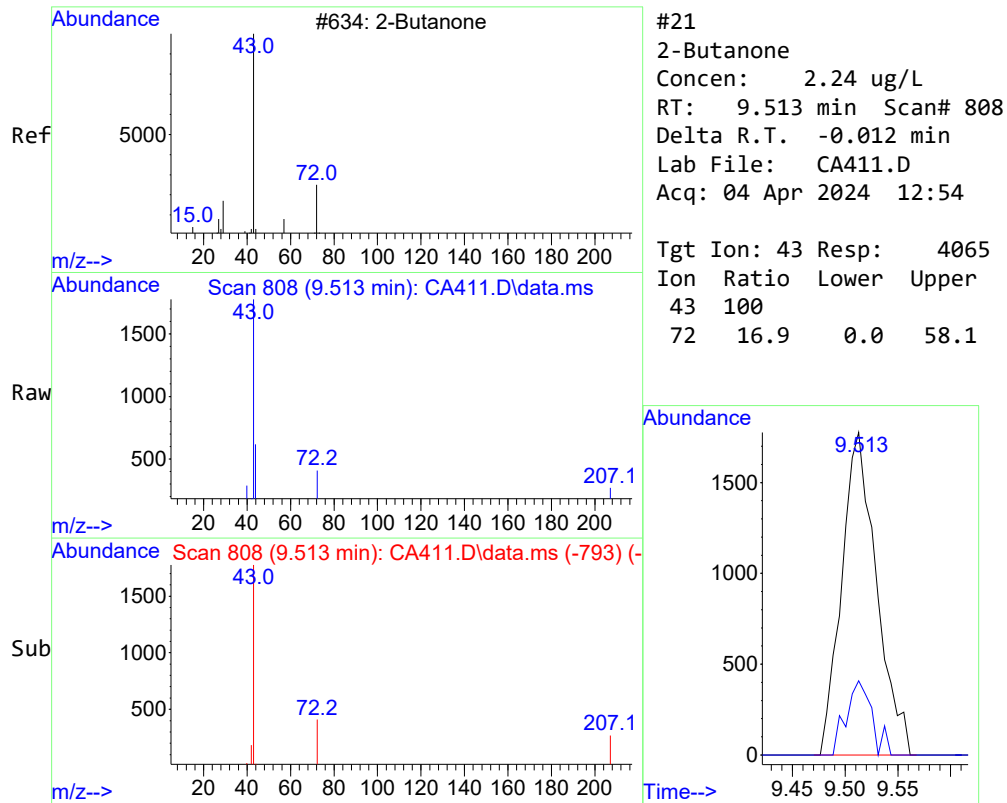
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA411.D
Acq On : 04 Apr 2024 12:54
Operator : PXY1
InstName : VOAC
Sample : |1205694060|2591977|50|VOAF|1|VOA8260D_S|
Misc : GEL 5.0G/100UL N/A SOIL HB
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 13:45:30 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE





Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Matrix:	MISC SOLID
Lab Sample ID:	1205694058		
Client Sample:	QC for batch 2591975	Client:	PERM001
Client ID:	LCS for batch 2591975	Method:	SW846 8260D
Batch ID:	2591977	Inst:	VOAC.I
Run Date:	04/04/2024 11:02	Analyst:	PXY1
Prep Date:	04/04/2024 08:00	Aliquot:	5 g
Data File:	data\040424VC\CA407P.D	Column:	DB-624
		Purge Vol:	5 mL
		Final Volume:	5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		58.6	ug/kg	0.333	1.00
74-87-3	Chloromethane		47.8	ug/kg	0.333	1.00
75-01-4	Vinyl chloride		48.8	ug/kg	0.333	1.00
74-83-9	Bromomethane		49.9	ug/kg	0.333	1.00
75-00-3	Chloroethane		54.4	ug/kg	0.333	1.00
75-69-4	Trichlorofluoromethane		55.5	ug/kg	0.333	1.00
67-64-1	Acetone		262	ug/kg	1.67	5.00
75-35-4	1,1-Dichloroethylene		59.9	ug/kg	0.333	1.00
74-88-4	Iodomethane		267	ug/kg	1.67	5.00
75-05-8	Acetonitrile		1370	ug/kg	8.33	25.0
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	5.00	ug/kg	1.67	5.00
75-15-0	Carbon disulfide		320	ug/kg	1.67	5.00
75-09-2	Methylene chloride		52.2	ug/kg	1.67	5.00
156-60-5	trans-1,2-Dichloroethylene		56.2	ug/kg	0.333	1.00
108-05-4	Vinyl acetate		267	ug/kg	1.67	5.00
75-34-3	1,1-Dichloroethane		56.5	ug/kg	0.333	1.00
78-93-3	2-Butanone		285	ug/kg	1.67	5.00
67-66-3	Chloroform		54.2	ug/kg	0.333	1.00
71-55-6	1,1,1-Trichloroethane		53.9	ug/kg	0.333	1.00
56-23-5	Carbon tetrachloride		56.0	ug/kg	0.333	1.00
107-06-2	1,2-Dichloroethane		54.3	ug/kg	0.333	1.00
71-43-2	Benzene		52.1	ug/kg	0.333	1.00
79-01-6	Trichloroethylene		52.2	ug/kg	0.333	1.00
78-87-5	1,2-Dichloropropane		54.5	ug/kg	0.333	1.00
74-95-3	Dibromomethane		52.9	ug/kg	0.333	1.00
75-27-4	Bromodichloromethane		53.8	ug/kg	0.333	1.00
10061-01-5	cis-1,3-Dichloropropylene		53.0	ug/kg	0.333	1.00
108-10-1	4-Methyl-2-pentanone		292	ug/kg	1.67	5.00
108-88-3	Toluene		55.8	ug/kg	0.333	1.00
10061-02-6	trans-1,3-Dichloropropylene		57.5	ug/kg	0.333	1.00
79-00-5	1,1,2-Trichloroethane		55.0	ug/kg	0.333	1.00
591-78-6	2-Hexanone		316	ug/kg	1.67	5.00
127-18-4	Tetrachloroethylene		52.4	ug/kg	0.333	1.00
124-48-1	Dibromochloromethane		52.4	ug/kg	0.333	1.00
106-93-4	1,2-Dibromoethane		53.8	ug/kg	0.333	1.00
108-90-7	Chlorobenzene		53.2	ug/kg	0.333	1.00
100-41-4	Ethylbenzene		55.5	ug/kg	0.333	1.00
100-42-5	Styrene		52.6	ug/kg	0.333	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number: 660968

Lab Sample ID: 1205694058

Client Sample: QC for batch 2591975

Client ID: LCS for batch 2591975

Batch ID: 2591977

Run Date: 04/04/2024 11:02

Prep Date: 04/04/2024 08:00

Data File: data\040424VC\CA407P.D

Client: PERM001

Method: SW846 8260D

Inst: VOAC.I

Analyst: PXY1

Aliquot: 5 g

Column: DB-624

Matrix: MISC SOLID

Project: PERM00224

SOP Ref: GL-OA-E-038

Dilution: 1

Purge Vol: 5 mL

Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform		53.3	ug/kg	0.333	1.00
79-34-5	1,1,2,2-Tetrachloroethane		58.2	ug/kg	0.333	1.00
96-18-4	1,2,3-Trichloropropane		56.0	ug/kg	0.333	1.00
96-12-8	1,2-Dibromo-3-chloropropane		50.8	ug/kg	0.500	1.00
107-02-8	Acrolein	U	5.00	ug/kg	1.67	5.00
107-05-1	Allyl chloride	U	5.00	ug/kg	1.67	5.00
107-13-1	Acrylonitrile	U	5.00	ug/kg	1.67	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/kg	0.333	1.00
107-12-0	Propionitrile	U	5.00	ug/kg	1.67	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/kg	1.67	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/kg	16.7	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/kg	1.67	5.00
97-63-2	Ethyl methacrylate	U	5.00	ug/kg	1.67	5.00
76-01-7	Pentachloroethane	U	5.00	ug/kg	1.67	5.00
110-57-6	trans-1,4-Dichloro-2-butene	U	5.00	ug/kg	1.67	5.00
1330-20-7	Xylenes (total)		161	ug/kg	1.00	3.00
120-82-1	1,2,4-Trichlorobenzene		50.5	ug/kg	0.333	1.00
630-20-6	1,1,1,2-Tetrachloroethane		51.8	ug/kg	0.333	1.00

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA407P.D
Acq On : 04 Apr 2024 11:02
Operator : PXY1
InstName : VOAC
Sample : |1205694058|2591977|1|VOAF|1|VOA8260D_S|
Misc : LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

MA

04/05/2024

Quant Time: Apr 04 11:24:21 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.921	10.934	1.000	919031	50.00	ug/L	-0.01
43) Chlorobenzene-d5	117	14.341	14.354	1.000	694448	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.920	16.933	1.000	362790	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.921	10.928	1.000	918625	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	14.341	14.348	1.000	694448	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.920	16.920	1.000	363127	50.00	ug/L	0.00

System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.537	10.543	0.965	295575	53.11	ug/L	0.00
45) Toluene-d8	98	12.702	12.714	0.886	930324	51.85	ug/L	-0.01
63) Bromofluorobenzene	95	15.610	15.622	0.923	320220	51.23	ug/L	-0.01

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	106%
45) Toluene-d8	50.000	81 - 120	104%
63) Bromofluorobenzene	50.000	74 - 128	102%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.776	4.782	0.437	298093	58.62	ug/L	100
3) Chloromethane	50	5.191	5.203	0.475	270416	47.76	ug/L	99
4) Vinyl chloride	62	5.410	5.422	0.495	284707	48.80	ug/L	100
5) Bromomethane	94	6.062	6.075	0.555	213915	49.87	ug/L	100
6) Chloroethane	64	6.191	6.197	0.567	199409	54.35	ug/L	99
7) Trichlorofluoromethane	101	6.617	6.629	0.606	398059	55.48	ug/L	99
8) Ethyl ether	59	6.965	6.971	0.638	175726	46.19	ug/L	89
9) Acetone	43	7.361	7.367	0.674	322874	262.23	ug/L	94
10) 1,1-Dichloroethylene	61	7.379	7.392	0.676	381961	59.93	ug/L	94
11) Iodomethane	142	7.641	7.654	0.700	2311607	266.98	ug/L	95
12) Acetonitrile	41	7.733	7.739	0.708	671626	1374.02	ug/L	99
13) Methyl acetate	43	7.788	7.794	0.713	794143	282.47	ug/L	97
14) Carbon disulfide	76	7.794	7.800	0.714	4100001	319.66	ug/L	100
15) Methylene chloride	84	7.989	8.001	0.731	254550	52.16	ug/L	90
16) tert-Butyl methyl ether	73	8.318	8.330	0.762	657953	49.41	ug/L	99
17) trans-1,2-Dichloroethy...	61	8.361	8.373	0.766	360533	56.15	ug/L	94
18) Hexane	57	8.684	8.690	0.795	252762	38.88	ug/L	94
19) Vinyl acetate	43	8.836	8.849	0.809	2370868	267.24	ug/L	97
20) 1,1-Dichloroethane	63	8.885	8.897	0.814	452826	56.47	ug/L	99
21) 2-Butanone	43	9.513	9.525	0.871	496310	284.74	ug/L	96
22) cis-1,2-Dichloroethylene	61	9.574	9.586	0.877	408041	54.03	ug/L	95
23) 2,2-Dichloropropane	77	9.611	9.623	0.880	319321	50.15	ug/L	90
24) Bromochloromethane	128	9.873	9.885	0.904	137068	47.81	ug/L #	86
25) Chloroform	83	9.909	9.922	0.907	455208	54.22	ug/L	99
26) 1,1,1-Trichloroethane	97	10.220	10.232	0.936	410256	53.91	ug/L	96
27) Cyclohexane	56	10.330	10.342	0.946	426480	56.11	ug/L	97
28) 1,1-Dichloropropene	75	10.391	10.403	0.951	345710	55.78	ug/L #	97
29) Carbon tetrachloride	117	10.434	10.446	0.955	381843	56.04	ug/L	99
31) 1,2-Dichloroethane	62	10.623	10.635	0.973	343653	54.26	ug/L	100
32) Benzene	78	10.653	10.665	0.975	937719	52.11	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA407P.D
Acq On : 04 Apr 2024 11:02
Operator : PXY1
InstName : VOAC
Sample : |1205694058|2591977|1|VOAF|1|VOA8260D_S|
Misc : LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 11:24:21 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
33) Cyclohexene	67	10.781	10.793	0.987	468551	52.12	ug/L	96
34) n-Butyl alcohol	56	11.007	11.019	1.008	711080	5492.40	ug/L	94
35) Trichloroethylene	95	11.342	11.354	1.039	265379	52.15	ug/L	97
36) 2-Pentanone	43	11.427	11.434	1.046	610056	199.67	ug/L	95
37) 1,2-Dichloropropane	63	11.610	11.616	1.063	249909	54.52	ug/L	87
38) Methylcyclohexane	83	11.622	11.635	1.064	460310	53.99	ug/L	74
39) Dibromomethane	93	11.750	11.763	1.076	159166	52.92	ug/L	92
40) Bromodichloromethane	83	11.872	11.885	1.087	350068	53.78	ug/L	100
41) 2-Chloroethylvinyl ether	63	12.110	12.122	1.109	38700	212.27	ug/L	97
42) cis-1,3-Dichloropropylene	75	12.360	12.372	1.132	407588	52.96	ug/L	92
44) 4-Methyl-2-pentanone	58	12.458	12.470	0.869	411095	291.81	ug/L	88
46) Toluene	91	12.781	12.793	0.891	1009533	55.82	ug/L #	100
47) trans-1,3-Dichloroprop...	75	12.939	12.952	0.902	365287	57.51	ug/L	93
48) 1,1,2-Trichloroethane	83	13.177	13.189	0.919	172015	55.04	ug/L	99
49) 2-Hexanone	43	13.372	13.384	0.932	706128	315.74	ug/L	94
50) 1,3-Dichloropropane	76	13.384	13.397	0.933	344018	56.93	ug/L	94
51) Tetrachloroethylene	164	13.427	13.439	0.936	227152	52.36	ug/L	96
52) Dibromochloromethane	129	13.671	13.689	0.953	263069	52.44	ug/L	99
53) 1,2-Dibromoethane	107	13.860	13.872	0.966	216237	53.77	ug/L	100
54) Chlorobenzene	112	14.378	14.390	1.003	672311	53.22	ug/L	98
55) 1,1,1,2-Tetrachloroethane	131	14.433	14.445	1.006	264838	51.78	ug/L	100
56) Ethylbenzene	91	14.445	14.457	1.007	1122963	55.51	ug/L	94
57) m,p-Xylenes	106	14.561	14.573	1.015	874118	107.66	ug/L	96
58) o-Xylene	91	15.024	15.037	1.048	909514	53.45	ug/L	99
59) Styrene	104	15.024	15.037	1.048	700665	52.59	ug/L	96
61) Bromoform	173	15.293	15.305	0.904	169320	53.26	ug/L	93
62) Isopropylbenzene	105	15.402	15.414	0.910	1154634	59.40	ug/L	100
64) 1,1,2,2-Tetrachloroethane	83	15.683	15.695	0.927	257476	58.21	ug/L	100
65) 1,2,3-Trichloropropane	110	15.780	15.792	0.933	78478	55.99	ug/L	93
66) Bromobenzene	156	15.835	15.847	0.936	296416	53.53	ug/L	93
67) n-Propylbenzene	91	15.853	15.866	0.937	1343507	61.35	ug/L	98
68) 1,3,5-Trimethylbenzene	105	16.012	16.024	0.946	989213	58.26	ug/L	99
69) 2-Chlorotoluene	126	16.012	16.024	0.946	281425	57.74	ug/L	92
70) 4-Chlorotoluene	91	16.116	16.128	0.952	782045	58.52	ug/L	98
71) tert-Butylbenzene	134	16.408	16.420	0.970	220053	57.20	ug/L	96
72) 1,2,4-Trimethylbenzene	105	16.451	16.463	0.972	982723	56.49	ug/L	99
73) sec-Butylbenzene	105	16.652	16.664	0.984	1263181	59.02	ug/L	99
74) 4-Isopropyltoluene	119	16.780	16.792	0.992	1098799	57.66	ug/L	98
75) 1,3-Dichlorobenzene	146	16.853	16.865	0.996	556466	54.20	ug/L	85
76) 1,4-Dichlorobenzene	146	16.945	16.957	1.001	553348	53.75	ug/L	97
77) n-Butylbenzene	91	17.268	17.280	1.021	1003869	60.31	ug/L	98
78) 1,2-Dichlorobenzene	146	17.414	17.432	1.029	530810	52.97	ug/L	99
79) 1,2-Dibromo-3-chloropr...	157	18.371	18.383	1.086	62709	50.77	ug/L	93
80) 1,2,4-Trichlorobenzene	180	19.566	19.578	1.156	419078	50.49	ug/L	100
81) Hexachlorobutadiene	225	19.761	19.780	1.168	249126	51.68	ug/L	93
82) Naphthalene	128	19.999	20.017	1.182	867311	53.02	ug/L	99
83) 1,2,3-Trichlorobenzene	180	20.389	20.401	1.205	385038	50.03	ug/L	96
85) Acrolein		0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane		7.343	7.355	0.672	0m	N.D. d		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA407P.D
Acq On : 04 Apr 2024 11:02
Operator : PXY1
InstName : VOAC
Sample : |1205694058|2591977|1|VOAF|1|VOA8260D_S|
Misc : LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 11:24:21 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

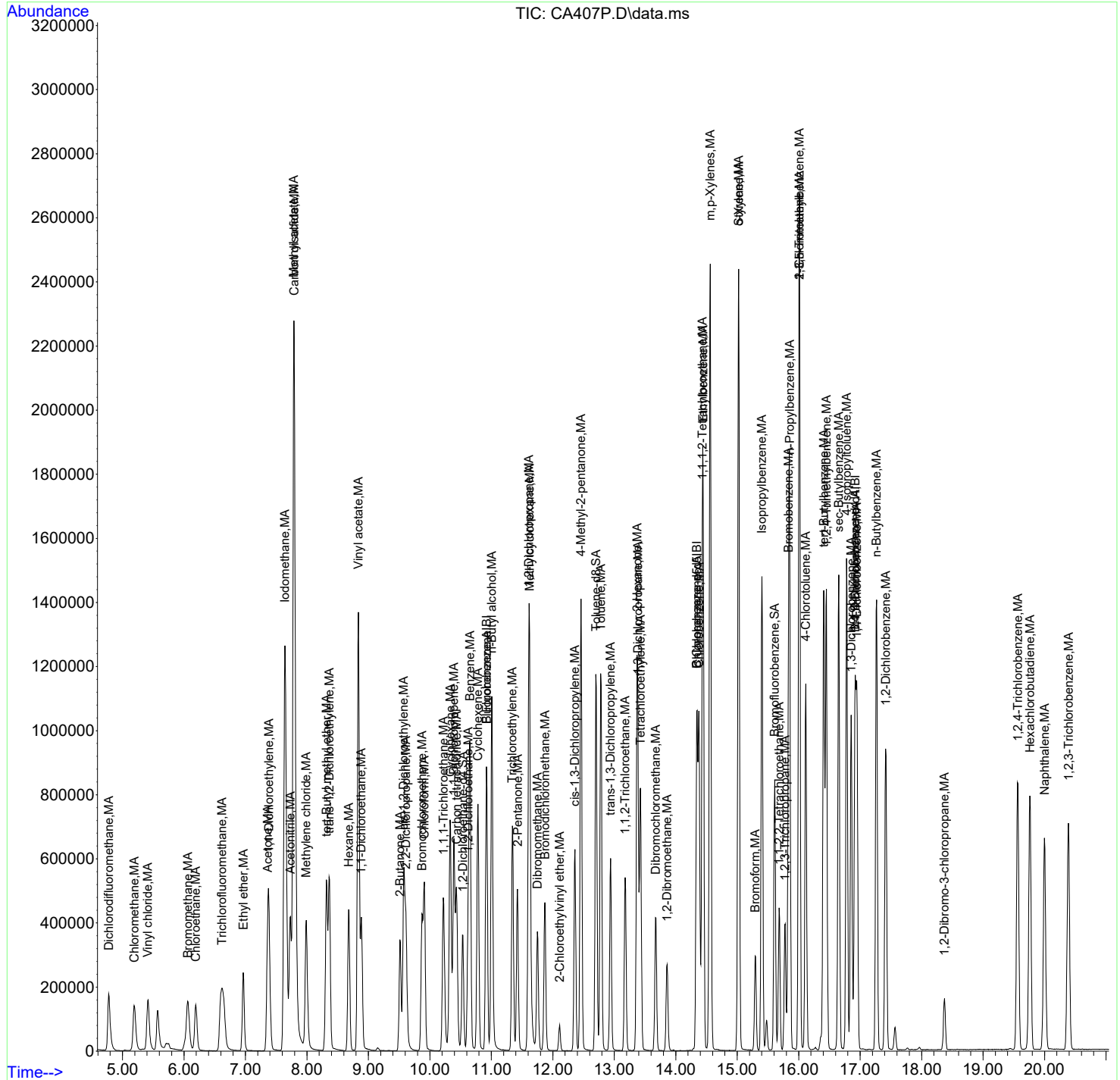
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol		7.398	7.440	0.677	0m	N.D.	d
88) Allyl chloride		0.000	7.843	0.000	0	N.D.	
89) tert-Butyl Alcohol		7.983	7.983	0.731	0m	N.D.	d
90) Acrylonitrile		8.318	8.257	0.762	0m	N.D.	d
91) Isopropyl ether		8.836	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate		9.513	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.513	9.592	0.871	0m	N.D.	d
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran		9.909	9.940	0.907	0m	N.D.	d
98) Isobutyl alcohol		10.330	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.647	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.622	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.750	11.696	1.076	0m	N.D.	d
102) 2-Nitropropane		12.110	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.232	14.238	0.841	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.402	15.439	0.910	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.475	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.573	17.506	1.039	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA407P.D
Acq On : 04 Apr 2024 11:02
Operator : PXY1
InstName : VOAC
Sample : |1205694058|2591977|1|VOAF|1|VOA8260D_S|
Misc : LCS 5G/5ML N/A SOIL MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 11:24:21 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Volatiles
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	1205694061	Date Received:	04/02/2024 08:50		
Client Sample:	QC for batch 2591975	Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.EPAPS	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 18:56	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:31	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040424VC\CA424.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		4970	ug/kg	29.7	89.3
74-87-3	Chloromethane		4060	ug/kg	29.7	89.3
75-01-4	Vinyl chloride		4070	ug/kg	29.7	89.3
74-83-9	Bromomethane		5300	ug/kg	29.7	89.3
75-00-3	Chloroethane		4540	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane		4540	ug/kg	29.7	89.3
67-64-1	Acetone		22100	ug/kg	149	446
75-35-4	1,1-Dichloroethylene		5100	ug/kg	29.7	89.3
74-88-4	Iodomethane		22500	ug/kg	149	446
75-05-8	Acetonitrile		118000	ug/kg	744	2230
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-15-0	Carbon disulfide		26800	ug/kg	149	446
75-09-2	Methylene chloride		4450	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene		4870	ug/kg	29.7	89.3
108-05-4	Vinyl acetate		21900	ug/kg	149	446
75-34-3	1,1-Dichloroethane		4970	ug/kg	29.7	89.3
78-93-3	2-Butanone	B	25800	ug/kg	149	446
67-66-3	Chloroform		4760	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane		4560	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride		4620	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane		4800	ug/kg	29.7	89.3
71-43-2	Benzene		4430	ug/kg	29.7	89.3
79-01-6	Trichloroethylene		4330	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane		4660	ug/kg	29.7	89.3
74-95-3	Dibromomethane		4530	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane		4580	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene		4400	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone		25900	ug/kg	149	446
108-88-3	Toluene		4680	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene		4940	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane		4800	ug/kg	29.7	89.3
591-78-6	2-Hexanone		26900	ug/kg	149	446
127-18-4	Tetrachloroethylene		4090	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane		4480	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane		4630	ug/kg	29.7	89.3
108-90-7	Chlorobenzene		4320	ug/kg	29.7	89.3
100-41-4	Ethylbenzene		4360	ug/kg	29.7	89.3
100-42-5	Styrene		4140	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	1205694061	Date Received:	04/02/2024 08:50		
Client Sample:	QC for batch 2591975	Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.EPAPS	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 18:56	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:31	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040424VC\CA424.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform		4420	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane		5140	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane		4910	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane		4230	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)		12700	ug/kg	89.3	268
120-82-1	1,2,4-Trichlorobenzene		3830	ug/kg	29.7	89.3
630-20-6	1,1,1,2-Tetrachloroethane		4440	ug/kg	29.7	89.3

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA424.D
Acq On : 04 Apr 2024 18:56
Operator : PXY1
InstName : VOAC
Sample : |1205694061|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL MIX[A] 660968001PS
ALS Vial : 19 Sample Multiplier: 1

MA

04/05/2024

Quant Time: Apr 05 09:45:28 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.897	10.934	1.000	947977	50.00	ug/L	-0.04
43) Chlorobenzene-d5	117	14.323	14.354	1.000	684649	50.00	ug/L	-0.03
60) 1,4-Dichlorobenzene-d4	152	16.896	16.933	1.000	350870	50.00	ug/L	-0.04
84) B Fluorobenzene	96	10.897	10.928	1.000	947885	50.00	ug/L	-0.03
103) B Chlorobenzene-d5	117	14.323	14.348	1.000	684670	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.896	16.920	1.000	350870	50.00	ug/L	-0.02

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.507	10.543	0.964	313094	54.54	ug/L	-0.04
45) Toluene-d8	98	12.683	12.714	0.886	962001	54.39	ug/L	-0.03
63) Bromofluorobenzene	95	15.591	15.622	0.923	328453	54.33	ug/L	-0.03

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	109%
45) Toluene-d8	50.000	81 - 120	109%
63) Bromofluorobenzene	50.000	74 - 128	109%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.752	4.782	0.436	291953	55.66	ug/L	100
3) Chloromethane	50	5.166	5.203	0.474	265432	45.45	ug/L	99
4) Vinyl chloride	62	5.392	5.422	0.495	274555	45.63	ug/L	99
5) Bromomethane	94	6.014	6.075	0.552	262603	59.35	ug/L #	3
6) Chloroethane	64	6.142	6.197	0.564	192565	50.89	ug/L	99
7) Trichlorofluoromethane	101	6.587	6.629	0.604	376705	50.90	ug/L	100
8) Ethyl ether	59	6.940	6.971	0.637	177562	45.25	ug/L	88
9) Acetone	43	7.337	7.367	0.673	314475	247.61	ug/L	95
10) 1,1-Dichloroethylene	61	7.349	7.392	0.674	375318	57.09	ug/L	93
11) Iodomethane	142	7.611	7.654	0.698	2254922	252.48	ug/L	94
12) Acetonitrile	41	7.708	7.739	0.707	664007	1316.95	ug/L	99
13) Methyl acetate	43	7.763	7.794	0.712	837653	288.84	ug/L	96
14) Carbon disulfide	76	7.763	7.800	0.712	3974233	300.39	ug/L	100
15) Methylene chloride	84	7.958	8.001	0.730	251102	49.84	ug/L	89
16) tert-Butyl methyl ether	73	8.294	8.330	0.761	688936	50.16	ug/L	98
17) trans-1,2-Dichloroethy...	61	8.336	8.373	0.765	361287	54.55	ug/L	92
18) Hexane	57	8.653	8.690	0.794	245879	36.67	ug/L	93
19) Vinyl acetate	43	8.812	8.849	0.809	2245557	245.39	ug/L	96
20) 1,1-Dichloroethane	63	8.861	8.897	0.813	460294	55.65	ug/L	99
21) 2-Butanone	43	9.489	9.525	0.871	520158	289.31	ug/L	95
22) cis-1,2-Dichloroethylene	61	9.550	9.586	0.876	417145	53.54	ug/L	93
23) 2,2-Dichloropropane	77	9.586	9.623	0.880	345983	52.67	ug/L	85
24) Bromochloromethane	128	9.848	9.885	0.904	137920	46.63	ug/L #	83
25) Chloroform	83	9.885	9.922	0.907	461793	53.33	ug/L	100
26) 1,1,1-Trichloroethane	97	10.196	10.232	0.936	401318	51.12	ug/L	96
27) Cyclohexane	56	10.306	10.342	0.946	419257	53.48	ug/L	96
28) 1,1-Dichloropropene	75	10.367	10.403	0.951	332229	51.97	ug/L #	96
29) Carbon tetrachloride	117	10.409	10.446	0.955	363282	51.69	ug/L	100
31) 1,2-Dichloroethane	62	10.598	10.635	0.973	351241	53.77	ug/L	100
32) Benzene	78	10.629	10.665	0.975	920516	49.60	ug/L	96

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA424.D
Acq On : 04 Apr 2024 18:56
Operator : PXY1
InstName : VOAC
Sample : |1205694061|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL MIX[A] 660968001PS
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 05 09:45:28 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
33) Cyclohexene	67	10.757	10.793	0.987	450261	48.56	ug/L 95
34) n-Butyl alcohol	56	10.988	11.019	1.008	656083	4912.86	ug/L 93
35) Trichloroethylene	95	11.318	11.354	1.039	254565	48.50	ug/L 96
36) 2-Pentanone	43	11.403	11.434	1.046	605130	192.01	ug/L 94
37) 1,2-Dichloropropane	63	11.586	11.616	1.063	246700	52.17	ug/L 87
38) Methylcyclohexane	83	11.598	11.635	1.064	439313	49.95	ug/L 72
39) Dibromomethane	93	11.726	11.763	1.076	157407	50.74	ug/L 90
40) Bromodichloromethane	83	11.848	11.885	1.087	344114	51.25	ug/L 99
41) 2-Chloroethylvinyl ether	63	12.086	12.122	1.109	61185	325.36	ug/L 97
42) cis-1,3-Dichloropropylene	75	12.336	12.372	1.132	391043	49.26	ug/L 91
44) 4-Methyl-2-pentanone	58	12.439	12.470	0.868	403548	290.55	ug/L 86
46) Toluene	91	12.762	12.793	0.891	934049	52.38	ug/L # 100
47) trans-1,3-Dichloroprop...	75	12.921	12.952	0.902	346504	55.33	ug/L 92
48) 1,1,2-Trichloroethane	83	13.159	13.189	0.919	165700	53.78	ug/L 98
49) 2-Hexanone	43	13.348	13.384	0.932	663372	300.87	ug/L 94
50) 1,3-Dichloropropane	76	13.366	13.397	0.933	331985	55.73	ug/L 93
51) Tetrachloroethylene	164	13.403	13.439	0.936	195846	45.79	ug/L 95
52) Dibromochloromethane	129	13.653	13.689	0.953	248268	50.19	ug/L 100
53) 1,2-Dibromoethane	107	13.835	13.872	0.966	205552	51.84	ug/L 99
54) Chlorobenzene	112	14.360	14.390	1.003	601847	48.33	ug/L 96
55) 1,1,1,2-Tetrachloroethane	131	14.415	14.445	1.006	250668	49.71	ug/L 99
56) Ethylbenzene	91	14.427	14.457	1.007	974655	48.87	ug/L 94
57) m,p-Xylenes	106	14.543	14.573	1.015	747385	93.37	ug/L 95
58) o-Xylene	91	15.006	15.037	1.048	819092	48.82	ug/L 98
59) Styrene	104	15.006	15.037	1.048	609769	46.42	ug/L 93
61) Bromoform	173	15.274	15.305	0.904	152288	49.53	ug/L 93
62) Isopropylbenzene	105	15.384	15.414	0.911	985938	52.45	ug/L 99
64) 1,1,2,2-Tetrachloroethane	83	15.664	15.695	0.927	246508	57.62	ug/L 99
65) 1,2,3-Trichloropropane	110	15.756	15.792	0.933	74605	55.04	ug/L 94
66) Bromobenzene	156	15.817	15.847	0.936	259592	48.48	ug/L 92
67) n-Propylbenzene	91	15.835	15.866	0.937	1086280	51.29	ug/L 99
68) 1,3,5-Trimethylbenzene	105	15.994	16.024	0.947	827560	50.40	ug/L 99
69) 2-Chlorotoluene	126	15.994	16.024	0.947	237041	50.29	ug/L 91
70) 4-Chlorotoluene	91	16.097	16.128	0.953	620030	47.97	ug/L 97
71) tert-Butylbenzene	134	16.390	16.420	0.970	187105	50.29	ug/L 96
72) 1,2,4-Trimethylbenzene	105	16.432	16.463	0.973	820537	48.77	ug/L 99
73) sec-Butylbenzene	105	16.634	16.664	0.984	1034295	49.97	ug/L 99
74) 4-Isopropyltoluene	119	16.762	16.792	0.992	882829	47.90	ug/L 99
75) 1,3-Dichlorobenzene	146	16.835	16.865	0.996	455841	45.91	ug/L 85
76) 1,4-Dichlorobenzene	146	16.926	16.957	1.002	462056	46.41	ug/L 97
77) n-Butylbenzene	91	17.249	17.280	1.021	764476	47.49	ug/L 97
78) 1,2-Dichlorobenzene	146	17.396	17.432	1.030	475923	49.11	ug/L 99
79) 1,2-Dibromo-3-chloropr...	157	18.353	18.383	1.086	56603	47.38	ug/L 91
80) 1,2,4-Trichlorobenzene	180	19.542	19.578	1.157	344205	42.88	ug/L 99
81) Hexachlorobutadiene	225	19.737	19.780	1.168	185800	39.85	ug/L 93
82) Naphthalene	128	19.975	20.017	1.182	792041	50.07	ug/L 100
83) 1,2,3-Trichlorobenzene	180	20.365	20.401	1.205	329544	44.28	ug/L 96
85) Acrolein		0.000	7.166	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA424.D
Acq On : 04 Apr 2024 18:56
Operator : PXY1
InstName : VOAC
Sample : |1205694061|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL MIX[A] 660968001PS
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 05 09:45:28 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

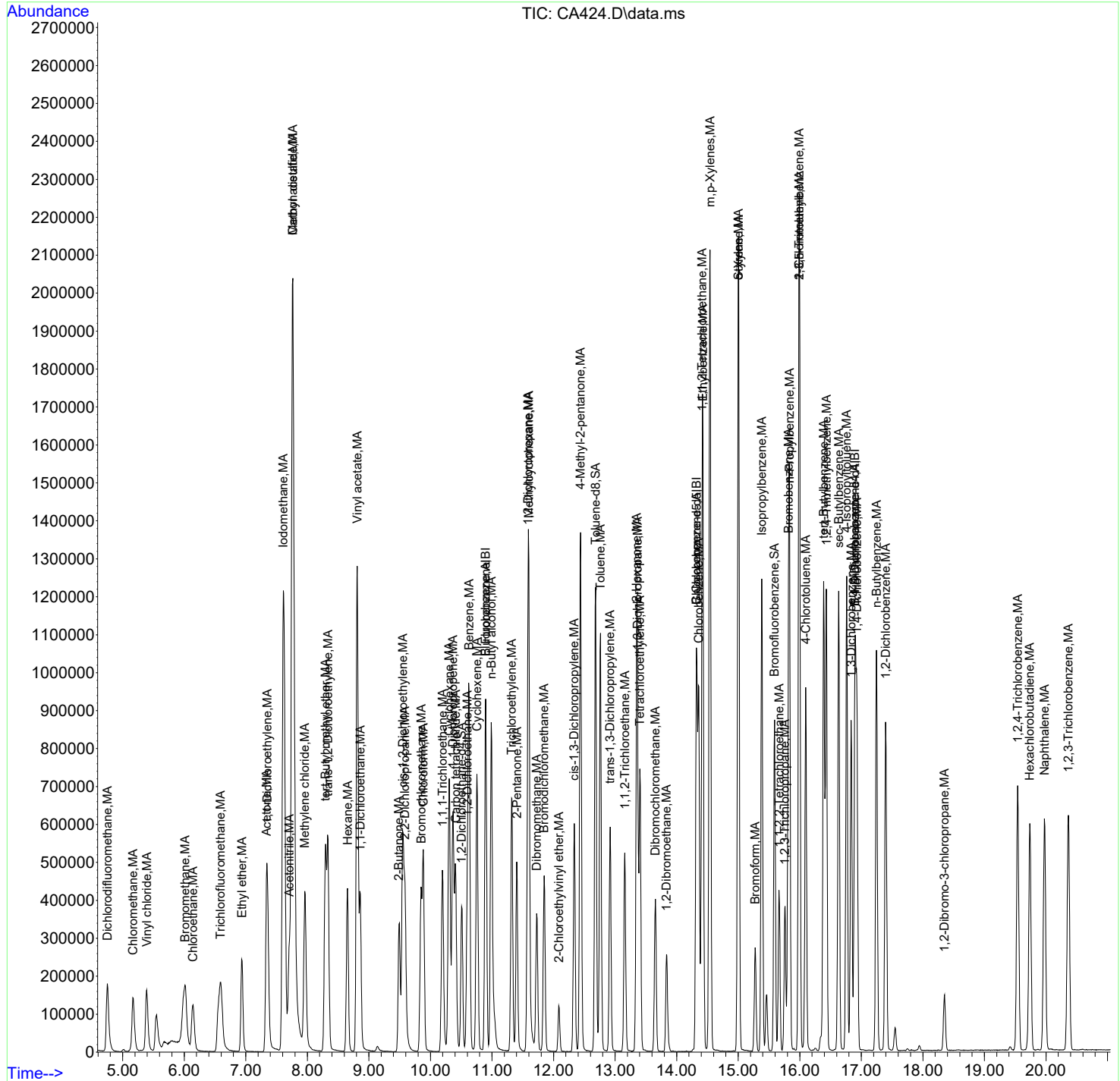
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol		7.373	7.440	0.677	0m	N.D.	d
88) Allyl chloride		0.000	7.843	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	7.983	0.000	0	N.D.	
90) Acrylonitrile		8.294	8.257	0.761	0m	N.D.	d
91) Isopropyl ether		8.806	8.873	0.808	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate		9.489	9.531	0.871	0m	N.D.	d
95) Propionitrile		9.495	9.592	0.871	0m	N.D.	d
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran		9.873	9.940	0.906	0m	N.D.	d
98) Isobutyl alcohol		10.306	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.629	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.598	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.726	11.696	1.076	0m	N.D.	d
102) 2-Nitropropane		12.086	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		14.268	14.238	0.844	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		15.384	15.439	0.911	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.469	16.487	0.975	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.548	17.506	1.039	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA424.D
Acq On : 04 Apr 2024 18:56
Operator : PX1
InstName : VOAC
Sample : |1205694061|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL MIX[A] 660968001PS
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 05 09:45:28 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	1205694062	Date Received:	04/02/2024 08:50		
Client Sample:	QC for batch 2591975	Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.EPAPSD	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 19:24	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:31	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040424VC\CA425.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		4950	ug/kg	29.7	89.3
74-87-3	Chloromethane		4030	ug/kg	29.7	89.3
75-01-4	Vinyl chloride		4050	ug/kg	29.7	89.3
74-83-9	Bromomethane		5200	ug/kg	29.7	89.3
75-00-3	Chloroethane		4490	ug/kg	29.7	89.3
75-69-4	Trichlorofluoromethane		4540	ug/kg	29.7	89.3
67-64-1	Acetone		22200	ug/kg	149	446
75-35-4	1,1-Dichloroethylene		5100	ug/kg	29.7	89.3
74-88-4	Iodomethane		22700	ug/kg	149	446
75-05-8	Acetonitrile		117000	ug/kg	744	2230
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	446	ug/kg	149	446
75-15-0	Carbon disulfide		26700	ug/kg	149	446
75-09-2	Methylene chloride		4450	ug/kg	149	446
156-60-5	trans-1,2-Dichloroethylene		4900	ug/kg	29.7	89.3
108-05-4	Vinyl acetate		21800	ug/kg	149	446
75-34-3	1,1-Dichloroethane		4980	ug/kg	29.7	89.3
78-93-3	2-Butanone	B	25500	ug/kg	149	446
67-66-3	Chloroform		4810	ug/kg	29.7	89.3
71-55-6	1,1,1-Trichloroethane		4600	ug/kg	29.7	89.3
56-23-5	Carbon tetrachloride		4610	ug/kg	29.7	89.3
107-06-2	1,2-Dichloroethane		4820	ug/kg	29.7	89.3
71-43-2	Benzene		4480	ug/kg	29.7	89.3
79-01-6	Trichloroethylene		4370	ug/kg	29.7	89.3
78-87-5	1,2-Dichloropropane		4720	ug/kg	29.7	89.3
74-95-3	Dibromomethane		4540	ug/kg	29.7	89.3
75-27-4	Bromodichloromethane		4640	ug/kg	29.7	89.3
10061-01-5	cis-1,3-Dichloropropylene		4480	ug/kg	29.7	89.3
108-10-1	4-Methyl-2-pentanone		25700	ug/kg	149	446
108-88-3	Toluene		4720	ug/kg	29.7	89.3
10061-02-6	trans-1,3-Dichloropropylene		4920	ug/kg	29.7	89.3
79-00-5	1,1,2-Trichloroethane		4790	ug/kg	29.7	89.3
591-78-6	2-Hexanone		26800	ug/kg	149	446
127-18-4	Tetrachloroethylene		4140	ug/kg	29.7	89.3
124-48-1	Dibromochloromethane		4490	ug/kg	29.7	89.3
106-93-4	1,2-Dibromoethane		4650	ug/kg	29.7	89.3
108-90-7	Chlorobenzene		4380	ug/kg	29.7	89.3
100-41-4	Ethylbenzene		4430	ug/kg	29.7	89.3
100-42-5	Styrene		4260	ug/kg	29.7	89.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	1205694062	Date Received:	04/02/2024 08:50		
Client Sample:	QC for batch 2591975	Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.EPAPSD	Method:	SW846 8260D	SOP Ref:	GL-OA-E-038
Batch ID:	2591977	Inst:	VOAC.I	Dilution:	50
Run Date:	04/04/2024 19:24	Analyst:	PXY1	Purge Vol:	5 mL
Prep Date:	04/04/2024 08:31	Aliquot:	5.6 g	Final Volume:	10 mL
Data File:	data\040424VC\CA425.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-25-2	Bromoform		4490	ug/kg	29.7	89.3
79-34-5	1,1,2,2-Tetrachloroethane		5150	ug/kg	29.7	89.3
96-18-4	1,2,3-Trichloropropane		4960	ug/kg	29.7	89.3
96-12-8	1,2-Dibromo-3-chloropropane		4300	ug/kg	44.6	89.3
107-02-8	Acrolein	U	446	ug/kg	149	446
107-05-1	Allyl chloride	U	446	ug/kg	149	446
107-13-1	Acrylonitrile	U	446	ug/kg	149	446
126-99-8	2-Chloro-1,3-butadiene	U	89.3	ug/kg	29.7	89.3
107-12-0	Propionitrile	U	446	ug/kg	149	446
126-98-7	Methacrylonitrile	U	446	ug/kg	149	446
78-83-1	Isobutyl alcohol	U	4460	ug/kg	1490	4460
80-62-6	Methyl methacrylate	U	446	ug/kg	149	446
97-63-2	Ethyl methacrylate	U	446	ug/kg	149	446
76-01-7	Pentachloroethane	U	446	ug/kg	149	446
110-57-6	trans-1,4-Dichloro-2-butene	U	446	ug/kg	149	446
1330-20-7	Xylenes (total)		12900	ug/kg	89.3	268
120-82-1	1,2,4-Trichlorobenzene		3960	ug/kg	29.7	89.3
630-20-6	1,1,1,2-Tetrachloroethane		4450	ug/kg	29.7	89.3

PS

04/05/2024

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA425.D
Acq On : 04 Apr 2024 19:24
Operator : PXY1
InstName : VOAC
Sample : |1205694062|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL MIX[A] 660968001PSD
ALS Vial : 20 Sample Multiplier: 1

MA
04/05/2024

Quant Time: Apr 05 09:45:44 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.897	10.934	1.000	946992	50.00	ug/L	-0.04
43) Chlorobenzene-d5	117	14.323	14.354	1.000	693459	50.00	ug/L	-0.03
60) 1,4-Dichlorobenzene-d4	152	16.896	16.933	1.000	352764	50.00	ug/L	-0.04
84) B Fluorobenzene	96	10.897	10.928	1.000	946873	50.00	ug/L	-0.03
103) B Chlorobenzene-d5	117	14.323	14.348	1.000	693459	50.00	ug/L	-0.02
105) B 1,4-Dichlorobenzene-d4	152	16.896	16.920	1.000	352849	50.00	ug/L	-0.02

System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.507	10.543	0.964	311783	54.37	ug/L	-0.04
45) Toluene-d8	98	12.683	12.714	0.886	965667	53.90	ug/L	-0.03
63) Bromofluorobenzene	95	15.591	15.622	0.923	331523	54.55	ug/L	-0.03

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	77 - 127	109%
45) Toluene-d8	50.000	81 - 120	108%
63) Bromofluorobenzene	50.000	74 - 128	109%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.752	4.782	0.436	290619	55.47	ug/L	99
3) Chloromethane	50	5.166	5.203	0.474	263046	45.09	ug/L	99
4) Vinyl chloride	62	5.386	5.422	0.494	272885	45.39	ug/L	100
5) Bromomethane	94	6.020	6.075	0.552	257316	58.22	ug/L #	3
6) Chloroethane	64	6.142	6.197	0.564	190031	50.27	ug/L	99
7) Trichlorofluoromethane	101	6.587	6.629	0.604	375827	50.83	ug/L	100
8) Ethyl ether	59	6.934	6.971	0.636	182332	46.51	ug/L	90
9) Acetone	43	7.337	7.367	0.673	315316	248.53	ug/L	94
10) 1,1-Dichloroethylene	61	7.349	7.392	0.674	374947	57.09	ug/L	94
11) Iodomethane	142	7.611	7.654	0.698	2263514	253.71	ug/L	94
12) Acetonitrile	41	7.709	7.739	0.707	661394	1313.14	ug/L	100
13) Methyl acetate	43	7.757	7.794	0.712	830750	286.76	ug/L	96
14) Carbon disulfide	76	7.757	7.800	0.712	3958972	299.55	ug/L	100
15) Methylene chloride	84	7.959	8.001	0.730	251112	49.89	ug/L	90
16) tert-Butyl methyl ether	73	8.294	8.330	0.761	685447	49.96	ug/L	99
17) trans-1,2-Dichloroethy...	61	8.337	8.373	0.765	363095	54.88	ug/L	92
18) Hexane	57	8.647	8.690	0.794	244370	36.48	ug/L	93
19) Vinyl acetate	43	8.806	8.849	0.808	2233328	244.31	ug/L	96
20) 1,1-Dichloroethane	63	8.855	8.897	0.813	460930	55.79	ug/L	99
21) 2-Butanone	43	9.489	9.525	0.871	512946	285.60	ug/L	95
22) cis-1,2-Dichloroethylene	61	9.550	9.586	0.876	420174	53.99	ug/L	93
23) 2,2-Dichloropropane	77	9.586	9.623	0.880	349625	53.28	ug/L	87
24) Bromochloromethane	128	9.848	9.885	0.904	138462	46.87	ug/L #	84
25) Chloroform	83	9.885	9.922	0.907	465528	53.82	ug/L	100
26) 1,1,1-Trichloroethane	97	10.196	10.232	0.936	404111	51.53	ug/L	96
27) Cyclohexane	56	10.306	10.342	0.946	415640	53.07	ug/L	97
28) 1,1-Dichloropropene	75	10.367	10.403	0.951	333797	52.27	ug/L #	96
29) Carbon tetrachloride	117	10.409	10.446	0.955	362306	51.60	ug/L	99
31) 1,2-Dichloroethane	62	10.598	10.635	0.973	352509	54.02	ug/L	99
32) Benzene	78	10.629	10.665	0.975	930118	50.16	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA425.D
Acq On : 04 Apr 2024 19:24
Operator : PXY1
InstName : VOAC
Sample : |1205694062|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL MIX[A] 660968001PSD
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 05 09:45:44 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
33) Cyclohexene	67	10.757	10.793	0.987	454099	49.03	ug/L	95
34) n-Butyl alcohol	56	10.988	11.019	1.008	660157	4948.51	ug/L	94
35) Trichloroethylene	95	11.318	11.354	1.039	256879	48.99	ug/L	96
36) 2-Pentanone	43	11.403	11.434	1.046	598702	190.17	ug/L	95
37) 1,2-Dichloropropane	63	11.586	11.616	1.063	249659	52.85	ug/L	88
38) Methylcyclohexane	83	11.598	11.635	1.064	440201	50.10	ug/L	72
39) Dibromomethane	93	11.726	11.763	1.076	157569	50.85	ug/L	91
40) Bromodichloromethane	83	11.848	11.885	1.087	348373	51.94	ug/L	99
41) 2-Chloroethylvinyl ether	63	12.086	12.122	1.109	54499	290.11	ug/L	97
42) cis-1,3-Dichloropropylene	75	12.336	12.372	1.132	397437	50.12	ug/L	92
44) 4-Methyl-2-pentanone	58	12.439	12.470	0.868	405103	287.96	ug/L	86
46) Toluene	91	12.763	12.793	0.891	954121	52.83	ug/L #	100
47) trans-1,3-Dichloroprop...	75	12.921	12.952	0.902	349313	55.07	ug/L	92
48) 1,1,2-Trichloroethane	83	13.159	13.189	0.919	167544	53.69	ug/L	98
49) 2-Hexanone	43	13.348	13.384	0.932	671372	300.63	ug/L	93
50) 1,3-Dichloropropane	76	13.366	13.397	0.933	334033	55.36	ug/L	94
51) Tetrachloroethylene	164	13.403	13.439	0.936	200851	46.36	ug/L	95
52) Dibromochloromethane	129	13.653	13.689	0.953	252074	50.32	ug/L	100
53) 1,2-Dibromoethane	107	13.836	13.872	0.966	209076	52.06	ug/L	100
54) Chlorobenzene	112	14.360	14.390	1.003	618919	49.07	ug/L	97
55) 1,1,1,2-Tetrachloroethane	131	14.415	14.445	1.006	254330	49.80	ug/L	99
56) Ethylbenzene	91	14.427	14.457	1.007	1003440	49.67	ug/L	94
57) m,p-Xylenes	106	14.543	14.573	1.015	768599	94.80	ug/L	94
58) o-Xylene	91	15.000	15.037	1.047	840047	49.44	ug/L	99
59) Styrene	104	15.006	15.037	1.048	634352	47.68	ug/L	95
61) Bromoform	173	15.274	15.305	0.904	155320	50.25	ug/L	93
62) Isopropylbenzene	105	15.384	15.414	0.911	1021380	54.04	ug/L	99
64) 1,1,2,2-Tetrachloroethane	83	15.664	15.695	0.927	248091	57.68	ug/L	99
65) 1,2,3-Trichloropropane	110	15.762	15.792	0.933	75635	55.50	ug/L	92
66) Bromobenzene	156	15.817	15.847	0.936	268356	49.84	ug/L	92
67) n-Propylbenzene	91	15.835	15.866	0.937	1137502	53.42	ug/L	98
68) 1,3,5-Trimethylbenzene	105	15.994	16.024	0.947	865823	52.44	ug/L	99
69) 2-Chlorotoluene	126	15.994	16.024	0.947	245431	51.79	ug/L	91
70) 4-Chlorotoluene	91	16.097	16.128	0.953	639655	49.23	ug/L	97
71) tert-Butylbenzene	134	16.390	16.420	0.970	195899	52.37	ug/L	95
72) 1,2,4-Trimethylbenzene	105	16.433	16.463	0.973	859074	50.78	ug/L	99
73) sec-Butylbenzene	105	16.634	16.664	0.984	1088644	52.31	ug/L	99
74) 4-Isopropyltoluene	119	16.762	16.792	0.992	929417	50.16	ug/L	98
75) 1,3-Dichlorobenzene	146	16.835	16.865	0.996	479320	48.01	ug/L	85
76) 1,4-Dichlorobenzene	146	16.926	16.957	1.002	476342	47.59	ug/L	96
77) n-Butylbenzene	91	17.243	17.280	1.021	811821	50.16	ug/L	98
78) 1,2-Dichlorobenzene	146	17.396	17.432	1.030	495990	50.90	ug/L	98
79) 1,2-Dibromo-3-chloropr...	157	18.353	18.383	1.086	57798	48.13	ug/L	92
80) 1,2,4-Trichlorobenzene	180	19.542	19.578	1.157	358176	44.38	ug/L	100
81) Hexachlorobutadiene	225	19.743	19.780	1.169	199670	42.59	ug/L	92
82) Naphthalene	128	19.975	20.017	1.182	835459	52.53	ug/L	100
83) 1,2,3-Trichlorobenzene	180	20.365	20.401	1.205	347548	46.44	ug/L	96
85) Acrolein		0.000	7.166	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.355	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA425.D
Acq On : 04 Apr 2024 19:24
Operator : PXY1
InstName : VOAC
Sample : |1205694062|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL MIX[A] 660968001PSD
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 05 09:45:44 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE

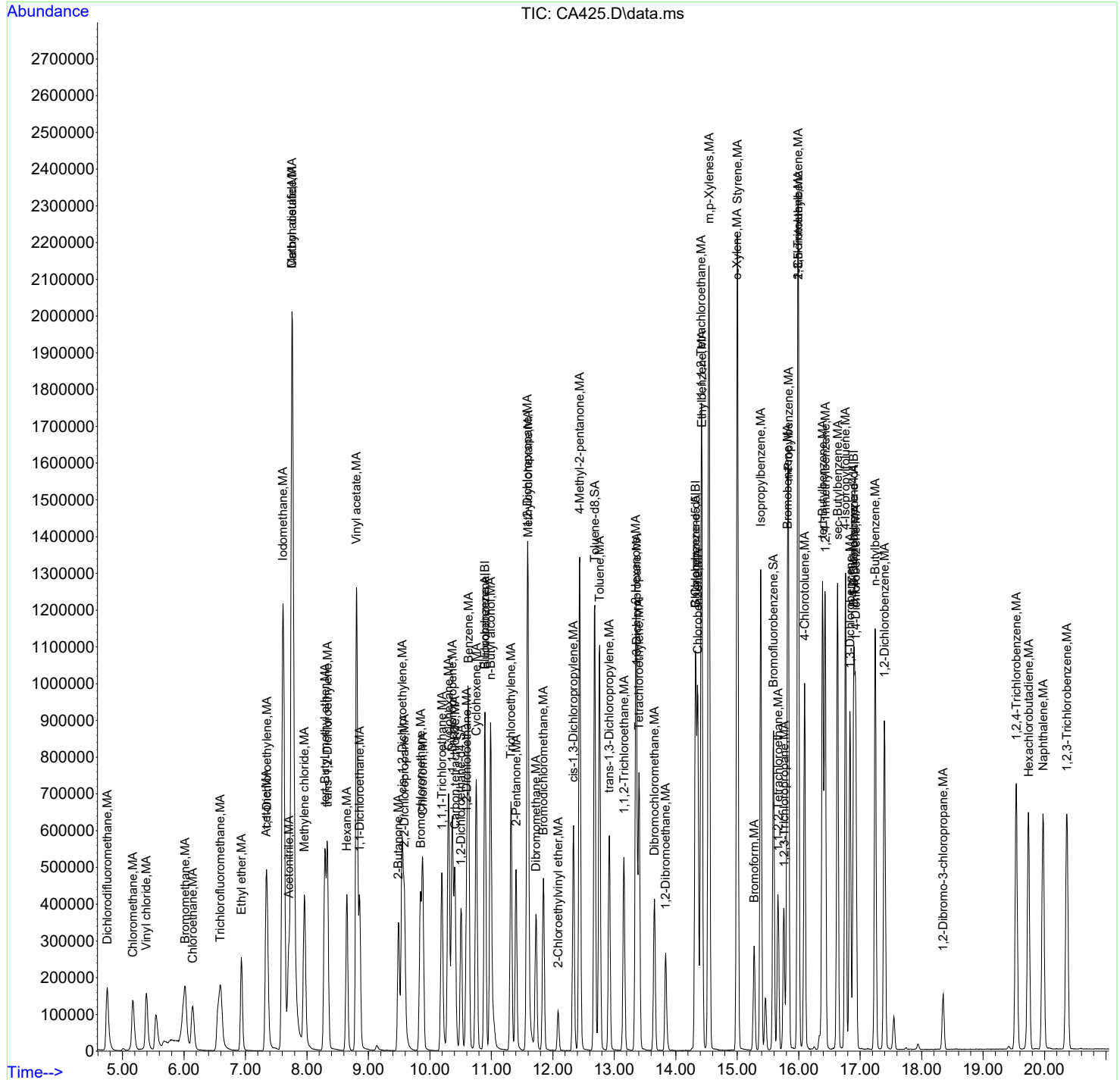
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
87) Isopropyl Alcohol		7.361	7.440	0.676	0m	N.D.	d
88) Allyl chloride		0.000	7.843	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	7.983	0.000	0	N.D.	
90) Acrylonitrile		8.288	8.257	0.761	0m	N.D.	d
91) Isopropyl ether		8.812	8.873	0.809	0m	N.D.	d
92) 2-Chloro-1,3-butadiene		0.000	9.013	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	9.312	0.000	0	N.D.	
94) Ethyl acetate		9.489	9.531	0.871	0m	N.D.	d
95) Propionitrile		0.000	9.592	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.794	0.000	0	N.D.	
97) Tetrahydrofuran		9.897	9.940	0.908	0m	N.D.	d
98) Isobutyl alcohol		10.306	10.263	0.946	0m	N.D.	d
99) Methyl tert-amyl ether		10.623	10.671	0.975	0m	N.D.	d
100) Methyl methacrylate		11.598	11.580	1.064	0m	N.D.	d
101) 1,4-Dioxane		11.726	11.696	1.076	0m	N.D.	d
102) 2-Nitropropane		12.086	12.086	1.109	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.945	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	14.238	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		15.384	15.439	0.911	0m	N.D.	d
108) Cyclohexanone		0.000	15.567	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	15.738	0.000	0	N.D.	
110) Pentachloroethane		16.463	16.487	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	17.073	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		17.548	17.506	1.039	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MassHunter\GCMS\1\data\040424VC\
Data File : CA425.D
Acq On : 04 Apr 2024 19:24
Operator : PXY1
InstName : VOAC
Sample : |1205694062|2591977|50|VOAF|1|VOA8260D_S|
Misc : PERM 5.6G/100UL N/A SOIL MIX[A] 660968001PSD
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 05 09:45:44 2024
Quant Method : D:\MassHunter\GCMS\1\data\031824VC_ICAL\VOAC-031824-8260D.M
Quant Title : Volatile Organics SubList :
QLast Update : Tue Mar 19 09:59:33 2024
Response via : Initial Calibration
Integrator: RTE



Miscellaneous

Prep Logbook

Closed-System Purge-and-Trap Collection and Extraction: Volatile Organics in Soil and Waste Samples

Batch ID: 2591975
 Analyst: Patrick Yib
 Method: SW846 5035

Verified by: _____

Lab SOP: GL-OA-E-039 REV# 13
 Instrument: VOAB-003 OH AUS Balance

Sample ID	Prep Date	Sample Wt (g)	Preservative Volume (mL)	Final Volume (mL)	Prep Factor (mL/g)	Scanned Container
1205694058 LCS	04-APR-2024 08:00:00	5	DI WATER	5	1	NA
1205694059 MB	04-APR-2024 08:01:00	5	DI WATER	5	1	NA
1205694060 HB	04-APR-2024 08:30:00	5	METHANO	10	2	NA
660968001	04-APR-2024 08:31:00	5.6	METHANO	10	1.78571	660968001.01.01
1205694061 PS (660968001)	04-APR-2024 08:31:00	5.6	METHANO	10	1.78571	NA
1205694062 PSD (660968001)	04-APR-2024 08:31:00	5.6	METHANO	10	1.78571	NA
660968002	04-APR-2024 08:32:00	5.5	METHANO	10	1.81818	660968002.01.01
660968003	04-APR-2024 08:33:00	5.9	METHANO	10	1.69492	660968003.01.01
660968004	04-APR-2024 08:34:00	5.8	METHANO	10	1.72414	660968004.01.01
660968005	04-APR-2024 08:35:00	5.8	METHANO	10	1.72414	660968005.01.01
660968006	04-APR-2024 08:36:00	5.9	METHANO	10	1.69492	660968006.01.01
660974001	04-APR-2024 08:37:00	5.6	METHANO	10	1.78571	660974001.01.01
660974002	04-APR-2024 08:38:00	5.7	METHANO	10	1.75439	660974002.01.01
660974003	04-APR-2024 08:39:00	5.9	METHANO	10	1.69492	660974003.01.01
660974004	04-APR-2024 08:40:00	5.8	METHANO	10	1.72414	660974004.01.01
660974005	04-APR-2024 08:41:00	5.8	METHANO	10	1.72414	660974005.01.01
660974006	04-APR-2024 08:42:00	5.5	METHANO	10	1.81818	660974006.01.01

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
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03/18/2024

Date: 3/18/2024 Method 8260/624 Operator: PXY1

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 50

Daily Instrument Readings:
Multiplier Voltage: 1565

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/19/2024

Daily Standard

Volume Added for Purge (ul)

Purge Amount

(See pg. 001-002 for ICAL Std. lds)

CI test lot # 034815B

Sequence Number: 031824VC

Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
BFB	IVM240304-01			1
IS	IVM240315-02	1	1	1
SS	IVM240315-01	1	1	1
ICV[A]	WCVM240318-10		5UL	
ICV[B]	WCVM240318-19		5UL	

5ML Water Purge Vol:
5.0G Soil Purge Wt.
N/A Mid level ext. MeOH Vol:
N/A Methanol Lot #
X Heated Purge

Analysis		Date												Comments	
Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	CI test (Y/N)	Accepta ble(O/X)		
3/18/2024	11:14	CY101.D	IVM240304-01	GEL	BFB	10ML	1	N/A	1	W	PXY1	N/A	O		
3/18/2024	11:39	CY102.D	WCVM240318-01	VSTD0005	ICAL	5UL/5ML	1	N/A	2	W	PXY1	N/A	O	MIX[A] UVM240301-01/UVM231218-01D/UVM231130-01D	
3/18/2024	12:07	CY103.D	WCVM240318-02	VSTD001	ICAL	5UL/5ML	1	N/A	3	W	PXY1	N/A	O	MIX[A] UVM240301-02/UVM231218-02D/UVM231130-02D	
3/18/2024	12:35	CY104.D	WCVM240318-03	VSTD002	ICAL	5UL/5ML	1	N/A	4	W	PXY1	N/A	O	MIX[A] UVM240301-03/UVM231218-03D/UVM231130-03D	
3/18/2024	13:03	CY105.D	WCVM240318-04	VSTD005	ICAL	5UL/5ML	1	N/A	5	W	PXY1	N/A	O	MIX[A] UVM240301-04/UVM231218-04D/UVM231130-04D	
3/18/2024	13:31	CY106.D	WCVM240318-05	VSTD010	ICAL	5UL/5ML	1	N/A	6	W	PXY1	N/A	O	MIX[A] UVM240301-05/UVM231218-05D/UVM231130-05D	
3/18/2024	13:59	CY107.D	WCVM240318-06	VSTD020	ICAL	5UL/5ML	1	N/A	7	W	PXY1	N/A	O	MIX[A] UVM240301-06/UVM231218-06D/UVM231130-06D	
3/18/2024	14:26	CY108.D	WCVM240318-07	VSTD050	ICAL	5UL/5ML	1	N/A	8	W	PXY1	N/A	O	MIX[A] UVM240301-07/UVM231218-07D/UVM231130-07D	
3/18/2024	14:54	CY109.D	WCVM240318-08	VSTD080	ICAL	4UL/5ML	1	N/A	9	W	PXY1	N/A	O	MIX[A] UVM240301-08/UVM231218-08D/UVM231130-08D	
3/18/2024	15:22	CY110.D	WCVM240318-09	VSTD100	ICAL	5UL/5ML	1	N/A	10	W	PXY1	N/A	O	MIX[A] UVM240301-08/UVM231218-08D/UVM231130-08D	
3/18/2024	15:50	CY111.D	BLANK	GEL	IB	5ML	1	N/A	11	W	PXY1	N/A	X	RINSE	
3/18/2024	16:17	CY112.D	WCVM240318-10	GEL	ICV	5UL/5ML	1	N/A	12	W	PXY1	N/A	O	MIX[A] UVM240108-10D/UVM231218-10F/UVM240222-01C	
3/18/2024	16:45	CY113.D	WCVM240318-11	VSTD005	ICAL	5UL/5ML	1	N/A	13	W	PXY1	N/A	O	MIX[B] UVM240226-01A/UVM240215-03	
3/18/2024	17:13	CY114.D	WCVM240318-12	VSTD010	ICAL	5UL/5ML	1	N/A	14	W	PXY1	N/A	O	MIX[B] UVM240226-02A/UVM240215-04	
3/18/2024	17:41	CY115.D	WCVM240318-13	VSTD025	ICAL	5UL/5ML	1	N/A	15	W	PXY1	N/A	O	MIX[B] UVM240226-03A/UVM240215-05	
3/18/2024	18:08	CY116.D	WCVM240318-14	VSTD050	ICAL	5UL/5ML	1	N/A	16	W	PXY1	N/A	O	MIX[B] UVM240226-04A/UVM240215-06	
3/18/2024	18:36	CY117.D	WCVM240318-15	VSTD100	ICAL	5UL/5ML	1	N/A	17	W	PXY1	N/A	O	MIX[B] UVM240226-05A/UVM240215-07	
3/18/2024	19:04	CY118.D	WCVM240318-16	VSTD250	ICAL	5UL/5ML	1	N/A	18	W	PXY1	N/A	O	MIX[B] UVM240226-06A/UVM240215-08	
3/18/2024	19:32	CY119.D	WCVM240318-17	VSTD300	ICAL	3UL/5ML	1	N/A	19	W	PXY1	N/A	O	MIX[B] UVM240226-07A/UVM240215-09	
3/18/2024	20:00	CY120.D	WCVM240318-18	VSTD500	ICAL	5UL/5ML	1	N/A	20	W	PXY1	N/A	O	MIX[B] UVM240226-07A/UVM240215-09	
3/18/2024	20:28	CY121.D	BLANK	GEL	IB	5ML	1	N/A	21	W	PXY1	N/A	X	RINSE	
3/18/2024	20:56	CY122.D	WCVM240318-19	GEL	ICV	5UL/5ML	1	N/A	22	W	PXY1	N/A	O	MIX[B] UVM240226-08C/UVM240314-08A	
3/18/2024	21:24	CY123.D	BLANK	GEL	IB	5ML	1	N/A	23	W	PXY1	N/A	X	RINSE	

04/05/2024
04/05/2024

Date: 4/4/2024 Method 8260/624 Operator: PXY1

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 50

Daily Instrument Readings:
Multiplier Voltage: 1565

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/19/2024
(See pg. 001-002 for ICAL Std. Ids)
Cl test lot # 034815B
Sequence Number: 040424VC

Daily Standard		Volume Added for Purge (ul)			
Solution ID#		Blk/ Smpl	CCV	MS/ LCS	BFB
BFB	IVM240321-01				1
IS	IVM240315-02	1	1	1	
SS	IVM240315-01	1	1	1	
CCV	WCVM240404-01			5UL	
LCS/MS	WCVM240404-01			5UL	
SH CCV	WCVM240404-02			5UL	
SH LCS	WCVM240404-02			5UL	

Purge Amount
5ML Water Purge Vol:
5.0G Soil Purge Wt.
N/A Mid level ext. MeOH Vol:
N/A Methanol Lot #
X Heated Purge

Analysis		Data File	Lab Sample ID	Client	Batch #	Wt.(g) or		Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test Accepta		Comments
Date	Time					Vol(ml/ul)							(Y/N)	ble(O/X)	
4/4/2024	10:37	CA406.D	IVM240321-01	GEL	BFB1	10ML		1	N/A	1	W	PXY1	N/A	O	
4/4/2024	11:02	CA407.D	WCVM240404-01	GEL	CCV/LCS	5G/5ML		1	N/A	2	S	PXY1	N/A	O	SOIL MIX[A] UVM240201-10B/UVM240125-10A/UVM240222-01D
4/4/2024	11:30	CA408.D	WCVM240404-02	GEL	CCV/LCS	5G/5ML		1	N/A	3	S	PXY1	N/A	O	SOIL MIX[B] UVM240226-08D/UVM240314-08B
4/4/2024	11:58	CA409.D	1205	GEL	BLANK	5ML		1	N/A	4	W	PXY1	N/A	X	
4/4/2024	12:26	CA410.D	1205	GEL	BLANK	5G/5ML		1	N/A	5	S	PXY1	N/A	O	SOIL
4/4/2024	12:54	CA411.D	1205694060	GEL	2591977	5.0G/100UL	50	N/A		6	S	PXY1	N/A	O	SOIL HB
4/4/2024	13:22	CA412.D	660968001	PERM	2591977	5.6G/100UL	50	N/A		7	S	PXY1	N/A	O	SOIL
4/4/2024	13:49	CA413.D	660968002	PERM	2591977	5.5G/100UL	50	N/A		8	S	PXY1	N/A	O	SOIL
4/4/2024	14:17	CA414.D	660968003	PERM	2591977	5.9G/100UL	50	N/A		9	S	PXY1	N/A	O	SOIL
4/4/2024	14:45	CA415.D	660968004	PERM	2591977	5.8G/100UL	50	N/A		10	S	PXY1	N/A	O	SOIL
4/4/2024	15:13	CA416.D	660968005	PERM	2591977	5.8G/100UL	50	N/A		11	S	PXY1	N/A	O	SOIL
4/4/2024	15:41	CA417.D	660968006	PERM	2591977	5.9G/100UL	50	N/A		12	S	PXY1	N/A	O	SOIL
4/4/2024	16:09	CA418.D	660974001	PERM	2591977	5.6G/100UL	50	N/A		13	S	PXY1	N/A	O	SOIL
4/4/2024	16:37	CA419.D	660974002	PERM	2591977	5.7G/100UL	50	N/A		14	S	PXY1	N/A	O	SOIL
4/4/2024	17:05	CA420.D	660974003	PERM	2591977	5.9G/100UL	50	N/A		15	S	PXY1	N/A	O	SOIL
4/4/2024	17:32	CA421.D	660974004	PERM	2591977	5.8G/100UL	50	N/A		16	S	PXY1	N/A	O	SOIL
4/4/2024	18:00	CA422.D	660974005	PERM	2591977	5.8G/100UL	50	N/A		17	S	PXY1	N/A	O	SOIL
4/4/2024	18:28	CA423.D	660974006	PERM	2591977	5.5G/100UL	50	N/A		18	S	PXY1	N/A	O	SOIL
4/4/2024	18:56	CA424.D	1205694061	PERM	2591977	5.6G/100UL	50	N/A		19	S	PXY1	N/A	O	SOIL MIX[A] 660968001PS
4/4/2024	19:24	CA425.D	1205694062	PERM	2591977	5.6G/100UL	50	N/A		20	S	PXY1	N/A	O	SOIL MIX[A] 660968001PSD
4/4/2024	19:52	CA426.D	1205	GEL	BLANK	5ML		1	N/A	21	W	PXY1	N/A	X	RINSE
4/4/2024	20:19	CA427.D	1205	GEL	BLANK	5ML		1	N/A	22	W	PXY1	N/A	X	RINSE

Semi-Volatile Analysis

Case Narrative

**GC/MS Semivolatile
Technical Case Narrative
Perma-Fix of Florida
SDG #: 660968**

Product: Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry

Analytical Method: SW846 3541/8270E

Analytical Procedure: GL-OA-E-009 REV# 48

Analytical Batch: 2590892

Preparation Method: SW846 3541

Preparation Procedure: GL-OA-E-066 REV# 9

Preparation Batch: 2590877

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
660968001	12039.B4.Top Front.EPA
660968002	12039.B4.Middle Front.EPA
660968003	12039.B4.Bottom Front.EPA
660968004	12040.B4.Top Back.EPA
660968005	12040.B4.Middle Back.EPA
660968006	12040.B4.Bottom Back.EPA
1205692351	Method Blank (MB)
1205692352	Laboratory Control Sample (LCS)
1205692353	660558002(NonSDG) Matrix Spike (MS)
1205692354	660558002(NonSDG) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

Initial Calibration

The ICV (initial calibration verification) standard recovered above the acceptance criteria for several target analytes. This non-compliance had no adverse impact on the data as the failed analytes were not detected in the associated samples. The data were reported.

Please note that due to software issues at the time of packaging, the Initial Calibration Summary (ICV) forms (Form 07) for samples in this SDG displayed the Maximum Drift 20%, not the Method required 30%. 660968001 (12039.B4.Top Front.EPA), 660968002 (12039.B4.Middle Front.EPA), 660968003 (12039.B4.Bottom Front.EPA), 660968004 (12040.B4.Top Back.EPA), 660968005 (12040.B4.Middle Back.EPA) and 660968006 (12040.B4.Bottom Back.EPA).

CCV Requirements

All Calibration Verification Standards (CCV) did not meet the acceptance criteria as outlined in Method 8270D/E for samples 660968001 (12039.B4.Top Front.EPA), 660968002 (12039.B4.Middle Front.EPA), 660968003 (12039.B4.Bottom Front.EPA), 660968004 (12040.B4.Top Back.EPA), 660968005 (12040.B4.Middle Back.EPA) and 660968006 (12040.B4.Bottom Back.EPA) and the associated QC. However, the method allows for a designated

number of outliers dependent on the requested analyte list. This SDG satisfied the 8270D/E outlier acceptance criteria. If required, a CRDL was analyzed after the CCVs to demonstrate that there is adequate sensitivity to detect the failed compounds at the applicable lower quantitation limit.

Quality Control (QC) Information

Spike Recovery Statement

The MS and MSD (See Below) did not meet spike recovery acceptance criteria. There was a detected presence of bis(2-Ethylhexyl)phthalate above the reporting limits in the un-spike parent sample that caused biased calculated results in the MS and MSD. The data results have been reported.

Sample	Analyte	Value
1205692353 (Non SDG 660558002MS)	bis(2-Ethylhexyl)phthalate	1260* (17%-133%)
1205692354 (Non SDG 660558002MSD)	bis(2-Ethylhexyl)phthalate	675* (17%-133%)

MS/MSD Relative Percent Difference (RPD) Statement

The relative percent differences (RPD) for the MS and MSD, (See Below), were not within the acceptance limits. The failures were attributed to matrix interference. The data were reported.

Sample	Analyte	Value
1205692353MS and 1205692354MSD (Non SDG 660558002)	bis(2-Ethylhexyl)phthalate	RPD 43* (0%-30%)

Miscellaneous Information

Additional Comments

Diphenylamine Statement

Diphenylamine has superseded the reporting of N-Nitroso-diphenylamine. As per the EPA, N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine. Studies of these two compounds at GEL, both independent of each other and together, showed that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine are therefore reported as Diphenylamine on all reports and forms.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report for

PERM001 Perma-Fix of Florida

Client SDG: 660968 GEL Work Order: 660968

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- E Concentration of the target analyte exceeds the instrument calibration range
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- DL Indicates that sample is diluted.
- RA Indicates that sample is re-analyzed without re-extraction.
- RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:



Name: Barbara Bailey

Date: 09 APR 2024

Title: Data Validator

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660968001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 19:44	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.7 g	Final Volume:	1 mL
Data File:	S040424.S\3D0418.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	935	ug/kg	280	935
110-86-1	Pyridine	U	935	ug/kg	280	935
62-53-3	Aniline	U	935	ug/kg	280	935
108-95-2	Phenol	U	935	ug/kg	280	935
111-44-4	bis(2-Chloroethyl) ether	U	935	ug/kg	280	935
95-57-8	2-Chlorophenol	U	935	ug/kg	280	935
541-73-1	1,3-Dichlorobenzene	U	935	ug/kg	280	935
106-46-7	1,4-Dichlorobenzene	U	935	ug/kg	280	935
95-50-1	1,2-Dichlorobenzene	J	315	ug/kg	280	935
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	935	ug/kg	280	935
100-51-6	Benzyl alcohol	U	935	ug/kg	280	935
95-48-7	o-Cresol	U	935	ug/kg	280	935
65794-96-9	m,p-Cresols	U	935	ug/kg	280	935
621-64-7	N-Nitrosodipropylamine	U	935	ug/kg	280	935
67-72-1	Hexachloroethane	U	935	ug/kg	280	935
98-95-3	Nitrobenzene	U	935	ug/kg	280	935
78-59-1	Isophorone	U	935	ug/kg	280	935
88-75-5	2-Nitrophenol	U	935	ug/kg	280	935
105-67-9	2,4-Dimethylphenol	U	935	ug/kg	280	935
111-91-1	bis(2-Chloroethoxy)methane	U	935	ug/kg	280	935
120-83-2	2,4-Dichlorophenol	U	935	ug/kg	280	935
65-85-0	Benzoic acid	U	1870	ug/kg	467	1870
106-47-8	4-Chloroaniline	U	935	ug/kg	280	935
87-68-3	Hexachlorobutadiene	U	935	ug/kg	280	935
59-50-7	4-Chloro-3-methylphenol	U	935	ug/kg	374	935
91-57-6	2-Methylnaphthalene	U	93.5	ug/kg	28.0	93.5
91-20-3	Naphthalene	U	93.5	ug/kg	28.0	93.5
90-12-0	1-Methylnaphthalene	U	93.5	ug/kg	28.0	93.5
77-47-4	Hexachlorocyclopentadiene	U	935	ug/kg	280	935
88-06-2	2,4,6-Trichlorophenol	U	935	ug/kg	280	935
95-95-4	2,4,5-Trichlorophenol	U	935	ug/kg	280	935
91-58-7	2-Chloronaphthalene	U	93.5	ug/kg	28.0	93.5
88-74-4	o-Nitroaniline	U	935	ug/kg	308	935
99-09-2	m-Nitroaniline	U	935	ug/kg	280	935
131-11-3	Dimethylphthalate	U	93.5	ug/kg	28.0	93.5
99-65-0	m-Dinitrobenzene	U	935	ug/kg	280	935
606-20-2	2,6-Dinitrotoluene	U	935	ug/kg	280	935
121-14-2	2,4-Dinitrotoluene	U	935	ug/kg	280	935

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660968001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 19:44	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.7 g	Final Volume:	1 mL
Data File:	S040424.S\3D0418.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	93.5	ug/kg	28.0	93.5
83-32-9	Acenaphthene	U	93.5	ug/kg	28.0	93.5
51-28-5	2,4-Dinitrophenol	U	1870	ug/kg	280	1870
132-64-9	Dibenzofuran	U	935	ug/kg	280	935
58-90-2	2,3,4,6-Tetrachlorophenol	U	935	ug/kg	280	935
84-66-2	Diethylphthalate	U	93.5	ug/kg	28.0	93.5
100-02-7	4-Nitrophenol	U	935	ug/kg	280	935
86-73-7	Fluorene	U	93.5	ug/kg	28.0	93.5
7005-72-3	4-Chlorophenylphenylether	U	935	ug/kg	280	935
100-01-6	p-Nitroaniline	U	935	ug/kg	280	935
534-52-1	2-Methyl-4,6-dinitrophenol	U	935	ug/kg	280	935
122-39-4	Diphenylamine	U	935	ug/kg	280	935
122-66-7	1,2-Diphenylhydrazine	U	935	ug/kg	280	935
101-55-3	4-Bromophenylphenylether	U	935	ug/kg	280	935
118-74-1	Hexachlorobenzene	U	935	ug/kg	280	935
87-86-5	Pentachlorophenol	U	935	ug/kg	280	935
88-85-7	Dinoseb	U	935	ug/kg	280	935
85-01-8	Phenanthrene	U	93.5	ug/kg	28.0	93.5
120-12-7	Anthracene	U	93.5	ug/kg	28.0	93.5
86-74-8	Carbazole	U	93.5	ug/kg	28.0	93.5
84-74-2	Di-n-butylphthalate	U	93.5	ug/kg	28.0	93.5
206-44-0	Fluoranthene	U	93.5	ug/kg	28.0	93.5
129-00-0	Pyrene	U	93.5	ug/kg	28.0	93.5
85-68-7	Butylbenzylphthalate	U	93.5	ug/kg	28.0	93.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	93.5	ug/kg	28.0	93.5
56-55-3	Benzo(a)anthracene	U	93.5	ug/kg	28.0	93.5
218-01-9	Chrysene	U	93.5	ug/kg	28.0	93.5
72-43-5	Methoxychlor	U	935	ug/kg	280	935
117-84-0	Di-n-octylphthalate	U	93.5	ug/kg	28.0	93.5
205-99-2	Benzo(b)fluoranthene	U	93.5	ug/kg	28.0	93.5
207-08-9	Benzo(k)fluoranthene	U	93.5	ug/kg	28.0	93.5
50-32-8	Benzo(a)pyrene	U	93.5	ug/kg	28.0	93.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	93.5	ug/kg	28.0	93.5
53-70-3	Dibenzo(a,h)anthracene	U	93.5	ug/kg	28.0	93.5
191-24-2	Benzo(ghi)perylene	U	93.5	ug/kg	28.0	93.5
123-91-1	1,4-Dioxane	U	935	ug/kg	280	935
80-62-6	Methyl methacrylate	U	935	ug/kg	280	935
97-63-2	Ethyl methacrylate	U	935	ug/kg	280	935

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660968001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 19:44	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.7 g	Final Volume:	1 mL
Data File:	S040424.S\3D0418.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	935	ug/kg	280	935
10595-95-6	N-Nitrosomethylethylamine	U	935	ug/kg	280	935
66-27-3	Methyl methanesulfonate	U	935	ug/kg	280	935
55-18-5	N-Nitrosodiethylamine	U	935	ug/kg	280	935
62-50-0	Ethyl Methanesulfonate	U	935	ug/kg	280	935
76-01-7	Pentachloroethane	U	935	ug/kg	280	935
930-55-2	N-Nitrosopyrrolidine	U	935	ug/kg	280	935
98-86-2	Acetophenone	U	935	ug/kg	280	935
59-89-2	N-Nitrosomorpholine	U	935	ug/kg	280	935
95-53-4	o-Toluidine	U	935	ug/kg	280	935
100-75-4	N-Nitrosopiperidine	U	935	ug/kg	280	935
122-09-8	a,a-Dimethylphenethylamine	U	935	ug/kg	327	935
87-65-0	2,6-Dichlorophenol	U	935	ug/kg	280	935
1888-71-7	Hexachloropropene	U	935	ug/kg	280	935
924-16-3	N-Nitrosodi-n-butylamine	U	935	ug/kg	280	935
94-59-7	Safrole	U	935	ug/kg	280	935
95-94-3	1,2,4,5-Tetrachlorobenzene	U	935	ug/kg	280	935
120-58-1	Isosafrole	U	935	ug/kg	280	935
130-15-4	1,4-Naphthoquinone	U	935	ug/kg	280	935
608-93-5	Pentachlorobenzene	U	935	ug/kg	280	935
134-32-7	1-Naphthylamine	U	935	ug/kg	280	935
91-59-8	2-Naphthylamine	U	935	ug/kg	280	935
99-55-8	5-Nitro-o-toluidine	U	935	ug/kg	280	935
62-44-2	Phenacetin	U	935	ug/kg	280	935
99-35-4	1,3,5-Trinitrobenzene	U	935	ug/kg	280	935
2303-16-4	Diallate	U	935	ug/kg	280	935
92-67-1	4-Aminobiphenyl	U	935	ug/kg	280	935
82-68-8	Pentachloronitrobenzene	U	935	ug/kg	280	935
23950-58-5	Pronamide	U	935	ug/kg	280	935
56-57-5	4-Nitroquinoline-1-oxide	U	935	ug/kg	280	935
91-80-5	Methapyrilene	U	935	ug/kg	280	935
465-73-6	Isodrin	U	935	ug/kg	187	935
140-57-8	Aramite	U	935	ug/kg	280	935
143-50-0	Kepone	U	935	ug/kg	280	935
60-11-7	p-(Dimethylamino)azobenzene	U	935	ug/kg	280	935
510-15-6	Chlorobenzilate	U	935	ug/kg	280	935
119-93-7	3,3'-Dimethylbenzidine	U	935	ug/kg	280	935
53-96-3	2-Acetylaminofluorene	U	935	ug/kg	280	935

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660968001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 19:44	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.7 g	Final Volume:	1 mL
Data File:	S040424.S\3D0418.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	935	ug/kg	280	935
57-97-6	7,12-Dimethylbenz(a)anthracene	U	935	ug/kg	280	935
56-49-5	3-Methylcholanthrene	U	935	ug/kg	280	935
126-68-1	Triethylphosphorothioate	U	935	ug/kg	280	935
297-97-2	Thionazin	U	935	ug/kg	280	935
126-73-8	Tributylphosphate	U	935	ug/kg	280	935
3689-24-5	Sulfotepp	U	935	ug/kg	280	935
298-02-2	Phorate	U	935	ug/kg	280	935
60-51-5	Dimethoate	U	935	ug/kg	280	935
298-04-4	Disulfoton	U	935	ug/kg	280	935
298-00-0	Methyl parathion	U	935	ug/kg	280	935
56-38-2	Parathion	U	935	ug/kg	280	935
52-85-7	Famphur	U	935	ug/kg	280	935
106-50-3	p-Phenylenediamine	U	46700	ug/kg	9350	46700
70-30-4	Hexachlorophene	U	46700	ug/kg	10800	46700
120-82-1	1,2,4-Trichlorobenzene	U	935	ug/kg	280	935

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660968002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:05	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.68 g	Final Volume:	1 mL
Data File:	S040424.S\3D0419.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	936	ug/kg	281	936
110-86-1	Pyridine	U	936	ug/kg	281	936
62-53-3	Aniline	U	936	ug/kg	281	936
108-95-2	Phenol	U	936	ug/kg	281	936
111-44-4	bis(2-Chloroethyl) ether	U	936	ug/kg	281	936
95-57-8	2-Chlorophenol	U	936	ug/kg	281	936
541-73-1	1,3-Dichlorobenzene	U	936	ug/kg	281	936
106-46-7	1,4-Dichlorobenzene	U	936	ug/kg	281	936
95-50-1	1,2-Dichlorobenzene	U	936	ug/kg	281	936
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	936	ug/kg	281	936
100-51-6	Benzyl alcohol	U	936	ug/kg	281	936
95-48-7	o-Cresol	U	936	ug/kg	281	936
65794-96-9	m,p-Cresols	U	936	ug/kg	281	936
621-64-7	N-Nitrosodipropylamine	U	936	ug/kg	281	936
67-72-1	Hexachloroethane	U	936	ug/kg	281	936
98-95-3	Nitrobenzene	U	936	ug/kg	281	936
78-59-1	Isophorone	U	936	ug/kg	281	936
88-75-5	2-Nitrophenol	U	936	ug/kg	281	936
105-67-9	2,4-Dimethylphenol	U	936	ug/kg	281	936
111-91-1	bis(2-Chloroethoxy)methane	U	936	ug/kg	281	936
120-83-2	2,4-Dichlorophenol	U	936	ug/kg	281	936
65-85-0	Benzoic acid	J	1820	ug/kg	468	1870
106-47-8	4-Chloroaniline	U	936	ug/kg	281	936
87-68-3	Hexachlorobutadiene	U	936	ug/kg	281	936
59-50-7	4-Chloro-3-methylphenol	U	936	ug/kg	375	936
91-57-6	2-Methylnaphthalene	U	93.6	ug/kg	28.1	93.6
91-20-3	Naphthalene	U	93.6	ug/kg	28.1	93.6
90-12-0	1-Methylnaphthalene	U	93.6	ug/kg	28.1	93.6
77-47-4	Hexachlorocyclopentadiene	U	936	ug/kg	281	936
88-06-2	2,4,6-Trichlorophenol	U	936	ug/kg	281	936
95-95-4	2,4,5-Trichlorophenol	U	936	ug/kg	281	936
91-58-7	2-Chloronaphthalene	U	93.6	ug/kg	28.1	93.6
88-74-4	o-Nitroaniline	U	936	ug/kg	309	936
99-09-2	m-Nitroaniline	U	936	ug/kg	281	936
131-11-3	Dimethylphthalate	U	93.6	ug/kg	28.1	93.6
99-65-0	m-Dinitrobenzene	U	936	ug/kg	281	936
606-20-2	2,6-Dinitrotoluene	U	936	ug/kg	281	936
121-14-2	2,4-Dinitrotoluene	U	936	ug/kg	281	936

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660968002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:05	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.68 g	Final Volume:	1 mL
Data File:	S040424.S\3D0419.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	93.6	ug/kg	28.1	93.6
83-32-9	Acenaphthene	U	93.6	ug/kg	28.1	93.6
51-28-5	2,4-Dinitrophenol	U	1870	ug/kg	281	1870
132-64-9	Dibenzofuran	U	936	ug/kg	281	936
58-90-2	2,3,4,6-Tetrachlorophenol	U	936	ug/kg	281	936
84-66-2	Diethylphthalate	U	93.6	ug/kg	28.1	93.6
100-02-7	4-Nitrophenol	U	936	ug/kg	281	936
86-73-7	Fluorene	U	93.6	ug/kg	28.1	93.6
7005-72-3	4-Chlorophenylphenylether	U	936	ug/kg	281	936
100-01-6	p-Nitroaniline	U	936	ug/kg	281	936
534-52-1	2-Methyl-4,6-dinitrophenol	U	936	ug/kg	281	936
122-39-4	Diphenylamine	U	936	ug/kg	281	936
122-66-7	1,2-Diphenylhydrazine	U	936	ug/kg	281	936
101-55-3	4-Bromophenylphenylether	U	936	ug/kg	281	936
118-74-1	Hexachlorobenzene	U	936	ug/kg	281	936
87-86-5	Pentachlorophenol	U	936	ug/kg	281	936
88-85-7	Dinoseb	U	936	ug/kg	281	936
85-01-8	Phenanthrene	U	93.6	ug/kg	28.1	93.6
120-12-7	Anthracene	U	93.6	ug/kg	28.1	93.6
86-74-8	Carbazole	U	93.6	ug/kg	28.1	93.6
84-74-2	Di-n-butylphthalate	U	93.6	ug/kg	28.1	93.6
206-44-0	Fluoranthene	U	93.6	ug/kg	28.1	93.6
129-00-0	Pyrene	U	93.6	ug/kg	28.1	93.6
85-68-7	Butylbenzylphthalate	U	93.6	ug/kg	28.1	93.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	93.6	ug/kg	28.1	93.6
56-55-3	Benzo(a)anthracene	U	93.6	ug/kg	28.1	93.6
218-01-9	Chrysene	U	93.6	ug/kg	28.1	93.6
72-43-5	Methoxychlor	U	936	ug/kg	281	936
117-84-0	Di-n-octylphthalate	U	93.6	ug/kg	28.1	93.6
205-99-2	Benzo(b)fluoranthene	U	93.6	ug/kg	28.1	93.6
207-08-9	Benzo(k)fluoranthene	U	93.6	ug/kg	28.1	93.6
50-32-8	Benzo(a)pyrene	U	93.6	ug/kg	28.1	93.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	93.6	ug/kg	28.1	93.6
53-70-3	Dibenzo(a,h)anthracene	U	93.6	ug/kg	28.1	93.6
191-24-2	Benzo(ghi)perylene	U	93.6	ug/kg	28.1	93.6
123-91-1	1,4-Dioxane	U	936	ug/kg	281	936
80-62-6	Methyl methacrylate	U	936	ug/kg	281	936
97-63-2	Ethyl methacrylate	U	936	ug/kg	281	936

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660968002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:05	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.68 g	Final Volume:	1 mL
Data File:	S040424.S\3D0419.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	936	ug/kg	281	936
10595-95-6	N-Nitrosomethylethylamine	U	936	ug/kg	281	936
66-27-3	Methyl methanesulfonate	U	936	ug/kg	281	936
55-18-5	N-Nitrosodiethylamine	U	936	ug/kg	281	936
62-50-0	Ethyl Methanesulfonate	U	936	ug/kg	281	936
76-01-7	Pentachloroethane	U	936	ug/kg	281	936
930-55-2	N-Nitrosopyrrolidine	U	936	ug/kg	281	936
98-86-2	Acetophenone	U	936	ug/kg	281	936
59-89-2	N-Nitrosomorpholine	U	936	ug/kg	281	936
95-53-4	o-Toluidine	U	936	ug/kg	281	936
100-75-4	N-Nitrosopiperidine	U	936	ug/kg	281	936
122-09-8	a,a-Dimethylphenethylamine	U	936	ug/kg	328	936
87-65-0	2,6-Dichlorophenol	U	936	ug/kg	281	936
1888-71-7	Hexachloropropene	U	936	ug/kg	281	936
924-16-3	N-Nitrosodi-n-butylamine	U	936	ug/kg	281	936
94-59-7	Safrole	U	936	ug/kg	281	936
95-94-3	1,2,4,5-Tetrachlorobenzene	U	936	ug/kg	281	936
120-58-1	Isosafrole	U	936	ug/kg	281	936
130-15-4	1,4-Naphthoquinone	U	936	ug/kg	281	936
608-93-5	Pentachlorobenzene	U	936	ug/kg	281	936
134-32-7	1-Naphthylamine	U	936	ug/kg	281	936
91-59-8	2-Naphthylamine	U	936	ug/kg	281	936
99-55-8	5-Nitro-o-toluidine	U	936	ug/kg	281	936
62-44-2	Phenacetin	U	936	ug/kg	281	936
99-35-4	1,3,5-Trinitrobenzene	U	936	ug/kg	281	936
2303-16-4	Diallate	U	936	ug/kg	281	936
92-67-1	4-Aminobiphenyl	U	936	ug/kg	281	936
82-68-8	Pentachloronitrobenzene	U	936	ug/kg	281	936
23950-58-5	Pronamide	U	936	ug/kg	281	936
56-57-5	4-Nitroquinoline-1-oxide	U	936	ug/kg	281	936
91-80-5	Methapyrilene	U	936	ug/kg	281	936
465-73-6	Isodrin	U	936	ug/kg	187	936
140-57-8	Aramite	U	936	ug/kg	281	936
143-50-0	Kepone	U	936	ug/kg	281	936
60-11-7	p-(Dimethylamino)azobenzene	U	936	ug/kg	281	936
510-15-6	Chlorobenzilate	U	936	ug/kg	281	936
119-93-7	3,3'-Dimethylbenzidine	U	936	ug/kg	281	936
53-96-3	2-Acetylaminofluorene	U	936	ug/kg	281	936

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660968002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:05	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.68 g	Final Volume:	1 mL
Data File:	S040424.S\3D0419.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	936	ug/kg	281	936
57-97-6	7,12-Dimethylbenz(a)anthracene	U	936	ug/kg	281	936
56-49-5	3-Methylcholanthrene	U	936	ug/kg	281	936
126-68-1	Triethylphosphorothioate	U	936	ug/kg	281	936
297-97-2	Thionazin	U	936	ug/kg	281	936
126-73-8	Tributylphosphate	U	936	ug/kg	281	936
3689-24-5	Sulfotepp	U	936	ug/kg	281	936
298-02-2	Phorate	U	936	ug/kg	281	936
60-51-5	Dimethoate	U	936	ug/kg	281	936
298-04-4	Disulfoton	U	936	ug/kg	281	936
298-00-0	Methyl parathion	U	936	ug/kg	281	936
56-38-2	Parathion	U	936	ug/kg	281	936
52-85-7	Famphur	U	936	ug/kg	281	936
106-50-3	p-Phenylenediamine	U	46800	ug/kg	9360	46800
70-30-4	Hexachlorophene	U	46800	ug/kg	10900	46800
120-82-1	1,2,4-Trichlorobenzene	U	936	ug/kg	281	936

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660968003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:26	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.66 g	Final Volume:	1 mL
Data File:	S040424.S\3D0420.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	938	ug/kg	281	938
110-86-1	Pyridine	U	938	ug/kg	281	938
62-53-3	Aniline	U	938	ug/kg	281	938
108-95-2	Phenol	U	938	ug/kg	281	938
111-44-4	bis(2-Chloroethyl) ether	U	938	ug/kg	281	938
95-57-8	2-Chlorophenol	U	938	ug/kg	281	938
541-73-1	1,3-Dichlorobenzene	U	938	ug/kg	281	938
106-46-7	1,4-Dichlorobenzene	U	938	ug/kg	281	938
95-50-1	1,2-Dichlorobenzene	U	938	ug/kg	281	938
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	938	ug/kg	281	938
100-51-6	Benzyl alcohol	U	938	ug/kg	281	938
95-48-7	o-Cresol	U	938	ug/kg	281	938
65794-96-9	m,p-Cresols	U	938	ug/kg	281	938
621-64-7	N-Nitrosodipropylamine	U	938	ug/kg	281	938
67-72-1	Hexachloroethane	U	938	ug/kg	281	938
98-95-3	Nitrobenzene	U	938	ug/kg	281	938
78-59-1	Isophorone	U	938	ug/kg	281	938
88-75-5	2-Nitrophenol	U	938	ug/kg	281	938
105-67-9	2,4-Dimethylphenol	U	938	ug/kg	281	938
111-91-1	bis(2-Chloroethoxy)methane	U	938	ug/kg	281	938
120-83-2	2,4-Dichlorophenol	U	938	ug/kg	281	938
65-85-0	Benzoic acid	U	1880	ug/kg	469	1880
106-47-8	4-Chloroaniline	U	938	ug/kg	281	938
87-68-3	Hexachlorobutadiene	U	938	ug/kg	281	938
59-50-7	4-Chloro-3-methylphenol	U	938	ug/kg	375	938
91-57-6	2-Methylnaphthalene	U	93.8	ug/kg	28.1	93.8
91-20-3	Naphthalene	U	93.8	ug/kg	28.1	93.8
90-12-0	1-Methylnaphthalene	U	93.8	ug/kg	28.1	93.8
77-47-4	Hexachlorocyclopentadiene	U	938	ug/kg	281	938
88-06-2	2,4,6-Trichlorophenol	U	938	ug/kg	281	938
95-95-4	2,4,5-Trichlorophenol	U	938	ug/kg	281	938
91-58-7	2-Chloronaphthalene	U	93.8	ug/kg	28.1	93.8
88-74-4	o-Nitroaniline	U	938	ug/kg	310	938
99-09-2	m-Nitroaniline	U	938	ug/kg	281	938
131-11-3	Dimethylphthalate	U	93.8	ug/kg	28.1	93.8
99-65-0	m-Dinitrobenzene	U	938	ug/kg	281	938
606-20-2	2,6-Dinitrotoluene	U	938	ug/kg	281	938
121-14-2	2,4-Dinitrotoluene	U	938	ug/kg	281	938

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660968003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:26	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.66 g	Final Volume:	1 mL
Data File:	S040424.S\3D0420.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	93.8	ug/kg	28.1	93.8
83-32-9	Acenaphthene	U	93.8	ug/kg	28.1	93.8
51-28-5	2,4-Dinitrophenol	U	1880	ug/kg	281	1880
132-64-9	Dibenzofuran	U	938	ug/kg	281	938
58-90-2	2,3,4,6-Tetrachlorophenol	U	938	ug/kg	281	938
84-66-2	Diethylphthalate	U	93.8	ug/kg	28.1	93.8
100-02-7	4-Nitrophenol	U	938	ug/kg	281	938
86-73-7	Fluorene	U	93.8	ug/kg	28.1	93.8
7005-72-3	4-Chlorophenylphenylether	U	938	ug/kg	281	938
100-01-6	p-Nitroaniline	U	938	ug/kg	281	938
534-52-1	2-Methyl-4,6-dinitrophenol	U	938	ug/kg	281	938
122-39-4	Diphenylamine	U	938	ug/kg	281	938
122-66-7	1,2-Diphenylhydrazine	U	938	ug/kg	281	938
101-55-3	4-Bromophenylphenylether	U	938	ug/kg	281	938
118-74-1	Hexachlorobenzene	U	938	ug/kg	281	938
87-86-5	Pentachlorophenol	U	938	ug/kg	281	938
88-85-7	Dinoseb	U	938	ug/kg	281	938
85-01-8	Phenanthrene	U	93.8	ug/kg	28.1	93.8
120-12-7	Anthracene	U	93.8	ug/kg	28.1	93.8
86-74-8	Carbazole	U	93.8	ug/kg	28.1	93.8
84-74-2	Di-n-butylphthalate	U	93.8	ug/kg	28.1	93.8
206-44-0	Fluoranthene	U	93.8	ug/kg	28.1	93.8
129-00-0	Pyrene	U	93.8	ug/kg	28.1	93.8
85-68-7	Butylbenzylphthalate	U	93.8	ug/kg	28.1	93.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	93.8	ug/kg	28.1	93.8
56-55-3	Benzo(a)anthracene	U	93.8	ug/kg	28.1	93.8
218-01-9	Chrysene	U	93.8	ug/kg	28.1	93.8
72-43-5	Methoxychlor	U	938	ug/kg	281	938
117-84-0	Di-n-octylphthalate	U	93.8	ug/kg	28.1	93.8
205-99-2	Benzo(b)fluoranthene	U	93.8	ug/kg	28.1	93.8
207-08-9	Benzo(k)fluoranthene	U	93.8	ug/kg	28.1	93.8
50-32-8	Benzo(a)pyrene	U	93.8	ug/kg	28.1	93.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	93.8	ug/kg	28.1	93.8
53-70-3	Dibenzo(a,h)anthracene	U	93.8	ug/kg	28.1	93.8
191-24-2	Benzo(ghi)perylene	U	93.8	ug/kg	28.1	93.8
123-91-1	1,4-Dioxane	U	938	ug/kg	281	938
80-62-6	Methyl methacrylate	U	938	ug/kg	281	938
97-63-2	Ethyl methacrylate	U	938	ug/kg	281	938

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660968003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:26	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.66 g	Final Volume:	1 mL
Data File:	S040424.S\3D0420.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	938	ug/kg	281	938
10595-95-6	N-Nitrosomethylethylamine	U	938	ug/kg	281	938
66-27-3	Methyl methanesulfonate	U	938	ug/kg	281	938
55-18-5	N-Nitrosodiethylamine	U	938	ug/kg	281	938
62-50-0	Ethyl Methanesulfonate	U	938	ug/kg	281	938
76-01-7	Pentachloroethane	U	938	ug/kg	281	938
930-55-2	N-Nitrosopyrrolidine	U	938	ug/kg	281	938
98-86-2	Acetophenone	U	938	ug/kg	281	938
59-89-2	N-Nitrosomorpholine	U	938	ug/kg	281	938
95-53-4	o-Toluidine	U	938	ug/kg	281	938
100-75-4	N-Nitrosopiperidine	U	938	ug/kg	281	938
122-09-8	a,a-Dimethylphenethylamine	U	938	ug/kg	328	938
87-65-0	2,6-Dichlorophenol	U	938	ug/kg	281	938
1888-71-7	Hexachloropropene	U	938	ug/kg	281	938
924-16-3	N-Nitrosodi-n-butylamine	U	938	ug/kg	281	938
94-59-7	Safrole	U	938	ug/kg	281	938
95-94-3	1,2,4,5-Tetrachlorobenzene	U	938	ug/kg	281	938
120-58-1	Isosafrole	U	938	ug/kg	281	938
130-15-4	1,4-Naphthoquinone	U	938	ug/kg	281	938
608-93-5	Pentachlorobenzene	U	938	ug/kg	281	938
134-32-7	1-Naphthylamine	U	938	ug/kg	281	938
91-59-8	2-Naphthylamine	U	938	ug/kg	281	938
99-55-8	5-Nitro-o-toluidine	U	938	ug/kg	281	938
62-44-2	Phenacetin	U	938	ug/kg	281	938
99-35-4	1,3,5-Trinitrobenzene	U	938	ug/kg	281	938
2303-16-4	Diallate	U	938	ug/kg	281	938
92-67-1	4-Aminobiphenyl	U	938	ug/kg	281	938
82-68-8	Pentachloronitrobenzene	U	938	ug/kg	281	938
23950-58-5	Pronamide	U	938	ug/kg	281	938
56-57-5	4-Nitroquinoline-1-oxide	U	938	ug/kg	281	938
91-80-5	Methapyrilene	U	938	ug/kg	281	938
465-73-6	Isodrin	U	938	ug/kg	188	938
140-57-8	Aramite	U	938	ug/kg	281	938
143-50-0	Kepone	U	938	ug/kg	281	938
60-11-7	p-(Dimethylamino)azobenzene	U	938	ug/kg	281	938
510-15-6	Chlorobenzilate	U	938	ug/kg	281	938
119-93-7	3,3'-Dimethylbenzidine	U	938	ug/kg	281	938
53-96-3	2-Acetylaminofluorene	U	938	ug/kg	281	938

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660968003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:26	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.66 g	Final Volume:	1 mL
Data File:	S040424.S\3D0420.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	938	ug/kg	281	938
57-97-6	7,12-Dimethylbenz(a)anthracene	U	938	ug/kg	281	938
56-49-5	3-Methylcholanthrene	U	938	ug/kg	281	938
126-68-1	Triethylphosphorothioate	U	938	ug/kg	281	938
297-97-2	Thionazin	U	938	ug/kg	281	938
126-73-8	Tributylphosphate	U	938	ug/kg	281	938
3689-24-5	Sulfotepp	U	938	ug/kg	281	938
298-02-2	Phorate	U	938	ug/kg	281	938
60-51-5	Dimethoate	U	938	ug/kg	281	938
298-04-4	Disulfoton	U	938	ug/kg	281	938
298-00-0	Methyl parathion	U	938	ug/kg	281	938
56-38-2	Parathion	U	938	ug/kg	281	938
52-85-7	Famphur	U	938	ug/kg	281	938
106-50-3	p-Phenylenediamine	U	46900	ug/kg	9380	46900
70-30-4	Hexachlorophene	U	46900	ug/kg	10900	46900
120-82-1	1,2,4-Trichlorobenzene	U	938	ug/kg	281	938

Semi-Volatile

Certificate of Analysis

Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660968004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:48	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.28 g	Final Volume:	1 mL
Data File:	S040424.S\3D0421.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	973	ug/kg	292	973
110-86-1	Pyridine	U	973	ug/kg	292	973
62-53-3	Aniline	U	973	ug/kg	292	973
108-95-2	Phenol	U	973	ug/kg	292	973
111-44-4	bis(2-Chloroethyl) ether	U	973	ug/kg	292	973
95-57-8	2-Chlorophenol	U	973	ug/kg	292	973
541-73-1	1,3-Dichlorobenzene	U	973	ug/kg	292	973
106-46-7	1,4-Dichlorobenzene	U	973	ug/kg	292	973
95-50-1	1,2-Dichlorobenzene	U	973	ug/kg	292	973
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	973	ug/kg	292	973
100-51-6	Benzyl alcohol	U	973	ug/kg	292	973
95-48-7	o-Cresol	U	973	ug/kg	292	973
65794-96-9	m,p-Cresols	U	973	ug/kg	292	973
621-64-7	N-Nitrosodipropylamine	U	973	ug/kg	292	973
67-72-1	Hexachloroethane	U	973	ug/kg	292	973
98-95-3	Nitrobenzene	U	973	ug/kg	292	973
78-59-1	Isophorone	U	973	ug/kg	292	973
88-75-5	2-Nitrophenol	U	973	ug/kg	292	973
105-67-9	2,4-Dimethylphenol	U	973	ug/kg	292	973
111-91-1	bis(2-Chloroethoxy)methane	U	973	ug/kg	292	973
120-83-2	2,4-Dichlorophenol	U	973	ug/kg	292	973
65-85-0	Benzoic acid	U	1950	ug/kg	486	1950
106-47-8	4-Chloroaniline	U	973	ug/kg	292	973
87-68-3	Hexachlorobutadiene	U	973	ug/kg	292	973
59-50-7	4-Chloro-3-methylphenol	U	973	ug/kg	389	973
91-57-6	2-Methylnaphthalene	U	97.3	ug/kg	29.2	97.3
91-20-3	Naphthalene	U	97.3	ug/kg	29.2	97.3
90-12-0	1-Methylnaphthalene	U	97.3	ug/kg	29.2	97.3
77-47-4	Hexachlorocyclopentadiene	U	973	ug/kg	292	973
88-06-2	2,4,6-Trichlorophenol	U	973	ug/kg	292	973
95-95-4	2,4,5-Trichlorophenol	U	973	ug/kg	292	973
91-58-7	2-Chloronaphthalene	U	97.3	ug/kg	29.2	97.3
88-74-4	o-Nitroaniline	U	973	ug/kg	321	973
99-09-2	m-Nitroaniline	U	973	ug/kg	292	973
131-11-3	Dimethylphthalate	U	97.3	ug/kg	29.2	97.3
99-65-0	m-Dinitrobenzene	U	973	ug/kg	292	973
606-20-2	2,6-Dinitrotoluene	U	973	ug/kg	292	973
121-14-2	2,4-Dinitrotoluene	U	973	ug/kg	292	973

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660968004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:48	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.28 g	Final Volume:	1 mL
Data File:	S040424.S\3D0421.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	97.3	ug/kg	29.2	97.3
83-32-9	Acenaphthene	U	97.3	ug/kg	29.2	97.3
51-28-5	2,4-Dinitrophenol	U	1950	ug/kg	292	1950
132-64-9	Dibenzofuran	U	973	ug/kg	292	973
58-90-2	2,3,4,6-Tetrachlorophenol	U	973	ug/kg	292	973
84-66-2	Diethylphthalate	U	97.3	ug/kg	29.2	97.3
100-02-7	4-Nitrophenol	U	973	ug/kg	292	973
86-73-7	Fluorene	U	97.3	ug/kg	29.2	97.3
7005-72-3	4-Chlorophenylphenylether	U	973	ug/kg	292	973
100-01-6	p-Nitroaniline	U	973	ug/kg	292	973
534-52-1	2-Methyl-4,6-dinitrophenol	U	973	ug/kg	292	973
122-39-4	Diphenylamine	U	973	ug/kg	292	973
122-66-7	1,2-Diphenylhydrazine	U	973	ug/kg	292	973
101-55-3	4-Bromophenylphenylether	U	973	ug/kg	292	973
118-74-1	Hexachlorobenzene	U	973	ug/kg	292	973
87-86-5	Pentachlorophenol	U	973	ug/kg	292	973
88-85-7	Dinoseb	U	973	ug/kg	292	973
85-01-8	Phenanthrene	U	97.3	ug/kg	29.2	97.3
120-12-7	Anthracene	U	97.3	ug/kg	29.2	97.3
86-74-8	Carbazole	U	97.3	ug/kg	29.2	97.3
84-74-2	Di-n-butylphthalate	U	97.3	ug/kg	29.2	97.3
206-44-0	Fluoranthene	U	97.3	ug/kg	29.2	97.3
129-00-0	Pyrene	U	97.3	ug/kg	29.2	97.3
85-68-7	Butylbenzylphthalate	U	97.3	ug/kg	29.2	97.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	97.3	ug/kg	29.2	97.3
56-55-3	Benzo(a)anthracene	U	97.3	ug/kg	29.2	97.3
218-01-9	Chrysene	U	97.3	ug/kg	29.2	97.3
72-43-5	Methoxychlor	U	973	ug/kg	292	973
117-84-0	Di-n-octylphthalate	U	97.3	ug/kg	29.2	97.3
205-99-2	Benzo(b)fluoranthene	U	97.3	ug/kg	29.2	97.3
207-08-9	Benzo(k)fluoranthene	U	97.3	ug/kg	29.2	97.3
50-32-8	Benzo(a)pyrene	U	97.3	ug/kg	29.2	97.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	97.3	ug/kg	29.2	97.3
53-70-3	Dibenzo(a,h)anthracene	U	97.3	ug/kg	29.2	97.3
191-24-2	Benzo(ghi)perylene	U	97.3	ug/kg	29.2	97.3
123-91-1	1,4-Dioxane	U	973	ug/kg	292	973
80-62-6	Methyl methacrylate	U	973	ug/kg	292	973
97-63-2	Ethyl methacrylate	U	973	ug/kg	292	973

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660968004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:48	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.28 g	Final Volume:	1 mL
Data File:	S040424.S\3D0421.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	973	ug/kg	292	973
10595-95-6	N-Nitrosomethylethylamine	U	973	ug/kg	292	973
66-27-3	Methyl methanesulfonate	U	973	ug/kg	292	973
55-18-5	N-Nitrosodiethylamine	U	973	ug/kg	292	973
62-50-0	Ethyl Methanesulfonate	U	973	ug/kg	292	973
76-01-7	Pentachloroethane	U	973	ug/kg	292	973
930-55-2	N-Nitrosopyrrolidine	U	973	ug/kg	292	973
98-86-2	Acetophenone	U	973	ug/kg	292	973
59-89-2	N-Nitrosomorpholine	U	973	ug/kg	292	973
95-53-4	o-Toluidine	U	973	ug/kg	292	973
100-75-4	N-Nitrosopiperidine	U	973	ug/kg	292	973
122-09-8	a,a-Dimethylphenethylamine	U	973	ug/kg	340	973
87-65-0	2,6-Dichlorophenol	U	973	ug/kg	292	973
1888-71-7	Hexachloropropene	U	973	ug/kg	292	973
924-16-3	N-Nitrosodi-n-butylamine	U	973	ug/kg	292	973
94-59-7	Safrole	U	973	ug/kg	292	973
95-94-3	1,2,4,5-Tetrachlorobenzene	U	973	ug/kg	292	973
120-58-1	Isosafrole	U	973	ug/kg	292	973
130-15-4	1,4-Naphthoquinone	U	973	ug/kg	292	973
608-93-5	Pentachlorobenzene	U	973	ug/kg	292	973
134-32-7	1-Naphthylamine	U	973	ug/kg	292	973
91-59-8	2-Naphthylamine	U	973	ug/kg	292	973
99-55-8	5-Nitro-o-toluidine	U	973	ug/kg	292	973
62-44-2	Phenacetin	U	973	ug/kg	292	973
99-35-4	1,3,5-Trinitrobenzene	U	973	ug/kg	292	973
2303-16-4	Diallate	U	973	ug/kg	292	973
92-67-1	4-Aminobiphenyl	U	973	ug/kg	292	973
82-68-8	Pentachloronitrobenzene	U	973	ug/kg	292	973
23950-58-5	Pronamide	U	973	ug/kg	292	973
56-57-5	4-Nitroquinoline-1-oxide	U	973	ug/kg	292	973
91-80-5	Methapyrilene	U	973	ug/kg	292	973
465-73-6	Isodrin	U	973	ug/kg	195	973
140-57-8	Aramite	U	973	ug/kg	292	973
143-50-0	Kepone	U	973	ug/kg	292	973
60-11-7	p-(Dimethylamino)azobenzene	U	973	ug/kg	292	973
510-15-6	Chlorobenzilate	U	973	ug/kg	292	973
119-93-7	3,3'-Dimethylbenzidine	U	973	ug/kg	292	973
53-96-3	2-Acetylaminofluorene	U	973	ug/kg	292	973

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660968004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:48	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.28 g	Final Volume:	1 mL
Data File:	S040424.S\3D0421.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	973	ug/kg	292	973
57-97-6	7,12-Dimethylbenz(a)anthracene	U	973	ug/kg	292	973
56-49-5	3-Methylcholanthrene	U	973	ug/kg	292	973
126-68-1	Triethylphosphorothioate	U	973	ug/kg	292	973
297-97-2	Thionazin	U	973	ug/kg	292	973
126-73-8	Tributylphosphate	U	973	ug/kg	292	973
3689-24-5	Sulfotepp	U	973	ug/kg	292	973
298-02-2	Phorate	U	973	ug/kg	292	973
60-51-5	Dimethoate	U	973	ug/kg	292	973
298-04-4	Disulfoton	U	973	ug/kg	292	973
298-00-0	Methyl parathion	U	973	ug/kg	292	973
56-38-2	Parathion	U	973	ug/kg	292	973
52-85-7	Famphur	U	973	ug/kg	292	973
106-50-3	p-Phenylenediamine	U	48600	ug/kg	9730	48600
70-30-4	Hexachlorophene	U	48600	ug/kg	11300	48600
120-82-1	1,2,4-Trichlorobenzene	U	973	ug/kg	292	973

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660968005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:09	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.82 g	Final Volume:	1 mL
Data File:	S040424.S\3D0422.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	924	ug/kg	277	924
110-86-1	Pyridine	U	924	ug/kg	277	924
62-53-3	Aniline	U	924	ug/kg	277	924
108-95-2	Phenol	U	924	ug/kg	277	924
111-44-4	bis(2-Chloroethyl) ether	U	924	ug/kg	277	924
95-57-8	2-Chlorophenol	U	924	ug/kg	277	924
541-73-1	1,3-Dichlorobenzene	U	924	ug/kg	277	924
106-46-7	1,4-Dichlorobenzene	U	924	ug/kg	277	924
95-50-1	1,2-Dichlorobenzene	U	924	ug/kg	277	924
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	924	ug/kg	277	924
100-51-6	Benzyl alcohol	U	924	ug/kg	277	924
95-48-7	o-Cresol	U	924	ug/kg	277	924
65794-96-9	m,p-Cresols	U	924	ug/kg	277	924
621-64-7	N-Nitrosodipropylamine	U	924	ug/kg	277	924
67-72-1	Hexachloroethane	U	924	ug/kg	277	924
98-95-3	Nitrobenzene	U	924	ug/kg	277	924
78-59-1	Isophorone	U	924	ug/kg	277	924
88-75-5	2-Nitrophenol	U	924	ug/kg	277	924
105-67-9	2,4-Dimethylphenol	U	924	ug/kg	277	924
111-91-1	bis(2-Chloroethoxy)methane	U	924	ug/kg	277	924
120-83-2	2,4-Dichlorophenol	U	924	ug/kg	277	924
65-85-0	Benzoic acid	U	1850	ug/kg	462	1850
106-47-8	4-Chloroaniline	U	924	ug/kg	277	924
87-68-3	Hexachlorobutadiene	U	924	ug/kg	277	924
59-50-7	4-Chloro-3-methylphenol	U	924	ug/kg	370	924
91-57-6	2-Methylnaphthalene	U	92.4	ug/kg	27.7	92.4
91-20-3	Naphthalene	U	92.4	ug/kg	27.7	92.4
90-12-0	1-Methylnaphthalene	U	92.4	ug/kg	27.7	92.4
77-47-4	Hexachlorocyclopentadiene	U	924	ug/kg	277	924
88-06-2	2,4,6-Trichlorophenol	U	924	ug/kg	277	924
95-95-4	2,4,5-Trichlorophenol	U	924	ug/kg	277	924
91-58-7	2-Chloronaphthalene	U	92.4	ug/kg	27.7	92.4
88-74-4	o-Nitroaniline	U	924	ug/kg	305	924
99-09-2	m-Nitroaniline	U	924	ug/kg	277	924
131-11-3	Dimethylphthalate	U	92.4	ug/kg	27.7	92.4
99-65-0	m-Dinitrobenzene	U	924	ug/kg	277	924
606-20-2	2,6-Dinitrotoluene	U	924	ug/kg	277	924
121-14-2	2,4-Dinitrotoluene	U	924	ug/kg	277	924

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660968005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:09	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.82 g	Final Volume:	1 mL
Data File:	S040424.S\3D0422.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	92.4	ug/kg	27.7	92.4
83-32-9	Acenaphthene	U	92.4	ug/kg	27.7	92.4
51-28-5	2,4-Dinitrophenol	U	1850	ug/kg	277	1850
132-64-9	Dibenzofuran	U	924	ug/kg	277	924
58-90-2	2,3,4,6-Tetrachlorophenol	U	924	ug/kg	277	924
84-66-2	Diethylphthalate	U	92.4	ug/kg	27.7	92.4
100-02-7	4-Nitrophenol	U	924	ug/kg	277	924
86-73-7	Fluorene	U	92.4	ug/kg	27.7	92.4
7005-72-3	4-Chlorophenylphenylether	U	924	ug/kg	277	924
100-01-6	p-Nitroaniline	U	924	ug/kg	277	924
534-52-1	2-Methyl-4,6-dinitrophenol	U	924	ug/kg	277	924
122-39-4	Diphenylamine	U	924	ug/kg	277	924
122-66-7	1,2-Diphenylhydrazine	U	924	ug/kg	277	924
101-55-3	4-Bromophenylphenylether	U	924	ug/kg	277	924
118-74-1	Hexachlorobenzene	U	924	ug/kg	277	924
87-86-5	Pentachlorophenol	U	924	ug/kg	277	924
88-85-7	Dinoseb	U	924	ug/kg	277	924
85-01-8	Phenanthrene	U	92.4	ug/kg	27.7	92.4
120-12-7	Anthracene	U	92.4	ug/kg	27.7	92.4
86-74-8	Carbazole	U	92.4	ug/kg	27.7	92.4
84-74-2	Di-n-butylphthalate	U	92.4	ug/kg	27.7	92.4
206-44-0	Fluoranthene	U	92.4	ug/kg	27.7	92.4
129-00-0	Pyrene	U	92.4	ug/kg	27.7	92.4
85-68-7	Butylbenzylphthalate	U	92.4	ug/kg	27.7	92.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	92.4	ug/kg	27.7	92.4
56-55-3	Benzo(a)anthracene	U	92.4	ug/kg	27.7	92.4
218-01-9	Chrysene	U	92.4	ug/kg	27.7	92.4
72-43-5	Methoxychlor	U	924	ug/kg	277	924
117-84-0	Di-n-octylphthalate	U	92.4	ug/kg	27.7	92.4
205-99-2	Benzo(b)fluoranthene	U	92.4	ug/kg	27.7	92.4
207-08-9	Benzo(k)fluoranthene	U	92.4	ug/kg	27.7	92.4
50-32-8	Benzo(a)pyrene	U	92.4	ug/kg	27.7	92.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	92.4	ug/kg	27.7	92.4
53-70-3	Dibenzo(a,h)anthracene	U	92.4	ug/kg	27.7	92.4
191-24-2	Benzo(ghi)perylene	U	92.4	ug/kg	27.7	92.4
123-91-1	1,4-Dioxane	U	924	ug/kg	277	924
80-62-6	Methyl methacrylate	U	924	ug/kg	277	924
97-63-2	Ethyl methacrylate	U	924	ug/kg	277	924

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660968005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:09	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.82 g	Final Volume:	1 mL
Data File:	S040424.S\3D0422.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	924	ug/kg	277	924
10595-95-6	N-Nitrosomethylethylamine	U	924	ug/kg	277	924
66-27-3	Methyl methanesulfonate	U	924	ug/kg	277	924
55-18-5	N-Nitrosodiethylamine	U	924	ug/kg	277	924
62-50-0	Ethyl Methanesulfonate	U	924	ug/kg	277	924
76-01-7	Pentachloroethane	U	924	ug/kg	277	924
930-55-2	N-Nitrosopyrrolidine	U	924	ug/kg	277	924
98-86-2	Acetophenone	U	924	ug/kg	277	924
59-89-2	N-Nitrosomorpholine	U	924	ug/kg	277	924
95-53-4	o-Toluidine	U	924	ug/kg	277	924
100-75-4	N-Nitrosopiperidine	U	924	ug/kg	277	924
122-09-8	a,a-Dimethylphenethylamine	U	924	ug/kg	323	924
87-65-0	2,6-Dichlorophenol	U	924	ug/kg	277	924
1888-71-7	Hexachloropropene	U	924	ug/kg	277	924
924-16-3	N-Nitrosodi-n-butylamine	U	924	ug/kg	277	924
94-59-7	Safrole	U	924	ug/kg	277	924
95-94-3	1,2,4,5-Tetrachlorobenzene	U	924	ug/kg	277	924
120-58-1	Isosafrole	U	924	ug/kg	277	924
130-15-4	1,4-Naphthoquinone	U	924	ug/kg	277	924
608-93-5	Pentachlorobenzene	U	924	ug/kg	277	924
134-32-7	1-Naphthylamine	U	924	ug/kg	277	924
91-59-8	2-Naphthylamine	U	924	ug/kg	277	924
99-55-8	5-Nitro-o-toluidine	U	924	ug/kg	277	924
62-44-2	Phenacetin	U	924	ug/kg	277	924
99-35-4	1,3,5-Trinitrobenzene	U	924	ug/kg	277	924
2303-16-4	Diallate	U	924	ug/kg	277	924
92-67-1	4-Aminobiphenyl	U	924	ug/kg	277	924
82-68-8	Pentachloronitrobenzene	U	924	ug/kg	277	924
23950-58-5	Pronamide	U	924	ug/kg	277	924
56-57-5	4-Nitroquinoline-1-oxide	U	924	ug/kg	277	924
91-80-5	Methapyrilene	U	924	ug/kg	277	924
465-73-6	Isodrin	U	924	ug/kg	185	924
140-57-8	Aramite	U	924	ug/kg	277	924
143-50-0	Kepone	U	924	ug/kg	277	924
60-11-7	p-(Dimethylamino)azobenzene	U	924	ug/kg	277	924
510-15-6	Chlorobenzilate	U	924	ug/kg	277	924
119-93-7	3,3'-Dimethylbenzidine	U	924	ug/kg	277	924
53-96-3	2-Acetylaminofluorene	U	924	ug/kg	277	924

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660968005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:09	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.82 g	Final Volume:	1 mL
Data File:	S040424.S\3D0422.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	924	ug/kg	277	924
57-97-6	7,12-Dimethylbenz(a)anthracene	U	924	ug/kg	277	924
56-49-5	3-Methylcholanthrene	U	924	ug/kg	277	924
126-68-1	Triethylphosphorothioate	U	924	ug/kg	277	924
297-97-2	Thionazin	U	924	ug/kg	277	924
126-73-8	Tributylphosphate	U	924	ug/kg	277	924
3689-24-5	Sulfotepp	U	924	ug/kg	277	924
298-02-2	Phorate	U	924	ug/kg	277	924
60-51-5	Dimethoate	U	924	ug/kg	277	924
298-04-4	Disulfoton	U	924	ug/kg	277	924
298-00-0	Methyl parathion	U	924	ug/kg	277	924
56-38-2	Parathion	U	924	ug/kg	277	924
52-85-7	Famphur	U	924	ug/kg	277	924
106-50-3	p-Phenylenediamine	U	46200	ug/kg	9240	46200
70-30-4	Hexachlorophene	U	46200	ug/kg	10700	46200
120-82-1	1,2,4-Trichlorobenzene	U	924	ug/kg	277	924

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660968006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.69 g	Final Volume:	1 mL
Data File:	S040424.S\3D0423.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	935	ug/kg	281	935
110-86-1	Pyridine	U	935	ug/kg	281	935
62-53-3	Aniline	U	935	ug/kg	281	935
108-95-2	Phenol	U	935	ug/kg	281	935
111-44-4	bis(2-Chloroethyl) ether	U	935	ug/kg	281	935
95-57-8	2-Chlorophenol	U	935	ug/kg	281	935
541-73-1	1,3-Dichlorobenzene	U	935	ug/kg	281	935
106-46-7	1,4-Dichlorobenzene	U	935	ug/kg	281	935
95-50-1	1,2-Dichlorobenzene	U	935	ug/kg	281	935
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	935	ug/kg	281	935
100-51-6	Benzyl alcohol	U	935	ug/kg	281	935
95-48-7	o-Cresol	U	935	ug/kg	281	935
65794-96-9	m,p-Cresols	U	935	ug/kg	281	935
621-64-7	N-Nitrosodipropylamine	U	935	ug/kg	281	935
67-72-1	Hexachloroethane	U	935	ug/kg	281	935
98-95-3	Nitrobenzene	U	935	ug/kg	281	935
78-59-1	Isophorone	U	935	ug/kg	281	935
88-75-5	2-Nitrophenol	U	935	ug/kg	281	935
105-67-9	2,4-Dimethylphenol	U	935	ug/kg	281	935
111-91-1	bis(2-Chloroethoxy)methane	U	935	ug/kg	281	935
120-83-2	2,4-Dichlorophenol	U	935	ug/kg	281	935
65-85-0	Benzoic acid	U	1870	ug/kg	468	1870
106-47-8	4-Chloroaniline	U	935	ug/kg	281	935
87-68-3	Hexachlorobutadiene	U	935	ug/kg	281	935
59-50-7	4-Chloro-3-methylphenol	U	935	ug/kg	374	935
91-57-6	2-Methylnaphthalene	U	93.5	ug/kg	28.1	93.5
91-20-3	Naphthalene	U	93.5	ug/kg	28.1	93.5
90-12-0	1-Methylnaphthalene	U	93.5	ug/kg	28.1	93.5
77-47-4	Hexachlorocyclopentadiene	U	935	ug/kg	281	935
88-06-2	2,4,6-Trichlorophenol	U	935	ug/kg	281	935
95-95-4	2,4,5-Trichlorophenol	U	935	ug/kg	281	935
91-58-7	2-Chloronaphthalene	U	93.5	ug/kg	28.1	93.5
88-74-4	o-Nitroaniline	U	935	ug/kg	309	935
99-09-2	m-Nitroaniline	U	935	ug/kg	281	935
131-11-3	Dimethylphthalate	U	93.5	ug/kg	28.1	93.5
99-65-0	m-Dinitrobenzene	U	935	ug/kg	281	935
606-20-2	2,6-Dinitrotoluene	U	935	ug/kg	281	935
121-14-2	2,4-Dinitrotoluene	U	935	ug/kg	281	935

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660968006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.69 g	Final Volume:	1 mL
Data File:	S040424.S\3D0423.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	93.5	ug/kg	28.1	93.5
83-32-9	Acenaphthene	U	93.5	ug/kg	28.1	93.5
51-28-5	2,4-Dinitrophenol	U	1870	ug/kg	281	1870
132-64-9	Dibenzofuran	U	935	ug/kg	281	935
58-90-2	2,3,4,6-Tetrachlorophenol	U	935	ug/kg	281	935
84-66-2	Diethylphthalate	U	93.5	ug/kg	28.1	93.5
100-02-7	4-Nitrophenol	U	935	ug/kg	281	935
86-73-7	Fluorene	U	93.5	ug/kg	28.1	93.5
7005-72-3	4-Chlorophenylphenylether	U	935	ug/kg	281	935
100-01-6	p-Nitroaniline	U	935	ug/kg	281	935
534-52-1	2-Methyl-4,6-dinitrophenol	U	935	ug/kg	281	935
122-39-4	Diphenylamine	U	935	ug/kg	281	935
122-66-7	1,2-Diphenylhydrazine	U	935	ug/kg	281	935
101-55-3	4-Bromophenylphenylether	U	935	ug/kg	281	935
118-74-1	Hexachlorobenzene	U	935	ug/kg	281	935
87-86-5	Pentachlorophenol	U	935	ug/kg	281	935
88-85-7	Dinoseb	U	935	ug/kg	281	935
85-01-8	Phenanthrene	U	93.5	ug/kg	28.1	93.5
120-12-7	Anthracene	U	93.5	ug/kg	28.1	93.5
86-74-8	Carbazole	U	93.5	ug/kg	28.1	93.5
84-74-2	Di-n-butylphthalate	U	93.5	ug/kg	28.1	93.5
206-44-0	Fluoranthene	U	93.5	ug/kg	28.1	93.5
129-00-0	Pyrene	U	93.5	ug/kg	28.1	93.5
85-68-7	Butylbenzylphthalate	U	93.5	ug/kg	28.1	93.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	93.5	ug/kg	28.1	93.5
56-55-3	Benzo(a)anthracene	U	93.5	ug/kg	28.1	93.5
218-01-9	Chrysene	U	93.5	ug/kg	28.1	93.5
72-43-5	Methoxychlor	U	935	ug/kg	281	935
117-84-0	Di-n-octylphthalate	U	93.5	ug/kg	28.1	93.5
205-99-2	Benzo(b)fluoranthene	U	93.5	ug/kg	28.1	93.5
207-08-9	Benzo(k)fluoranthene	U	93.5	ug/kg	28.1	93.5
50-32-8	Benzo(a)pyrene	U	93.5	ug/kg	28.1	93.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	93.5	ug/kg	28.1	93.5
53-70-3	Dibenzo(a,h)anthracene	U	93.5	ug/kg	28.1	93.5
191-24-2	Benzo(ghi)perylene	U	93.5	ug/kg	28.1	93.5
123-91-1	1,4-Dioxane	U	935	ug/kg	281	935
80-62-6	Methyl methacrylate	U	935	ug/kg	281	935
97-63-2	Ethyl methacrylate	U	935	ug/kg	281	935

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660968006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.69 g	Final Volume:	1 mL
Data File:	S040424.S\3D0423.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	935	ug/kg	281	935
10595-95-6	N-Nitrosomethylethylamine	U	935	ug/kg	281	935
66-27-3	Methyl methanesulfonate	U	935	ug/kg	281	935
55-18-5	N-Nitrosodiethylamine	U	935	ug/kg	281	935
62-50-0	Ethyl Methanesulfonate	U	935	ug/kg	281	935
76-01-7	Pentachloroethane	U	935	ug/kg	281	935
930-55-2	N-Nitrosopyrrolidine	U	935	ug/kg	281	935
98-86-2	Acetophenone	U	935	ug/kg	281	935
59-89-2	N-Nitrosomorpholine	U	935	ug/kg	281	935
95-53-4	o-Toluidine	U	935	ug/kg	281	935
100-75-4	N-Nitrosopiperidine	U	935	ug/kg	281	935
122-09-8	a,a-Dimethylphenethylamine	U	935	ug/kg	327	935
87-65-0	2,6-Dichlorophenol	U	935	ug/kg	281	935
1888-71-7	Hexachloropropene	U	935	ug/kg	281	935
924-16-3	N-Nitrosodi-n-butylamine	U	935	ug/kg	281	935
94-59-7	Safrole	U	935	ug/kg	281	935
95-94-3	1,2,4,5-Tetrachlorobenzene	U	935	ug/kg	281	935
120-58-1	Isosafrole	U	935	ug/kg	281	935
130-15-4	1,4-Naphthoquinone	U	935	ug/kg	281	935
608-93-5	Pentachlorobenzene	U	935	ug/kg	281	935
134-32-7	1-Naphthylamine	U	935	ug/kg	281	935
91-59-8	2-Naphthylamine	U	935	ug/kg	281	935
99-55-8	5-Nitro-o-toluidine	U	935	ug/kg	281	935
62-44-2	Phenacetin	U	935	ug/kg	281	935
99-35-4	1,3,5-Trinitrobenzene	U	935	ug/kg	281	935
2303-16-4	Diallate	U	935	ug/kg	281	935
92-67-1	4-Aminobiphenyl	U	935	ug/kg	281	935
82-68-8	Pentachloronitrobenzene	U	935	ug/kg	281	935
23950-58-5	Pronamide	U	935	ug/kg	281	935
56-57-5	4-Nitroquinoline-1-oxide	U	935	ug/kg	281	935
91-80-5	Methapyrilene	U	935	ug/kg	281	935
465-73-6	Isodrin	U	935	ug/kg	187	935
140-57-8	Aramite	U	935	ug/kg	281	935
143-50-0	Kepone	U	935	ug/kg	281	935
60-11-7	p-(Dimethylamino)azobenzene	U	935	ug/kg	281	935
510-15-6	Chlorobenzilate	U	935	ug/kg	281	935
119-93-7	3,3'-Dimethylbenzidine	U	935	ug/kg	281	935
53-96-3	2-Acetylaminofluorene	U	935	ug/kg	281	935

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660968006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.69 g	Final Volume:	1 mL
Data File:	S040424.S\3D0423.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	935	ug/kg	281	935
57-97-6	7,12-Dimethylbenz(a)anthracene	U	935	ug/kg	281	935
56-49-5	3-Methylcholanthrene	U	935	ug/kg	281	935
126-68-1	Triethylphosphorothioate	U	935	ug/kg	281	935
297-97-2	Thionazin	U	935	ug/kg	281	935
126-73-8	Tributylphosphate	U	935	ug/kg	281	935
3689-24-5	Sulfotepp	U	935	ug/kg	281	935
298-02-2	Phorate	U	935	ug/kg	281	935
60-51-5	Dimethoate	U	935	ug/kg	281	935
298-04-4	Disulfoton	U	935	ug/kg	281	935
298-00-0	Methyl parathion	U	935	ug/kg	281	935
56-38-2	Parathion	U	935	ug/kg	281	935
52-85-7	Famphur	U	935	ug/kg	281	935
106-50-3	p-Phenylenediamine	U	46800	ug/kg	9350	46800
70-30-4	Hexachlorophene	U	46800	ug/kg	10900	46800
120-82-1	1,2,4-Trichlorobenzene	U	935	ug/kg	281	935

Quality Control Summary

SDG Number: 660968
Matrix Type: SOLID

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1205692351	MB for batch 2590877	78	81	69	72	77	90
1205692352	LCS for batch 2590877	77	82	69	70	83	89
1205692353	Y12EU4RS-68B(660558002MS)	62	68	57	59	71	66
1205692354	Y12EU4RS-68B(660558002MSD)	61	67	58	59	71	66
660968001	12039.B4.Top Front.EPA	76	80	70	72	81	88
660968002	12039.B4.Middle Front.EPA	80	84	72	76	82	92
660968003	12039.B4.Bottom Front.EPA	83	89	74	76	81	94
660968004	12040.B4.Top Back.EPA	73	76	66	69	75	86
660968005	12040.B4.Middle Back.EPA	70	73	63	65	70	82
660968006	12040.B4.Bottom Back.EPA	80	84	73	76	80	90

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol	(23%-108%)
PHL = Phenol-d5	(24%-117%)
NBZ = Nitrobenzene-d5	(23%-109%)
FBP = 2-Fluorobiphenyl	(22%-120%)
TBP = 2,4,6-Tribromophenol	(20%-130%)
TPH = p-Terphenyl-d14	(22%-130%)
* Recovery outside Acceptance Limits	
# Column to be used to flag recovery values	
D Sample Diluted	

Quality Control Summary
Spike Recovery Report

SDG Number: 660968

Client ID: LCS for batch 2590877

Lab Sample ID: 1205692352

Instrument: MSD3.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample

Matrix: MISC SOLID

Analysis Date: 04/04/2024 15:46

Dilution: 1

Prep Batch ID:2590877

Batch ID: 2590892

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS N-Methyl-N-nitrosomethylamine	4690	0.0	3710	79	39-100
110-86-1	LCS Pyridine	4690	0.0	2930	63	32-69
62-53-3	LCS Aniline	4690	0.0	3180	68	35-91
108-95-2	LCS Phenol	4690	0.0	4120	88	47-108
111-44-4	LCS bis(2-Chloroethyl) ether	4690	0.0	3910	83	45-99
95-57-8	LCS 2-Chlorophenol	4690	0.0	4050	87	52-106
541-73-1	LCS 1,3-Dichlorobenzene	4690	0.0	3510	75	44-91
106-46-7	LCS 1,4-Dichlorobenzene	4690	0.0	3550	76	42-96
95-50-1	LCS 1,2-Dichlorobenzene	4690	0.0	3720	79	44-96
108-60-1	LCS bis(2-Chloro-1-methylethyl)ether	4690	0.0	3750	80	35-110
100-51-6	LCS Benzyl alcohol	4690	0.0	4190	89	42-116
95-48-7	LCS o-Cresol	4690	0.0	3970	85	50-109
65794-96-9	LCS m,p-Cresols	4690	0.0	4080	87	48-115
621-64-7	LCS N-Nitrosodipropylamine	4690	0.0	4100	88	43-109
67-72-1	LCS Hexachloroethane	4690	0.0	3550	76	42-94
98-95-3	LCS Nitrobenzene	4690	0.0	3740	80	48-102
78-59-1	LCS Isophorone	4690	0.0	3820	81	48-104
88-75-5	LCS 2-Nitrophenol	4690	0.0	3880	83	50-109
105-67-9	LCS 2,4-Dimethylphenol	4690	0.0	2740	58	44-97
111-91-1	LCS bis(2-Chloroethoxy)methane	4690	0.0	3950	84	49-101
120-83-2	LCS 2,4-Dichlorophenol	4690	0.0	4060	87	55-115
65-85-0	LCS Benzoic acid	9370	0.0	4860	52	20-108

Quality Control Summary
Spike Recovery Report

SDG Number: 660968

Client ID: LCS for batch 2590877

Lab Sample ID: 1205692352

Instrument: MSD3.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample

Matrix: MISC SOLID

Analysis Date: 04/04/2024 15:46

Dilution: 1

Prep Batch ID:2590877

Batch ID: 2590892

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
106-47-8	LCS 4-Chloroaniline	4690	0.0	3460	74	36-85
87-68-3	LCS Hexachlorobutadiene	4690	0.0	3590	77	46-108
59-50-7	LCS 4-Chloro-3-methylphenol	4690	0.0	4360	93	56-118
91-57-6	LCS 2-Methylnaphthalene	4690	0.0	3880	83	49-99
91-20-3	LCS Naphthalene	4690	0.0	3790	81	49-98
90-12-0	LCS 1-Methylnaphthalene	4690	0.0	4090	87	51-104
77-47-4	LCS Hexachlorocyclopentadiene	4690	0.0	1900	40	26-82
88-06-2	LCS 2,4,6-Trichlorophenol	4690	0.0	4020	86	54-123
95-95-4	LCS 2,4,5-Trichlorophenol	4690	0.0	4330	92	55-123
91-58-7	LCS 2-Chloronaphthalene	4690	0.0	3870	83	48-105
88-74-4	LCS o-Nitroaniline	4690	0.0	4190	89	47-122
99-09-2	LCS m-Nitroaniline	4690	0.0	3830	82	39-111
131-11-3	LCS Dimethylphthalate	4690	0.0	4370	93	56-116
606-20-2	LCS 2,6-Dinitrotoluene	4690	0.0	4160	89	54-117
121-14-2	LCS 2,4-Dinitrotoluene	4690	0.0	4520	96	52-123
208-96-8	LCS Acenaphthylene	4690	0.0	3860	82	50-102
83-32-9	LCS Acenaphthene	4690	0.0	4010	86	50-103
51-28-5	LCS 2,4-Dinitrophenol	4690	0.0	3100	66	22-89
132-64-9	LCS Dibenzofuran	4690	0.0	4080	87	55-112
58-90-2	LCS 2,3,4,6-Tetrachlorophenol	4690	0.0	3910	84	49-125
84-66-2	LCS Diethylphthalate	4690	0.0	4660	99	56-120
100-02-7	LCS 4-Nitrophenol	4690	0.0	4530	97	37-134

Semi-Volatile
Quality Control Summary
Spike Recovery Report

Page 3 of 4

SDG Number: 660968

Client ID: LCS for batch 2590877

Lab Sample ID: 1205692352

Instrument: MSD3.I

Analyst: LL2

Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample

Matrix: MISC SOLID

Analysis Date: 04/04/2024 15:46

Dilution: 1

Prep Batch ID: 2590877

Batch ID: 2590892

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS Fluorene	4690	0.0	4220	90	52-113
7005-72-3	LCS 4-Chlorophenylphenylether	4690	0.0	4240	90	52-119
100-01-6	LCS p-Nitroaniline	4690	0.0	4400	94	35-146
534-52-1	LCS 2-Methyl-4,6-dinitrophenol	4690	0.0	3580	76	21-106
122-39-4	LCS Diphenylamine	4690	0.0	4330	92	52-112
122-66-7	LCS 1,2-Diphenylhydrazine	4690	0.0	4110	88	49-113
101-55-3	LCS 4-Bromophenylphenylether	4690	0.0	4270	91	53-113
118-74-1	LCS Hexachlorobenzene	4690	0.0	4100	87	55-112
87-86-5	LCS Pentachlorophenol	4690	0.0	4220	90	31-114
85-01-8	LCS Phenanthrene	4690	0.0	4410	94	56-109
120-12-7	LCS Anthracene	4690	0.0	4330	92	54-106
86-74-8	LCS Carbazole	4690	0.0	4720	101	50-122
84-74-2	LCS Di-n-butylphthalate	4690	0.0	5050	108	54-122
206-44-0	LCS Fluoranthene	4690	0.0	4760	102	52-121
129-00-0	LCS Pyrene	4690	0.0	4780	102	42-117
85-68-7	LCS Butylbenzylphthalate	4690	0.0	4660	99	49-124
117-81-7	LCS bis(2-Ethylhexyl)phthalate	4690	0.0	4530	97	44-126
56-55-3	LCS Benzo(a)anthracene	4690	0.0	4490	96	55-114
218-01-9	LCS Chrysene	4690	0.0	4320	92	57-113
117-84-0	LCS Di-n-octylphthalate	4690	0.0	4880	104	46-134
205-99-2	LCS Benzo(b)fluoranthene	4690	0.0	4570	98	53-114
207-08-9	LCS Benzo(k)fluoranthene	4690	0.0	4440	95	53-121

Semi-Volatile
Quality Control Summary
Spike Recovery Report

Page 4 of 4

SDG Number: 660968

Client ID: LCS for batch 2590877

Lab Sample ID: 1205692352

Instrument: MSD3.I

Analyst: LL2

Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample

Matrix: MISC SOLID

Analysis Date: 04/04/2024 15:46

Dilution: 1

Prep Batch ID: 2590877

Batch ID: 2590892

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
50-32-8	LCS Benzo(a)pyrene	4690	0.0	4410	94	50-113
193-39-5	LCS Indeno(1,2,3-cd)pyrene	4690	0.0	4400	94	47-133
53-70-3	LCS Dibenzo(a,h)anthracene	4690	0.0	4620	99	45-133
191-24-2	LCS Benzo(ghi)perylene	4690	0.0	4920	105	42-125
123-91-1	LCS 1,4-Dioxane	4690	0.0	1970	42	34-58
930-55-2	LCS N-Nitrosopyrrolidine	4690	0.0	4210	90	57-125
98-86-2	LCS Acetophenone	4690	0.0	4230	90	49-104
87-65-0	LCS 2,6-Dichlorophenol	4690	0.0	4340	93	52-123
95-94-3	LCS 1,2,4,5-Tetrachlorobenzene	4690	0.0	3960	84	47-109
91-94-1	LCS 3,3'-Dichlorobenzidine	4690	0.0	3570	76	35-112
126-73-8	LCS Tributylphosphate	4690	0.0	4730	101	56-136
120-82-1	LCS 1,2,4-Trichlorobenzene	4690	0.0	3690	79	46-102

Quality Control Summary
Spike Recovery Report

SDG Number: 660968

Client ID: Y12EU4RS-68B(660558002MS)

Lab Sample ID: 1205692353

Instrument: MSD3.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike

Matrix: RS

Analysis Date: 04/04/2024 16:53

Prep Batch ID:2590877

Batch ID: 2590892

Dilution: 1

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
117-81-7	MS bis(2-Ethylhexyl)phthalate	4960	19500 E	81900	1257 *	17-133
131-11-3	MS Dimethylphthalate	4960	53.6 J	3870	77	28-124
206-44-0	MS Fluoranthene	4960	62.4 J	3860	77	21-126
129-00-0	MS Pyrene	4960	39.0 J	3790	76	19-127
62-75-9	MS N-Methyl-N-nitrosomethylamine	4960	0.000 U	3060	62	12-100
110-86-1	MS Pyridine	4960	0.000 U	2480	50	17-69
62-53-3	MS Aniline	4960	0.000 U	2300	46	20-85
108-95-2	MS Phenol	4960	0.000 U	3630	73	17-116
111-44-4	MS bis(2-Chloroethyl) ether	4960	0.000 U	3260	66	15-109
95-57-8	MS 2-Chlorophenol	4960	0.000 U	3430	69	16-112
541-73-1	MS 1,3-Dichlorobenzene	4960	0.000 U	2790	56	14-98
106-46-7	MS 1,4-Dichlorobenzene	4960	0.000 U	2870	58	14-100
95-50-1	MS 1,2-Dichlorobenzene	4960	0.000 U	3090	62	18-104
108-60-1	MS bis(2-Chloro-1-methylethyl)ether	4960	0.000 U	3330	67	10-110
100-51-6	MS Benzyl alcohol	4960	0.000 U	3720	75	18-119
95-48-7	MS o-Cresol	4960	0.000 U	3570	72	16-120
65794-96-9	MS m,p-Cresols	4960	0.000 U	3610	73	20-119
621-64-7	MS N-Nitrosodipropylamine	4960	0.000 U	3580	72	15-118
67-72-1	MS Hexachloroethane	4960	0.000 U	2860	58	13-98
98-95-3	MS Nitrobenzene	4960	0.000 U	3270	66	17-109
78-59-1	MS Isophorone	4960	0.000 U	3440	69	16-113
88-75-5	MS 2-Nitrophenol	4960	0.000 U	3450	70	16-114

Quality Control Summary
Spike Recovery Report

SDG Number: 660968

Client ID: Y12EU4RS-68B(660558002MS)

Lab Sample ID: 1205692353

Instrument: MSD3.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike

Matrix: RS

Analysis Date: 04/04/2024 16:53

Dilution: 1

Prep Batch ID:2590877

Batch ID: 2590892

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
105-67-9	MS 2,4-Dimethylphenol	4960	0.000 U	2550	51	17-103
111-91-1	MS bis(2-Chloroethoxy)methane	4960	0.000 U	3460	70	20-110
120-83-2	MS 2,4-Dichlorophenol	4960	0.000 U	3640	73	19-124
106-47-8	MS 4-Chloroaniline	4960	0.000 U	2500	50	18-88
87-68-3	MS Hexachlorobutadiene	4960	0.000 U	3020	61	16-113
59-50-7	MS 4-Chloro-3-methylphenol	4960	0.000 U	4060	82	23-126
77-47-4	MS Hexachlorocyclopentadiene	4960	0.000 U	1290	26	10-78
88-06-2	MS 2,4,6-Trichlorophenol	4960	0.000 U	3720	75	21-132
95-95-4	MS 2,4,5-Trichlorophenol	4960	0.000 U	3750	76	23-127
91-58-7	MS 2-Chloronaphthalene	4960	0.000 U	3440	69	14-118
88-74-4	MS o-Nitroaniline	4960	0.000 U	3950	80	21-125
99-09-2	MS m-Nitroaniline	4960	0.000 U	2860	58	10-108
606-20-2	MS 2,6-Dinitrotoluene	4960	0.000 U	3820	77	23-124
121-14-2	MS 2,4-Dinitrotoluene	4960	0.000 U	3880	78	24-125
208-96-8	MS Acenaphthylene	4960	0.000 U	3480	70	16-116
83-32-9	MS Acenaphthene	4960	0.000 U	3600	73	16-115
51-28-5	MS 2,4-Dinitrophenol	4960	0.000 U	2900	58	19-117
132-64-9	MS Dibenzofuran	4960	0.000 U	3720	75	21-121
58-90-2	MS 2,3,4,6-Tetrachlorophenol	4960	0.000 U	3630	73	21-129
100-02-7	MS 4-Nitrophenol	4960	0.000 U	4050	82	12-137
86-73-7	MS Fluorene	4960	0.000 U	3790	76	16-123
7005-72-3	MS 4-Chlorophenylphenylether	4960	0.000 U	3780	76	21-126

Quality Control Summary
Spike Recovery Report

SDG Number: 660968

Client ID: Y12EU4RS-68B(660558002MS)

Lab Sample ID: 1205692353

Instrument: MSD3.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike

Matrix: RS

Analysis Date: 04/04/2024 16:53

Dilution: 1

Prep Batch ID:2590877

Batch ID: 2590892

CAS No.		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
100-01-6	MS	p-Nitroaniline	4960	0.000 U	3100	63	9-138
534-52-1	MS	2-Methyl-4,6-dinitrophenol	4960	0.000 U	2750	55	10-120
122-39-4	MS	Diphenylamine	4960	0.000 U	3980	80	20-116
122-66-7	MS	1,2-Diphenylhydrazine	4960	0.000 U	3740	75	17-119
101-55-3	MS	4-Bromophenylphenylether	4960	0.000 U	3840	77	20-122
118-74-1	MS	Hexachlorobenzene	4960	0.000 U	3560	72	23-128
87-86-5	MS	Pentachlorophenol	4960	0.000 U	4260	86	11-126
120-12-7	MS	Anthracene	4960	0.000 U	3680	74	19-116
86-74-8	MS	Carbazole	4960	0.000 U	4010	81	17-128
56-55-3	MS	Benzo(a)anthracene	4960	0.000 U	3450	70	21-121
218-01-9	MS	Chrysene	4960	0.000 U	3230	65	22-124
117-84-0	MS	Di-n-octylphthalate	4960	0.000 U	6040	122	24-135
205-99-2	MS	Benzo(b)fluoranthene	4960	0.000 U	2290	46	20-126
207-08-9	MS	Benzo(k)fluoranthene	4960	0.000 U	2040	41	20-133
50-32-8	MS	Benzo(a)pyrene	4960	0.000 U	1900	38	20-120
193-39-5	MS	Indeno(1,2,3-cd)pyrene	4960	0.000 U	959	19	14-125
53-70-3	MS	Dibenzo(a,h)anthracene	4960	0.000 U	1110	22	15-122
191-24-2	MS	Benzo(ghi)perylene	4960	0.000 U	955	19	13-120
123-91-1	MS	1,4-Dioxane	4960	0.000 U	1440	29	15-57
930-55-2	MS	N-Nitrosopyrrolidine	4960	0.000 U	3690	74	17-133
98-86-2	MS	Acetophenone	4960	0.000 U	3600	73	20-117
87-65-0	MS	2,6-Dichlorophenol	4960	0.000 U	3820	77	19-129

Quality Control Summary
Spike Recovery Report

SDG Number: 660968

Client ID: Y12EU4RS-68B(660558002MS)

Lab Sample ID: 1205692353

Instrument: MSD3.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike

Matrix: RS

Analysis Date: 04/04/2024 16:53

Dilution: 1

Prep Batch ID:2590877

Batch ID: 2590892

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
95-94-3	MS 1,2,4,5-Tetrachlorobenzene	4960	0.000 U	3490	70	21-114
91-94-1	MS 3,3'-Dichlorobenzidine	4960	0.000 U	486	10	8-108
126-73-8	MS Tributylphosphate	4960	0.000 U	4410	89	20-143
120-82-1	MS 1,2,4-Trichlorobenzene	4960	0.000 U	3130	63	17-108
65-85-0	MS Benzoic acid	9920	2440	8810	64	13-125
91-57-6	MS 2-Methylnaphthalene	4960	232	3690	70	15-112
91-20-3	MS Naphthalene	4960	119	3380	66	14-112
90-12-0	MS 1-Methylnaphthalene	4960	125	3820	75	15-118
84-66-2	MS Diethylphthalate	4960	267	4340	82	26-125
85-01-8	MS Phenanthrene	4960	310	4080	76	19-121
84-74-2	MS Di-n-butylphthalate	4960	972	5390	89	24-125
85-68-7	MS Butylbenzylphthalate	4960	1430	6850	109	19-133

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660968

Client ID: Y12EU4RS-68B(660558002MSD)

Lab Sample ID: 1205692354

Instrument: MSD3.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate

Matrix: RS

Analysis Date: 04/04/2024 17:14

Prep Batch ID:2590877

Batch ID: 2590892

Dilution: 1

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	Acceptance RPD %	Acceptance Limits
117-81-7	MSD bis(2-Ethylhexyl)phthalate	4960	19500	E	53000	675 *	17-133	43 * 0-30
131-11-3	MSD Dimethylphthalate	4960	53.6	J	3890	78	28-124	1 0-30
206-44-0	MSD Fluoranthene	4960	62.4	J	3680	73	21-126	5 0-30
129-00-0	MSD Pyrene	4960	39.0	J	3590	72	19-127	6 0-30
62-75-9	MSD N-Methyl-N-nitrosomethylamine	4960	0.000	U	3150	63	12-100	3 0-30
110-86-1	MSD Pyridine	4960	0.000	U	2750	56	17-69	10 0-30
62-53-3	MSD Aniline	4960	0.000	U	2150	43	20-85	7 0-30
108-95-2	MSD Phenol	4960	0.000	U	3540	71	17-116	3 0-30
111-44-4	MSD bis(2-Chloroethyl) ether	4960	0.000	U	3270	66	15-109	0 0-30
95-57-8	MSD 2-Chlorophenol	4960	0.000	U	3380	68	16-112	1 0-30
541-73-1	MSD 1,3-Dichlorobenzene	4960	0.000	U	2880	58	14-98	3 0-30
106-46-7	MSD 1,4-Dichlorobenzene	4960	0.000	U	2950	59	14-100	3 0-30
95-50-1	MSD 1,2-Dichlorobenzene	4960	0.000	U	3380	68	18-104	9 0-30
108-60-1	MSD bis(2-Chloro-1-methylethyl)ether	4960	0.000	U	3400	69	10-110	2 0-30
100-51-6	MSD Benzyl alcohol	4960	0.000	U	3620	73	18-119	3 0-30
95-48-7	MSD o-Cresol	4960	0.000	U	3470	70	16-120	3 0-30
65794-96-9	MSD m,p-Cresols	4960	0.000	U	3510	71	20-119	3 0-30
621-64-7	MSD N-Nitrosodipropylamine	4960	0.000	U	3560	72	15-118	1 0-30
67-72-1	MSD Hexachloroethane	4960	0.000	U	2960	60	13-98	4 0-30
98-95-3	MSD Nitrobenzene	4960	0.000	U	3340	67	17-109	2 0-30
78-59-1	MSD Isophorone	4960	0.000	U	3450	70	16-113	0 0-30
88-75-5	MSD 2-Nitrophenol	4960	0.000	U	3450	70	16-114	0 0-30

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 660968

Client ID: Y12EU4RS-68B(660558002MSD)

Lab Sample ID: 1205692354

Instrument: MSD3.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate

Matrix: RS

Analysis Date: 04/04/2024 17:14

Prep Batch ID:2590877

Batch ID: 2590892

Dilution: 1

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	Acceptance RPD %	Acceptance Limits
105-67-9	MSD 2,4-Dimethylphenol	4960	0.000 U	2480	50	17-103	3	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	4960	0.000 U	3520	71	20-110	2	0-30
120-83-2	MSD 2,4-Dichlorophenol	4960	0.000 U	3640	73	19-124	0	0-30
106-47-8	MSD 4-Chloroaniline	4960	0.000 U	2370	48	18-88	6	0-30
87-68-3	MSD Hexachlorobutadiene	4960	0.000 U	3100	63	16-113	3	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	4960	0.000 U	4010	81	23-126	1	0-30
77-47-4	MSD Hexachlorocyclopentadiene	4960	0.000 U	1360	27	10-78	5	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	4960	0.000 U	3690	74	21-132	1	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	4960	0.000 U	3870	78	23-127	3	0-30
91-58-7	MSD 2-Chloronaphthalene	4960	0.000 U	3430	69	14-118	0	0-30
88-74-4	MSD o-Nitroaniline	4960	0.000 U	3980	80	21-125	1	0-30
99-09-2	MSD m-Nitroaniline	4960	0.000 U	2800	56	10-108	2	0-30
606-20-2	MSD 2,6-Dinitrotoluene	4960	0.000 U	3810	77	23-124	0	0-30
121-14-2	MSD 2,4-Dinitrotoluene	4960	0.000 U	3890	79	24-125	0	0-30
208-96-8	MSD Acenaphthylene	4960	0.000 U	3490	70	16-116	0	0-30
83-32-9	MSD Acenaphthene	4960	0.000 U	3600	73	16-115	0	0-30
51-28-5	MSD 2,4-Dinitrophenol	4960	0.000 U	2340	47	19-117	21	0-30
132-64-9	MSD Dibenzofuran	4960	0.000 U	3730	75	21-121	1	0-30
58-90-2	MSD 2,3,4,6-Tetrachlorophenol	4960	0.000 U	3640	73	21-129	0	0-30
100-02-7	MSD 4-Nitrophenol	4960	0.000 U	3980	80	12-137	2	0-30
86-73-7	MSD Fluorene	4960	0.000 U	3810	77	16-123	1	0-30
7005-72-3	MSD 4-Chlorophenylphenylether	4960	0.000 U	3800	77	21-126	1	0-30

Quality Control Summary
Spike Recovery Report

SDG Number: 660968

Client ID: Y12EU4RS-68B(660558002MSD)

Lab Sample ID: 1205692354

Instrument: MSD3.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate

Matrix: RS

Analysis Date: 04/04/2024 17:14

Dilution: 1

Prep Batch ID:2590877

Batch ID: 2590892

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
100-01-6	MSD p-Nitroaniline	4960	0.000 U	3050	62	9-138	2	0-30
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	4960	0.000 U	2220	45	10-120	21	0-30
122-39-4	MSD Diphenylamine	4960	0.000 U	3940	80	20-116	1	0-30
122-66-7	MSD 1,2-Diphenylhydrazine	4960	0.000 U	3770	76	17-119	1	0-30
101-55-3	MSD 4-Bromophenylphenylether	4960	0.000 U	3840	77	20-122	0	0-30
118-74-1	MSD Hexachlorobenzene	4960	0.000 U	3530	71	23-128	1	0-30
87-86-5	MSD Pentachlorophenol	4960	0.000 U	3980	80	11-126	7	0-30
120-12-7	MSD Anthracene	4960	0.000 U	3630	73	19-116	2	0-30
86-74-8	MSD Carbazole	4960	0.000 U	3940	79	17-128	2	0-30
56-55-3	MSD Benzo(a)anthracene	4960	0.000 U	3150	63	21-121	9	0-30
218-01-9	MSD Chrysene	4960	0.000 U	3130	63	22-124	3	0-30
117-84-0	MSD Di-n-octylphthalate	4960	0.000 U	5440	110	24-135	11	0-30
205-99-2	MSD Benzo(b)fluoranthene	4960	0.000 U	2060	42	20-126	10	0-30
207-08-9	MSD Benzo(k)fluoranthene	4960	0.000 U	1970	40	20-133	3	0-30
50-32-8	MSD Benzo(a)pyrene	4960	0.000 U	1780	36	20-120	7	0-30
193-39-5	MSD Indeno(1,2,3-cd)pyrene	4960	0.000 U	966	20	14-125	1	0-30
53-70-3	MSD Dibenzo(a,h)anthracene	4960	0.000 U	1110	22	15-122	0	0-30
191-24-2	MSD Benzo(ghi)perylene	4960	0.000 U	931	19	13-120	3	0-30
123-91-1	MSD 1,4-Dioxane	4960	0.000 U	1610	33	15-57	11	0-30
930-55-2	MSD N-Nitrosopyrrolidine	4960	0.000 U	3610	73	17-133	2	0-30
98-86-2	MSD Acetophenone	4960	0.000 U	3550	72	20-117	1	0-30
87-65-0	MSD 2,6-Dichlorophenol	4960	0.000 U	3820	77	19-129	0	0-30

Quality Control Summary
Spike Recovery Report

SDG Number: 660968

Client ID: Y12EU4RS-68B(660558002MSD)

Lab Sample ID: 1205692354

Instrument: MSD3.I

Analvst: LL2

Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate

Matrix: RS

Analysis Date: 04/04/2024 17:14

Dilution: 1

Prep Batch ID:2590877

Batch ID: 2590892

CAS No.	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	Acceptance RPD %	Acceptance Limits
95-94-3	MSD 1,2,4,5-Tetrachlorobenzene	4960	0.000 U	3490	70	21-114	0	0-30
91-94-1	MSD 3,3'-Dichlorobenzidine	4960	0.000 U	471	10	8-108	3	0-30
126-73-8	MSD Tributylphosphate	4960	0.000 U	4460	90	20-143	1	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	4960	0.000 U	3190	64	17-108	2	0-30
65-85-0	MSD Benzoic acid	9910	2440	7910	55	13-125	11	0-30
91-57-6	MSD 2-Methylnaphthalene	4960	232	3650	69	15-112	1	0-30
91-20-3	MSD Naphthalene	4960	119	3410	67	14-112	1	0-30
90-12-0	MSD 1-Methylnaphthalene	4960	125	3810	74	15-118	0	0-30
84-66-2	MSD Diethylphthalate	4960	267	4390	83	26-125	1	0-30
85-01-8	MSD Phenanthrene	4960	310	4030	75	19-121	1	0-30
84-74-2	MSD Di-n-butylphthalate	4960	972	5380	89	24-125	0	0-30
85-68-7	MSD Butylbenzylphthalate	4960	1430	6510	103	19-133	5	0-30

Method Blank Summary

SDG Number: 660968

Client ID: MB for batch 2590877

Lab Sample ID: 1205692351

Column: DB-5ms

Client: PERM001

Instrument ID: MSD3.I

Prep Date: 04/04/2024 09:45

Matrix: MISC SOLID

Data File: S040424.S\s3D0406.D

Analyzed: 04/04/24 15:25

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 2590877	1205692352	S040424.S\s3D0407.D	04/04/24	1546
02 Y12EU4RS-68B(660558002MS)	1205692353	S040424.S\s3D0410.D	04/04/24	1653
03 Y12EU4RS-68B(660558002MSD)	1205692354	S040424.S\s3D0411.D	04/04/24	1714
04 12039.B4.Top Front.EPA	660968001	S040424.S\s3D0418.D	04/04/24	1944
05 12039.B4.Middle Front.EPA	660968002	S040424.S\s3D0419.D	04/04/24	2005
06 12039.B4.Bottom Front.EPA	660968003	S040424.S\s3D0420.D	04/04/24	2026
07 12040.B4.Top Back.EPA	660968004	S040424.S\s3D0421.D	04/04/24	2048
08 12040.B4.Middle Back.EPA	660968005	S040424.S\s3D0422.D	04/04/24	2109
09 12040.B4.Bottom Back.EPA	660968006	S040424.S\s3D0423.D	04/04/24	2130

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 660968

Instrument ID: MSD3.I

Injection Date/Time: 14-MAR-24 08:00

Column Description: DB-5ms

Lab File ID S031424ICAL\s3C1401.D

m/e	Ion Abundance Criteria	% Relative Abundance
68	Less than 2% of mass 69	1.5
69	Present	40.7
70	Less than 2% of mass 69	0
197	Less than 2% of mass 198	0.7
198	Base Peak or Present	90.3
199	5 - 9% of mass 198	6.7
365	Greater than 1% of Base Peak	3.1
441	Less than 150% of mass 443	87.5
442	Base Peak or Present	100
443	15 - 24% of mass 442	19.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	WBN240312-01.1	S031424ICAL\s3C1402.D	14-MAR-24 08:17
ICALMIX[A]	WBN240312-02.1	S031424ICAL\s3C1403.D	14-MAR-24 08:40
ICALMIX[A]	WBN240312-03.1	S031424ICAL\s3C1404.D	14-MAR-24 09:03
ICALMIX[A]	WBN240312-04.1	S031424ICAL\s3C1405.D	14-MAR-24 09:27
ICALMIX[A]	WBN240312-05	S031424ICAL\s3C1406.D	14-MAR-24 09:50
ICALMIX[A]	WBN240312-06	S031424ICAL\s3C1407.D	14-MAR-24 10:14
ICALMIX[A]	WBN240312-07	S031424ICAL\s3C1408.D	14-MAR-24 10:37
ICALMIX[A]	WBN240312-08	S031424ICAL\s3C1409.D	14-MAR-24 11:01
ICVMIX[A]01	WBN240312-43	S031424ICAL\s3C1410.D	14-MAR-24 11:24
ICALMIX[B,J]	WBN240201-51.1	S031424ICAL\s3C1411.D	14-MAR-24 11:48
ICALMIX[B,J]	WBN240201-52	S031424ICAL\s3C1412.D	14-MAR-24 12:09
ICALMIX[B,J]	WBN240201-53	S031424ICAL\s3C1413.D	14-MAR-24 12:30
ICALMIX[B,J]	WBN240201-54.1	S031424ICAL\s3C1414.D	14-MAR-24 12:52
ICALMIX[B,J]	WBN240201-55	S031424ICAL\s3C1415.D	14-MAR-24 13:13
ICALMIX[B,J]	WBN240201-56	S031424ICAL\s3C1416.D	14-MAR-24 13:35
ICALMIX[B,J]	WBN240201-57	S031424ICAL\s3C1417.D	14-MAR-24 13:56
ICALMIX[B,J]	WBN240201-58	S031424ICAL\s3C1418.D	14-MAR-24 14:17
ICALMIX[B,J]	WBN240201-59	S031424ICAL\s3C1419.D	14-MAR-24 14:39

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 660968

Instrument ID: MSD3.I

Injection Date/Time: 14-MAR-24 08:00

Column Description: DB-5ms

Lab File ID S031424ICAL\s3C1401.D

m/e	Ion Abundance Criteria	% Relative Abundance
68	Less than 2% of mass 69	1.5
69	Present	40.7
70	Less than 2% of mass 69	0
197	Less than 2% of mass 198	0.7
198	Base Peak or Present	90.3
199	5 - 9% of mass 198	6.7
365	Greater than 1% of Base Peak	3.1
441	Less than 150% of mass 443	87.5
442	Base Peak or Present	100
443	15 - 24% of mass 442	19.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICVMIX[B,J]02	WBN240221-20	S031424ICAL\s3C1420.D	14-MAR-24 15:00
ICALMIX[D]	WBN240227-27.1	S031424ICAL\s3C1421.D	14-MAR-24 15:22
ICALMIX[D]	WBN240227-26	S031424ICAL\s3C1422.D	14-MAR-24 15:40
ICALMIX[D]	WBN240227-25.1	S031424ICAL\s3C1423.D	14-MAR-24 15:58
ICALMIX[D]	WBN240227-24	S031424ICAL\s3C1424.D	14-MAR-24 16:17
ICALMIX[D]	WBN240227-23	S031424ICAL\s3C1425.D	14-MAR-24 16:35
ICALMIX[D]	WBN240227-22	S031424ICAL\s3C1426.D	14-MAR-24 16:54
ICALMIX[D]	WBN240227-21	S031424ICAL\s3C1427.D	14-MAR-24 17:12
ICVMIX[D]03	WBN240228-26	S031424ICAL\s3C1428.D	14-MAR-24 17:30
ICALMIX[E]	WBN240313-31.1	S031424ICAL\s3C1429.D	14-MAR-24 17:49
ICALMIX[E]	WBN240313-32	S031424ICAL\s3C1430.D	14-MAR-24 18:07
ICALMIX[E]	WBN240313-33	S031424ICAL\s3C1431.D	14-MAR-24 18:25
ICALMIX[E]	WBN240313-34	S031424ICAL\s3C1432.D	14-MAR-24 18:44
ICALMIX[E]	WBN240313-35	S031424ICAL\s3C1433.D	14-MAR-24 19:02
ICALMIX[E]	WBN240313-37	S031424ICAL\s3C1434.D	14-MAR-24 19:20
ICVMIX[E]04	WBN240228-38	S031424ICAL\s3C1435.D	14-MAR-24 19:39
CCVMIX[A]01	WBN240304-04.5	S040424.S\s3D0402.D	04-APR-24 14:04
CCVMIX[B,J]02	WBN240201-54.2	S040424.S\s3D0403.D	04-APR-24 14:27

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 660968

Instrument ID: MSD3.I

Injection Date/Time: 14-MAR-24 08:00

Column Description: DB-5ms

Lab File ID S031424ICAL\s3C1401.D

m/e	Ion Abundance Criteria	% Relative Abundance
68	Less than 2% of mass 69	1.5
69	Present	40.7
70	Less than 2% of mass 69	0
197	Less than 2% of mass 198	0.7
198	Base Peak or Present	90.3
199	5 - 9% of mass 198	6.7
365	Greater than 1% of Base Peak	3.1
441	Less than 150% of mass 443	87.5
442	Base Peak or Present	100
443	15 - 24% of mass 442	19.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[D]03	WBN240227-25.7	S040424.S\s3D0404.D	04-APR-24 14:48
CCVMIX[E]04	WBN240212-33.6	S040424.S\s3D0405.D	04-APR-24 15:07
BLK01	1205692351	S040424.S\s3D0406.D	04-APR-24 15:25
BLK01LCS	1205692352	S040424.S\s3D0407.D	04-APR-24 15:46
Y12EU4RS-68BMS	1205692353	S040424.S\s3D0410.D	04-APR-24 16:53
Y12EU4RS-68BMSD	1205692354	S040424.S\s3D0411.D	04-APR-24 17:14
12039.B4.Top Front.EPA	660968001	S040424.S\s3D0418.D	04-APR-24 19:44
12039.B4.Middle Front.EPA	660968002	S040424.S\s3D0419.D	04-APR-24 20:05
12039.B4.Bottom Front.EPA	660968003	S040424.S\s3D0420.D	04-APR-24 20:26
12040.B4.Top Back.EPA	660968004	S040424.S\s3D0421.D	04-APR-24 20:48
12040.B4.Middle Back.EPA	660968005	S040424.S\s3D0422.D	04-APR-24 21:09
12040.B4.Bottom Back.EPA	660968006	S040424.S\s3D0423.D	04-APR-24 21:30

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: MSD3.I

GC Column: DB-5ms

Client SDG: 660968

STD Analysis Time: 04-APR-24 14:04

Data File: S040424.S\3D0402.D

	1,4-Dichlorobenzene-d4		Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10		Chrysene-d12		Perylene-d12	
	Area	# RT #	Area	# RT #	Area	# RT #	Area	# RT #	Area	# RT #	Area	# RT #
12 Hour STD Upper Limit Lower Limit	67398	3.89	283317	5.3	152313	7.06	314709	8.36	344439	10.69	362053	12.72
	134796	4.39	566634	5.8	304626	7.56	629418	8.86	688878	11.19	724106	13.22
	33699	3.39	141659	4.8	76157	6.56	157355	7.86	172220	10.19	181027	12.22
Sample ID												
BLK01	74563	3.89	305218	5.3	155365	7.06	318450	8.36	348183	10.7	376506	12.7
BLK01LCS	81101	3.89	340804	5.3	176666	7.06	353904	8.36	393321	10.7	416873	12.7
Y12EU4RS-68BMS	86991	3.89	360464	5.3	188306	7.06	371213	8.36	314816	10.7	394897	12.7
Y12EU4RS-68BMSD	93827	3.89	379844	5.3	198076	7.06	392294	8.37	341975	10.7	407418	12.7
I2039.B4.Top Front.EPA	86355	3.89	345360	5.3	171381	7.06	361178	8.36	391988	10.7	406768	12.7
I2039.B4.Middle Front.EPA	83862	3.89	339800	5.3	172547	7.06	358982	8.36	391910	10.7	412575	12.7
I2039.B4.Bottom Front.EPA	79702	3.89	335416	5.3	175324	7.06	359242	8.36	385924	10.7	386905	12.7
I2040.B4.Top Back.EPA	85383	3.89	347580	5.3	176670	7.06	360953	8.36	391158	10.7	404636	12.7
I2040.B4.Middle Back.EPA	88774	3.89	368132	5.3	188617	7.06	386990	8.36	420622	10.7	423372	12.7
I2040.B4.Bottom Back.EPA	84644	3.89	350745	5.3	178564	7.06	369902	8.36	400329	10.7	412299	12.7

Area Upper Limit = +100% of internal standard area

Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT

RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk

* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660968001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 19:44	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.7 g	Final Volume:	1 mL
Data File:	S040424.S\3D0418.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	935	ug/kg	280	935
110-86-1	Pyridine	U	935	ug/kg	280	935
62-53-3	Aniline	U	935	ug/kg	280	935
108-95-2	Phenol	U	935	ug/kg	280	935
111-44-4	bis(2-Chloroethyl) ether	U	935	ug/kg	280	935
95-57-8	2-Chlorophenol	U	935	ug/kg	280	935
541-73-1	1,3-Dichlorobenzene	U	935	ug/kg	280	935
106-46-7	1,4-Dichlorobenzene	U	935	ug/kg	280	935
95-50-1	1,2-Dichlorobenzene	J	315	ug/kg	280	935
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	935	ug/kg	280	935
100-51-6	Benzyl alcohol	U	935	ug/kg	280	935
95-48-7	o-Cresol	U	935	ug/kg	280	935
65794-96-9	m,p-Cresols	U	935	ug/kg	280	935
621-64-7	N-Nitrosodipropylamine	U	935	ug/kg	280	935
67-72-1	Hexachloroethane	U	935	ug/kg	280	935
98-95-3	Nitrobenzene	U	935	ug/kg	280	935
78-59-1	Isophorone	U	935	ug/kg	280	935
88-75-5	2-Nitrophenol	U	935	ug/kg	280	935
105-67-9	2,4-Dimethylphenol	U	935	ug/kg	280	935
111-91-1	bis(2-Chloroethoxy)methane	U	935	ug/kg	280	935
120-83-2	2,4-Dichlorophenol	U	935	ug/kg	280	935
65-85-0	Benzoic acid	U	1870	ug/kg	467	1870
106-47-8	4-Chloroaniline	U	935	ug/kg	280	935
87-68-3	Hexachlorobutadiene	U	935	ug/kg	280	935
59-50-7	4-Chloro-3-methylphenol	U	935	ug/kg	374	935
91-57-6	2-Methylnaphthalene	U	93.5	ug/kg	28.0	93.5
91-20-3	Naphthalene	U	93.5	ug/kg	28.0	93.5
90-12-0	1-Methylnaphthalene	U	93.5	ug/kg	28.0	93.5
77-47-4	Hexachlorocyclopentadiene	U	935	ug/kg	280	935
88-06-2	2,4,6-Trichlorophenol	U	935	ug/kg	280	935
95-95-4	2,4,5-Trichlorophenol	U	935	ug/kg	280	935
91-58-7	2-Chloronaphthalene	U	93.5	ug/kg	28.0	93.5
88-74-4	o-Nitroaniline	U	935	ug/kg	308	935
99-09-2	m-Nitroaniline	U	935	ug/kg	280	935
131-11-3	Dimethylphthalate	U	93.5	ug/kg	28.0	93.5
99-65-0	m-Dinitrobenzene	U	935	ug/kg	280	935
606-20-2	2,6-Dinitrotoluene	U	935	ug/kg	280	935
121-14-2	2,4-Dinitrotoluene	U	935	ug/kg	280	935

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660968001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 19:44	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.7 g	Final Volume:	1 mL
Data File:	S040424.S\3D0418.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	93.5	ug/kg	28.0	93.5
83-32-9	Acenaphthene	U	93.5	ug/kg	28.0	93.5
51-28-5	2,4-Dinitrophenol	U	1870	ug/kg	280	1870
132-64-9	Dibenzofuran	U	935	ug/kg	280	935
58-90-2	2,3,4,6-Tetrachlorophenol	U	935	ug/kg	280	935
84-66-2	Diethylphthalate	U	93.5	ug/kg	28.0	93.5
100-02-7	4-Nitrophenol	U	935	ug/kg	280	935
86-73-7	Fluorene	U	93.5	ug/kg	28.0	93.5
7005-72-3	4-Chlorophenylphenylether	U	935	ug/kg	280	935
100-01-6	p-Nitroaniline	U	935	ug/kg	280	935
534-52-1	2-Methyl-4,6-dinitrophenol	U	935	ug/kg	280	935
122-39-4	Diphenylamine	U	935	ug/kg	280	935
122-66-7	1,2-Diphenylhydrazine	U	935	ug/kg	280	935
101-55-3	4-Bromophenylphenylether	U	935	ug/kg	280	935
118-74-1	Hexachlorobenzene	U	935	ug/kg	280	935
87-86-5	Pentachlorophenol	U	935	ug/kg	280	935
88-85-7	Dinoseb	U	935	ug/kg	280	935
85-01-8	Phenanthrene	U	93.5	ug/kg	28.0	93.5
120-12-7	Anthracene	U	93.5	ug/kg	28.0	93.5
86-74-8	Carbazole	U	93.5	ug/kg	28.0	93.5
84-74-2	Di-n-butylphthalate	U	93.5	ug/kg	28.0	93.5
206-44-0	Fluoranthene	U	93.5	ug/kg	28.0	93.5
129-00-0	Pyrene	U	93.5	ug/kg	28.0	93.5
85-68-7	Butylbenzylphthalate	U	93.5	ug/kg	28.0	93.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	93.5	ug/kg	28.0	93.5
56-55-3	Benzo(a)anthracene	U	93.5	ug/kg	28.0	93.5
218-01-9	Chrysene	U	93.5	ug/kg	28.0	93.5
72-43-5	Methoxychlor	U	935	ug/kg	280	935
117-84-0	Di-n-octylphthalate	U	93.5	ug/kg	28.0	93.5
205-99-2	Benzo(b)fluoranthene	U	93.5	ug/kg	28.0	93.5
207-08-9	Benzo(k)fluoranthene	U	93.5	ug/kg	28.0	93.5
50-32-8	Benzo(a)pyrene	U	93.5	ug/kg	28.0	93.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	93.5	ug/kg	28.0	93.5
53-70-3	Dibenzo(a,h)anthracene	U	93.5	ug/kg	28.0	93.5
191-24-2	Benzo(ghi)perylene	U	93.5	ug/kg	28.0	93.5
123-91-1	1,4-Dioxane	U	935	ug/kg	280	935
80-62-6	Methyl methacrylate	U	935	ug/kg	280	935
97-63-2	Ethyl methacrylate	U	935	ug/kg	280	935

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660968001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 19:44	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.7 g	Final Volume:	1 mL
Data File:	S040424.S\3D0418.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	935	ug/kg	280	935
10595-95-6	N-Nitrosomethylethylamine	U	935	ug/kg	280	935
66-27-3	Methyl methanesulfonate	U	935	ug/kg	280	935
55-18-5	N-Nitrosodiethylamine	U	935	ug/kg	280	935
62-50-0	Ethyl Methanesulfonate	U	935	ug/kg	280	935
76-01-7	Pentachloroethane	U	935	ug/kg	280	935
930-55-2	N-Nitrosopyrrolidine	U	935	ug/kg	280	935
98-86-2	Acetophenone	U	935	ug/kg	280	935
59-89-2	N-Nitrosomorpholine	U	935	ug/kg	280	935
95-53-4	o-Toluidine	U	935	ug/kg	280	935
100-75-4	N-Nitrosopiperidine	U	935	ug/kg	280	935
122-09-8	a,a-Dimethylphenethylamine	U	935	ug/kg	327	935
87-65-0	2,6-Dichlorophenol	U	935	ug/kg	280	935
1888-71-7	Hexachloropropene	U	935	ug/kg	280	935
924-16-3	N-Nitrosodi-n-butylamine	U	935	ug/kg	280	935
94-59-7	Safrole	U	935	ug/kg	280	935
95-94-3	1,2,4,5-Tetrachlorobenzene	U	935	ug/kg	280	935
120-58-1	Isosafrole	U	935	ug/kg	280	935
130-15-4	1,4-Naphthoquinone	U	935	ug/kg	280	935
608-93-5	Pentachlorobenzene	U	935	ug/kg	280	935
134-32-7	1-Naphthylamine	U	935	ug/kg	280	935
91-59-8	2-Naphthylamine	U	935	ug/kg	280	935
99-55-8	5-Nitro-o-toluidine	U	935	ug/kg	280	935
62-44-2	Phenacetin	U	935	ug/kg	280	935
99-35-4	1,3,5-Trinitrobenzene	U	935	ug/kg	280	935
2303-16-4	Diallate	U	935	ug/kg	280	935
92-67-1	4-Aminobiphenyl	U	935	ug/kg	280	935
82-68-8	Pentachloronitrobenzene	U	935	ug/kg	280	935
23950-58-5	Pronamide	U	935	ug/kg	280	935
56-57-5	4-Nitroquinoline-1-oxide	U	935	ug/kg	280	935
91-80-5	Methapyrilene	U	935	ug/kg	280	935
465-73-6	Isodrin	U	935	ug/kg	187	935
140-57-8	Aramite	U	935	ug/kg	280	935
143-50-0	Kepone	U	935	ug/kg	280	935
60-11-7	p-(Dimethylamino)azobenzene	U	935	ug/kg	280	935
510-15-6	Chlorobenzilate	U	935	ug/kg	280	935
119-93-7	3,3'-Dimethylbenzidine	U	935	ug/kg	280	935
53-96-3	2-Acetylaminofluorene	U	935	ug/kg	280	935

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:00	Matrix:	MISC SOLID
Lab Sample ID:	660968001	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Top Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 19:44	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.7 g	Final Volume:	1 mL
Data File:	S040424.S\3D0418.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	935	ug/kg	280	935
57-97-6	7,12-Dimethylbenz(a)anthracene	U	935	ug/kg	280	935
56-49-5	3-Methylcholanthrene	U	935	ug/kg	280	935
126-68-1	Triethylphosphorothioate	U	935	ug/kg	280	935
297-97-2	Thionazin	U	935	ug/kg	280	935
126-73-8	Tributylphosphate	U	935	ug/kg	280	935
3689-24-5	Sulfotepp	U	935	ug/kg	280	935
298-02-2	Phorate	U	935	ug/kg	280	935
60-51-5	Dimethoate	U	935	ug/kg	280	935
298-04-4	Disulfoton	U	935	ug/kg	280	935
298-00-0	Methyl parathion	U	935	ug/kg	280	935
56-38-2	Parathion	U	935	ug/kg	280	935
52-85-7	Famphur	U	935	ug/kg	280	935
106-50-3	p-Phenylenediamine	U	46700	ug/kg	9350	46700
70-30-4	Hexachlorophene	U	46700	ug/kg	10800	46700
120-82-1	1,2,4-Trichlorobenzene	U	935	ug/kg	280	935

Data Path : C:\msdchem\1\data\S040424.S\

Data File : s3D0418.D

Acq On : 04 Apr 2024 19:44

Operator : LL2

Sample : |660968001|2590892|1|SVM|1|PERM|||

Misc : |MSD827E4_S|MISC SOLID|12039.B4.Top Front.EPA|mix[a,b,j,d,e]||

ALS Vial : 18 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 08:13:33 2024

Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Quant Title : BNA01

QLast Update : Fri Mar 15 08:40:12 2024

Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	86355	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	345360	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	171381	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.361	8.362	1.000	361178	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.688	10.683	1.000	391988	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.721	12.715	1.000	406768	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	86355	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	345360	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	171381	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.361	8.362	1.000	361178	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.688	10.683	1.000	391988	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.721	12.715	1.000	406768	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.302	1.000	345360	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.361	8.362	1.000	361178	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.688	10.683	1.000	391988	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	345360	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	171381	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.361	8.362	1.000	361178	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.688	10.683	1.000	391988	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	345360	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.721	12.715	1.000	406768	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.617	2.627	0.674	217142	75.96	ng/uL	-0.01
8) Phenol-d5	99	3.489	3.486	0.898	282743	79.80	ng/uL	0.00
23) Nitrobenzene-d5	82	4.484	4.502	0.846	110587	34.93	ng/uL	-0.02
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	235588	36.19	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.762	7.773	0.928	106356	80.70	ng/uL	-0.01
79) p-Terphenyl-d14	244	9.693	9.686	1.159	381406	44.17	ng/uL	0.00
Compound	Amount	Range	Recovery					
5) 2-Fluorophenol	100.000	11 - 79	76%					
8) Phenol-d5	100.000	15 - 85	80%					
23) Nitrobenzene-d5	50.000	39 - 112	70%					
44) 2-Fluorobiphenyl	50.000	39 - 112	72%					
64) 2,4,6-Tribromophenol	100.000	37 - 132	81%					
79) p-Terphenyl-d14	50.000	24 - 129	88%					
Target Compounds								QValue
15) 1,2-Dichlorobenzene	146	4.061	4.068	1.045	11351	3.37	ng/uL	99

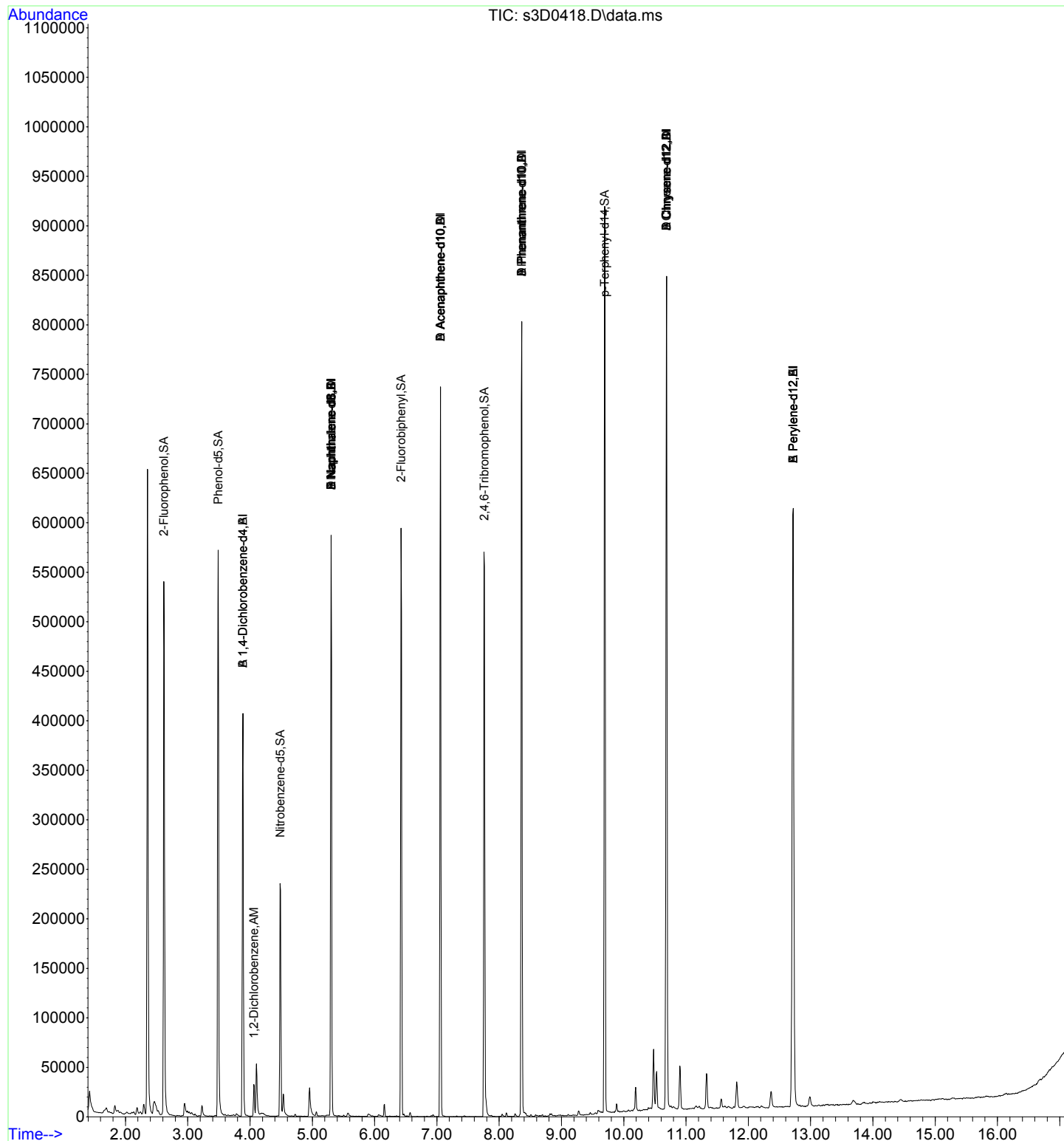
(#)= qualifier out of range (m)= manual integration (+)= signals summed

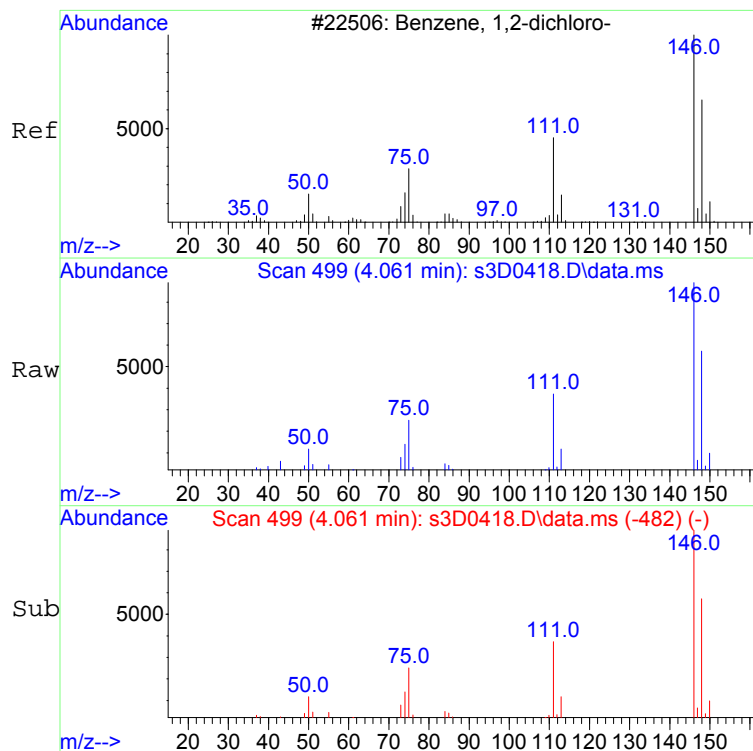
(A)= Over the calibration range (d)= deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0418.D
 Acq On : 04 Apr 2024 19:44
 Operator : LL2
 Sample : |660968001|2590892|1|SVM|1|PERM|||
 Misc : |MSD827E4_S|MISC SOLID|12039.B4.Top Front.EPA|mix[a,b,j,d,e]||
 ALS Vial : 18 Sample Multiplier: 1

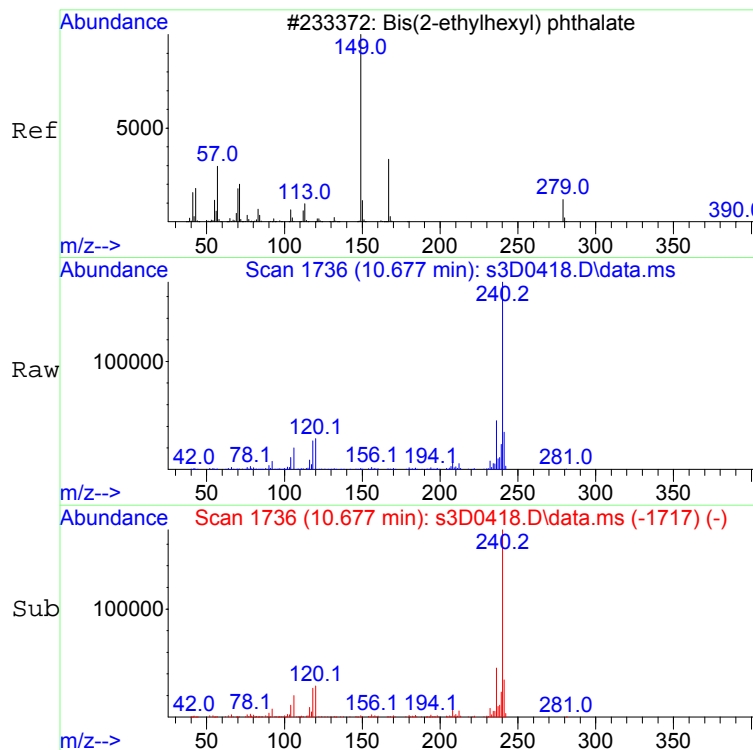
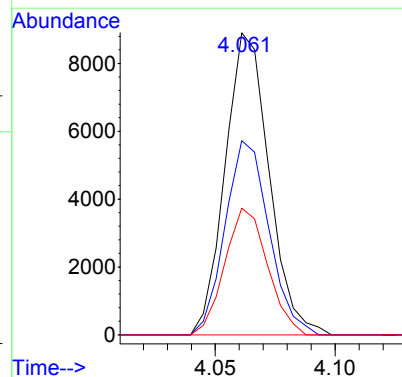
Quant Time: Apr 05 08:13:33 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration





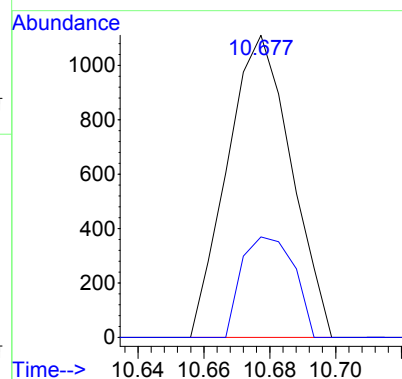
#15
1,2-Dichlorobenzene
Concen: 3.37 ng/uL
RT: 4.061 min Scan# 499
Delta R.T. -0.007 min
Lab File: s3D0418.D
Acq: 04 Apr 2024 19:44

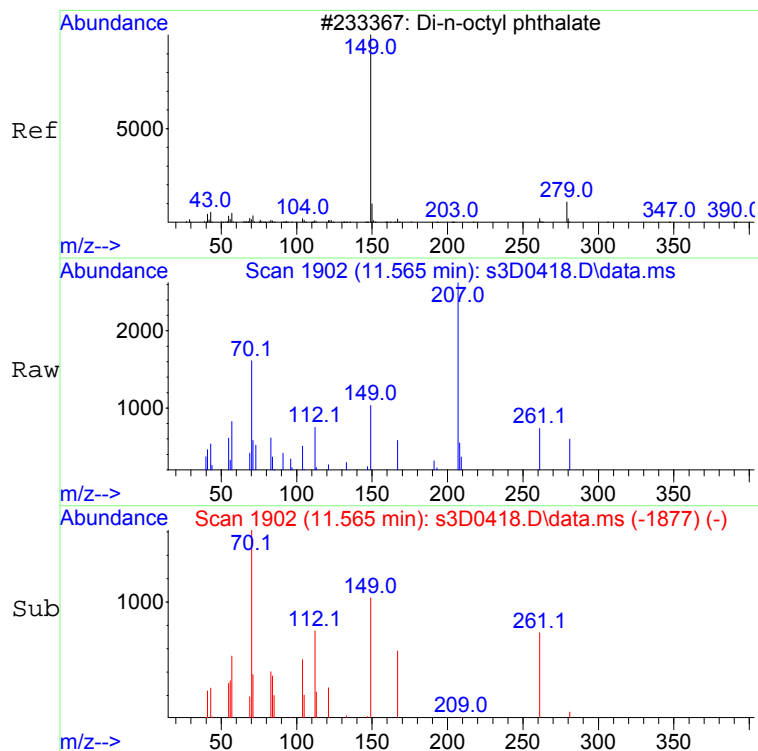
Tgt Ion	Ratio	Lower	Upper
146	100		
148	64.2	33.8	93.8
111	40.7	11.8	71.8



#82 BEFORE analyst DELETION
bis(2-Ethylhexyl)phthalate
Concen: 0.61 ng/uL
RT: 10.677 min Scan# 1736
Delta R.T. -0.000 min
Lab File: s3D0418.D
Acq: 04 Apr 2024 19:44

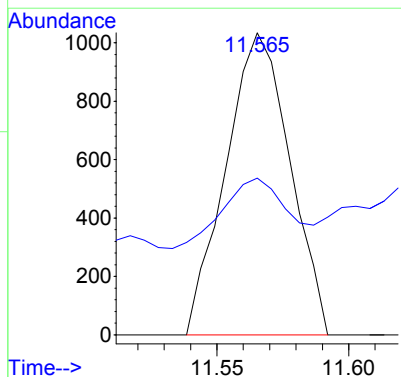
Tgt Ion	Ratio	Lower	Upper
149	100		
167	0.0	0.0	55.6





#87 BEFORE analyst DELETION
Di-n-octylphthalate
Concen: 0.65 ng/uL
RT: 11.565 min Scan# 1902
Delta R.T. 0.035 min
Lab File: s3D0418.D
Acq: 04 Apr 2024 19:44

Tgt Ion:149 Resp: 1741
Ion Ratio Lower Upper
149 100
43 24.0 0.0 37.4



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660968002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:05	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.68 g	Final Volume:	1 mL
Data File:	S040424.S\3D0419.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	936	ug/kg	281	936
110-86-1	Pyridine	U	936	ug/kg	281	936
62-53-3	Aniline	U	936	ug/kg	281	936
108-95-2	Phenol	U	936	ug/kg	281	936
111-44-4	bis(2-Chloroethyl) ether	U	936	ug/kg	281	936
95-57-8	2-Chlorophenol	U	936	ug/kg	281	936
541-73-1	1,3-Dichlorobenzene	U	936	ug/kg	281	936
106-46-7	1,4-Dichlorobenzene	U	936	ug/kg	281	936
95-50-1	1,2-Dichlorobenzene	U	936	ug/kg	281	936
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	936	ug/kg	281	936
100-51-6	Benzyl alcohol	U	936	ug/kg	281	936
95-48-7	o-Cresol	U	936	ug/kg	281	936
65794-96-9	m,p-Cresols	U	936	ug/kg	281	936
621-64-7	N-Nitrosodipropylamine	U	936	ug/kg	281	936
67-72-1	Hexachloroethane	U	936	ug/kg	281	936
98-95-3	Nitrobenzene	U	936	ug/kg	281	936
78-59-1	Isophorone	U	936	ug/kg	281	936
88-75-5	2-Nitrophenol	U	936	ug/kg	281	936
105-67-9	2,4-Dimethylphenol	U	936	ug/kg	281	936
111-91-1	bis(2-Chloroethoxy)methane	U	936	ug/kg	281	936
120-83-2	2,4-Dichlorophenol	U	936	ug/kg	281	936
65-85-0	Benzoic acid	J	1820	ug/kg	468	1870
106-47-8	4-Chloroaniline	U	936	ug/kg	281	936
87-68-3	Hexachlorobutadiene	U	936	ug/kg	281	936
59-50-7	4-Chloro-3-methylphenol	U	936	ug/kg	375	936
91-57-6	2-Methylnaphthalene	U	93.6	ug/kg	28.1	93.6
91-20-3	Naphthalene	U	93.6	ug/kg	28.1	93.6
90-12-0	1-Methylnaphthalene	U	93.6	ug/kg	28.1	93.6
77-47-4	Hexachlorocyclopentadiene	U	936	ug/kg	281	936
88-06-2	2,4,6-Trichlorophenol	U	936	ug/kg	281	936
95-95-4	2,4,5-Trichlorophenol	U	936	ug/kg	281	936
91-58-7	2-Chloronaphthalene	U	93.6	ug/kg	28.1	93.6
88-74-4	o-Nitroaniline	U	936	ug/kg	309	936
99-09-2	m-Nitroaniline	U	936	ug/kg	281	936
131-11-3	Dimethylphthalate	U	93.6	ug/kg	28.1	93.6
99-65-0	m-Dinitrobenzene	U	936	ug/kg	281	936
606-20-2	2,6-Dinitrotoluene	U	936	ug/kg	281	936
121-14-2	2,4-Dinitrotoluene	U	936	ug/kg	281	936

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660968002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:05	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.68 g	Final Volume:	1 mL
Data File:	S040424.S\3D0419.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	93.6	ug/kg	28.1	93.6
83-32-9	Acenaphthene	U	93.6	ug/kg	28.1	93.6
51-28-5	2,4-Dinitrophenol	U	1870	ug/kg	281	1870
132-64-9	Dibenzofuran	U	936	ug/kg	281	936
58-90-2	2,3,4,6-Tetrachlorophenol	U	936	ug/kg	281	936
84-66-2	Diethylphthalate	U	93.6	ug/kg	28.1	93.6
100-02-7	4-Nitrophenol	U	936	ug/kg	281	936
86-73-7	Fluorene	U	93.6	ug/kg	28.1	93.6
7005-72-3	4-Chlorophenylphenylether	U	936	ug/kg	281	936
100-01-6	p-Nitroaniline	U	936	ug/kg	281	936
534-52-1	2-Methyl-4,6-dinitrophenol	U	936	ug/kg	281	936
122-39-4	Diphenylamine	U	936	ug/kg	281	936
122-66-7	1,2-Diphenylhydrazine	U	936	ug/kg	281	936
101-55-3	4-Bromophenylphenylether	U	936	ug/kg	281	936
118-74-1	Hexachlorobenzene	U	936	ug/kg	281	936
87-86-5	Pentachlorophenol	U	936	ug/kg	281	936
88-85-7	Dinoseb	U	936	ug/kg	281	936
85-01-8	Phenanthrene	U	93.6	ug/kg	28.1	93.6
120-12-7	Anthracene	U	93.6	ug/kg	28.1	93.6
86-74-8	Carbazole	U	93.6	ug/kg	28.1	93.6
84-74-2	Di-n-butylphthalate	U	93.6	ug/kg	28.1	93.6
206-44-0	Fluoranthene	U	93.6	ug/kg	28.1	93.6
129-00-0	Pyrene	U	93.6	ug/kg	28.1	93.6
85-68-7	Butylbenzylphthalate	U	93.6	ug/kg	28.1	93.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	93.6	ug/kg	28.1	93.6
56-55-3	Benzo(a)anthracene	U	93.6	ug/kg	28.1	93.6
218-01-9	Chrysene	U	93.6	ug/kg	28.1	93.6
72-43-5	Methoxychlor	U	936	ug/kg	281	936
117-84-0	Di-n-octylphthalate	U	93.6	ug/kg	28.1	93.6
205-99-2	Benzo(b)fluoranthene	U	93.6	ug/kg	28.1	93.6
207-08-9	Benzo(k)fluoranthene	U	93.6	ug/kg	28.1	93.6
50-32-8	Benzo(a)pyrene	U	93.6	ug/kg	28.1	93.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	93.6	ug/kg	28.1	93.6
53-70-3	Dibenzo(a,h)anthracene	U	93.6	ug/kg	28.1	93.6
191-24-2	Benzo(ghi)perylene	U	93.6	ug/kg	28.1	93.6
123-91-1	1,4-Dioxane	U	936	ug/kg	281	936
80-62-6	Methyl methacrylate	U	936	ug/kg	281	936
97-63-2	Ethyl methacrylate	U	936	ug/kg	281	936

Semi-Volatile
Certificate of Analysis
Sample Summary

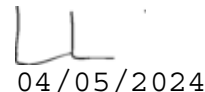
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Lab Sample ID:	660968002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:05	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.68 g	Final Volume:	1 mL
Data File:	S040424.S\3D0419.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	936	ug/kg	281	936
10595-95-6	N-Nitrosomethylethylamine	U	936	ug/kg	281	936
66-27-3	Methyl methanesulfonate	U	936	ug/kg	281	936
55-18-5	N-Nitrosodiethylamine	U	936	ug/kg	281	936
62-50-0	Ethyl Methanesulfonate	U	936	ug/kg	281	936
76-01-7	Pentachloroethane	U	936	ug/kg	281	936
930-55-2	N-Nitrosopyrrolidine	U	936	ug/kg	281	936
98-86-2	Acetophenone	U	936	ug/kg	281	936
59-89-2	N-Nitrosomorpholine	U	936	ug/kg	281	936
95-53-4	o-Toluidine	U	936	ug/kg	281	936
100-75-4	N-Nitrosopiperidine	U	936	ug/kg	281	936
122-09-8	a,a-Dimethylphenethylamine	U	936	ug/kg	328	936
87-65-0	2,6-Dichlorophenol	U	936	ug/kg	281	936
1888-71-7	Hexachloropropene	U	936	ug/kg	281	936
924-16-3	N-Nitrosodi-n-butylamine	U	936	ug/kg	281	936
94-59-7	Safrole	U	936	ug/kg	281	936
95-94-3	1,2,4,5-Tetrachlorobenzene	U	936	ug/kg	281	936
120-58-1	Isosafrole	U	936	ug/kg	281	936
130-15-4	1,4-Naphthoquinone	U	936	ug/kg	281	936
608-93-5	Pentachlorobenzene	U	936	ug/kg	281	936
134-32-7	1-Naphthylamine	U	936	ug/kg	281	936
91-59-8	2-Naphthylamine	U	936	ug/kg	281	936
99-55-8	5-Nitro-o-toluidine	U	936	ug/kg	281	936
62-44-2	Phenacetin	U	936	ug/kg	281	936
99-35-4	1,3,5-Trinitrobenzene	U	936	ug/kg	281	936
2303-16-4	Diallate	U	936	ug/kg	281	936
92-67-1	4-Aminobiphenyl	U	936	ug/kg	281	936
82-68-8	Pentachloronitrobenzene	U	936	ug/kg	281	936
23950-58-5	Pronamide	U	936	ug/kg	281	936
56-57-5	4-Nitroquinoline-1-oxide	U	936	ug/kg	281	936
91-80-5	Methapyrilene	U	936	ug/kg	281	936
465-73-6	Isodrin	U	936	ug/kg	187	936
140-57-8	Aramite	U	936	ug/kg	281	936
143-50-0	Kepone	U	936	ug/kg	281	936
60-11-7	p-(Dimethylamino)azobenzene	U	936	ug/kg	281	936
510-15-6	Chlorobenzilate	U	936	ug/kg	281	936
119-93-7	3,3'-Dimethylbenzidine	U	936	ug/kg	281	936
53-96-3	2-Acetylaminofluorene	U	936	ug/kg	281	936

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:05	Matrix:	MISC SOLID
Lab Sample ID:	660968002	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Middle Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:05	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.68 g	Final Volume:	1 mL
Data File:	S040424.S\3D0419.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	936	ug/kg	281	936
57-97-6	7,12-Dimethylbenz(a)anthracene	U	936	ug/kg	281	936
56-49-5	3-Methylcholanthrene	U	936	ug/kg	281	936
126-68-1	Triethylphosphorothioate	U	936	ug/kg	281	936
297-97-2	Thionazin	U	936	ug/kg	281	936
126-73-8	Tributylphosphate	U	936	ug/kg	281	936
3689-24-5	Sulfotepp	U	936	ug/kg	281	936
298-02-2	Phorate	U	936	ug/kg	281	936
60-51-5	Dimethoate	U	936	ug/kg	281	936
298-04-4	Disulfoton	U	936	ug/kg	281	936
298-00-0	Methyl parathion	U	936	ug/kg	281	936
56-38-2	Parathion	U	936	ug/kg	281	936
52-85-7	Famphur	U	936	ug/kg	281	936
106-50-3	p-Phenylenediamine	U	46800	ug/kg	9360	46800
70-30-4	Hexachlorophene	U	46800	ug/kg	10900	46800
120-82-1	1,2,4-Trichlorobenzene	U	936	ug/kg	281	936



Data Path : C:\msdchem\1\data\S040424.S\

04/05/2024

Data File : s3D0419.D

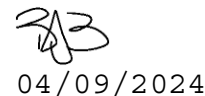
Acq On : 04 Apr 2024 20:05

Operator : LL2

Sample : |660968002|2590892|1|SVM|1|PERM|||

Misc : |MSD827E4_S|MISC SOLID|12039.B4.Middle Front.EPA|mix[a,b,j,d,e]||

ALS Vial : 19 Sample Multiplier: 1



Quant Time: Apr 05 08:14:21 2024

Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Quant Title : BNA01

QLast Update : Fri Mar 15 08:40:12 2024

Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	83862	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	339800	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	172547	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.361	8.362	1.000	358982	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.688	10.683	1.000	391910	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.720	12.715	1.000	412575	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	83862	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	339800	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	172547	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.361	8.362	1.000	358982	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.688	10.683	1.000	391910	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.720	12.715	1.000	412575	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.302	1.000	339800	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.361	8.362	1.000	358982	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.688	10.683	1.000	391910	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	339800	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	172547	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.361	8.362	1.000	358982	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.688	10.683	1.000	391910	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	339800	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.720	12.715	1.000	412575	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.617	2.627	0.674	223397	80.47	ng/uL	-0.01
8) Phenol-d5	99	3.489	3.486	0.898	290349	84.39	ng/uL	0.00
23) Nitrobenzene-d5	82	4.484	4.502	0.846	112048	35.97	ng/uL	-0.02
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	249230	38.03	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.762	7.773	0.928	107102	81.76	ng/uL	-0.01
79) p-Terphenyl-d14	244	9.693	9.686	1.159	393395	45.83	ng/uL	0.00
Compound	Amount	Range		Recovery				
5) 2-Fluorophenol	100.000	11 - 79		80%#				
8) Phenol-d5	100.000	15 - 85		84%				
23) Nitrobenzene-d5	50.000	39 - 112		72%				
44) 2-Fluorobiphenyl	50.000	39 - 112		76%				
64) 2,4,6-Tribromophenol	100.000	37 - 132		82%				
79) p-Terphenyl-d14	50.000	24 - 129		92%				
Target Compounds								
30) Benzoic acid	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
	105	4.986	5.040	0.940	954	19.42	ng/uL	84

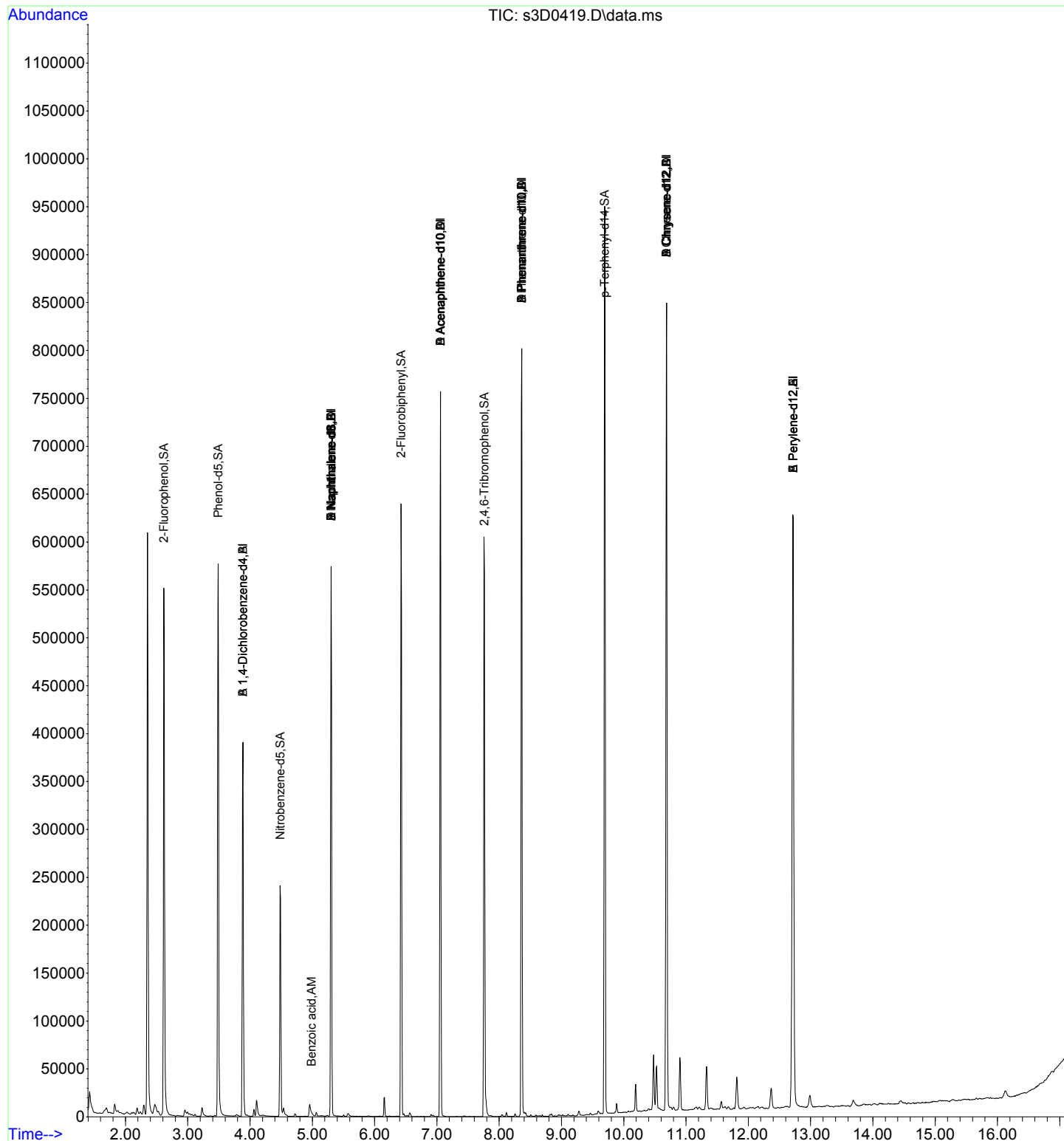
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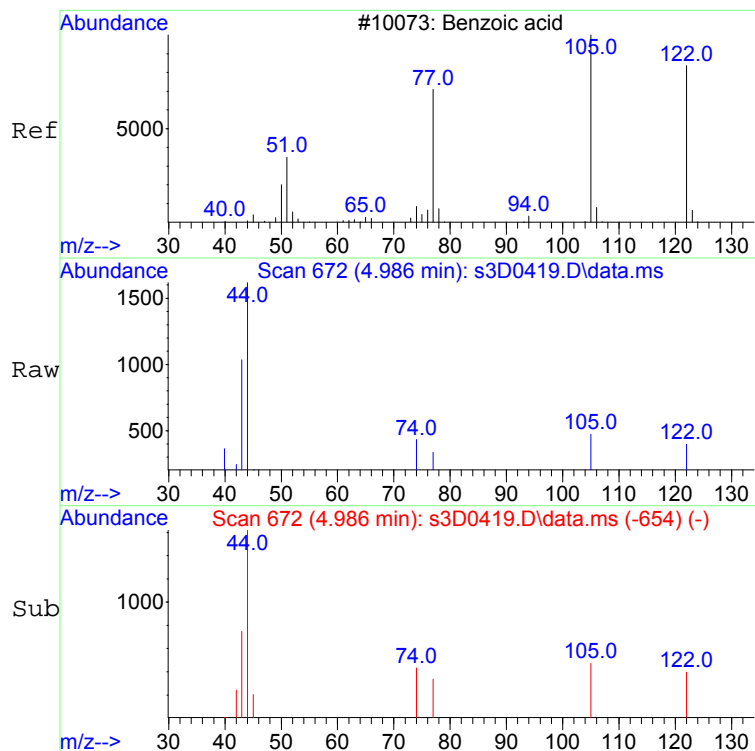
(A)= Over the calibration range (d)= deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0419.D
 Acq On : 04 Apr 2024 20:05
 Operator : LL2
 Sample : |660968002|2590892|1|SVM|1|PERM||
 Misc : |MSD827E4_S|MISC SOLID|12039.B4.Middle Front.EPA|mix[a,b,j,d,e]||
 ALS Vial : 19 Sample Multiplier: 1

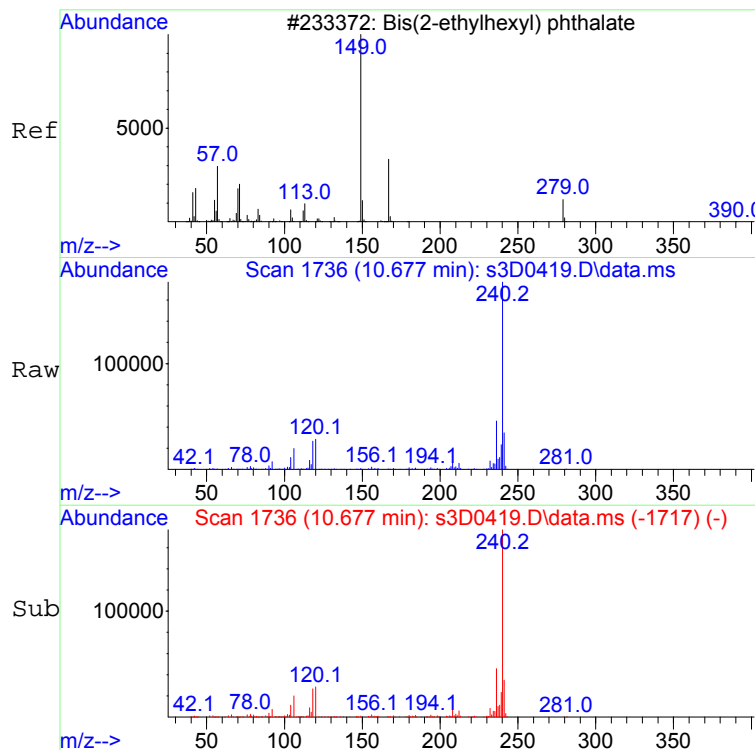
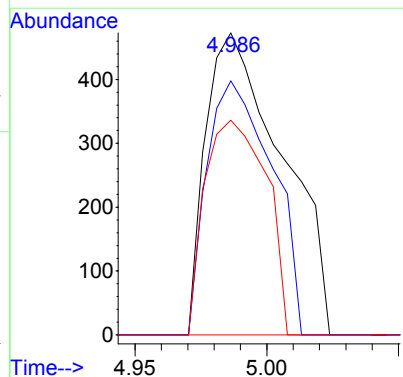
Quant Time: Apr 05 08:14:21 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration





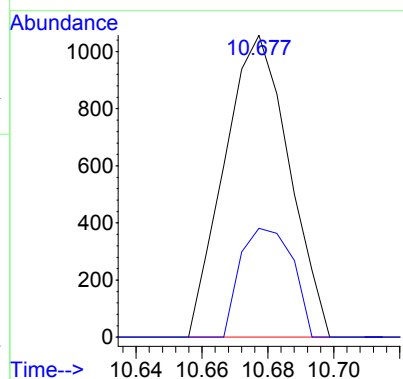
#30
Benzoic acid
Concen: 19.42 ng/uL
RT: 4.986 min Scan# 672
Delta R.T. -0.054 min
Lab File: s3D0419.D
Acq: 04 Apr 2024 20:05

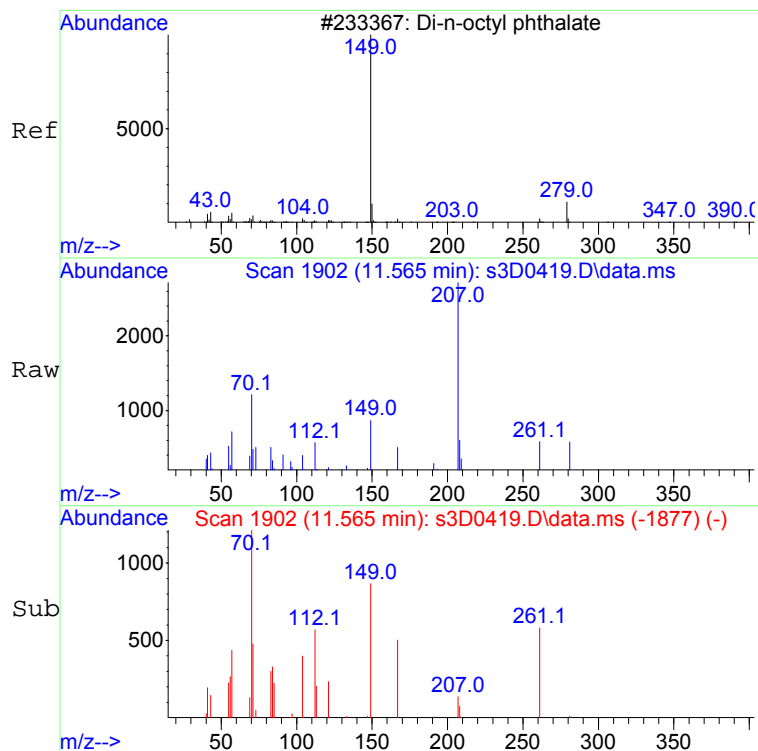
Tgt Ion	Ratio	Lower	Upper
105	100		
122	71.4	53.9	113.9
77	57.0	43.3	103.3



#82 BEFORE analyst DELETION
bis(2-Ethylhexyl)phthalate
Concen: 0.61 ng/uL
RT: 10.677 min Scan# 1736
Delta R.T. -0.000 min
Lab File: s3D0419.D
Acq: 04 Apr 2024 20:05

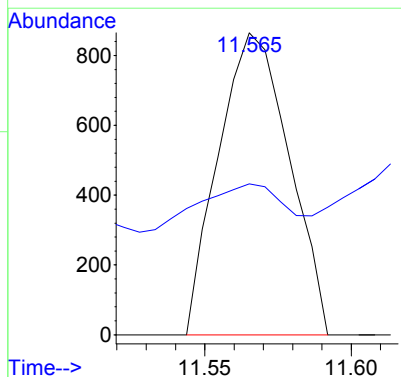
Tgt Ion	Ratio	Lower	Upper
149	100		
167	0.0	0.0	55.6





#87 BEFORE analyst DELETION
Di-n-octylphthalate
Concen: 0.63 ng/uL
RT: 11.565 min Scan# 1902
Delta R.T. 0.035 min
Lab File: s3D0419.D
Acq: 04 Apr 2024 20:05

Tgt Ion:149 Resp: 1449
Ion Ratio Lower Upper
149 100
43 20.3 0.0 37.4



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660968003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:26	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.66 g	Final Volume:	1 mL
Data File:	S040424.S\3D0420.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	938	ug/kg	281	938
110-86-1	Pyridine	U	938	ug/kg	281	938
62-53-3	Aniline	U	938	ug/kg	281	938
108-95-2	Phenol	U	938	ug/kg	281	938
111-44-4	bis(2-Chloroethyl) ether	U	938	ug/kg	281	938
95-57-8	2-Chlorophenol	U	938	ug/kg	281	938
541-73-1	1,3-Dichlorobenzene	U	938	ug/kg	281	938
106-46-7	1,4-Dichlorobenzene	U	938	ug/kg	281	938
95-50-1	1,2-Dichlorobenzene	U	938	ug/kg	281	938
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	938	ug/kg	281	938
100-51-6	Benzyl alcohol	U	938	ug/kg	281	938
95-48-7	o-Cresol	U	938	ug/kg	281	938
65794-96-9	m,p-Cresols	U	938	ug/kg	281	938
621-64-7	N-Nitrosodipropylamine	U	938	ug/kg	281	938
67-72-1	Hexachloroethane	U	938	ug/kg	281	938
98-95-3	Nitrobenzene	U	938	ug/kg	281	938
78-59-1	Isophorone	U	938	ug/kg	281	938
88-75-5	2-Nitrophenol	U	938	ug/kg	281	938
105-67-9	2,4-Dimethylphenol	U	938	ug/kg	281	938
111-91-1	bis(2-Chloroethoxy)methane	U	938	ug/kg	281	938
120-83-2	2,4-Dichlorophenol	U	938	ug/kg	281	938
65-85-0	Benzoic acid	U	1880	ug/kg	469	1880
106-47-8	4-Chloroaniline	U	938	ug/kg	281	938
87-68-3	Hexachlorobutadiene	U	938	ug/kg	281	938
59-50-7	4-Chloro-3-methylphenol	U	938	ug/kg	375	938
91-57-6	2-Methylnaphthalene	U	93.8	ug/kg	28.1	93.8
91-20-3	Naphthalene	U	93.8	ug/kg	28.1	93.8
90-12-0	1-Methylnaphthalene	U	93.8	ug/kg	28.1	93.8
77-47-4	Hexachlorocyclopentadiene	U	938	ug/kg	281	938
88-06-2	2,4,6-Trichlorophenol	U	938	ug/kg	281	938
95-95-4	2,4,5-Trichlorophenol	U	938	ug/kg	281	938
91-58-7	2-Chloronaphthalene	U	93.8	ug/kg	28.1	93.8
88-74-4	o-Nitroaniline	U	938	ug/kg	310	938
99-09-2	m-Nitroaniline	U	938	ug/kg	281	938
131-11-3	Dimethylphthalate	U	93.8	ug/kg	28.1	93.8
99-65-0	m-Dinitrobenzene	U	938	ug/kg	281	938
606-20-2	2,6-Dinitrotoluene	U	938	ug/kg	281	938
121-14-2	2,4-Dinitrotoluene	U	938	ug/kg	281	938

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660968003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:26	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.66 g	Final Volume:	1 mL
Data File:	S040424.S\3D0420.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	93.8	ug/kg	28.1	93.8
83-32-9	Acenaphthene	U	93.8	ug/kg	28.1	93.8
51-28-5	2,4-Dinitrophenol	U	1880	ug/kg	281	1880
132-64-9	Dibenzofuran	U	938	ug/kg	281	938
58-90-2	2,3,4,6-Tetrachlorophenol	U	938	ug/kg	281	938
84-66-2	Diethylphthalate	U	93.8	ug/kg	28.1	93.8
100-02-7	4-Nitrophenol	U	938	ug/kg	281	938
86-73-7	Fluorene	U	93.8	ug/kg	28.1	93.8
7005-72-3	4-Chlorophenylphenylether	U	938	ug/kg	281	938
100-01-6	p-Nitroaniline	U	938	ug/kg	281	938
534-52-1	2-Methyl-4,6-dinitrophenol	U	938	ug/kg	281	938
122-39-4	Diphenylamine	U	938	ug/kg	281	938
122-66-7	1,2-Diphenylhydrazine	U	938	ug/kg	281	938
101-55-3	4-Bromophenylphenylether	U	938	ug/kg	281	938
118-74-1	Hexachlorobenzene	U	938	ug/kg	281	938
87-86-5	Pentachlorophenol	U	938	ug/kg	281	938
88-85-7	Dinoseb	U	938	ug/kg	281	938
85-01-8	Phenanthrene	U	93.8	ug/kg	28.1	93.8
120-12-7	Anthracene	U	93.8	ug/kg	28.1	93.8
86-74-8	Carbazole	U	93.8	ug/kg	28.1	93.8
84-74-2	Di-n-butylphthalate	U	93.8	ug/kg	28.1	93.8
206-44-0	Fluoranthene	U	93.8	ug/kg	28.1	93.8
129-00-0	Pyrene	U	93.8	ug/kg	28.1	93.8
85-68-7	Butylbenzylphthalate	U	93.8	ug/kg	28.1	93.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	93.8	ug/kg	28.1	93.8
56-55-3	Benzo(a)anthracene	U	93.8	ug/kg	28.1	93.8
218-01-9	Chrysene	U	93.8	ug/kg	28.1	93.8
72-43-5	Methoxychlor	U	938	ug/kg	281	938
117-84-0	Di-n-octylphthalate	U	93.8	ug/kg	28.1	93.8
205-99-2	Benzo(b)fluoranthene	U	93.8	ug/kg	28.1	93.8
207-08-9	Benzo(k)fluoranthene	U	93.8	ug/kg	28.1	93.8
50-32-8	Benzo(a)pyrene	U	93.8	ug/kg	28.1	93.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	93.8	ug/kg	28.1	93.8
53-70-3	Dibenzo(a,h)anthracene	U	93.8	ug/kg	28.1	93.8
191-24-2	Benzo(ghi)perylene	U	93.8	ug/kg	28.1	93.8
123-91-1	1,4-Dioxane	U	938	ug/kg	281	938
80-62-6	Methyl methacrylate	U	938	ug/kg	281	938
97-63-2	Ethyl methacrylate	U	938	ug/kg	281	938

Semi-Volatile
Certificate of Analysis
Sample Summary

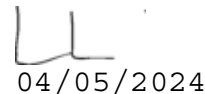
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Lab Sample ID:	660968003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:26	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.66 g	Final Volume:	1 mL
Data File:	S040424.S\3D0420.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	938	ug/kg	281	938
10595-95-6	N-Nitrosomethylethylamine	U	938	ug/kg	281	938
66-27-3	Methyl methanesulfonate	U	938	ug/kg	281	938
55-18-5	N-Nitrosodiethylamine	U	938	ug/kg	281	938
62-50-0	Ethyl Methanesulfonate	U	938	ug/kg	281	938
76-01-7	Pentachloroethane	U	938	ug/kg	281	938
930-55-2	N-Nitrosopyrrolidine	U	938	ug/kg	281	938
98-86-2	Acetophenone	U	938	ug/kg	281	938
59-89-2	N-Nitrosomorpholine	U	938	ug/kg	281	938
95-53-4	o-Toluidine	U	938	ug/kg	281	938
100-75-4	N-Nitrosopiperidine	U	938	ug/kg	281	938
122-09-8	a,a-Dimethylphenethylamine	U	938	ug/kg	328	938
87-65-0	2,6-Dichlorophenol	U	938	ug/kg	281	938
1888-71-7	Hexachloropropene	U	938	ug/kg	281	938
924-16-3	N-Nitrosodi-n-butylamine	U	938	ug/kg	281	938
94-59-7	Safrole	U	938	ug/kg	281	938
95-94-3	1,2,4,5-Tetrachlorobenzene	U	938	ug/kg	281	938
120-58-1	Isosafrole	U	938	ug/kg	281	938
130-15-4	1,4-Naphthoquinone	U	938	ug/kg	281	938
608-93-5	Pentachlorobenzene	U	938	ug/kg	281	938
134-32-7	1-Naphthylamine	U	938	ug/kg	281	938
91-59-8	2-Naphthylamine	U	938	ug/kg	281	938
99-55-8	5-Nitro-o-toluidine	U	938	ug/kg	281	938
62-44-2	Phenacetin	U	938	ug/kg	281	938
99-35-4	1,3,5-Trinitrobenzene	U	938	ug/kg	281	938
2303-16-4	Diallate	U	938	ug/kg	281	938
92-67-1	4-Aminobiphenyl	U	938	ug/kg	281	938
82-68-8	Pentachloronitrobenzene	U	938	ug/kg	281	938
23950-58-5	Pronamide	U	938	ug/kg	281	938
56-57-5	4-Nitroquinoline-1-oxide	U	938	ug/kg	281	938
91-80-5	Methapyrilene	U	938	ug/kg	281	938
465-73-6	Isodrin	U	938	ug/kg	188	938
140-57-8	Aramite	U	938	ug/kg	281	938
143-50-0	Kepone	U	938	ug/kg	281	938
60-11-7	p-(Dimethylamino)azobenzene	U	938	ug/kg	281	938
510-15-6	Chlorobenzilate	U	938	ug/kg	281	938
119-93-7	3,3'-Dimethylbenzidine	U	938	ug/kg	281	938
53-96-3	2-Acetylaminofluorene	U	938	ug/kg	281	938

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:10	Matrix:	MISC SOLID
Lab Sample ID:	660968003	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12039.B4.Bottom Front.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:26	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.66 g	Final Volume:	1 mL
Data File:	S040424.S\3D0420.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	938	ug/kg	281	938
57-97-6	7,12-Dimethylbenz(a)anthracene	U	938	ug/kg	281	938
56-49-5	3-Methylcholanthrene	U	938	ug/kg	281	938
126-68-1	Triethylphosphorothioate	U	938	ug/kg	281	938
297-97-2	Thionazin	U	938	ug/kg	281	938
126-73-8	Tributylphosphate	U	938	ug/kg	281	938
3689-24-5	Sulfotepp	U	938	ug/kg	281	938
298-02-2	Phorate	U	938	ug/kg	281	938
60-51-5	Dimethoate	U	938	ug/kg	281	938
298-04-4	Disulfoton	U	938	ug/kg	281	938
298-00-0	Methyl parathion	U	938	ug/kg	281	938
56-38-2	Parathion	U	938	ug/kg	281	938
52-85-7	Famphur	U	938	ug/kg	281	938
106-50-3	p-Phenylenediamine	U	46900	ug/kg	9380	46900
70-30-4	Hexachlorophene	U	46900	ug/kg	10900	46900
120-82-1	1,2,4-Trichlorobenzene	U	938	ug/kg	281	938



Data Path : C:\msdchem\1\data\S040424.S\

04/05/2024

Data File : s3D0420.D

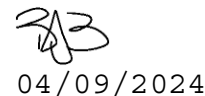
Acq On : 04 Apr 2024 20:26

Operator : LL2

Sample : |660968003|2590892|1|SVM|1|PERM|||

Misc : |MSD827E4_S|MISC SOLID|12039.B4.Bottom Front.EPA|mix[a,b,j,d,e]||

ALS Vial : 20 Sample Multiplier: 1



Quant Time: Apr 05 08:15:56 2024

Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Quant Title : BNA01

QLast Update : Fri Mar 15 08:40:12 2024

Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	79702	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	335416	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	175324	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.361	8.362	1.000	359242	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.683	10.683	1.000	385924	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.715	12.715	1.000	386905	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	79702	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	335416	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	175324	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.361	8.362	1.000	359242	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.683	10.683	1.000	385924	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.715	12.715	1.000	386905	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.302	1.000	335416	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.361	8.362	1.000	359242	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.683	10.683	1.000	385924	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	335416	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	175324	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.361	8.362	1.000	359242	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.683	10.683	1.000	385924	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	335416	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.715	12.715	1.000	386905	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.617	2.627	0.674	219225	83.09	ng/uL	-0.01
8) Phenol-d5	99	3.489	3.486	0.898	289677	88.59	ng/uL	0.00
23) Nitrobenzene-d5	82	4.484	4.502	0.846	113934	37.05	ng/uL	-0.02
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	251850	37.82	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.762	7.773	0.928	106620	81.33	ng/uL	-0.01
79) p-Terphenyl-d14	244	9.693	9.686	1.159	402998	46.92	ng/uL	0.00
Compound	Amount	Range		Recovery				
5) 2-Fluorophenol	100.000	11 - 79		83%#				
8) Phenol-d5	100.000	15 - 85		89%#				
23) Nitrobenzene-d5	50.000	39 - 112		74%				
44) 2-Fluorobiphenyl	50.000	39 - 112		76%				
64) 2,4,6-Tribromophenol	100.000	37 - 132		81%				
79) p-Terphenyl-d14	50.000	24 - 129		94%				

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
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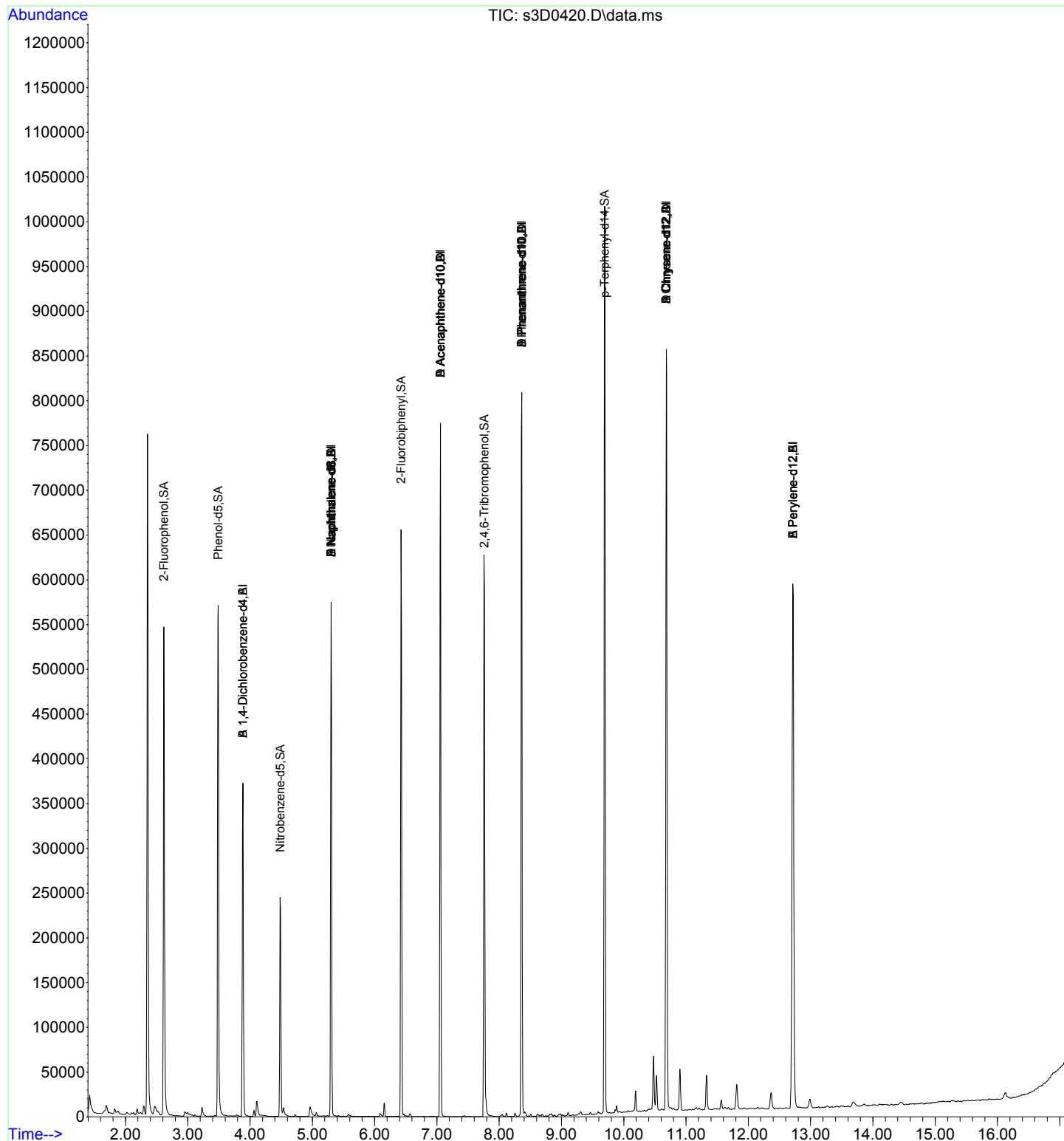
(#)= qualifier out of range (m)= manual integration (+)= signals summed

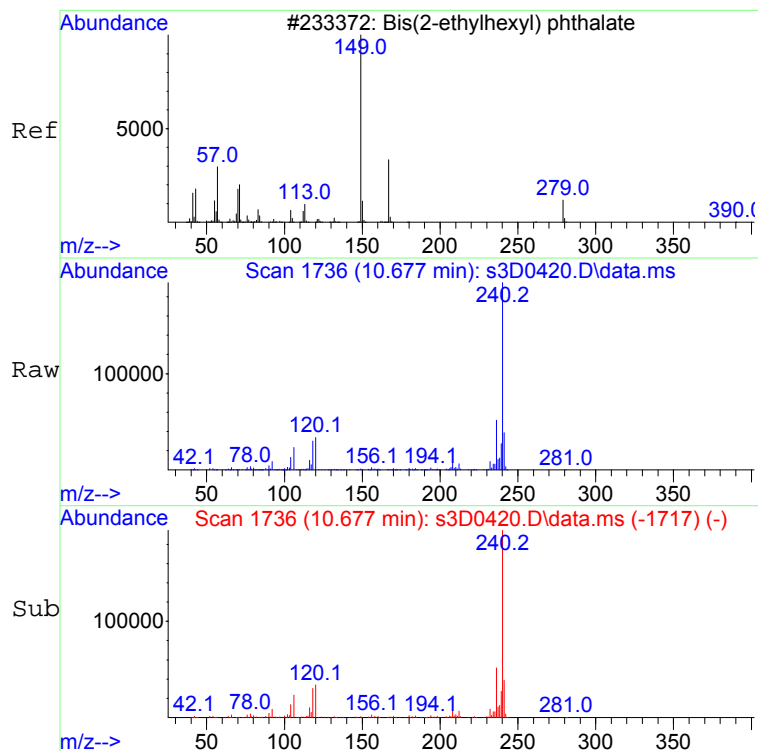
(A)= Over the calibration range (d)= deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0420.D
 Acq On : 04 Apr 2024 20:26
 Operator : LL2
 Sample : |660968003|2590892|1|SVM|1|PERM|||
 Misc : |MSD827E4_S|MISC SOLID|12039.B4.Bottom Front.EPA|mix[a,b,j,d,e]||
 ALS Vial : 20 Sample Multiplier: 1

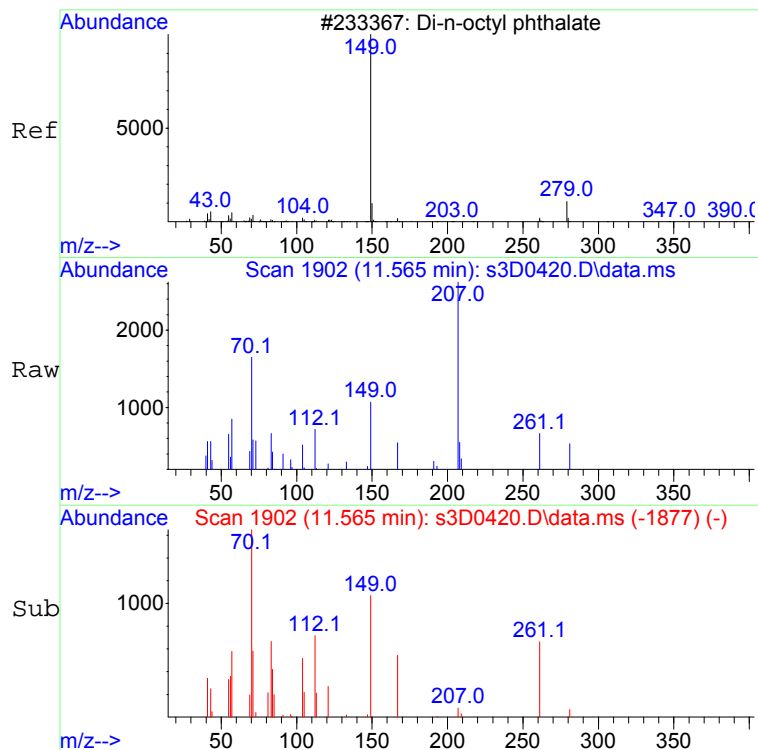
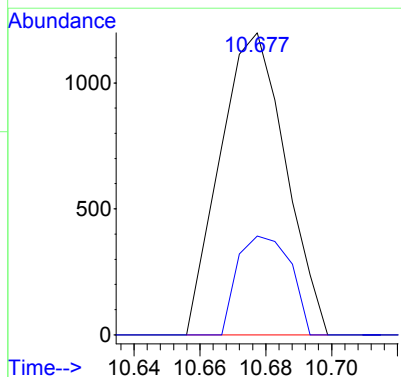
Quant Time: Apr 05 08:15:56 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration





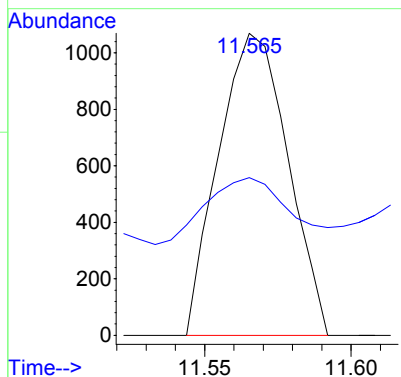
#82 BEFORE analyst DELETION
bis(2-Ethylhexyl)phthalate
Concen: 0.63 ng/uL
RT: 10.677 min Scan# 1736
Delta R.T. -0.000 min
Lab File: s3D0420.D
Acq: 04 Apr 2024 20:26

Tgt Ion:149 Resp: 1647
Ion Ratio Lower Upper
149 100
167 0.0 0.0 55.6



#87 BEFORE analyst DELETION
Di-n-octylphthalate
Concen: 0.65 ng/uL
RT: 11.565 min Scan# 1902
Delta R.T. 0.035 min
Lab File: s3D0420.D
Acq: 04 Apr 2024 20:26

Tgt Ion:149 Resp: 1755
Ion Ratio Lower Upper
149 100
43 26.5 0.0 37.4



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660968004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:48	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.28 g	Final Volume:	1 mL
Data File:	S040424.S\3D0421.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	973	ug/kg	292	973
110-86-1	Pyridine	U	973	ug/kg	292	973
62-53-3	Aniline	U	973	ug/kg	292	973
108-95-2	Phenol	U	973	ug/kg	292	973
111-44-4	bis(2-Chloroethyl) ether	U	973	ug/kg	292	973
95-57-8	2-Chlorophenol	U	973	ug/kg	292	973
541-73-1	1,3-Dichlorobenzene	U	973	ug/kg	292	973
106-46-7	1,4-Dichlorobenzene	U	973	ug/kg	292	973
95-50-1	1,2-Dichlorobenzene	U	973	ug/kg	292	973
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	973	ug/kg	292	973
100-51-6	Benzyl alcohol	U	973	ug/kg	292	973
95-48-7	o-Cresol	U	973	ug/kg	292	973
65794-96-9	m,p-Cresols	U	973	ug/kg	292	973
621-64-7	N-Nitrosodipropylamine	U	973	ug/kg	292	973
67-72-1	Hexachloroethane	U	973	ug/kg	292	973
98-95-3	Nitrobenzene	U	973	ug/kg	292	973
78-59-1	Isophorone	U	973	ug/kg	292	973
88-75-5	2-Nitrophenol	U	973	ug/kg	292	973
105-67-9	2,4-Dimethylphenol	U	973	ug/kg	292	973
111-91-1	bis(2-Chloroethoxy)methane	U	973	ug/kg	292	973
120-83-2	2,4-Dichlorophenol	U	973	ug/kg	292	973
65-85-0	Benzoic acid	U	1950	ug/kg	486	1950
106-47-8	4-Chloroaniline	U	973	ug/kg	292	973
87-68-3	Hexachlorobutadiene	U	973	ug/kg	292	973
59-50-7	4-Chloro-3-methylphenol	U	973	ug/kg	389	973
91-57-6	2-Methylnaphthalene	U	97.3	ug/kg	29.2	97.3
91-20-3	Naphthalene	U	97.3	ug/kg	29.2	97.3
90-12-0	1-Methylnaphthalene	U	97.3	ug/kg	29.2	97.3
77-47-4	Hexachlorocyclopentadiene	U	973	ug/kg	292	973
88-06-2	2,4,6-Trichlorophenol	U	973	ug/kg	292	973
95-95-4	2,4,5-Trichlorophenol	U	973	ug/kg	292	973
91-58-7	2-Chloronaphthalene	U	97.3	ug/kg	29.2	97.3
88-74-4	o-Nitroaniline	U	973	ug/kg	321	973
99-09-2	m-Nitroaniline	U	973	ug/kg	292	973
131-11-3	Dimethylphthalate	U	97.3	ug/kg	29.2	97.3
99-65-0	m-Dinitrobenzene	U	973	ug/kg	292	973
606-20-2	2,6-Dinitrotoluene	U	973	ug/kg	292	973
121-14-2	2,4-Dinitrotoluene	U	973	ug/kg	292	973

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660968004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:48	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.28 g	Final Volume:	1 mL
Data File:	S040424.S\3D0421.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	97.3	ug/kg	29.2	97.3
83-32-9	Acenaphthene	U	97.3	ug/kg	29.2	97.3
51-28-5	2,4-Dinitrophenol	U	1950	ug/kg	292	1950
132-64-9	Dibenzofuran	U	973	ug/kg	292	973
58-90-2	2,3,4,6-Tetrachlorophenol	U	973	ug/kg	292	973
84-66-2	Diethylphthalate	U	97.3	ug/kg	29.2	97.3
100-02-7	4-Nitrophenol	U	973	ug/kg	292	973
86-73-7	Fluorene	U	97.3	ug/kg	29.2	97.3
7005-72-3	4-Chlorophenylphenylether	U	973	ug/kg	292	973
100-01-6	p-Nitroaniline	U	973	ug/kg	292	973
534-52-1	2-Methyl-4,6-dinitrophenol	U	973	ug/kg	292	973
122-39-4	Diphenylamine	U	973	ug/kg	292	973
122-66-7	1,2-Diphenylhydrazine	U	973	ug/kg	292	973
101-55-3	4-Bromophenylphenylether	U	973	ug/kg	292	973
118-74-1	Hexachlorobenzene	U	973	ug/kg	292	973
87-86-5	Pentachlorophenol	U	973	ug/kg	292	973
88-85-7	Dinoseb	U	973	ug/kg	292	973
85-01-8	Phenanthrene	U	97.3	ug/kg	29.2	97.3
120-12-7	Anthracene	U	97.3	ug/kg	29.2	97.3
86-74-8	Carbazole	U	97.3	ug/kg	29.2	97.3
84-74-2	Di-n-butylphthalate	U	97.3	ug/kg	29.2	97.3
206-44-0	Fluoranthene	U	97.3	ug/kg	29.2	97.3
129-00-0	Pyrene	U	97.3	ug/kg	29.2	97.3
85-68-7	Butylbenzylphthalate	U	97.3	ug/kg	29.2	97.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	97.3	ug/kg	29.2	97.3
56-55-3	Benzo(a)anthracene	U	97.3	ug/kg	29.2	97.3
218-01-9	Chrysene	U	97.3	ug/kg	29.2	97.3
72-43-5	Methoxychlor	U	973	ug/kg	292	973
117-84-0	Di-n-octylphthalate	U	97.3	ug/kg	29.2	97.3
205-99-2	Benzo(b)fluoranthene	U	97.3	ug/kg	29.2	97.3
207-08-9	Benzo(k)fluoranthene	U	97.3	ug/kg	29.2	97.3
50-32-8	Benzo(a)pyrene	U	97.3	ug/kg	29.2	97.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	97.3	ug/kg	29.2	97.3
53-70-3	Dibenzo(a,h)anthracene	U	97.3	ug/kg	29.2	97.3
191-24-2	Benzo(ghi)perylene	U	97.3	ug/kg	29.2	97.3
123-91-1	1,4-Dioxane	U	973	ug/kg	292	973
80-62-6	Methyl methacrylate	U	973	ug/kg	292	973
97-63-2	Ethyl methacrylate	U	973	ug/kg	292	973

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660968004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:48	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.28 g	Final Volume:	1 mL
Data File:	S040424.S\3D0421.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	973	ug/kg	292	973
10595-95-6	N-Nitrosomethylethylamine	U	973	ug/kg	292	973
66-27-3	Methyl methanesulfonate	U	973	ug/kg	292	973
55-18-5	N-Nitrosodiethylamine	U	973	ug/kg	292	973
62-50-0	Ethyl Methanesulfonate	U	973	ug/kg	292	973
76-01-7	Pentachloroethane	U	973	ug/kg	292	973
930-55-2	N-Nitrosopyrrolidine	U	973	ug/kg	292	973
98-86-2	Acetophenone	U	973	ug/kg	292	973
59-89-2	N-Nitrosomorpholine	U	973	ug/kg	292	973
95-53-4	o-Toluidine	U	973	ug/kg	292	973
100-75-4	N-Nitrosopiperidine	U	973	ug/kg	292	973
122-09-8	a,a-Dimethylphenethylamine	U	973	ug/kg	340	973
87-65-0	2,6-Dichlorophenol	U	973	ug/kg	292	973
1888-71-7	Hexachloropropene	U	973	ug/kg	292	973
924-16-3	N-Nitrosodi-n-butylamine	U	973	ug/kg	292	973
94-59-7	Safrole	U	973	ug/kg	292	973
95-94-3	1,2,4,5-Tetrachlorobenzene	U	973	ug/kg	292	973
120-58-1	Isosafrole	U	973	ug/kg	292	973
130-15-4	1,4-Naphthoquinone	U	973	ug/kg	292	973
608-93-5	Pentachlorobenzene	U	973	ug/kg	292	973
134-32-7	1-Naphthylamine	U	973	ug/kg	292	973
91-59-8	2-Naphthylamine	U	973	ug/kg	292	973
99-55-8	5-Nitro-o-toluidine	U	973	ug/kg	292	973
62-44-2	Phenacetin	U	973	ug/kg	292	973
99-35-4	1,3,5-Trinitrobenzene	U	973	ug/kg	292	973
2303-16-4	Diallate	U	973	ug/kg	292	973
92-67-1	4-Aminobiphenyl	U	973	ug/kg	292	973
82-68-8	Pentachloronitrobenzene	U	973	ug/kg	292	973
23950-58-5	Pronamide	U	973	ug/kg	292	973
56-57-5	4-Nitroquinoline-1-oxide	U	973	ug/kg	292	973
91-80-5	Methapyrilene	U	973	ug/kg	292	973
465-73-6	Isodrin	U	973	ug/kg	195	973
140-57-8	Aramite	U	973	ug/kg	292	973
143-50-0	Kepone	U	973	ug/kg	292	973
60-11-7	p-(Dimethylamino)azobenzene	U	973	ug/kg	292	973
510-15-6	Chlorobenzilate	U	973	ug/kg	292	973
119-93-7	3,3'-Dimethylbenzidine	U	973	ug/kg	292	973
53-96-3	2-Acetylaminofluorene	U	973	ug/kg	292	973

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:15	Matrix:	MISC SOLID
Lab Sample ID:	660968004	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Top Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 20:48	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.28 g	Final Volume:	1 mL
Data File:	S040424.S\3D0421.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	973	ug/kg	292	973
57-97-6	7,12-Dimethylbenz(a)anthracene	U	973	ug/kg	292	973
56-49-5	3-Methylcholanthrene	U	973	ug/kg	292	973
126-68-1	Triethylphosphorothioate	U	973	ug/kg	292	973
297-97-2	Thionazin	U	973	ug/kg	292	973
126-73-8	Tributylphosphate	U	973	ug/kg	292	973
3689-24-5	Sulfotepp	U	973	ug/kg	292	973
298-02-2	Phorate	U	973	ug/kg	292	973
60-51-5	Dimethoate	U	973	ug/kg	292	973
298-04-4	Disulfoton	U	973	ug/kg	292	973
298-00-0	Methyl parathion	U	973	ug/kg	292	973
56-38-2	Parathion	U	973	ug/kg	292	973
52-85-7	Famphur	U	973	ug/kg	292	973
106-50-3	p-Phenylenediamine	U	48600	ug/kg	9730	48600
70-30-4	Hexachlorophene	U	48600	ug/kg	11300	48600
120-82-1	1,2,4-Trichlorobenzene	U	973	ug/kg	292	973

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0421.D
 Acq On : 04 Apr 2024 20:48
 Operator : LL2
 Sample : |660968004|2590892|1|SVM|1|PERM|||
 Misc : |MSD827E4_S|MISC SOLID|12040.B4.Top Back.EPA|mix[a,b,j,d,e]||
 ALS Vial : 21 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 08:18:18 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	85383	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	347580	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	176670	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.362	8.362	1.000	360953	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.683	10.683	1.000	391158	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.715	12.715	1.000	404636	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	85383	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	347580	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	176670	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.362	8.362	1.000	360953	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.683	10.683	1.000	391158	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.715	12.715	1.000	404636	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.302	1.000	347580	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.362	8.362	1.000	360953	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.683	10.683	1.000	391158	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	347580	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	176670	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.362	8.362	1.000	360953	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.683	10.683	1.000	391158	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	347580	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.715	12.715	1.000	404636	40.00	ng/uL	0.00
System Monitoring Compounds								
5) 2-Fluorophenol	112	2.617	2.627	0.674	205009	72.53	ng/uL	0.00
8) Phenol-d5	99	3.489	3.486	0.898	267847	76.46	ng/uL	0.00
23) Nitrobenzene-d5	82	4.484	4.502	0.846	105401	33.08	ng/uL	-0.02
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	232413	34.63	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.757	7.773	0.928	98615	74.87	ng/uL	-0.02
79) p-Terphenyl-d14	244	9.693	9.686	1.159	371615	43.06	ng/uL	0.00
Compound Amount Range Recovery								
5) 2-Fluorophenol	100.000	11 - 79	73%					
8) Phenol-d5	100.000	15 - 85	76%					
23) Nitrobenzene-d5	50.000	39 - 112	66%					
44) 2-Fluorobiphenyl	50.000	39 - 112	69%					
64) 2,4,6-Tribromophenol	100.000	37 - 132	75%					
79) p-Terphenyl-d14	50.000	24 - 129	86%					

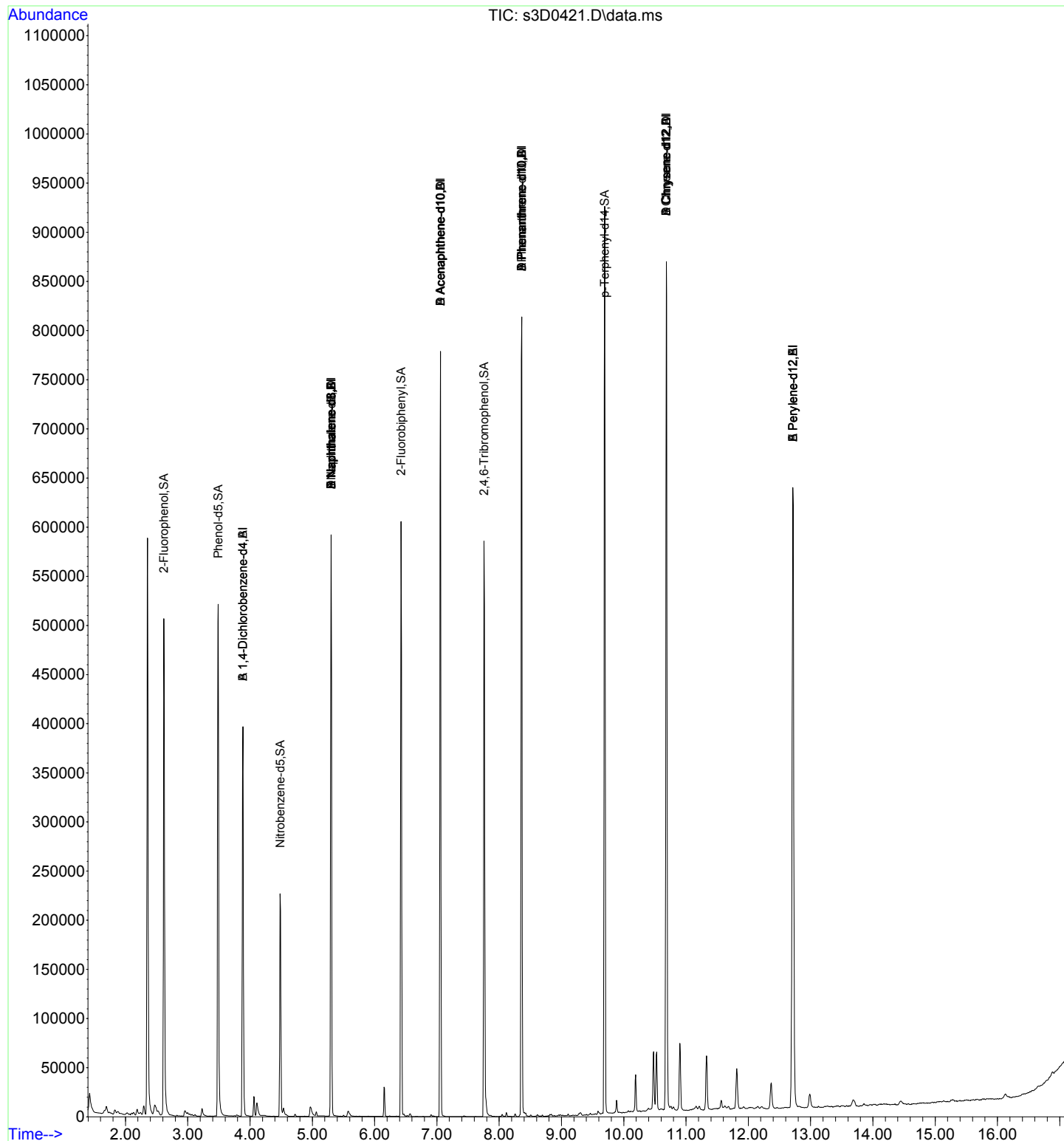
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
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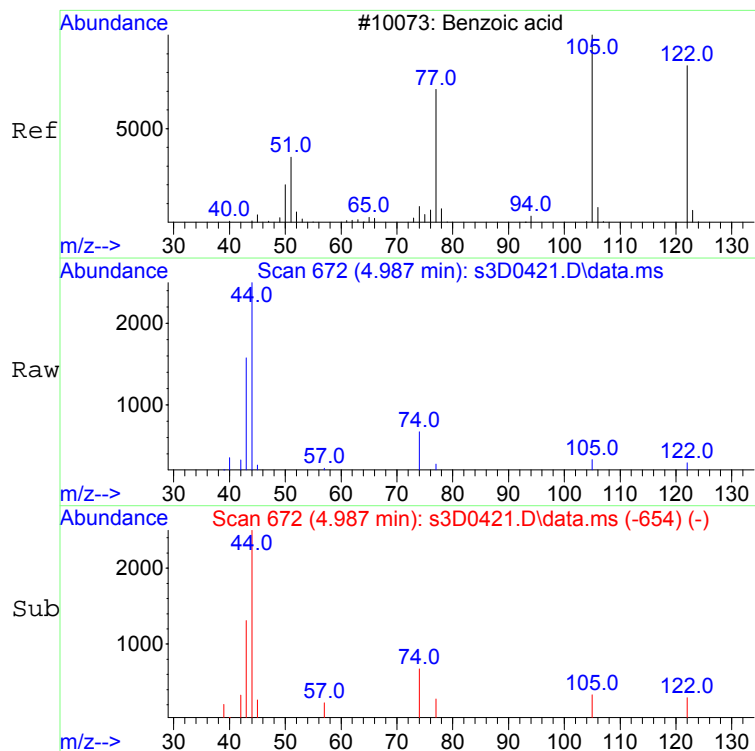
(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0421.D
 Acq On : 04 Apr 2024 20:48
 Operator : LL2
 Sample : |660968004|2590892|1|SVM|1|PERM||
 Misc : |MSD827E4_S|MISC SOLID|12040.B4.Top Back.EPA|mix[a,b,j,d,e]||
 ALS Vial : 21 Sample Multiplier: 1

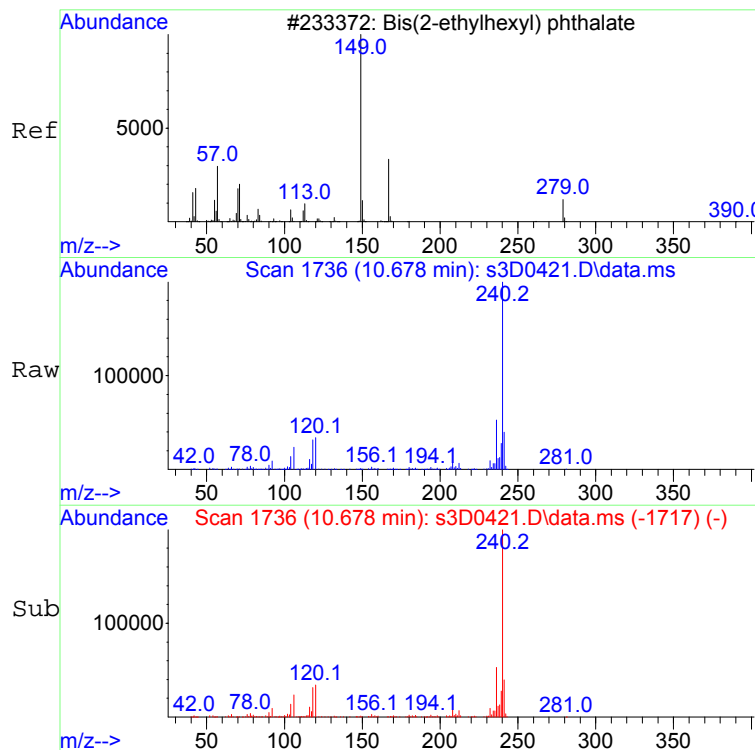
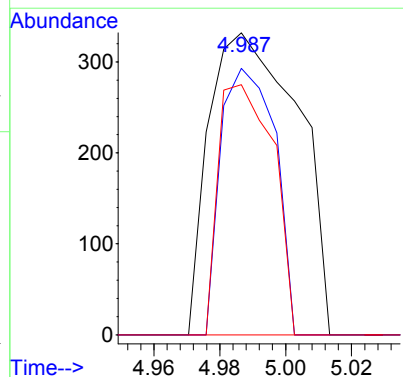
Quant Time: Apr 05 08:18:18 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration





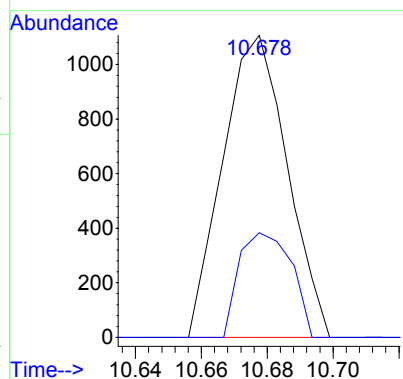
#30 BEFORE analyst DELETION
Benzoic acid
Concen: 19.28 ng/uL
RT: 4.987 min Scan# 672
Delta R.T. -0.053 min
Lab File: s3D0421.D
Acq: 04 Apr 2024 20:48

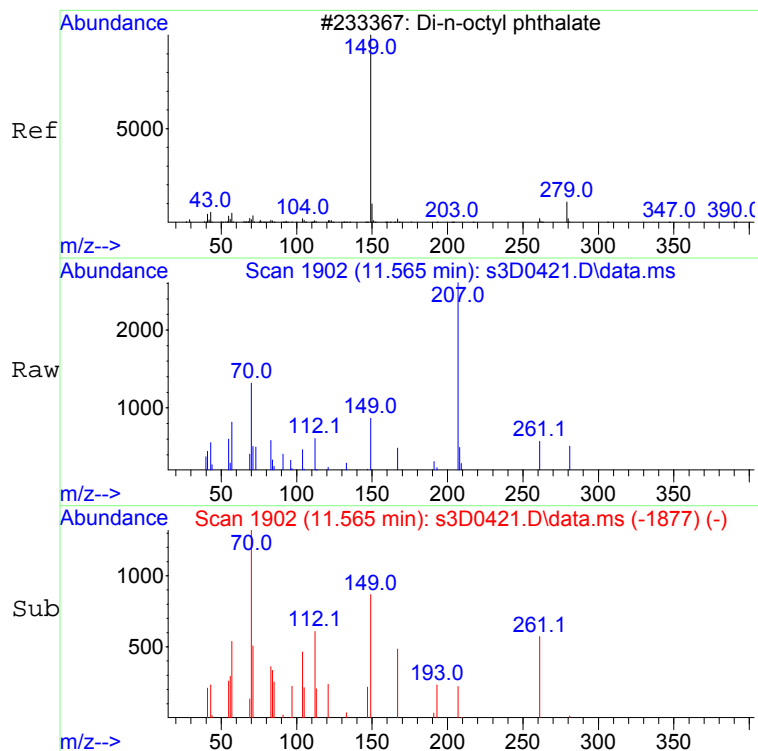
Tgt Ion	Ratio	Lower	Upper
105	100		
122	0.0	53.9	113.9#
77	0.0	43.3	103.3#



#82 BEFORE analyst DELETION
bis(2-Ethylhexyl)phthalate
Concen: 0.62 ng/uL
RT: 10.678 min Scan# 1736
Delta R.T. -0.000 min
Lab File: s3D0421.D
Acq: 04 Apr 2024 20:48

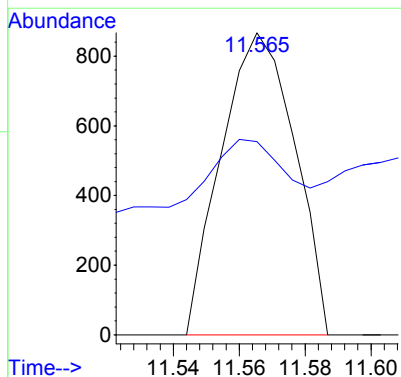
Tgt Ion	Ratio	Lower	Upper
149	100		
167	0.0	0.0	55.6





#87 BEFORE analyst DELETION
Di-n-octylphthalate
Concen: 0.62 ng/uL
RT: 11.565 min Scan# 1902
Delta R.T. 0.035 min
Lab File: s3D0421.D
Acq: 04 Apr 2024 20:48

Tgt Ion:149 Resp: 1340
Ion Ratio Lower Upper
149 100
43 44.1 0.0 37.4#



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660968005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:09	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.82 g	Final Volume:	1 mL
Data File:	S040424.S\3D0422.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	924	ug/kg	277	924
110-86-1	Pyridine	U	924	ug/kg	277	924
62-53-3	Aniline	U	924	ug/kg	277	924
108-95-2	Phenol	U	924	ug/kg	277	924
111-44-4	bis(2-Chloroethyl) ether	U	924	ug/kg	277	924
95-57-8	2-Chlorophenol	U	924	ug/kg	277	924
541-73-1	1,3-Dichlorobenzene	U	924	ug/kg	277	924
106-46-7	1,4-Dichlorobenzene	U	924	ug/kg	277	924
95-50-1	1,2-Dichlorobenzene	U	924	ug/kg	277	924
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	924	ug/kg	277	924
100-51-6	Benzyl alcohol	U	924	ug/kg	277	924
95-48-7	o-Cresol	U	924	ug/kg	277	924
65794-96-9	m,p-Cresols	U	924	ug/kg	277	924
621-64-7	N-Nitrosodipropylamine	U	924	ug/kg	277	924
67-72-1	Hexachloroethane	U	924	ug/kg	277	924
98-95-3	Nitrobenzene	U	924	ug/kg	277	924
78-59-1	Isophorone	U	924	ug/kg	277	924
88-75-5	2-Nitrophenol	U	924	ug/kg	277	924
105-67-9	2,4-Dimethylphenol	U	924	ug/kg	277	924
111-91-1	bis(2-Chloroethoxy)methane	U	924	ug/kg	277	924
120-83-2	2,4-Dichlorophenol	U	924	ug/kg	277	924
65-85-0	Benzoic acid	U	1850	ug/kg	462	1850
106-47-8	4-Chloroaniline	U	924	ug/kg	277	924
87-68-3	Hexachlorobutadiene	U	924	ug/kg	277	924
59-50-7	4-Chloro-3-methylphenol	U	924	ug/kg	370	924
91-57-6	2-Methylnaphthalene	U	92.4	ug/kg	27.7	92.4
91-20-3	Naphthalene	U	92.4	ug/kg	27.7	92.4
90-12-0	1-Methylnaphthalene	U	92.4	ug/kg	27.7	92.4
77-47-4	Hexachlorocyclopentadiene	U	924	ug/kg	277	924
88-06-2	2,4,6-Trichlorophenol	U	924	ug/kg	277	924
95-95-4	2,4,5-Trichlorophenol	U	924	ug/kg	277	924
91-58-7	2-Chloronaphthalene	U	92.4	ug/kg	27.7	92.4
88-74-4	o-Nitroaniline	U	924	ug/kg	305	924
99-09-2	m-Nitroaniline	U	924	ug/kg	277	924
131-11-3	Dimethylphthalate	U	92.4	ug/kg	27.7	92.4
99-65-0	m-Dinitrobenzene	U	924	ug/kg	277	924
606-20-2	2,6-Dinitrotoluene	U	924	ug/kg	277	924
121-14-2	2,4-Dinitrotoluene	U	924	ug/kg	277	924

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660968005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:09	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.82 g	Final Volume:	1 mL
Data File:	S040424.S\3D0422.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	92.4	ug/kg	27.7	92.4
83-32-9	Acenaphthene	U	92.4	ug/kg	27.7	92.4
51-28-5	2,4-Dinitrophenol	U	1850	ug/kg	277	1850
132-64-9	Dibenzofuran	U	924	ug/kg	277	924
58-90-2	2,3,4,6-Tetrachlorophenol	U	924	ug/kg	277	924
84-66-2	Diethylphthalate	U	92.4	ug/kg	27.7	92.4
100-02-7	4-Nitrophenol	U	924	ug/kg	277	924
86-73-7	Fluorene	U	92.4	ug/kg	27.7	92.4
7005-72-3	4-Chlorophenylphenylether	U	924	ug/kg	277	924
100-01-6	p-Nitroaniline	U	924	ug/kg	277	924
534-52-1	2-Methyl-4,6-dinitrophenol	U	924	ug/kg	277	924
122-39-4	Diphenylamine	U	924	ug/kg	277	924
122-66-7	1,2-Diphenylhydrazine	U	924	ug/kg	277	924
101-55-3	4-Bromophenylphenylether	U	924	ug/kg	277	924
118-74-1	Hexachlorobenzene	U	924	ug/kg	277	924
87-86-5	Pentachlorophenol	U	924	ug/kg	277	924
88-85-7	Dinoseb	U	924	ug/kg	277	924
85-01-8	Phenanthrene	U	92.4	ug/kg	27.7	92.4
120-12-7	Anthracene	U	92.4	ug/kg	27.7	92.4
86-74-8	Carbazole	U	92.4	ug/kg	27.7	92.4
84-74-2	Di-n-butylphthalate	U	92.4	ug/kg	27.7	92.4
206-44-0	Fluoranthene	U	92.4	ug/kg	27.7	92.4
129-00-0	Pyrene	U	92.4	ug/kg	27.7	92.4
85-68-7	Butylbenzylphthalate	U	92.4	ug/kg	27.7	92.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	92.4	ug/kg	27.7	92.4
56-55-3	Benzo(a)anthracene	U	92.4	ug/kg	27.7	92.4
218-01-9	Chrysene	U	92.4	ug/kg	27.7	92.4
72-43-5	Methoxychlor	U	924	ug/kg	277	924
117-84-0	Di-n-octylphthalate	U	92.4	ug/kg	27.7	92.4
205-99-2	Benzo(b)fluoranthene	U	92.4	ug/kg	27.7	92.4
207-08-9	Benzo(k)fluoranthene	U	92.4	ug/kg	27.7	92.4
50-32-8	Benzo(a)pyrene	U	92.4	ug/kg	27.7	92.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	92.4	ug/kg	27.7	92.4
53-70-3	Dibenzo(a,h)anthracene	U	92.4	ug/kg	27.7	92.4
191-24-2	Benzo(ghi)perylene	U	92.4	ug/kg	27.7	92.4
123-91-1	1,4-Dioxane	U	924	ug/kg	277	924
80-62-6	Methyl methacrylate	U	924	ug/kg	277	924
97-63-2	Ethyl methacrylate	U	924	ug/kg	277	924

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660968005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:09	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.82 g	Final Volume:	1 mL
Data File:	S040424.S\3D0422.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	924	ug/kg	277	924
10595-95-6	N-Nitrosomethylethylamine	U	924	ug/kg	277	924
66-27-3	Methyl methanesulfonate	U	924	ug/kg	277	924
55-18-5	N-Nitrosodiethylamine	U	924	ug/kg	277	924
62-50-0	Ethyl Methanesulfonate	U	924	ug/kg	277	924
76-01-7	Pentachloroethane	U	924	ug/kg	277	924
930-55-2	N-Nitrosopyrrolidine	U	924	ug/kg	277	924
98-86-2	Acetophenone	U	924	ug/kg	277	924
59-89-2	N-Nitrosomorpholine	U	924	ug/kg	277	924
95-53-4	o-Toluidine	U	924	ug/kg	277	924
100-75-4	N-Nitrosopiperidine	U	924	ug/kg	277	924
122-09-8	a,a-Dimethylphenethylamine	U	924	ug/kg	323	924
87-65-0	2,6-Dichlorophenol	U	924	ug/kg	277	924
1888-71-7	Hexachloropropene	U	924	ug/kg	277	924
924-16-3	N-Nitrosodi-n-butylamine	U	924	ug/kg	277	924
94-59-7	Safrole	U	924	ug/kg	277	924
95-94-3	1,2,4,5-Tetrachlorobenzene	U	924	ug/kg	277	924
120-58-1	Isosafrole	U	924	ug/kg	277	924
130-15-4	1,4-Naphthoquinone	U	924	ug/kg	277	924
608-93-5	Pentachlorobenzene	U	924	ug/kg	277	924
134-32-7	1-Naphthylamine	U	924	ug/kg	277	924
91-59-8	2-Naphthylamine	U	924	ug/kg	277	924
99-55-8	5-Nitro-o-toluidine	U	924	ug/kg	277	924
62-44-2	Phenacetin	U	924	ug/kg	277	924
99-35-4	1,3,5-Trinitrobenzene	U	924	ug/kg	277	924
2303-16-4	Diallate	U	924	ug/kg	277	924
92-67-1	4-Aminobiphenyl	U	924	ug/kg	277	924
82-68-8	Pentachloronitrobenzene	U	924	ug/kg	277	924
23950-58-5	Pronamide	U	924	ug/kg	277	924
56-57-5	4-Nitroquinoline-1-oxide	U	924	ug/kg	277	924
91-80-5	Methapyrilene	U	924	ug/kg	277	924
465-73-6	Isodrin	U	924	ug/kg	185	924
140-57-8	Aramite	U	924	ug/kg	277	924
143-50-0	Kepone	U	924	ug/kg	277	924
60-11-7	p-(Dimethylamino)azobenzene	U	924	ug/kg	277	924
510-15-6	Chlorobenzilate	U	924	ug/kg	277	924
119-93-7	3,3'-Dimethylbenzidine	U	924	ug/kg	277	924
53-96-3	2-Acetylaminofluorene	U	924	ug/kg	277	924

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:20	Matrix:	MISC SOLID
Lab Sample ID:	660968005	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Middle Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:09	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.82 g	Final Volume:	1 mL
Data File:	S040424.S\3D0422.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	924	ug/kg	277	924
57-97-6	7,12-Dimethylbenz(a)anthracene	U	924	ug/kg	277	924
56-49-5	3-Methylcholanthrene	U	924	ug/kg	277	924
126-68-1	Triethylphosphorothioate	U	924	ug/kg	277	924
297-97-2	Thionazin	U	924	ug/kg	277	924
126-73-8	Tributylphosphate	U	924	ug/kg	277	924
3689-24-5	Sulfotepp	U	924	ug/kg	277	924
298-02-2	Phorate	U	924	ug/kg	277	924
60-51-5	Dimethoate	U	924	ug/kg	277	924
298-04-4	Disulfoton	U	924	ug/kg	277	924
298-00-0	Methyl parathion	U	924	ug/kg	277	924
56-38-2	Parathion	U	924	ug/kg	277	924
52-85-7	Famphur	U	924	ug/kg	277	924
106-50-3	p-Phenylenediamine	U	46200	ug/kg	9240	46200
70-30-4	Hexachlorophene	U	46200	ug/kg	10700	46200
120-82-1	1,2,4-Trichlorobenzene	U	924	ug/kg	277	924

Data Path : C:\msdchem\1\data\S040424.S\

Data File : s3D0422.D

Acq On : 04 Apr 2024 21:09

Operator : LL2

Sample : |660968005|2590892|1|SVM|1|PERM|||

Misc : |MSD827E4_S|MISC SOLID|12040.B4.Middle Back.EPA|mix[a,b,j,d,e]||

ALS Vial : 22 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 08:19:31 2024

Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Quant Title : BNA01

QLast Update : Fri Mar 15 08:40:12 2024

Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	88774	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	368132	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	188617	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.361	8.362	1.000	386990	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.688	10.683	1.000	420622	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.715	12.715	1.000	423372	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	88774	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	368132	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	188617	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.361	8.362	1.000	386990	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.688	10.683	1.000	420622	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.715	12.715	1.000	423372	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.302	1.000	368132	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.361	8.362	1.000	386990	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.688	10.683	1.000	420622	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	368132	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	188617	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.361	8.362	1.000	386990	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.688	10.683	1.000	420622	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	368132	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.715	12.715	1.000	423372	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.617	2.627	0.674	206918	70.41	ng/uL	0.00
8) Phenol-d5	99	3.483	3.486	0.897	267220	73.37	ng/uL	0.00
23) Nitrobenzene-d5	82	4.484	4.502	0.846	106008	31.41	ng/uL	-0.02
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	232261	32.42	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.757	7.773	0.928	98834	69.99	ng/uL	-0.02
79) p-Terphenyl-d14	244	9.693	9.686	1.159	378056	40.86	ng/uL	0.00
Compound	Amount	Range		Recovery				
5) 2-Fluorophenol	100.000	11 - 79		70%				
8) Phenol-d5	100.000	15 - 85		73%				
23) Nitrobenzene-d5	50.000	39 - 112		63%				
44) 2-Fluorobiphenyl	50.000	39 - 112		65%				
64) 2,4,6-Tribromophenol	100.000	37 - 132		70%				
79) p-Terphenyl-d14	50.000	24 - 129		82%				

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
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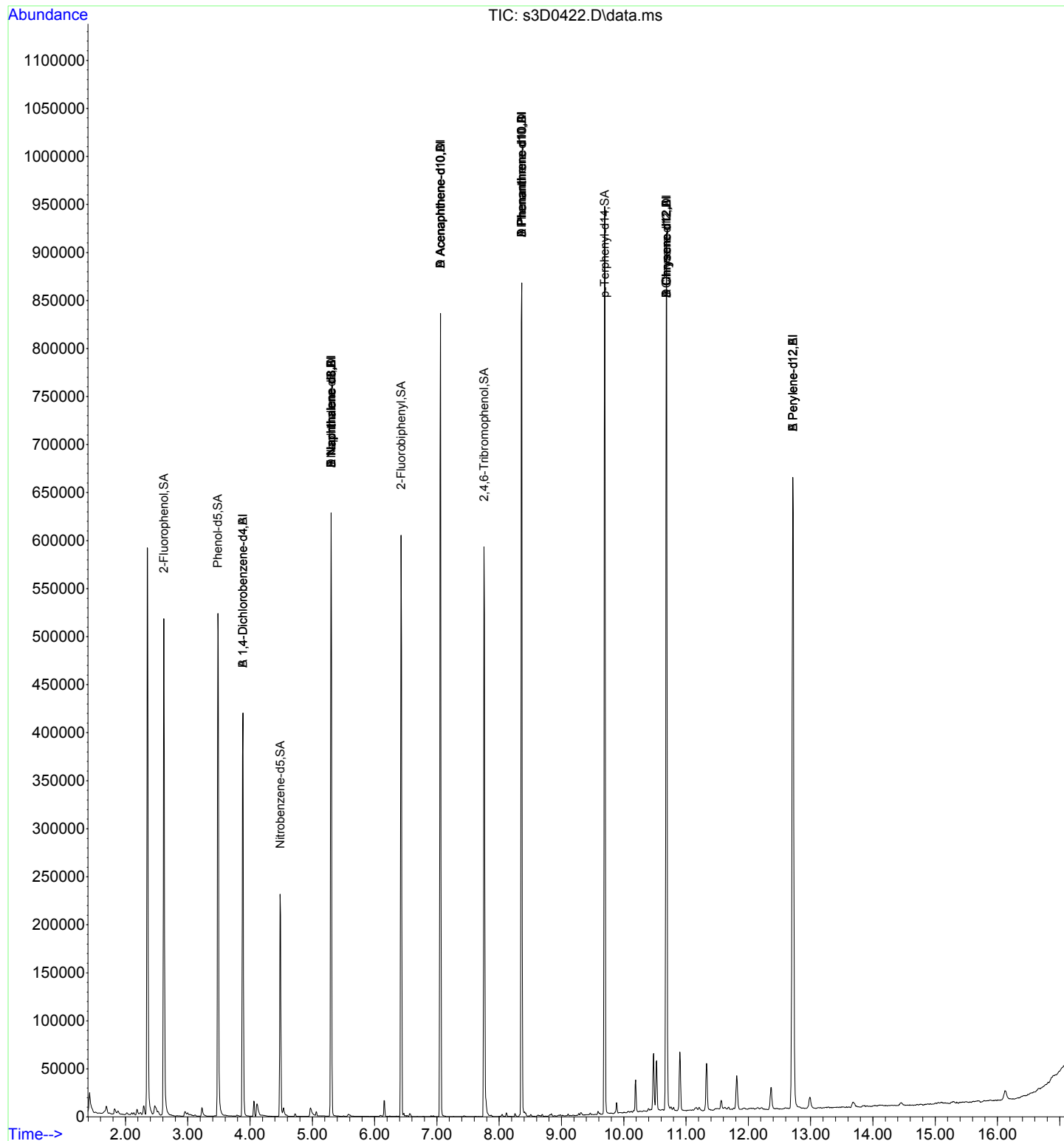
(#)= qualifier out of range (m) = manual integration (+) = signals summed

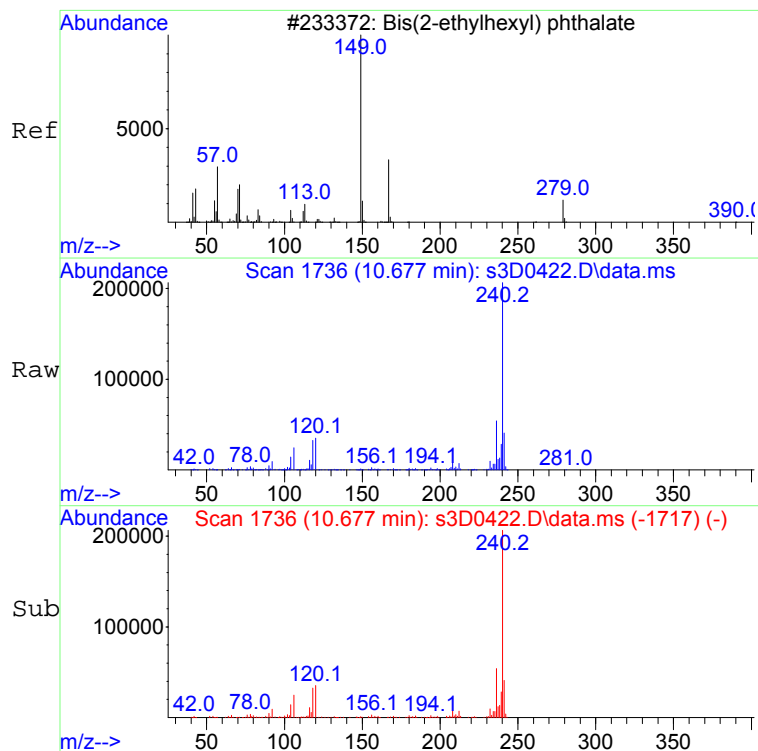
(A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0422.D
 Acq On : 04 Apr 2024 21:09
 Operator : LL2
 Sample : |660968005|2590892|1|SVM|1|PERM||
 Misc : |MSD827E4_S|MISC SOLID|12040.B4.Middle Back.EPA|mix[a,b,j,d,e]||
 ALS Vial : 22 Sample Multiplier: 1

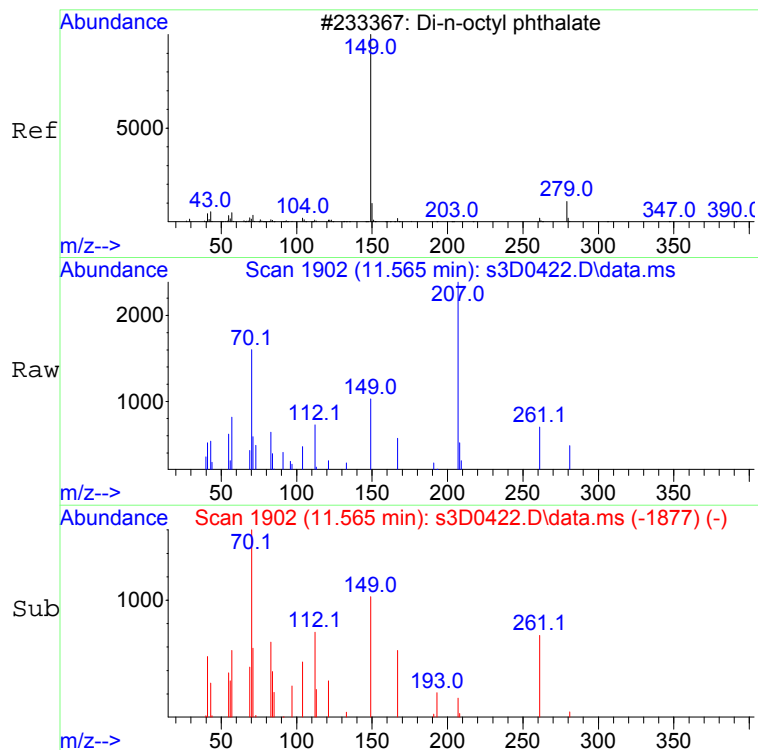
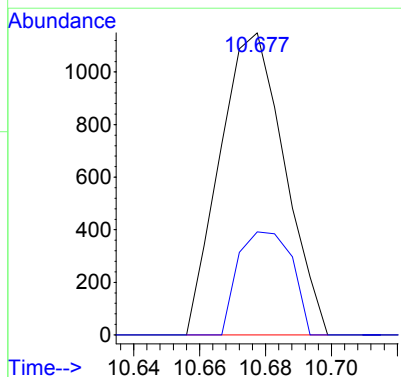
Quant Time: Apr 05 08:19:31 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration





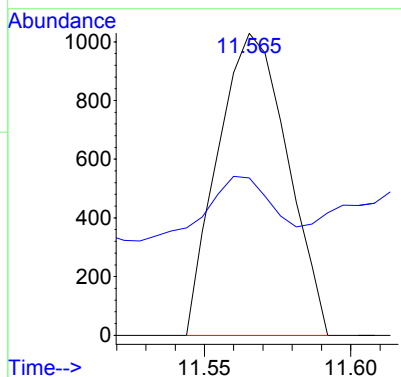
#82 BEFORE analyst DELETION
bis(2-Ethylhexyl)phthalate
Concen: 0.61 ng/uL
RT: 10.677 min Scan# 1736
Delta R.T. -0.000 min
Lab File: s3D0422.D
Acq: 04 Apr 2024 21:09

Tgt Ion:149 Resp: 1564
Ion Ratio Lower Upper
149 100
167 0.0 0.0 55.6



#87 BEFORE analyst DELETION
Di-n-octylphthalate
Concen: 0.64 ng/uL
RT: 11.565 min Scan# 1902
Delta R.T. 0.035 min
Lab File: s3D0422.D
Acq: 04 Apr 2024 21:09

Tgt Ion:149 Resp: 1696
Ion Ratio Lower Upper
149 100
43 22.5 0.0 37.4



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660968006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.69 g	Final Volume:	1 mL
Data File:	S040424.S\3D0423.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	935	ug/kg	281	935
110-86-1	Pyridine	U	935	ug/kg	281	935
62-53-3	Aniline	U	935	ug/kg	281	935
108-95-2	Phenol	U	935	ug/kg	281	935
111-44-4	bis(2-Chloroethyl) ether	U	935	ug/kg	281	935
95-57-8	2-Chlorophenol	U	935	ug/kg	281	935
541-73-1	1,3-Dichlorobenzene	U	935	ug/kg	281	935
106-46-7	1,4-Dichlorobenzene	U	935	ug/kg	281	935
95-50-1	1,2-Dichlorobenzene	U	935	ug/kg	281	935
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	935	ug/kg	281	935
100-51-6	Benzyl alcohol	U	935	ug/kg	281	935
95-48-7	o-Cresol	U	935	ug/kg	281	935
65794-96-9	m,p-Cresols	U	935	ug/kg	281	935
621-64-7	N-Nitrosodipropylamine	U	935	ug/kg	281	935
67-72-1	Hexachloroethane	U	935	ug/kg	281	935
98-95-3	Nitrobenzene	U	935	ug/kg	281	935
78-59-1	Isophorone	U	935	ug/kg	281	935
88-75-5	2-Nitrophenol	U	935	ug/kg	281	935
105-67-9	2,4-Dimethylphenol	U	935	ug/kg	281	935
111-91-1	bis(2-Chloroethoxy)methane	U	935	ug/kg	281	935
120-83-2	2,4-Dichlorophenol	U	935	ug/kg	281	935
65-85-0	Benzoic acid	U	1870	ug/kg	468	1870
106-47-8	4-Chloroaniline	U	935	ug/kg	281	935
87-68-3	Hexachlorobutadiene	U	935	ug/kg	281	935
59-50-7	4-Chloro-3-methylphenol	U	935	ug/kg	374	935
91-57-6	2-Methylnaphthalene	U	93.5	ug/kg	28.1	93.5
91-20-3	Naphthalene	U	93.5	ug/kg	28.1	93.5
90-12-0	1-Methylnaphthalene	U	93.5	ug/kg	28.1	93.5
77-47-4	Hexachlorocyclopentadiene	U	935	ug/kg	281	935
88-06-2	2,4,6-Trichlorophenol	U	935	ug/kg	281	935
95-95-4	2,4,5-Trichlorophenol	U	935	ug/kg	281	935
91-58-7	2-Chloronaphthalene	U	93.5	ug/kg	28.1	93.5
88-74-4	o-Nitroaniline	U	935	ug/kg	309	935
99-09-2	m-Nitroaniline	U	935	ug/kg	281	935
131-11-3	Dimethylphthalate	U	93.5	ug/kg	28.1	93.5
99-65-0	m-Dinitrobenzene	U	935	ug/kg	281	935
606-20-2	2,6-Dinitrotoluene	U	935	ug/kg	281	935
121-14-2	2,4-Dinitrotoluene	U	935	ug/kg	281	935

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660968006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.69 g	Final Volume:	1 mL
Data File:	S040424.S\3D0423.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	93.5	ug/kg	28.1	93.5
83-32-9	Acenaphthene	U	93.5	ug/kg	28.1	93.5
51-28-5	2,4-Dinitrophenol	U	1870	ug/kg	281	1870
132-64-9	Dibenzofuran	U	935	ug/kg	281	935
58-90-2	2,3,4,6-Tetrachlorophenol	U	935	ug/kg	281	935
84-66-2	Diethylphthalate	U	93.5	ug/kg	28.1	93.5
100-02-7	4-Nitrophenol	U	935	ug/kg	281	935
86-73-7	Fluorene	U	93.5	ug/kg	28.1	93.5
7005-72-3	4-Chlorophenylphenylether	U	935	ug/kg	281	935
100-01-6	p-Nitroaniline	U	935	ug/kg	281	935
534-52-1	2-Methyl-4,6-dinitrophenol	U	935	ug/kg	281	935
122-39-4	Diphenylamine	U	935	ug/kg	281	935
122-66-7	1,2-Diphenylhydrazine	U	935	ug/kg	281	935
101-55-3	4-Bromophenylphenylether	U	935	ug/kg	281	935
118-74-1	Hexachlorobenzene	U	935	ug/kg	281	935
87-86-5	Pentachlorophenol	U	935	ug/kg	281	935
88-85-7	Dinoseb	U	935	ug/kg	281	935
85-01-8	Phenanthrene	U	93.5	ug/kg	28.1	93.5
120-12-7	Anthracene	U	93.5	ug/kg	28.1	93.5
86-74-8	Carbazole	U	93.5	ug/kg	28.1	93.5
84-74-2	Di-n-butylphthalate	U	93.5	ug/kg	28.1	93.5
206-44-0	Fluoranthene	U	93.5	ug/kg	28.1	93.5
129-00-0	Pyrene	U	93.5	ug/kg	28.1	93.5
85-68-7	Butylbenzylphthalate	U	93.5	ug/kg	28.1	93.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	93.5	ug/kg	28.1	93.5
56-55-3	Benzo(a)anthracene	U	93.5	ug/kg	28.1	93.5
218-01-9	Chrysene	U	93.5	ug/kg	28.1	93.5
72-43-5	Methoxychlor	U	935	ug/kg	281	935
117-84-0	Di-n-octylphthalate	U	93.5	ug/kg	28.1	93.5
205-99-2	Benzo(b)fluoranthene	U	93.5	ug/kg	28.1	93.5
207-08-9	Benzo(k)fluoranthene	U	93.5	ug/kg	28.1	93.5
50-32-8	Benzo(a)pyrene	U	93.5	ug/kg	28.1	93.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	93.5	ug/kg	28.1	93.5
53-70-3	Dibenzo(a,h)anthracene	U	93.5	ug/kg	28.1	93.5
191-24-2	Benzo(ghi)perylene	U	93.5	ug/kg	28.1	93.5
123-91-1	1,4-Dioxane	U	935	ug/kg	281	935
80-62-6	Methyl methacrylate	U	935	ug/kg	281	935
97-63-2	Ethyl methacrylate	U	935	ug/kg	281	935

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660968006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.69 g	Final Volume:	1 mL
Data File:	S040424.S\3D0423.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	935	ug/kg	281	935
10595-95-6	N-Nitrosomethylethylamine	U	935	ug/kg	281	935
66-27-3	Methyl methanesulfonate	U	935	ug/kg	281	935
55-18-5	N-Nitrosodiethylamine	U	935	ug/kg	281	935
62-50-0	Ethyl Methanesulfonate	U	935	ug/kg	281	935
76-01-7	Pentachloroethane	U	935	ug/kg	281	935
930-55-2	N-Nitrosopyrrolidine	U	935	ug/kg	281	935
98-86-2	Acetophenone	U	935	ug/kg	281	935
59-89-2	N-Nitrosomorpholine	U	935	ug/kg	281	935
95-53-4	o-Toluidine	U	935	ug/kg	281	935
100-75-4	N-Nitrosopiperidine	U	935	ug/kg	281	935
122-09-8	a,a-Dimethylphenethylamine	U	935	ug/kg	327	935
87-65-0	2,6-Dichlorophenol	U	935	ug/kg	281	935
1888-71-7	Hexachloropropene	U	935	ug/kg	281	935
924-16-3	N-Nitrosodi-n-butylamine	U	935	ug/kg	281	935
94-59-7	Safrole	U	935	ug/kg	281	935
95-94-3	1,2,4,5-Tetrachlorobenzene	U	935	ug/kg	281	935
120-58-1	Isosafrole	U	935	ug/kg	281	935
130-15-4	1,4-Naphthoquinone	U	935	ug/kg	281	935
608-93-5	Pentachlorobenzene	U	935	ug/kg	281	935
134-32-7	1-Naphthylamine	U	935	ug/kg	281	935
91-59-8	2-Naphthylamine	U	935	ug/kg	281	935
99-55-8	5-Nitro-o-toluidine	U	935	ug/kg	281	935
62-44-2	Phenacetin	U	935	ug/kg	281	935
99-35-4	1,3,5-Trinitrobenzene	U	935	ug/kg	281	935
2303-16-4	Diallate	U	935	ug/kg	281	935
92-67-1	4-Aminobiphenyl	U	935	ug/kg	281	935
82-68-8	Pentachloronitrobenzene	U	935	ug/kg	281	935
23950-58-5	Pronamide	U	935	ug/kg	281	935
56-57-5	4-Nitroquinoline-1-oxide	U	935	ug/kg	281	935
91-80-5	Methapyrilene	U	935	ug/kg	281	935
465-73-6	Isodrin	U	935	ug/kg	187	935
140-57-8	Aramite	U	935	ug/kg	281	935
143-50-0	Kepone	U	935	ug/kg	281	935
60-11-7	p-(Dimethylamino)azobenzene	U	935	ug/kg	281	935
510-15-6	Chlorobenzilate	U	935	ug/kg	281	935
119-93-7	3,3'-Dimethylbenzidine	U	935	ug/kg	281	935
53-96-3	2-Acetylaminofluorene	U	935	ug/kg	281	935

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/30/2024 09:25	Matrix:	MISC SOLID
Lab Sample ID:	660968006	Date Received:	04/02/2024 08:50		
		Client:	PERM001	Project:	PERM00224
Client ID:	12040.B4.Bottom Back.EPA	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 21:30	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.69 g	Final Volume:	1 mL
Data File:	S040424.S\3D0423.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	935	ug/kg	281	935
57-97-6	7,12-Dimethylbenz(a)anthracene	U	935	ug/kg	281	935
56-49-5	3-Methylcholanthrene	U	935	ug/kg	281	935
126-68-1	Triethylphosphorothioate	U	935	ug/kg	281	935
297-97-2	Thionazin	U	935	ug/kg	281	935
126-73-8	Tributylphosphate	U	935	ug/kg	281	935
3689-24-5	Sulfotepp	U	935	ug/kg	281	935
298-02-2	Phorate	U	935	ug/kg	281	935
60-51-5	Dimethoate	U	935	ug/kg	281	935
298-04-4	Disulfoton	U	935	ug/kg	281	935
298-00-0	Methyl parathion	U	935	ug/kg	281	935
56-38-2	Parathion	U	935	ug/kg	281	935
52-85-7	Famphur	U	935	ug/kg	281	935
106-50-3	p-Phenylenediamine	U	46800	ug/kg	9350	46800
70-30-4	Hexachlorophene	U	46800	ug/kg	10900	46800
120-82-1	1,2,4-Trichlorobenzene	U	935	ug/kg	281	935

Data Path : C:\msdchem\1\data\S040424.S\

Data File : s3D0423.D

Acq On : 04 Apr 2024 21:30

Operator : LL2

Sample : |660968006|2590892|1|SVM|1|PERM|||

Misc : |MSD827E4_S|MISC SOLID|12040.B4.Bottom Back.EPA|mix[a,b,j,d,e]||

ALS Vial : 23 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 08:19:57 2024

Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Quant Title : BNA01

QLast Update : Fri Mar 15 08:40:12 2024

Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	84644	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	350745	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	178564	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.362	8.362	1.000	369902	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.683	10.683	1.000	400329	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.715	12.715	1.000	412299	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	84644	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	350745	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	178564	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.362	8.362	1.000	369902	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.683	10.683	1.000	400329	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.715	12.715	1.000	412299	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.302	1.000	350745	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.362	8.362	1.000	369902	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.683	10.683	1.000	400329	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	350745	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	178564	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.362	8.362	1.000	369902	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.683	10.683	1.000	400329	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	350745	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.715	12.715	1.000	412299	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.617	2.627	0.674	225227	80.38	ng/uL	0.00
8) Phenol-d5	99	3.484	3.486	0.897	293072	84.39	ng/uL	0.00
23) Nitrobenzene-d5	82	4.484	4.502	0.846	117042	36.40	ng/uL	-0.02
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	256949	37.88	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.757	7.773	0.928	107727	79.81	ng/uL	-0.02
79) p-Terphenyl-d14	244	9.693	9.686	1.159	395987	44.77	ng/uL	0.00
Compound	Amount	Range		Recovery				
5) 2-Fluorophenol	100.000	11 - 79		80%#				
8) Phenol-d5	100.000	15 - 85		84%				
23) Nitrobenzene-d5	50.000	39 - 112		73%				
44) 2-Fluorobiphenyl	50.000	39 - 112		76%				
64) 2,4,6-Tribromophenol	100.000	37 - 132		80%				
79) p-Terphenyl-d14	50.000	24 - 129		90%				

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
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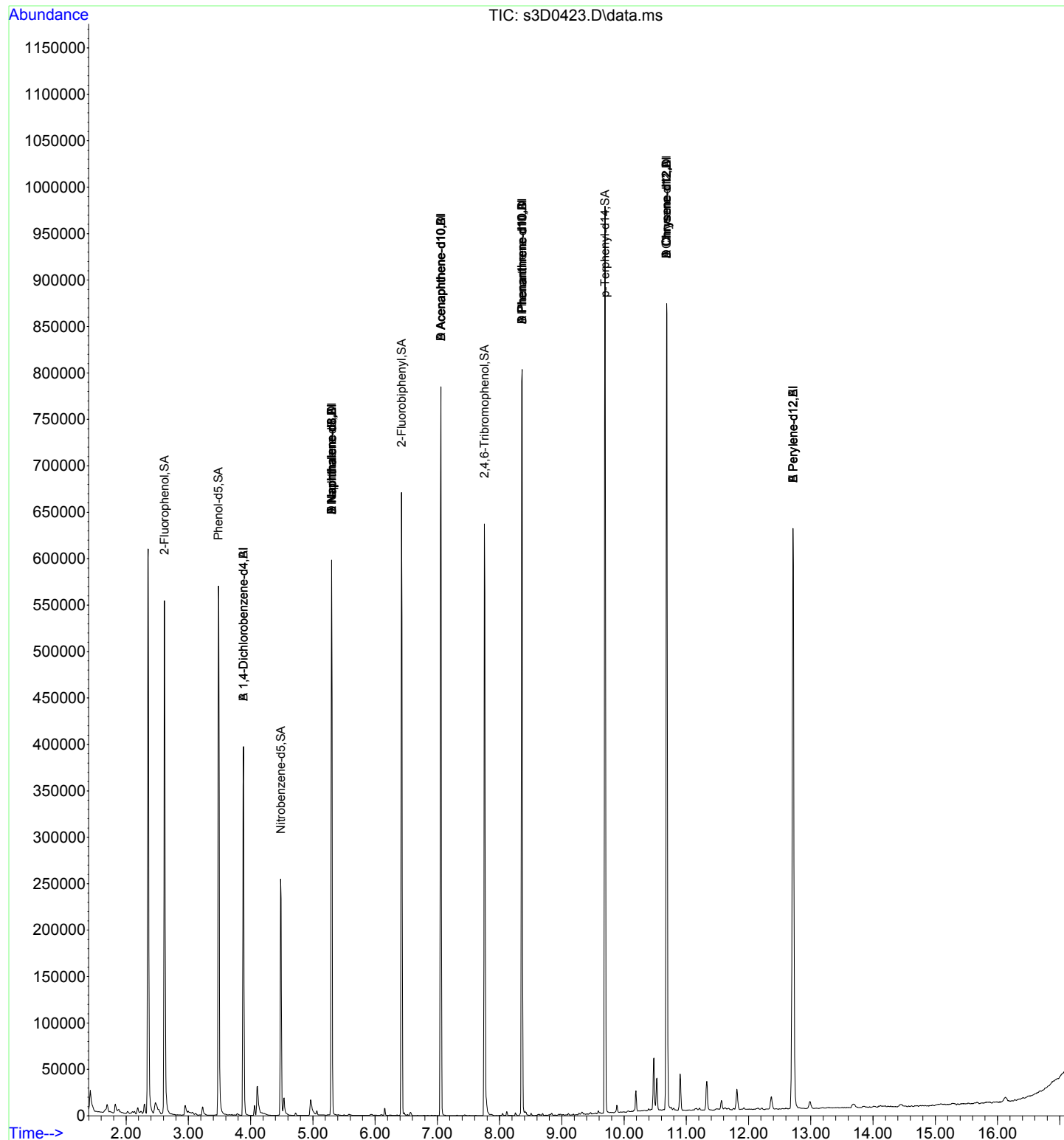
(#)= qualifier out of range (m)= manual integration (+)= signals summed

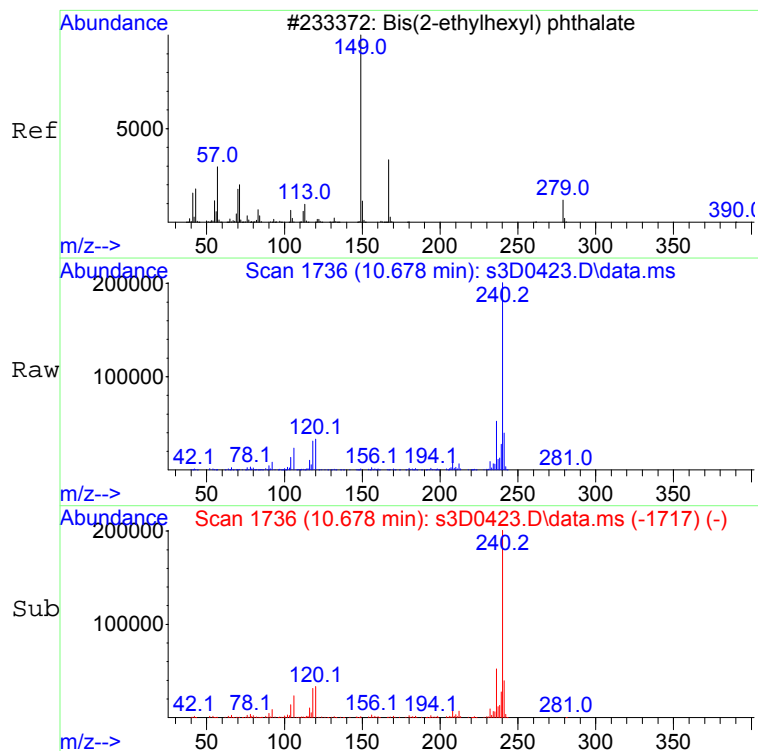
(A)= Over the calibration range (d)= deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
Data File : s3D0423.D
Acq On : 04 Apr 2024 21:30
Operator : LL2
Sample : |660968006|2590892|1|SVM|1|PERM|||
Misc : |MSD827E4_S|MISC SOLID|12040.B4.Bottom Back.EPA|mix[a,b,j,d,e]||
ALS Vial : 23 Sample Multiplier: 1

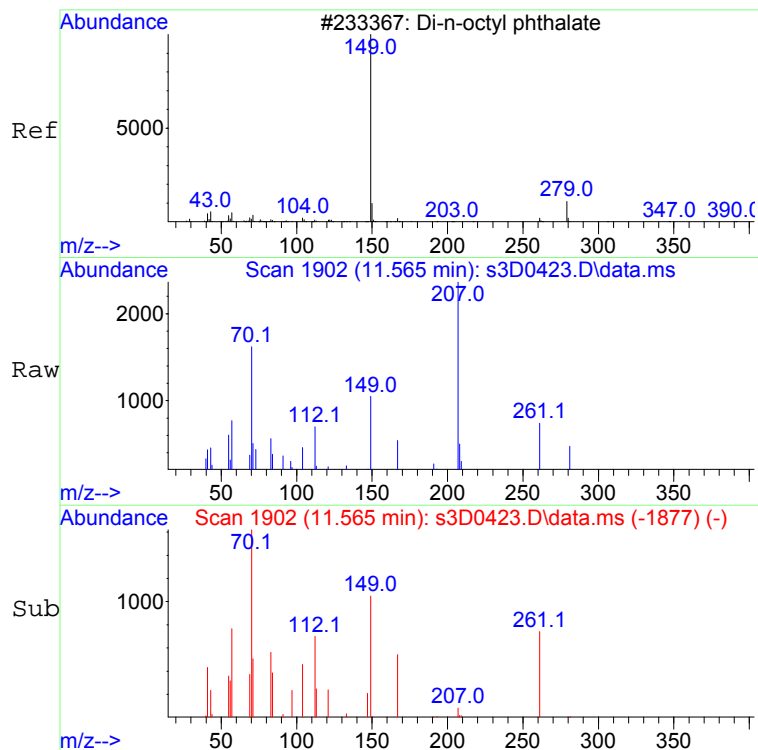
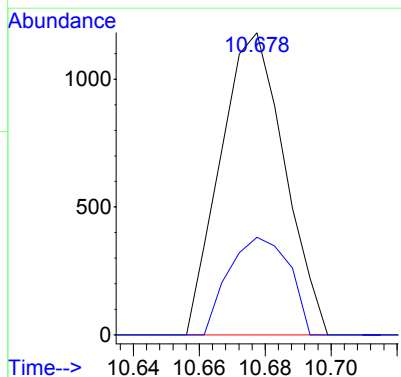
Quant Time: Apr 05 08:19:57 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration





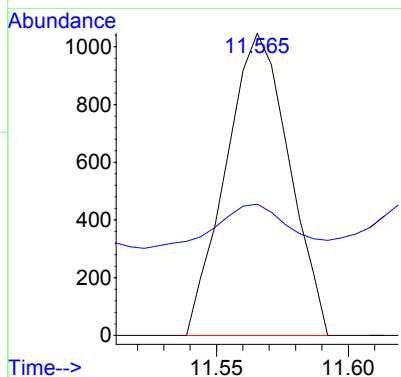
#82 BEFORE analyst DELETION
bis(2-Ethylhexyl)phthalate
Concen: 0.62 ng/uL
RT: 10.678 min Scan# 1736
Delta R.T. -0.000 min
Lab File: s3D0423.D
Acq: 04 Apr 2024 21:30

Tgt Ion:149 Resp: 1592
Ion Ratio Lower Upper
149 100
167 0.0 0.0 55.6



#87 BEFORE analyst DELETION
Di-n-octylphthalate
Concen: 0.64 ng/uL
RT: 11.565 min Scan# 1902
Delta R.T. 0.035 min
Lab File: s3D0423.D
Acq: 04 Apr 2024 21:30

Tgt Ion:149 Resp: 1740
Ion Ratio Lower Upper
149 100
43 31.1 0.0 37.4



Standards

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)										
Naphthalene-d8 (INTERNAL STANDARD)										
Acenaphthene-d10 (INTERNAL STANDARD)										
Phenanthrene-d10 (INTERNAL STANDARD)										
Chrysene-d12 (INTERNAL STANDARD)										
Perylene-d12 (INTERNAL STANDARD)										
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120	30	60
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120	30	60
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120	30	60
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120	30	60
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120	30	60
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120	30	60
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120	30	60
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120	30	60
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120	30	60
Pyridine		10	20	40	50	80	100	120	30	60
Aniline		10	20	40	50	80	100	120	30	60
Phenol		10	20	40	50	80	100	120	30	60
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120	30	60
2-Chlorophenol		10	20	40	50	80	100	120	30	60
n-Decane		10	20	40	50	80	100	120	30	60
1,3-Dichlorobenzene		10	20	40	50	80	100	120	30	60
1,4-Dichlorobenzene		10	20	40	50	80	100	120	30	60
Benzyl Alcohol		10	20	40	50	80	100	120	30	60
1,2-Dichlorobenzene		10	20	40	50	80	100	120	30	60
bis(2-Chloro-1-methylethyl)ether		10	20	40	50	80	100	120	30	60
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120	30	60
N-Nitrosodipropylamine		10	20	40	50	80	100	120	30	60
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120	30	60
Hexachloroethane		10	20	40	50	80	100	120	30	60
Nitrobenzene		10	20	40	50	80	100	120	30	60
Isophorone		10	20	40	50	80	100	120	30	60
2-Nitrophenol		10	20	40	50	80	100	120	30	60
2,4-Dimethylphenol		10	20	40	50	80	100	120	30	60
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120	30	60
2,4-Dichlorophenol		10	20	40	50	80	100	120	30	60
Benzoic Acid			20	40	50	80	100	120	30	60
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120	30	60
Naphthalene	1	10	20	40	50	80	100	120	30	60
alpha-Terpineol		10	20	40	50	80	100	120	30	60
4-Chloroaniline		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Hexachlorobutadiene		10	20	40	50	80	100	120	30	60
4-Chloro-3-methylphenol		10	20	40	50	80	100	120	30	60
2-Methylnaphthalene	1	10	20	40	50	80	100	120	30	60
1-Methylnaphthalene	1	10	20	40	50	80	100	120	30	60
Hexachlorocyclopentadiene		10	20	40	50	80	100	120	30	60
2,3-Dichloroaniline		10	20	40	50	80	100	120	30	60
2,4,6-Trichlorophenol		10	20	40	50	80	100	120	30	60
2,4,5-Trichlorophenol		10	20	40	50	80	100	120	30	60
2-Chloronaphthalene	1	10	20	40	50	80	100	120	30	60
o-Nitroaniline		10	20	40	50	80	100	120	30	60
m-Nitroaniline		10	20	40	50	80	100	120	30	60
Dimethylphthalate	1**	10	20	40	50	80	100	120	30	60
2,6-Dinitrotoluene		10	20	40	50	80	100	120	30	60
Acenaphthylene	1	10	20	40	50	80	100	120	30	60
Acenaphthene	1	10	20	40	50	80	100	120	30	60
2,4-Dinitrophenol			20	40	50	80	100	120	30	60
Dibenzofuran		10	20	40	50	80	100	120	30	60
2,4-Dinitrotoluene		10	20	40	50	80	100	120	30	60
Diethylphthalate	1**	10	20	40	50	80	100	120	30	60
4-Nitrophenol		10	20	40	50	80	100	120	30	60
Fluorene	1	10	20	40	50	80	100	120	30	60
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120	30	60
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120	30	60
p-Nitroaniline		10	20	40	50	80	100	120	30	60
Diphenylamine		10	20	40	50	80	100	120	30	60
1,2-Diphenylhydrazine		10	20	40	50	80	100	120	30	60
4-Bromophenyl phenyether		10	20	40	50	80	100	120	30	60
Hexachlorobenzene		10	20	40	50	80	100	120	30	60
Pentachlorophenol		10	20	40	50	80	100	120	30	60
n-Octadecane		10	20	40	50	80	100	120	30	60
Phenanthrene	1	10	20	40	50	80	100	120	30	60
Anthracene	1	10	20	40	50	80	100	120	30	60
Di-n-butylphthalate	1**	10	20	40	50	80	100	120	30	60
Fluoranthene	1	10	20	40	50	80	100	120	30	60
Pyrene	1	10	20	40	50	80	100	120	30	60
Butylbenzylphthalate	1**	10	20	40	50	80	100	120	30	60
Benzo(a)anthracene	1	10	20	40	50	80	100	120	30	60
Chrysene	1	10	20	40	50	80	100	120	30	60
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120	30	60
Di-n-octylphthalate	1**	10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120	30	60
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120	30	60
Benzo(a)pyrene	1	10	20	40	50	80	100	120	30	60
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120	30	60
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120	30	60
Benzo(ghi)perylene	1	10	20	40	50	80	100	120	30	60
m-Dinitrobenzene		10	20	40	50	80	100	120	30	60
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120	30	60
Dinoseb		10	20	40	50	80	100	120	30	60
Carbazole	1	10	20	40	50	80	100	120	30	60
p-Benzoquinone		10	20	40	50	80	100	120	30	60
Methoxychlor		10	20	40	50	80	100	120	30	60
p-Toluidine		10	20	40	50	80	100	120	30	60
m-Toluidine		10	20	40	50	80	10	120	30	60
1,4-Dinitrobenzene		10	20	40	50	80	100	120	30	60
2-Ethoxyethanol		10	20	40	50	80	100	120	30	60
Phthalic anhydride		10	20	40	50	80	100	120	30	60
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120	30	60
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Benzaldehyde		10	20	40	50	80	100	120	30	60
Acetophenone		10	20	40	50	80	100	120	30	60
Caprolactam		10	20	40	50	80	100	120	30	60
1,1'-Biphenyl		10	20	40	50	80	100	120	30	60
Atrazine		10	20	40	50	80	100	120	30	60
Benzidine		10	20	40	50	80	100	120	30	60
3,3'-Dichlorobenzidine		10	20	40	50	80	100	120	30	60
1,4-Dioxane		10	20	40	50	80	100	120	30	60
Methyl methacrylate		10	20	40	50	80	100	120	30	60
Ethyl methacrylate		10	20	40	50	80	100	120	30	60
2-Picoline		10	20	40	50	80	100	120	30	60
N-Nitrosomethylethylamine		10	20	40	50	80	100	120	30	60
2-Butoxyethanol		10	20	40	50	80	100	120	30	60
Methyl methanesulfonate		10	20	40	50	80	100	120	30	60
N-Nitrosodiethylamine		10	20	40	50	80	100	120	30	60
Ethyl methanesulfonate		10	20	40	50	80	100	120	30	60
Pentachloroethane		10	20	40	50	80	100	120	30	60
N-Nitrosopyrrolidine		10	20	40	50	80	100	120	30	60
N-Nitrosomorpholine		10	20	40	50	80	100	120	30	60
o-Toluidine		10	20	40	50	80	100	120	30	60
N-Nitrosopiperidine		10	20	40	50	80	100	120	30	60
a,a-Dimethylphenethylamine		10	20	40	50	80	100	120	30	60
2,6-Dichlorophenol		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Hexachloropropene		10	20	40	50	80	100	120	30	60
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120	30	60
Safrole		10	20	40	50	80	100	120	30	60
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120	30	60
Isosafrole		10	20	40	50	80	100	120	30	60
1,4-Naphthoquinone		10	20	40	50	80	100	120	30	60
Pentachlorobenzene		10	20	40	50	80	100	120	30	60
1-Naphthylamine		10	20	40	50	80	100	120	30	60
2-Naphthylamine		10	20	40	50	80	100	120	30	60
5-Nitro-o-toluidine		10	20	40	50	80	100	120	30	60
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120	30	60
Phenacetin		10	20	40	50	80	100	120	30	60
Diallate		10	20	40	50	80	100	120	30	60
cis-Diallate		1.5	3	6	7.5	12	15	18	4.5	9
trans-Diallate		8.5	17	34	42	68	85	102	25.5	51
4-Aminobiphenyl		10	20	40	50	80	100	120	30	60
Pentachloronitrobenzene		10	20	40	50	80	100	120	30	60
Pronamide		10	20	40	50	80	100	120	30	60
4-Nitroquinoline-1-oxide		10	20	40	50	80	100	120	30	60
Methapyrilene		10	20	40	50	80	100	120	30	60
Isodrin		10	20	40	50	80	100	120	30	60
Aramite		10	20	40	50	80	100	120	30	60
Kepone		10	20	40	50	80	100	120	30	60
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120	30	60
Chlorobenzilate		10	20	40	50	80	100	120	30	60
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120	30	60
2-Acetylaminofluorene		10	20	40	50	80	100	120	30	60
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120	30	60
3-Methylcholanthrene		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Hexachlorophene		500	1000	1250	1500	1750	2000			
p-Phenylenediamine		500	1000	1250	1500	1750	2000			

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
bis(Chloromethyl)ether		10	20	40	50	80	100	120	30	60
Tributylphosphate		10	20	40	50	80	100	120	30	60
Triethylphosphorothioate		10	20	40	50	80	100	120	30	60
Thionazin		10	20	40	50	80	100	120	30	60
Sulfotepp		10	20	40	50	80	100	120	30	60
Phorate		10	20	40	50	80	100	120	30	60
Dimethoate		10	20	40	50	80	100	120	30	60
Disulfoton		10	20	40	50	80	100	120	30	60
Methyl parathion		10	20	40	50	80	100	120	30	60
Famphur		10	20	40	50	80	100	120	30	60
Parathion		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
bis(Chloromethyl)ether		10	20	40	50	80	100	120	30	60
4-Chlorothiophenol		10	20	40	50	80	100	120	30	60
4-Chlorothioanisole		10	20	40	50	80	100	120	30	60
Phthalic acid		10	20	40	50	80	100	120	30	60
Hydroxymethyl phthalimide		10	20	40	50	80	100	120	30	60
Diphenyl sulfide		10	20	40	50	80	100	120	30	60
Diphenyl disulfide		10	20	40	50	80	100	120	30	60
Phenyl sulfone		10	20	40	50	80	100	120	30	60
Octachlorostyrene		10	20	40	50	80	100	120	30	60
Thiophenol		10	20	40	50	80	100	120	30	60
2,2'-Dichlorobenzil		10	20	40	50	80	100	120	30	60
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120	30	60
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120	30	60

All values are mg/L without the prep factor.

Indicates the calibration verification concentration level used

* Usual calibration levels using SCAN methodology

** This analyte included in this level at special client request.

EPA 522								
Calibration Standard Concentration Levels#								
	Level 1	Level 2	Level 3	Level 4	Level 5	ICV	CCV	
Tetrahydrofuran-d8 (INTERNAL STANDARD)								
1,4-Dioxane-d8 (SURROGATE)	50	100	200	400	500	200	See Method	
1,4-Dioxane	50	100	200	400	500	200	See Method	

All values are ug/L without the prep factor.

Usual calibration levels using SIM methodology

SW846 8270SIM										
Calibration Standard Concentration Levels*										
MEGASIM analytes (A)	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6#	Level 7	Level 8	Level 9	Level 10
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)										
Naphthalene-d8 (INTERNAL STANDARD)										
Acenaphthene-d10 (INTERNAL STANDARD)										
Phenanthrene-d10 (INTERNAL STANDARD)										
Chrysene-d12 (INTERNAL STANDARD)										
Perylene-d12 (INTERNAL STANDARD)										
5-alpha-Androstane (SURROGATE)	\$0.1	0.2	0.5	1	2	5	10	20		
\$N-Methyl-N-nitrosomethylamine		0.2	0.5	1	2	5	10	20		
\$bis(2-Chloroethyl)ether	0.1	0.2	0.5	1	2	5	10	20		
\$N-Nitrosodipropylamine	0.1	0.2	0.5	1	2	5	10	20		
Naphthalene	\$0.1	0.2	0.5	1	2	5	10	20		
2-Methylnaphthalene	\$0.1	0.2	0.5	1	2	5	10	20		
1-Methylnaphthalene	\$0.1	0.2	0.5	1	2	5	10	20		
2-Chloronaphthalene	\$0.1	0.2	0.5	1	2	5	10	20		
Acenaphthylene	\$0.1	0.2	0.5	1	2	5	10	20		
Acenaphthene	\$0.1	0.2	0.5	1	2	5	10	20		
Fluorene	\$0.1	0.2	0.5	1	2	5	10	20		
Phenanthrene	\$0.1	0.2	0.5	1	2	5	10	20		
Anthracene	\$0.1	0.2	0.5	1	2	5	10	20		
Fluoranthene	\$0.1	0.2	0.5	1	2	5	10	20		
Pyrene	\$0.1	0.2	0.5	1	2	5	10	20		
Benzo(a)anthracene	\$0.1	0.2	0.5	1	2	5	10	20		
Chrysene	\$0.1	0.2	0.5	1	2	5	10	20		
Benzo(b)fluoranthene	\$0.1	0.2	0.5	1	2	5	10	20		
Benzo(k)fluoranthene	\$0.1	0.2	0.5	1	2	5	10	20		
Benzo(a)pyrene	\$0.1	0.2	0.5	1	2	5	10	20		
Indeno-(1,2,3-cd)pyrene	\$0.1	0.2	0.5	1	2	5	10	20		
Dibenzo(a,h)anthracene	\$0.1	0.2	0.5	1	2	5	10	20		
Benzo(ghi)perylene	\$0.1	0.2	0.5	1	2	5	10	20		

\$ By special request - Not for regulatory purposes

SW846 8270SIM										
Calibration Standard Concentration Levels*										
APSIM analytes (A)	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6#	Level 7	Level 8	Level 9	Level 10
\$N-Nitrosodimethylamine	0.1	0.2	0.5	1	2	5	10	20		
\$N-Nitrosopyrrolidine	0.1	0.2	0.5	1	2	5	10	20		
\$N-Nitrosodi-n-butylamine	0.1	0.2	0.5	1	2	5	10	20		
\$Benzidine			2.5	5	10	25	50	100		
\$3,3'-Dichlorobenzidine	0.1	0.2	0.5	1	2	5	10	20		

\$ By special request - Not for regulatory purposes

All values are mg/L without prep factor.

indicates the calibrator verification concentration level used.

* Usual calibration levels using SIM methodology
(10/16/Full list)

Calibration History Report MSD3

GEL Laboratories, LLC

Method File : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Last Update : Fri Mar 15 08:40:12 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

04/05/2024

Cal Lvl:1 Amt:0.00 Last Updated with: C:\msdchem\1\data\S031424ICAL\s3C1402.D

Injection Date	Mix	Calibration File
14 Mar 2024 08:17	A	C:\msdchem\1\data\S031424ICAL\s3C1402.D

04/09/2024

Cal Lvl:2 Amt:10.00 Last Updated with: C:\msdchem\1\data\S031424ICAL\s3C1429.D

Injection Date	Mix	Calibration File
14 Mar 2024 08:40	A	C:\msdchem\1\data\S031424ICAL\s3C1403.D
14 Mar 2024 11:48	B	C:\msdchem\1\data\S031424ICAL\s3C1411.D
14 Mar 2024 15:22	D	C:\msdchem\1\data\S031424ICAL\s3C1421.D
14 Mar 2024 11:48	J	C:\msdchem\1\data\S031424ICAL\s3C1411.D
14 Mar 2024 17:49	E	C:\msdchem\1\data\S031424ICAL\s3C1429.D

Cal Lvl:3 Amt:20.00 Last Updated with: C:\msdchem\1\data\S031424ICAL\s3C1430.D

Injection Date	Mix	Calibration File
14 Mar 2024 09:03	A	C:\msdchem\1\data\S031424ICAL\s3C1404.D
14 Mar 2024 12:09	B	C:\msdchem\1\data\S031424ICAL\s3C1412.D
14 Mar 2024 15:40	D	C:\msdchem\1\data\S031424ICAL\s3C1422.D
14 Mar 2024 12:09	J	C:\msdchem\1\data\S031424ICAL\s3C1412.D
14 Mar 2024 18:07	E	C:\msdchem\1\data\S031424ICAL\s3C1430.D

Cal Lvl:4 Amt:40.00 Last Updated with: C:\msdchem\1\data\S031424ICAL\s3C1431.D

Injection Date	Mix	Calibration File
14 Mar 2024 09:27	A	C:\msdchem\1\data\S031424ICAL\s3C1405.D
14 Mar 2024 12:52	B	C:\msdchem\1\data\S031424ICAL\s3C1414.D
14 Mar 2024 15:58	D	C:\msdchem\1\data\S031424ICAL\s3C1423.D
14 Mar 2024 12:52	J	C:\msdchem\1\data\S031424ICAL\s3C1414.D
14 Mar 2024 18:25	E	C:\msdchem\1\data\S031424ICAL\s3C1431.D

Cal Lvl:5 Amt:50.00 Last Updated with: C:\msdchem\1\data\S031424ICAL\s3C1432.D

Injection Date	Mix	Calibration File
14 Mar 2024 09:50	A	C:\msdchem\1\data\S031424ICAL\s3C1406.D
14 Mar 2024 13:13	B	C:\msdchem\1\data\S031424ICAL\s3C1415.D
14 Mar 2024 16:17	D	C:\msdchem\1\data\S031424ICAL\s3C1424.D
14 Mar 2024 13:13	J	C:\msdchem\1\data\S031424ICAL\s3C1415.D
14 Mar 2024 18:44	E	C:\msdchem\1\data\S031424ICAL\s3C1432.D

Cal Lvl:6 Amt:80.00 Last Updated with: C:\msdchem\1\data\S031424ICAL\s3C1433.D

Injection Date	Mix	Calibration File
14 Mar 2024 10:14	A	C:\msdchem\1\data\S031424ICAL\s3C1407.D
14 Mar 2024 13:56	B	C:\msdchem\1\data\S031424ICAL\s3C1417.D
14 Mar 2024 16:35	D	C:\msdchem\1\data\S031424ICAL\s3C1425.D
14 Mar 2024 13:56	J	C:\msdchem\1\data\S031424ICAL\s3C1417.D
14 Mar 2024 19:02	E	C:\msdchem\1\data\S031424ICAL\s3C1433.D

Cal Lvl:7 Amt:100.00 Last Updated with: C:\msdchem\1\data\S031424ICAL\s3C1434.D

Injection Date	Mix	Calibration File
14 Mar 2024 10:37	A	C:\msdchem\1\data\S031424ICAL\s3C1408.D
14 Mar 2024 14:17	B	C:\msdchem\1\data\S031424ICAL\s3C1418.D

Calibration History Report MSD3

GEL Laboratories, LLC

Method File : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Last Update : Fri Mar 15 08:40:12 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

14 Mar 2024 16:54	D	C:\msdchem\1\data\S031424ICAL\s3C1426.D
14 Mar 2024 14:17	J	C:\msdchem\1\data\S031424ICAL\s3C1418.D
14 Mar 2024 19:20	E	C:\msdchem\1\data\S031424ICAL\s3C1434.D

Cal Lvl:8 Amt:120.00 Last Updated with: C:\msdchem\1\data\S031424ICAL\s3C1427.D

Injection Date	Mix	Calibration File
14 Mar 2024 11:01	A	C:\msdchem\1\data\S031424ICAL\s3C1409.D
14 Mar 2024 14:39	B	C:\msdchem\1\data\S031424ICAL\s3C1419.D
14 Mar 2024 17:12	D	C:\msdchem\1\data\S031424ICAL\s3C1427.D
14 Mar 2024 14:39	J	C:\msdchem\1\data\S031424ICAL\s3C1419.D

Cal Lvl:9 Amt:30.00 Last Updated with: C:\msdchem\1\data\S031424ICAL\s3C1413.D

Injection Date	Mix	Calibration File
14 Mar 2024 12:30	B	C:\msdchem\1\data\S031424ICAL\s3C1413.D
14 Mar 2024 12:30	J	C:\msdchem\1\data\S031424ICAL\s3C1413.D

Cal Lvl:10 Amt:60.00 Last Updated with: C:\msdchem\1\data\S031424ICAL\s3C1416.D

Injection Date	Mix	Calibration File
14 Mar 2024 13:35	B	C:\msdchem\1\data\S031424ICAL\s3C1416.D
14 Mar 2024 13:35	J	C:\msdchem\1\data\S031424ICAL\s3C1416.D

MSD3_8270_031424.m Fri Apr 05 07:47:26 2024

Response Factor Report MSD3

GEL Laboratories, LLC

Method File : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Last Update : Fri Mar 15 08:40:12 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

04/05/2024

04/09/2024

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound ml	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
2)A	2-Ethoxyethanol		0.7138268	0.6031951 0.7340772	0.6793460	0.6833655	0.6878225	0.7115303	0.6876	AVRG		6.1218
3)AM	N-Methyl-N-nitrosomethyl -0.0087 0.8486 0.00	904 201938	18415 245418	36992	77614	95831	162956		1/x^2 LINR		#	0.9993
4)AM	Pyridine		1.2762565	1.0862177 1.2979077	1.1150472	1.1478921	1.2700748	1.2397332	1.2047	AVRG		7.1575
5)SA	2-Fluorophenol		1.3456989	1.2574869 1.3854553	1.2836044	1.2982665	1.3381560	1.3606670	1.3242	AVRG		3.4483
6)A	p-Benzoquinone		0.6412309	0.4833618 0.6794506	0.5558764	0.6052803	0.6280225	0.6472899	0.6058	AVRG		10.9454
7)AM	Aniline		1.9464894	1.9106338 2.0084250	1.9247148	1.9171736	1.9557415	1.9549359	1.9454	AVRG		1.7054
8)SA	Phenol-d5		1.6684026	1.5636853 1.7113569	1.5818683	1.6289541	1.6653208	1.6682705	1.6411	AVRG		3.2104
9)AMC	Phenol		1.7292556	1.5829791 1.7781601	1.6508724	1.6861036	1.7425946	1.7505003	1.7029	AVRG		3.9806
10)AM	bis(2-Chloroethyl) ether		1.4015556	1.3792709 1.4442265	1.4092042	1.3955508	1.4359181	1.4356851	1.4145	AVRG		1.7286
11)AM	2-Chlorophenol		1.4773006	1.4061125 1.5197833	1.4317151	1.4575800	1.4862451	1.4927883	1.4674	AVRG		2.6347
12)AM	n-Decane		1.2367587	1.2300092 1.2744442	1.2361668	1.2341917	1.2565006	1.2617996	1.2471	AVRG		1.3645
13)AM	1,3-Dichlorobenzene		1.6057404	1.6123226 1.6623041	1.5872050	1.6092756	1.6283577	1.6237333	1.6184	AVRG		1.4510
14)AMC	1,4-Dichlorobenzene		1.6170605	1.6441679 1.6693750	1.6207408	1.6267699	1.6508878	1.6475028	1.6395	AVRG		1.1480
15)AM	1,2-Dichlorobenzene		1.5442913	1.5485471 1.6061912	1.5501773	1.5452434	1.5638256	1.5716544	1.5614	AVRG		1.4230
16)AM	bis(2-Chloro-1-methyleth		1.6541108	1.6545992 1.7009132	1.6564727	1.6550571	1.6894458	1.6922582	1.6718	AVRG		1.2692

Response Factor Report MSD3

GEL Laboratories, LLC

Method File : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Last Update : Fri Mar 15 08:40:12 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound ml	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
17)AM	Benzyl alcohol		0.9287061	0.8546925 0.9643207	0.9031592	0.9224155	0.9463189	0.9324917	0.9217	AVRG		3.8159
18)AM	o-Cresol		1.1323921	1.1129745 1.1691606	1.0988393	1.1159718	1.1450417	1.1411426	1.1308	AVRG		2.0874
19)AM	m,p-Cresols		1.3434332	1.2956080 1.3969994	1.3068181	1.3191276	1.3671797	1.3507196	1.3400	AVRG		2.6598
20)AMP	N-Nitrosodipropylamine		0.9970453	0.9405604 1.0362010	0.9827929	0.9842956	1.0111051	1.0065784	0.9941	AVRG		2.9944
21)AM	Hexachloroethane		0.6494272	0.6505603 0.6686496	0.6517399	0.6410573	0.6657743	0.6583230	0.6551	AVRG		1.4868
23)SA	Nitrobenzene-d5		0.3734198	0.3470750 0.3780806	0.3647722	0.3649314	0.3666707	0.3721048	0.3667	AVRG		2.7175
24)AM	Nitrobenzene		0.3670792	0.3508811 0.3713071	0.3616209	0.3641992	0.3651726	0.3690558	0.3642	AVRG		1.8330
25)AM	Isophorone		0.6670896	0.6317403 0.6834512	0.6579774	0.6676750	0.6639497	0.6716795	0.6634	AVRG		2.4108
26)AMC	2-Nitrophenol		0.1945271	0.1605439 0.1982654	0.1756269	0.1815131	0.1850015	0.1922955	0.1840	AVRG		7.0547
27)AM	2,4-Dimethylphenol		0.2612371	0.2467417 0.2668324	0.2585241	0.2576392	0.2544774	0.2617646	0.2582	AVRG		2.4600
28)AM	bis(2-Chloroethoxy)metha		0.4450283	0.4255337 0.4489907	0.4426529	0.4434492	0.4402269	0.4441395	0.4414	AVRG		1.6982
29)AMC	2,4-Dichlorophenol		0.3011175	0.2742725 0.3050234	0.2892410	0.2921268	0.2936901	0.2970903	0.2932	AVRG		3.3902
30)AM	Benzoic acid -0.1352 0.2841 0.00		214045	276759	13495	52084	74003	155158		LINR	#	0.9937
31)AM	1,2,4-Trichlorobenzene		0.3263079	0.3244603 0.3347861	0.3274464	0.3245863	0.3243002	0.3298623	0.3274	AVRG		1.1696
32)AM	alpha-Terpineol		0.2778973	0.2586041 0.2830268	0.2706283	0.2752277	0.2761767	0.2805086	0.2746	AVRG		2.9412

Response Factor Report MSD3

GEL Laboratories, LLC

Method File : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Last Update : Fri Mar 15 08:40:12 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound ml	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
33)AM	Naphthalene		1.0663913 1.0560699	1.0742958 1.0691795	1.0737996	1.0554565	1.0505651	1.0624351	1.0635	AVRG		0.8347
34)AM	4-Chloroaniline		0.4393761	0.4202897 0.4459604	0.4377700	0.4364400	0.4381123	0.4416937	0.4371	AVRG		1.8428
35)AMC	Hexachlorobutadiene		0.1814474	0.1806317 0.1865086	0.1814841	0.1801903	0.1800870	0.1826306	0.1819	AVRG		1.2287
36)AMC	4-Chloro-3-methylphenol		0.3025137	0.2693669 0.3088789	0.2873870	0.2925945	0.2977101	0.3011312	0.2942	AVRG		4.4110
37)AM	2-Methylnaphthalene		0.6258331 0.7058490	0.6808603 0.7155169	0.6998519	0.7025394	0.6965278	0.7149779	0.6927	AVRG		4.2135
38)AM	1-Methylnaphthalene		0.6081542 0.6402503	0.6291606 0.6549072	0.6535733	0.6337913	0.6387412	0.6466538	0.6382	AVRG		2.3656
40)AMP	Hexachlorocyclopentadien		0.3722075	0.2781142 0.3842901	0.3070530	0.3399396	0.3478941	0.3668749	0.3423	AVRG		11.0979
41)AM	2,3-Dichloroaniline		0.7494670	0.7108204 0.7587325	0.7340775	0.7432786	0.7377885	0.7508034	0.7407	AVRG		2.1030
42)AMC	2,4,6-Trichlorophenol		0.4484614	0.4003627 0.4494349	0.4206299	0.4343556	0.4341088	0.4440853	0.4331	AVRG		4.0583
43)AM	2,4,5-Trichlorophenol		0.4602300	0.4101003 0.4688491	0.4356918	0.4374953	0.4404375	0.4530761	0.4437	AVRG		4.3507
44)SA	2-Fluorobiphenyl		1.5240498	1.5202470 1.5400103	1.5279347	1.5136786	1.4969233	1.5126444	1.5194	AVRG		0.8926
45)AM	2-Chloronaphthalene		1.1942881 1.3199905	1.3171832 1.3302977	1.3388256	1.3207210	1.3085906	1.3110451	1.3051	AVRG		3.5125
46)AM	o-Nitroaniline		0.3729504	0.3182520 0.3759293	0.3453205	0.3586545	0.3615101	0.3752877	0.3583	AVRG		5.8067
47)A	1,4-Dinitrobenzene		0.2143140	0.1625590 0.2145339	0.1835055	0.1941417	0.1979632	0.2088296	0.1965	AVRG		9.5706
48)AM	m-Nitroaniline		0.3950427	0.3562306 0.4067028	0.3862616	0.3896819	0.3924525	0.3995238	0.3894	AVRG		4.1316

Response Factor Report MSD3

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Method File : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

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Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound ml	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
49)AM	Dimethylphthalate		1.2552645 1.4961044	1.4918116 1.5037861	1.5103996	1.4991910	1.4740938	1.4934856	1.4655	AVRG		5.8415
50)A	m-Dinitrobenzene		0.2358959	0.1966080 0.2422965	0.2187427	0.2250887	0.2314551	0.2361174	0.2266	AVRG		6.7662
51)AM	2,6-Dinitrotoluene		0.3353382	0.3019723 0.3408579	0.3240311	0.3293417	0.3252409	0.3350770	0.3274	AVRG		3.8823
52)AM	2,4-Dinitrotoluene		0.4649719	0.3959366 0.4789672	0.4261221	0.4451731	0.4479011	0.4589250	0.4454	AVRG		6.1601
53)AM	Acenaphthylene		1.6761440 2.0633740	2.0207706 2.0689848	2.0893798	2.0648568	2.0422260	2.0545996	2.0100	AVRG		6.7861
54)AMC	Acenaphthene		1.1633744 1.2468656	1.2140860 1.2533216	1.2354199	1.2271889	1.2264216	1.2525692	1.2274	AVRG		2.3905
55)AMP	2,4-Dinitrophenol -0.0553 0.1936 0.00		80659	104349	7979	23993	33044	62406		1/x^2 LINR	#	0.9961
56)AM	Dibenzofuran		1.8434740	1.8941175 1.8703734	1.9074674	1.8726867	1.8380588	1.8504656	1.8681	AVRG		1.3947
57)A	2,3,4,6-Tetrachloropheno		0.3799018	0.3280975 0.3916873	0.3666544	0.3720438	0.3767556	0.3784799	0.3705	AVRG		5.4596
58)AM	Diethylphthalate		1.2810732 1.5567758	1.5125174 1.5745973	1.5663915	1.5538250	1.5429821	1.5603875	1.5186	AVRG		6.4384
59)AMP	4-Nitrophenol -0.0166 0.1857 0.00		83490	5688 105490	13258	30721	39284	67865		1/x^2 LINR		0.9990
60)AM	Fluorene		1.2782371 1.5179663	1.4850320 1.5153823	1.5202589	1.5191543	1.5012742	1.5217253	1.4824	AVRG		5.6284
61)AM	4-Chlorophenylphenylethe		0.6988974	0.6924680 0.7007056	0.7020710	0.7088758	0.6972242	0.7003107	0.7001	AVRG		0.7125
62)AM	p-Nitroaniline		0.4098736	0.3569431 0.4081949	0.3913194	0.3989884	0.4005224	0.4058685	0.3960	AVRG		4.6285
64)SA	2,4,6-Tribromophenol		0.1515896	0.1309011 0.1573381	0.1396205	0.1454842	0.1454239	0.1513971	0.1460	AVRG		5.9868

Response Factor Report MSD3

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Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound m1	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
65)AM	2-Methyl-4,6-dinitrophen -0.0143 0.1313 0.00		115992	6974 145745	17113	41000	53064	92271		1/x^2 LINR	#	0.9983
66)AMC	Diphenylamine		0.6440166	0.6291376 0.6476005	0.6535304	0.6498064	0.6397863	0.6543000	0.6455	AVRG		1.3675
67)AM	1,2-Diphenylhydrazine		0.7632615	0.7693514 0.7660396	0.7871555	0.7855950	0.7848047	0.7775545	0.7763	AVRG		1.2900
68)AM	4-Bromophenylphenylether		0.2228455	0.2130467 0.2288783	0.2166258	0.2143968	0.2165372	0.2239058	0.2195	AVRG		2.6522
69)AM	Hexachlorobenzene		0.2660756	0.2638606 0.2722923	0.2677632	0.2627347	0.2630507	0.2697323	0.2665	AVRG		1.3600
70)AMC	Pentachlorophenol -0.0162 0.1632 0.00		144363	9181 183742	22062	51449	65889	114589		1/x^2 LINR	#	0.9981
71)AM	n-Octadecane		0.4992794	0.4596615 0.5052116	0.4861499	0.4936991	0.4968942	0.5046734	0.4922	AVRG		3.2065
72)A	Dinoseb -0.0262 0.2008 0.00		174088	10461 220263	24798	59714	77214	136401		1/x LINR	#	0.9976
73)AM	Phenanthrene		1.1132286 1.0992805	1.1337606 1.1045219	1.1253701	1.1007323	1.0964579	1.1098847	1.1104	AVRG		1.1909
74)AM	Anthracene		0.9917028 1.1286561	1.1316466 1.1192391	1.1534948	1.1245683	1.1168975	1.1449806	1.1139	AVRG		4.5713
75)AM	Carbazole		0.8111000 1.0429903	1.0335458 1.0437435	1.0640770	1.0487755	1.0487324	1.0533427	1.0183	AVRG		8.2665
76)AM	Di-n-butylphthalate		0.9302803 1.3510352	1.2630261 1.3728326	1.3490627	1.3689712	1.3573316	1.3722661	1.2956	AVRG		11.7233
77)AMC	Fluoranthene		0.9840800 1.1891543	1.1469675 1.1914501	1.1804854	1.1874427	1.1828194	1.2014229	1.1580	AVRG		6.2216
78)AM	Pyrene		1.0348012 1.2461607	1.2173526 1.2485340	1.2545899	1.2376190	1.2401697	1.2608624	1.2175	AVRG		6.1572
79)SA	p-Terphenyl-d14		0.9615938	0.9336204 0.9614505	0.9552427	0.9571553	0.9554828	0.9703738	0.9564	AVRG		1.1840

Response Factor Report MSD3

GEL Laboratories, LLC

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Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound ml	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
81)AM	Butylbenzylphthalate		2188	45995	98892	214428	270798	451974		1/x^2		
-0.0064	0.5899	0.00	559568	699966						LINR	#	0.9981
82)AM	bis(2-Ethylhexyl)phthala		3367	77302	162492	348242	428564	719465		1/x^2		
-0.0107	0.9456	0.00	878260	1082548						LINR	#	0.9996
83)AM	Benzo(a)anthracene		1.1166975	1.2080112	1.2207004	1.2056893	1.2028017	1.2004878				
			1.1896017	1.1934679					1.1922	AVRG		2.6778
84)AM	Chrysene		1.1398848	1.1425049	1.1231508	1.1299361	1.0660007	1.0914337				
			1.1046922	1.1094953					1.1134	AVRG		2.3365
85)A	Methoxychlor			0.6330037	0.6872045	0.7299716	0.7217916	0.7493634				
			0.7646004	0.7685159					0.7221	AVRG		6.6711
86)A	Methylenebis(2-chloroani			0.2001171	0.2153279	0.2236057	0.2221303	0.2270040				
			0.2297380	0.2344749					0.2218	AVRG		5.0954
87)AMC	Di-n-octylphthalate		4623	108234	238809	533902	673597	1135068		1/x^2		
-0.0192	1.4654	0.00	1418015	1759896						LINR	#	0.9961
89)AM	Benzo(b)fluoranthene		0.9411444	1.0849347	1.1046787	1.1452725	1.1243853	1.1559992				
			1.1973552	1.1748759					1.1161	AVRG		7.1262
90)AM	Benzo(k)fluoranthene		0.8854267	1.1481643	1.1863667	1.1503019	1.1582831	1.1673721				
			1.1062619	1.1612903					1.1204	AVRG		8.7150
91)AMC	Benzo(a)pyrene		0.7818645	1.0064203	1.0436376	1.0530834	1.0609793	1.0844650				
			1.0766022	1.0925737					1.0250	AVRG		9.9399
92)AM	Indeno(1,2,3-cd)pyrene		0.8616559	1.0385162	1.0736040	1.0932160	1.1086444	1.1529388				
			1.1676426	1.1779528					1.0843	AVRG		9.4107
93)AM	Dibenzo(a,h)anthracene		0.7970052	1.0282968	1.0767652	1.0929896	1.0906051	1.1155260				
			1.1195304	1.1335250					1.0568	AVRG		10.3922
94)AM	Benzo(ghi)perylene		0.8403075	1.0167281	1.0483370	1.0566654	1.0645628	1.0772708				
			1.0714838	1.0845643					1.0325	AVRG		7.7900
95)A	Dibenzo(a,e)pyrene			0.8972809	0.9240888	0.9378713	0.9445029	0.9603136				
			0.9656400	0.9742935					0.9434	AVRG		2.8266
97)BM	1,4-Dioxane			0.5312377	0.5334479	0.5205163	0.5239012	0.5258061				
			0.5142825	0.5178806	0.5013775	0.5167870			0.5206	AVRG		1.8569

Response Factor Report MSD3

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Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound ml	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
98)B	Methyl methacrylate		0.6960247	0.7241575 0.7090814	0.7031566 0.6764579	0.7030378 0.7049539	0.7090584	0.7150695	0.7046	AVRG		1.8791
99)B	Ethyl methacrylate		1.0891052	1.1007978 1.1152492	1.0818196 1.0438106	1.1053920 1.1012721	1.1120400	1.1143095	1.0960	AVRG		2.0591
100)B	2-Picoline		1.4232556	1.3647818 1.4587310	1.3756608 1.3561840	1.4171025 1.4202094	1.4316435	1.4504774	1.4109	AVRG		2.6192
101)B	N-Nitrosomethylethylamin		0.5550819	0.5284911 0.5721176	0.5402136 0.5272128	0.5573966 0.5621441	0.5636689	0.5651712	0.5524	AVRG		2.9750
102)B	Methyl methanesulfonate		0.6752015	0.6939879 0.6850561	0.6922575 0.6663290	0.6919130 0.6925020	0.7050938	0.6927539	0.6883	AVRG		1.6607
103)B	N-Nitrosodiethylamine		0.5854830	0.5605790 0.6013147	0.5614898 0.5459174	0.5787747 0.5871480	0.5847510	0.5953298	0.5779	AVRG		3.1406
104)B	2-Butoxyethanol		1.3021980	1.1607446 1.3474374	1.1951835 1.1862221	1.2699630 1.2972902	1.2882281	1.3239395	1.2635	AVRG		5.2492
105)B	Ethyl methanesulfonate		1.0327956	1.0077604 1.0596040	1.0246046 0.9953948	1.0343048 1.0506704	1.0460395	1.0631050	1.0349	AVRG		2.2104
106)BM	Benzaldehyde		1.0063252	1.0415486 0.9973661	1.0565188 1.0066175	1.0568188 1.0473887	1.0570314	1.0472175	1.0352	AVRG		2.3696
107)B	Pentachloroethane		0.5504790	0.5399573 0.5648431	0.5389736 0.5200551	0.5481717 0.5494546	0.5511902	0.5568971	0.5467	AVRG		2.3251
108)BM	N-Nitrosopyrrolidine		0.6520693	0.5655491 0.6739219	0.6137011 0.5987224	0.6308635 0.6509455	0.6485173	0.6573431	0.6324	AVRG		5.3891
109)BM	Acetophenone		1.9078357	1.8538170 1.9424442	1.8765636 1.8167626	1.9125585 1.9083419	1.9314323	1.9375416	1.8986	AVRG		2.2097
110)B	N-Nitrosomorpholine		0.6120408	0.5757510 0.6265018	0.5983205 0.5820571	0.6056270 0.6201344	0.6195467	0.6228507	0.6070	AVRG		3.0057
111)B	o-Toluidine		2.1143128	2.0762087 2.1684045	2.1051406 2.0297653	2.1324990 2.1477293	2.1632870	2.1653876	2.1225	AVRG		2.2009
113)B	N-Nitrosopiperidine		0.1680536	0.1554972 0.1700206	0.1581965 0.1544277	0.1647663 0.1689705	0.1670321	0.1688914	0.1640	AVRG		3.7881

Response Factor Report MSD3

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Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound ml	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
114)B	a,a-Dimethylphenethylami		0.7654208	0.5705702 0.7784352	0.6477931 0.6326337	0.6940524 0.7441812	0.7227605	0.7417569	0.6997	AVRG		9.9393
115)BM	2,6-Dichlorophenol		0.2796495	0.2543874 0.2833143	0.2630812 0.2535756	0.2708378 0.2813562	0.2765316	0.2789366	0.2713	AVRG		4.2605
116)B	Hexachloropropene		0.2024780	0.1862285 0.2045348	0.1867229 0.1838538	0.1953459 0.2025107	0.1990873	0.2029531	0.1960	AVRG		4.2101
117)BM	Caprolactam		0.0900934	0.0717287 0.0916666	0.0777857 0.0773476	0.0836804 0.0888194	0.0860240	0.0883245	0.0839	AVRG		8.1613
118)B	N-Nitrosodi-n-butylamine		0.1539745	0.1426259 0.1537712	0.1468374 0.1435004	0.1487236 0.1555048	0.1526799	0.1536474	0.1501	AVRG		3.2363
119)B	Safrole		0.2541972	0.2360284 0.2566037	0.2415606 0.2337494	0.2472748 0.2526670	0.2507905	0.2544964	0.2475	AVRG		3.4113
121)B	1,2,4,5-Tetrachlorobenze		0.6336753	0.6146752 0.6335458	0.6024878 0.5888750	0.6179900 0.6202148	0.6247402	0.6331658	0.6188	AVRG		2.4651
122)BM	1,1-Biphenyl		1.6259127	1.6099353 1.6338906	1.5902444 1.5503871	1.6228633 1.6325769	1.6294727	1.6369227	1.6147	AVRG		1.7447
123)B	Isosafrole		0.5414495	0.5053373 0.5517684	0.5061924 0.4984133	0.5314678 0.5301098	0.5279060	0.5341270	0.5252	AVRG		3.4284
124)B	1,4-Naphthoquinone		0.5146386	0.4146450 0.5009004	0.4475239 0.4621946	0.5028937 0.5213434	0.5152572	0.5167497	0.4885	AVRG		7.7493
125)B	Pentachlorobenzene		0.5708254	0.5480359 0.5771374	0.5442215 0.5323883	0.5556356 0.5676227	0.5597557	0.5612591	0.5574	AVRG		2.5249
126)B	1-Naphthylamine		1.4053486	1.3185171 1.4285522	1.3297576 1.3221013	1.3838828 1.4026487	1.4100716	1.3971759	1.3776	AVRG		3.0724
127)B	2-Naphthylamine		1.4395950	1.3421662 1.4635845	1.3714276 1.3539413	1.4332517 1.4403844	1.4413753	1.4209964	1.4119	AVRG		3.1194
128)B	5-Nitro-o-toluidine		0.4190232	0.3333090 0.4322790	0.3615209 0.3666199	0.3951744 0.4146092	0.4078270	0.4125967	0.3937	AVRG		8.3004
129)B	Tributylphosphate		1.9306651	1.6720648 1.9534409	1.7290685 1.7470981	1.8389775 1.9141433	1.8915331	1.8873289	1.8405	AVRG		5.4544

Response Factor Report MSD3

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Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound m1	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
131)B	1,3,5-Trinitrobenzene		0.1772829	0.1277733 0.1823343	0.1446622 0.1471268	0.1614198 0.1749362	0.1684881	0.1727560	0.1619	AVRG		11.2773
132)B	Phenacetin		0.3795152	0.3363297 0.3963388	0.3545129 0.3573580	0.3788126 0.3896443	0.3889817	0.3934501	0.3750	AVRG		5.5514
133)B	Diallate		0.2250308	0.2176000 0.2332265	0.2178529 0.2119068	0.2281001 0.2258571	0.2276453	0.2272430	0.2238	AVRG		2.9761
134)B	Cis Diallate		0.2647421	0.2560000 0.2743841	0.2562975 0.2493022	0.2683531 0.2657143	0.2678179	0.2673447	0.2633	AVRG		2.9761
135)B	Trans Diallate		0.5190213	0.5138546 0.5324542	0.5030589 0.4838758	0.5267628 0.5198213	0.5274727	0.5244930	0.5168	AVRG		2.9131
136)BM	Atrazine		0.1993802	0.1954166 0.2066266	0.1985487 0.1919125	0.2051184 0.2057350	0.2040581	0.2058492	0.2014	AVRG		2.6321
137)B	4-Aminobiphenyl		0.8730858	0.8269308 0.9025883	0.8472883 0.8244808	0.8913672 0.8899193	0.8793007	0.8882811	0.8692	AVRG		3.3499
138)B	Pentachloronitrobenzene		0.0904068	0.0816230 0.0930114	0.0811708 0.0819073	0.0882144 0.0902658	0.0899193	0.0912962	0.0875	AVRG		5.3142
139)B	Pronamide		0.3635966	0.3319574 0.3727840	0.3449744 0.3356056	0.3636998 0.3656398	0.3633470	0.3668045	0.3565	AVRG		4.1792
140)B	4-Nitroquinoline-1-oxide		0.0332267	0.0228278 0.0302501	0.0340721 0.0347764	0.0383643 0.0367583	0.0374018	0.0339827	0.0335	AVRG		14.0026
141)B	Methapyrilene		0.4044705	0.3606187 0.4079961	0.3929105 0.3913756	0.4267842 0.4296412	0.4257384	0.4147462	0.4060	AVRG		5.4434
142)B	Isodrin		0.1293290	0.1245861 0.1340855	0.1240493 0.1205191	0.1299905 0.1294571	0.1303713	0.1293867	0.1280	AVRG		3.2177
144)B	Aramite		0.0570765	0.0477099 0.0582870	0.0477162 0.0484260	0.0537869 0.0557979	0.0542850	0.0570736	0.0534	AVRG		8.0341
145)B	Kepone		0.1276033	0.1093918 0.1311696	0.1155608 0.1161975	0.1260252 0.1291646	0.1271608	0.1294579	0.1235	AVRG		6.2604
146)B	p-(Dimethylamino)azobenz		0.2202284	0.1823315 0.2258105	0.1953261 0.1977341	0.2127065 0.2191605	0.2164620	0.2216983	0.2102	AVRG		7.0486

Response Factor Report MSD3

GEL Laboratories, LLC

Method File : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Last Update : Fri Mar 15 08:40:12 2024

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound m1	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
147)B	Chlorobenzilate		0.3428757	0.3113360 0.3501153	0.3173805 0.3109489	0.3310605 0.3365045	0.3345994	0.3455120	0.3311	AVRG		4.4463
148)B	2-Acetylaminofluorene		0.5061282	0.3775257 0.5215440	0.4211155 0.4276389	0.4693243 0.4911237	0.4818684	0.4980499	0.4660	AVRG		10.1586
150)B	7,12-Dimethylbenz(a)anth		0.4992497	0.4384558 0.5082334	0.4496986 0.4448477	0.4780631 0.4923974	0.4907161	0.4966084	0.4776	AVRG		5.5116
151)B	3-Methylcholanthrene		0.1315379	0.1103965 0.1360741	0.1161753 0.1159190	0.1249154 0.1290039	0.1277600	0.1316896	0.1248	AVRG		6.9787
153)J	Sulfolane		0.1051892	0.1064955 0.1057229	0.1043815 0.0990193	0.1044401 0.1064170	0.1057167	0.1050481	0.1047	AVRG		2.1633
155)J	Prometon		0.1766379	0.1596562 0.1839777	0.1675211 0.1622797	0.1754066 0.1780243	0.1782732	0.1782092	0.1733	AVRG		4.7475
156)JM	Benzidine		0.7813930	0.6816685 0.8003622	0.7373526 0.7271048	0.7793953 0.8115223	0.7902318	0.7846208	0.7660	AVRG		5.4710
158)J	3,3'-Dimethylbenzidine		0.7877730	0.7149765 0.7764372	0.7423262 0.7359554	0.7842676 0.7923269	0.7891617	0.7878424	0.7679	AVRG		3.7567
159)JM	3,3'-Dichlorobenzidine		0.4851935	0.4242208 0.4907964	0.4394293 0.4348388	0.4653626 0.4777018	0.4746514	0.4799843	0.4636	AVRG		5.2622
161)D	Triethylphosphorothioate		0.1676695	0.1624718 0.1718602	0.1601465	0.1600972	0.1630802	0.1643948	0.1642	AVRG		2.5860
163)D	Thionazine		0.2580015	0.2283007 0.2628576	0.2254159	0.2356052	0.2419634	0.2483016	0.2429	AVRG		5.8903
165)D	Sulfotepp		0.1223028	0.1129595 0.1245563	0.1087785	0.1150274	0.1156466	0.1203836	0.1171	AVRG		4.7581
166)D	Phorate		0.4723934	0.4506067 0.4770087	0.4457803	0.4671870	0.4727720	0.4795635	0.4665	AVRG		2.8190
167)D	Dimethoate		0.3119895	0.2680835 0.3206313	0.2702314	0.2936707	0.2954608	0.3082547	0.2955	AVRG		6.8524
168)D	Disulfoton		0.4241115	0.4257736 0.4251401	0.4110141	0.4198500	0.4190344	0.4245020	0.4213	AVRG		1.2481

Response Factor Report MSD3

GEL Laboratories, LLC

Method File : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m

Last Update : Fri Mar 15 08:40:12 2024

Integrator : (RTE Integrator)

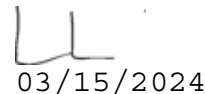
Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. $y = b + m1(x) + m2(xE2)$

b	Compound m1	m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
169)D	Methyl parathion		0.2636994	0.1905112 0.2706747	0.2013827	0.2302690	0.2306100	0.2513381	0.2341	AVRG		12.9445
170)D	Parathion		0.0796148	0.0567126 0.0825659	0.0629745	0.0714584	0.0711583	0.0772631	0.0717	AVRG		12.8973
172)D	Famphur		0.5137749	0.4369699 0.5164557	0.4362495	0.4676399	0.4889660	0.5004747	0.4801	AVRG		7.0576
174)E	p-Phenylenediamine		0.5178280	0.5218964	0.5102575	0.5126325	0.5141689	0.5190356	0.5160	AVRG		0.8447
176)E	Hexachlorophene			242514	400922	561272	705790	979365		1/x LINR	#	0.9983
	-1.2957 0.1569 0.00		975546									

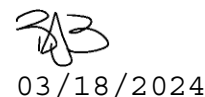
(#) = Out of Range (\$) = Individual RF Out of Range

AVRG = Average, LINR = Linear Regression, $1/x$ = the inverse of concentration, $1/x^2$ = the inverse square of concentration



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1402.D
 Acq On : 14 Mar 2024 08:17
 Operator : LL2
 Sample : |WBN240312-01.1|ICAL|1|SVM|1|M-1
 Misc : |MIX[A]
 ALS Vial : 2 Sample Multiplier: 1

03/15/2024



03/18/2024

Quant Time: Mar 15 08:46:03 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	71800	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.318	5.324	1.000	282823	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	141038	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	272864	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	258763	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	264189	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.318	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.318	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.318	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.318	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.622	2.622	0.672	1518	0.64	ng/uL	0.00
8) Phenol-d5	99	3.494	3.494	0.896	2060	0.70	ng/uL	0.00
23) Nitrobenzene-d5	82	4.505	4.505	0.847	2088	0.81	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.447	6.447	0.912	5044	0.94	ng/uL	0.00
64) 2,4,6-Tribromophenol	330	7.778	7.779	0.928	583	0.59	ng/uL	0.00
79) p-Terphenyl-d14	244	9.709	9.709	1.159	5404	0.83	ng/uL	0.00

Target Compounds								
3) N-Methyl-N-nitrosometh...	74	1.654	1.644	0.424	904	1.00	ng/uL#	84
33) Naphthalene	128	5.345	5.345	1.005	7540	1.00	ng/uL	99
37) 2-Methylnaphthalene	142	6.078	6.078	1.143	4425	0.90	ng/uL	97
38) 1-Methylnaphthalene	142	6.174	6.179	1.161	4300	0.95	ng/uL	97
45) 2-Chloronaphthalene	162	6.554	6.559	0.927	4211	0.92	ng/uL	98
49) Dimethylphthalate	163	6.826	6.832	0.965	4426	0.86	ng/uL#	96
53) Acenaphthylene	152	6.944	6.944	0.982	5910	0.83	ng/uL	98
54) Acenaphthene	154	7.105	7.105	1.005	4102	0.95	ng/uL	96
58) Diethylphthalate	149	7.463	7.468	1.055	4517	0.84	ng/uL	95
60) Fluorene	166	7.565	7.565	1.070	4507	0.86	ng/uL#	95
73) Phenanthrene	178	8.399	8.399	1.003	7594	1.00	ng/uL	97
74) Anthracene	178	8.442	8.442	1.008	6765	0.89	ng/uL	96
75) Carbazole	167	8.575	8.576	1.024	5533	0.80	ng/uL	97
76) Di-n-butylphthalate	149	8.859	8.859	1.057	6346	0.72	ng/uL	95
77) Fluoranthene	202	9.399	9.399	1.122	6713	0.85	ng/uL	95
78) Pyrene	202	9.592	9.592	1.145	7059	0.85	ng/uL	96
81) Butylbenzylphthalate	149	10.121	10.121	0.946	2188	1.01	ng/uL	93
82) bis(2-Ethylhexyl)phtha...	149	10.693	10.699	0.999	3367	1.00	ng/uL	100
83) Benzo(a)anthracene	228	10.693	10.694	0.999	7224	0.94	ng/uL	98
84) Chrysene	228	10.731	10.736	1.002	7374	1.02	ng/uL	97
87) Di-n-octylphthalate	149	11.533	11.533	1.077	4623	1.01	ng/uL	95
89) Benzo(b)fluoranthene	252	12.116	12.122	0.951	6216	0.84	ng/uL	97
90) Benzo(k)fluoranthene	252	12.159	12.164	0.954	5848	0.79	ng/uL	99
91) Benzo(a)pyrene	252	12.646	12.651	0.992	5164	0.76	ng/uL	92

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1402.D
Acq On : 14 Mar 2024 08:17
Operator : LL2
Sample : |WBN240312-01.1|ICAL|1|SVM|1|M-1
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 08:46:03 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

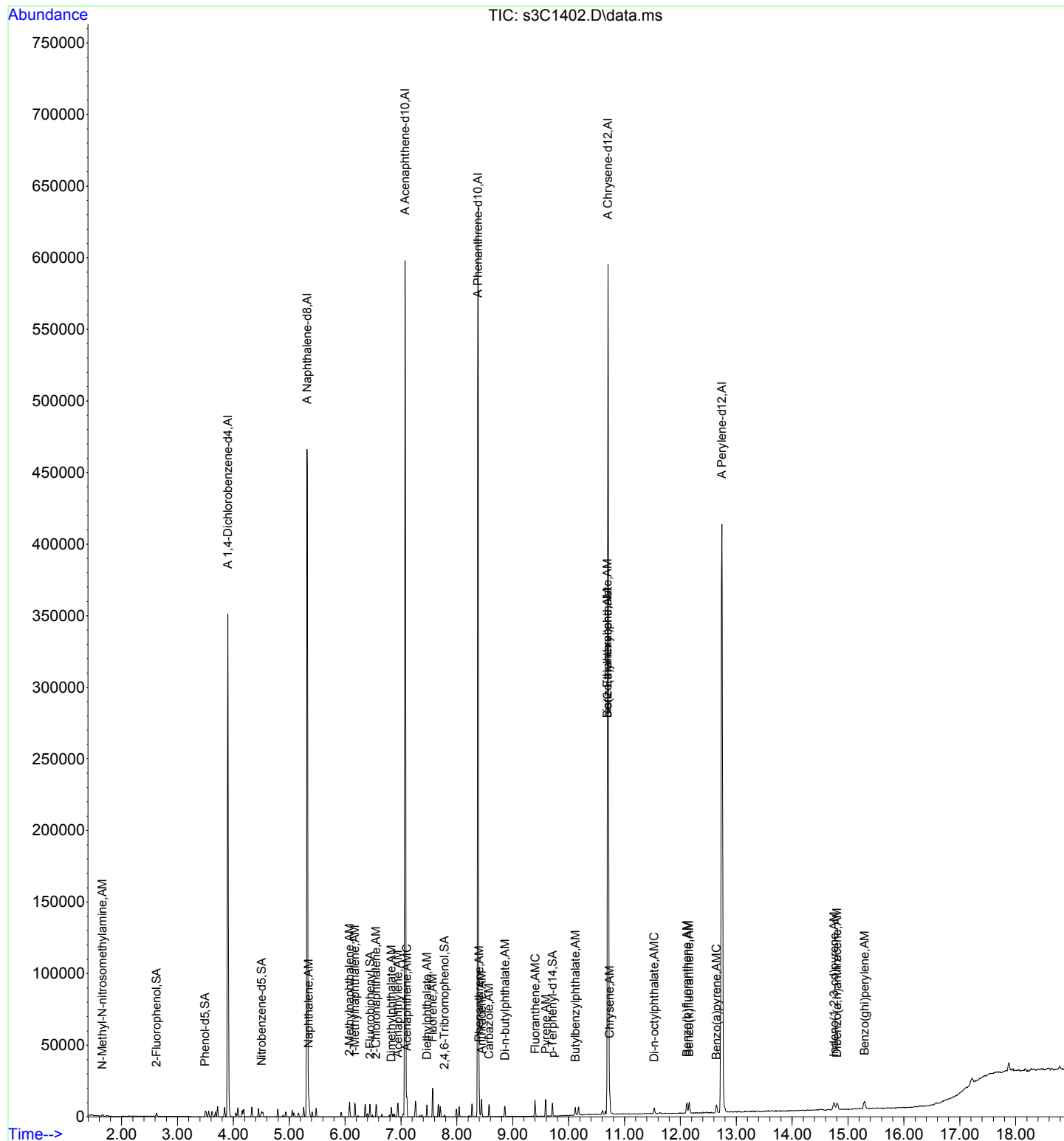
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
92) Indeno(1,2,3-cd)pyrene	276	14.748	14.764	1.157	5691	0.79	ng/uL 93
93) Dibenzo(a,h)anthracene	278	14.807	14.817	1.162	5264	0.75	ng/uL 93
94) Benzo(ghi)perylene	276	15.293	15.309	1.200	5550	0.81	ng/uL 97

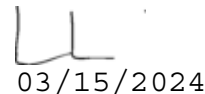
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1402.D
 Acq On : 14 Mar 2024 08:17
 Operator : LL2
 Sample : WBN240312-01.1 | ICAL | 1 | SVM | 1 | M-1
 Misc : MIX[A]
 ALS Vial : 2 Sample Multiplier: 1

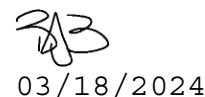
Quant Time: Mar 15 08:46:03 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration





Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1403.D
 Acq On : 14 Mar 2024 08:40
 Operator : LL2
 Sample : |WBN240312-02.1|ICAL|1|SVM|1|M-2
 Misc : |MIX[A]
 ALS Vial : 3 Sample Multiplier: 1

03/15/2024



03/18/2024

Quant Time: Mar 15 08:47:37 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	94331	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	378339	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.073	7.078	1.000	185262	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	359508	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	356851	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	361666	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.622	2.622	0.672	29655	9.50	ng/uL	0.00
8) Phenol-d5	99	3.494	3.494	0.896	36876	9.53	ng/uL	0.00
23) Nitrobenzene-d5	82	4.505	4.505	0.846	32828	9.46	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.447	6.447	0.912	70411	10.01	ng/uL	0.00
64) 2,4,6-Tribromophenol	330	7.779	7.779	0.928	11765	8.97	ng/uL	0.00
79) p-Terphenyl-d14	244	9.709	9.709	1.159	83911	9.76	ng/uL	0.00

Target Compounds								
2) 2-Ethoxyethanol	59	1.467	1.462	0.376	14225	8.77	ng/uL	93
3) N-Methyl-N-nitrosometh...	74	1.649	1.644	0.423	18415	9.61	ng/uL	98
4) Pyridine	79	1.692	1.686	0.434	25616	9.02	ng/uL	96
6) p-Benzoquinone	54	3.088	3.088	0.792	11399	7.98	ng/uL	98
7) Aniline	93	3.558	3.559	0.912	45058	9.82	ng/uL	97
9) Phenol	94	3.505	3.510	0.899	37331	9.30	ng/uL	99
10) bis(2-Chloroethyl) ether	93	3.617	3.617	0.927	32527	9.75	ng/uL	100
11) 2-Chlorophenol	128	3.676	3.676	0.942	33160	9.58	ng/uL	99
12) n-Decane	43	3.719	3.719	0.953	29007	9.86	ng/uL	99
13) 1,3-Dichlorobenzene	146	3.842	3.842	0.985	38023	9.96	ng/uL	100
14) 1,4-Dichlorobenzene	146	3.922	3.922	1.005	38774	10.03	ng/uL	97
15) 1,2-Dichlorobenzene	146	4.083	4.083	1.047	36519	9.92	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.184	4.190	1.073	39020	9.90	ng/uL	99
17) Benzyl alcohol	108	4.040	4.040	1.036	20156	9.27	ng/uL	99
18) o-Cresol	107	4.158	4.158	1.066	26247	9.84	ng/uL	96
19) m,p-Cresols	108	4.329	4.329	1.110	30554	9.67	ng/uL	98
20) N-Nitrosodipropylamine	70	4.334	4.334	1.111	22181	9.46	ng/uL	99
21) Hexachloroethane	117	4.452	4.452	1.141	15342	9.93	ng/uL	98
24) Nitrobenzene	77	4.527	4.527	0.850	33188	9.63	ng/uL	98
25) Isophorone	82	4.794	4.799	0.901	59753	9.52	ng/uL	99
26) 2-Nitrophenol	139	4.890	4.890	0.919	15185	8.73	ng/uL	99
27) 2,4-Dimethylphenol	122	4.938	4.938	0.928	23338	9.56	ng/uL	98
28) bis(2-Chloroethoxy)met...	93	5.051	5.056	0.949	40249	9.64	ng/uL	98
29) 2,4-Dichlorophenol	162	5.163	5.163	0.970	25942	9.35	ng/uL	98

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1403.D
Acq On : 14 Mar 2024 08:40
Operator : LL2
Sample : |WBN240312-02.1|ICAL|1|SVM|1|M-2
Misc : |MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 15 08:47:37 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
30)	Benzoic acid	105	5.008	5.035	0.941	2257	19.87	ng/uL	84
31)	1,2,4-Trichlorobenzene	180	5.259	5.259	0.988	30689	9.91	ng/uL	99
32)	alpha-Terpineol	59	5.361	5.361	1.007	24460	9.42	ng/uL	98
33)	Naphthalene	128	5.345	5.345	1.004	101612	10.10	ng/uL	99
34)	4-Chloroaniline	127	5.409	5.409	1.016	39753	9.62	ng/uL	99
35)	Hexachlorobutadiene	225	5.484	5.484	1.030	17085	9.93	ng/uL	99
36)	4-Chloro-3-methylphenol	107	5.928	5.928	1.114	25478	9.16	ng/uL	100
37)	2-Methylnaphthalene	142	6.078	6.078	1.142	64399	9.83	ng/uL	100
38)	1-Methylnaphthalene	142	6.174	6.179	1.160	59509	9.86	ng/uL	100
40)	Hexachlorocyclopentadiene	237	6.233	6.233	0.881	12881	8.12	ng/uL	97
41)	2,3-Dichloroaniline	161	6.356	6.361	0.899	32922	9.60	ng/uL	99
42)	2,4,6-Trichlorophenol	196	6.361	6.361	0.899	18543	9.24	ng/uL	98
43)	2,4,5-Trichlorophenol	196	6.393	6.393	0.904	18994	9.24	ng/uL	98
45)	2-Chloronaphthalene	162	6.554	6.559	0.927	61006	10.09	ng/uL	99
46)	o-Nitroaniline	65	6.655	6.655	0.941	14740	8.88	ng/uL	96
47)	1,4-Dinitrobenzene	168	6.794	6.794	0.961	7529	8.27	ng/uL	99
48)	m-Nitroaniline	138	7.035	7.040	0.995	16499	9.15	ng/uL	100
49)	Dimethylphthalate	163	6.832	6.832	0.966	69094	10.18	ng/uL	99
50)	m-Dinitrobenzene	168	6.859	6.859	0.970	9106	8.68	ng/uL	91
51)	2,6-Dinitrotoluene	165	6.885	6.891	0.974	13986	9.22	ng/uL	96
52)	2,4-Dinitrotoluene	165	7.249	7.249	1.025	18338	8.89	ng/uL	95
53)	Acenaphthylene	152	6.944	6.944	0.982	93593	10.05	ng/uL	100
54)	Acenaphthene	154	7.105	7.105	1.005	56231	9.89	ng/uL	98
55)	2,4-Dinitrophenol	184	7.142	7.137	1.010	2092	13.76	ng/uL	97
56)	Dibenzofuran	168	7.260	7.260	1.026	87727	10.14	ng/uL	100
57)	2,3,4,6-Tetrachlorophenol	232	7.372	7.372	1.042	15196	8.86	ng/uL	99
58)	Diethylphthalate	149	7.463	7.468	1.055	70053	9.96	ng/uL	100
59)	4-Nitrophenol	109	7.190	7.190	1.017	5688	10.18	ng/uL	97
60)	Fluorene	166	7.565	7.565	1.070	68780	10.02	ng/uL	100
61)	4-Chlorophenylphenylether	204	7.565	7.570	1.070	32072	9.89	ng/uL	98
62)	p-Nitroaniline	138	7.581	7.586	1.072	16532	9.01	ng/uL	99
65)	2-Methyl-4,6-dinitroph...	198	7.607	7.613	0.908	6974	10.26	ng/uL	97
66)	Diphenylamine	169	7.666	7.672	0.915	56545	9.75	ng/uL	99
67)	1,2-Diphenylhydrazine	77	7.704	7.704	0.920	69147	9.91	ng/uL	99
68)	4-Bromophenylphenylether	248	7.993	7.993	0.954	19148	9.71	ng/uL	99
69)	Hexachlorobenzene	284	8.041	8.041	0.960	23715	9.90	ng/uL	99
70)	Pentachlorophenol	266	8.212	8.212	0.980	9181	10.23	ng/uL	99
71)	n-Octadecane	57	8.271	8.271	0.987	41313	9.34	ng/uL	99
72)	Dinoseb	211	8.362	8.362	0.998	10461	11.01	ng/uL	96
73)	Phenanthrene	178	8.399	8.399	1.003	101899	10.21	ng/uL	99
74)	Anthracene	178	8.442	8.442	1.008	101709	10.16	ng/uL	99
75)	Carbazole	167	8.576	8.576	1.024	92892	10.15	ng/uL	99
76)	Di-n-butylphthalate	149	8.859	8.859	1.057	113517	9.75	ng/uL	99
77)	Fluoranthene	202	9.399	9.399	1.122	103086	9.90	ng/uL	99
78)	Pyrene	202	9.592	9.592	1.145	109412	10.00	ng/uL	99
81)	Butylbenzylphthalate	149	10.121	10.121	0.946	45995	9.18	ng/uL	99
82)	bis(2-Ethylhexyl)phtha...	149	10.694	10.699	0.999	77302	9.62	ng/uL	98
83)	Benzo(a)anthracene	228	10.694	10.694	0.999	107770	10.13	ng/uL	99
84)	Chrysene	228	10.736	10.736	1.003	101926	10.26	ng/uL	99
85)	Methoxychlor	227	10.608	10.608	0.991	56472	8.77	ng/uL	100
86)	Methylenebis(2-chloroa...	231	10.661	10.661	0.996	17853	9.02	ng/uL	99
87)	Di-n-octylphthalate	149	11.533	11.533	1.077	108234	8.80	ng/uL	99
89)	Benzo(b)fluoranthene	252	12.116	12.122	0.951	98096	9.72	ng/uL	100
90)	Benzo(k)fluoranthene	252	12.159	12.164	0.954	103813	10.25	ng/uL	99
91)	Benzo(a)pyrene	252	12.646	12.651	0.992	90997	9.82	ng/uL	98
92)	Indeno(1,2,3-cd)pyrene	276	14.753	14.764	1.158	93899	9.58	ng/uL	98
93)	Dibenzo(a,h)anthracene	278	14.807	14.817	1.162	92975	9.73	ng/uL	100

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1403.D
Acq On : 14 Mar 2024 08:40
Operator : LL2
Sample : |WBN240312-02.1|ICAL|1|SVM|1|M-2
Misc : |MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 15 08:47:37 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

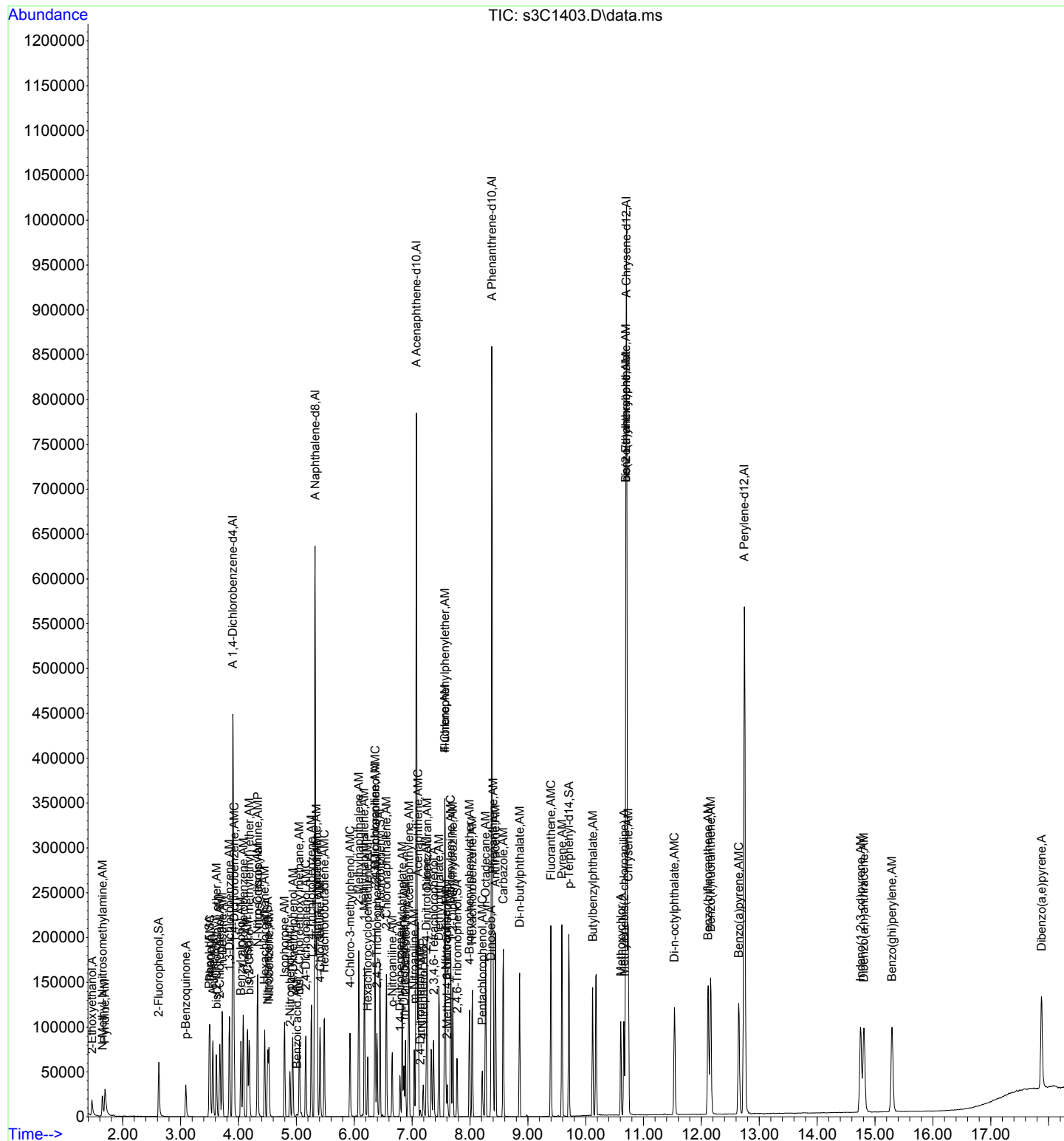
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
94) Benzo(ghi)perylene	276	15.293	15.309	1.200	91929	9.85	ng/uL
95) Dibenzo(a,e)pyrene	302	17.877	17.887	1.403	81129	9.51	ng/uL

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

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Data Path   : C:\msdchem\1\data\S031424ICAL\  
Data File   : s3C1403.D  
Acq On      : 14 Mar 2024   08:40  
Operator    : LL2  
Sample      : |WBN240312-02.1|ICAL|1|SVM|1|M-2  
Misc        : |MIX[A]  
ALS Vial    : 3      Sample Multiplier: 1
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Quant Time: Mar 15 08:47:37 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration



LL
03/15/2024

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1404.D
 Acq On : 14 Mar 2024 09:03
 Operator : LL2
 Sample : |WBN240312-03.1|ICAL|1|SVM|1|M-3
 Misc : |MIX[A]
 ALS Vial : 4 Sample Multiplier: 1

RB
03/18/2024

Quant Time: Mar 15 08:48:19 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	91067	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	359216	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.078	7.078	1.000	179526	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	350937	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	353461	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.747	12.747	1.000	353663	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.747	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.747	12.758	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.622	2.622	0.672	58447	19.39	ng/uL	0.00
8) Phenol-d5	99	3.494	3.494	0.896	72028	19.28	ng/uL	0.00
23) Nitrobenzene-d5	82	4.505	4.505	0.846	65516	19.89	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.447	6.447	0.911	137152	20.11	ng/uL	0.00
64) 2,4,6-Tribromophenol	330	7.779	7.779	0.928	24499	19.13	ng/uL	0.00
79) p-Terphenyl-d14	244	9.709	9.709	1.159	167615	19.98	ng/uL	0.00

Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	1.462	1.462	0.375	30933	19.76	ng/uL	97
3) N-Methyl-N-nitrosometh...	74	1.644	1.644	0.421	36992	19.56	ng/uL	99
4) Pyridine	79	1.686	1.686	0.432	50772	18.51	ng/uL	98
6) p-Benzoquinone	54	3.088	3.088	0.792	25311	18.35	ng/uL	99
7) Aniline	93	3.558	3.559	0.912	87639	19.79	ng/uL	99
9) Phenol	94	3.505	3.510	0.899	75170	19.39	ng/uL	99
10) bis(2-Chloroethyl) ether	93	3.617	3.617	0.927	64166	19.93	ng/uL	99
11) 2-Chlorophenol	128	3.676	3.676	0.942	65191	19.51	ng/uL	99
12) n-Decane	43	3.719	3.719	0.953	56287	19.82	ng/uL	100
13) 1,3-Dichlorobenzene	146	3.842	3.842	0.985	72271	19.61	ng/uL	99
14) 1,4-Dichlorobenzene	146	3.922	3.922	1.005	73798	19.77	ng/uL	99
15) 1,2-Dichlorobenzene	146	4.083	4.083	1.047	70585	19.86	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.184	4.190	1.073	75425	19.82	ng/uL	99
17) Benzyl alcohol	108	4.040	4.040	1.036	41124	19.60	ng/uL	99
18) o-Cresol	107	4.157	4.158	1.066	50034	19.43	ng/uL	99
19) m,p-Cresols	108	4.329	4.329	1.110	59504	19.50	ng/uL	98
20) N-Nitrosodipropylamine	70	4.334	4.334	1.111	44750	19.77	ng/uL	100
21) Hexachloroethane	117	4.452	4.452	1.141	29676	19.90	ng/uL	99
24) Nitrobenzene	77	4.527	4.527	0.850	64950	19.86	ng/uL	99
25) Isophorone	82	4.794	4.799	0.901	118178	19.84	ng/uL	99
26) 2-Nitrophenol	139	4.890	4.890	0.919	31544	19.09	ng/uL	100
27) 2,4-Dimethylphenol	122	4.938	4.938	0.928	46433	20.03	ng/uL	99
28) bis(2-Chloroethoxy)met...	93	5.051	5.056	0.949	79504	20.06	ng/uL	98
29) 2,4-Dichlorophenol	162	5.163	5.163	0.970	51950	19.73	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1404.D
Acq On : 14 Mar 2024 09:03
Operator : LL2
Sample : |WBN240312-03.1|ICAL|1|SVM|1|M-3
Misc : |MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 15 08:48:19 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
30)	Benzoic acid	105	5.013	5.035	0.942	13495	24.32	ng/uL	95
31)	1,2,4-Trichlorobenzene	180	5.259	5.259	0.988	58812	20.00	ng/uL	100
32)	alpha-Terpineol	59	5.361	5.361	1.007	48607	19.71	ng/uL	100
33)	Naphthalene	128	5.345	5.345	1.004	192863	20.19	ng/uL	100
34)	4-Chloroaniline	127	5.409	5.409	1.016	78627	20.03	ng/uL	100
35)	Hexachlorobutadiene	225	5.484	5.484	1.030	32596	19.96	ng/uL	99
36)	4-Chloro-3-methylphenol	107	5.928	5.928	1.114	51617	19.54	ng/uL	99
37)	2-Methylnaphthalene	142	6.078	6.078	1.142	125699	20.21	ng/uL	100
38)	1-Methylnaphthalene	142	6.179	6.179	1.161	117387	20.48	ng/uL	98
40)	Hexachlorocyclopentadiene	237	6.233	6.233	0.881	27562	17.94	ng/uL	100
41)	2,3-Dichloroaniline	161	6.356	6.361	0.898	65893	19.82	ng/uL	99
42)	2,4,6-Trichlorophenol	196	6.361	6.361	0.899	37757	19.43	ng/uL	100
43)	2,4,5-Trichlorophenol	196	6.393	6.393	0.903	39109	19.64	ng/uL	98
45)	2-Chloronaphthalene	162	6.559	6.559	0.927	120177	20.52	ng/uL	99
46)	o-Nitroaniline	65	6.655	6.655	0.940	30997	19.28	ng/uL	98
47)	1,4-Dinitrobenzene	168	6.794	6.794	0.960	16472	18.67	ng/uL	99
48)	m-Nitroaniline	138	7.035	7.040	0.994	34672	19.84	ng/uL	97
49)	Dimethylphthalate	163	6.832	6.832	0.965	135578	20.61	ng/uL	100
50)	m-Dinitrobenzene	168	6.859	6.859	0.969	19635	19.31	ng/uL	95
51)	2,6-Dinitrotoluene	165	6.885	6.891	0.973	29086	19.79	ng/uL	98
52)	2,4-Dinitrotoluene	165	7.249	7.249	1.024	38250	19.13	ng/uL	98
53)	Acenaphthylene	152	6.944	6.944	0.981	187549	20.79	ng/uL	100
54)	Acenaphthene	154	7.105	7.105	1.004	110895	20.13	ng/uL	99
55)	2,4-Dinitrophenol	184	7.137	7.137	1.008	7979	20.61	ng/uL	97
56)	Dibenzofuran	168	7.260	7.260	1.026	171220	20.42	ng/uL	99
57)	2,3,4,6-Tetrachlorophenol	232	7.372	7.372	1.042	32912	19.79	ng/uL	99
58)	Diethylphthalate	149	7.463	7.468	1.054	140604	20.63	ng/uL	99
59)	4-Nitrophenol	109	7.190	7.190	1.016	13258	19.48	ng/uL	99
60)	Fluorene	166	7.565	7.565	1.069	136463	20.51	ng/uL	100
61)	4-Chlorophenylphenylether	204	7.565	7.570	1.069	63020	20.06	ng/uL	98
62)	p-Nitroaniline	138	7.581	7.586	1.071	35126	19.77	ng/uL	99
65)	2-Methyl-4,6-dinitroph...	198	7.607	7.613	0.908	17113	19.20	ng/uL	97
66)	Diphenylamine	169	7.672	7.672	0.916	114674	20.25	ng/uL	99
67)	1,2-Diphenylhydrazine	77	7.704	7.704	0.920	138121	20.28	ng/uL	99
68)	4-Bromophenylphenylether	248	7.992	7.993	0.954	38011	19.74	ng/uL	100
69)	Hexachlorobenzene	284	8.041	8.041	0.960	46984	20.09	ng/uL	99
70)	Pentachlorophenol	266	8.212	8.212	0.980	22062	19.38	ng/uL	98
71)	n-Octadecane	57	8.271	8.271	0.987	85304	19.75	ng/uL	99
72)	Dinoseb	211	8.362	8.362	0.998	24798	19.29	ng/uL	99
73)	Phenanthrene	178	8.399	8.399	1.003	197467	20.27	ng/uL	100
74)	Anthracene	178	8.442	8.442	1.008	202402	20.71	ng/uL	98
75)	Carbazole	167	8.575	8.576	1.024	186712	20.90	ng/uL	99
76)	Di-n-butylphthalate	149	8.859	8.859	1.057	236718	20.83	ng/uL	99
77)	Fluoranthene	202	9.399	9.399	1.122	207138	20.39	ng/uL	99
78)	Pyrene	202	9.592	9.592	1.145	220141	20.61	ng/uL	99
81)	Butylbenzylphthalate	149	10.121	10.121	0.946	98892	19.41	ng/uL	100
82)	bis(2-Ethylhexyl)phtha...	149	10.694	10.699	0.999	162492	19.90	ng/uL	100
83)	Benzo(a)anthracene	228	10.694	10.694	0.999	215735	20.48	ng/uL	99
84)	Chrysene	228	10.736	10.736	1.003	198495	20.18	ng/uL	100
85)	Methoxychlor	227	10.608	10.608	0.991	121450	19.03	ng/uL	100
86)	Methylenebis(2-chloroa...	231	10.661	10.661	0.996	38055	19.42	ng/uL	100
87)	Di-n-octylphthalate	149	11.533	11.533	1.077	238809	18.97	ng/uL	100
89)	Benzo(b)fluoranthene	252	12.116	12.122	0.950	195342	19.80	ng/uL	100
90)	Benzo(k)fluoranthene	252	12.159	12.164	0.954	209787	21.18	ng/uL	100
91)	Benzo(a)pyrene	252	12.646	12.651	0.992	184548	20.36	ng/uL	100
92)	Indeno(1,2,3-cd)pyrene	276	14.759	14.764	1.158	189847	19.80	ng/uL	100
93)	Dibenzo(a,h)anthracene	278	14.812	14.817	1.162	190406	20.38	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1404.D
Acq On : 14 Mar 2024 09:03
Operator : LL2
Sample : |WBN240312-03.1|ICAL|1|SVM|1|M-3
Misc : |MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 15 08:48:19 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

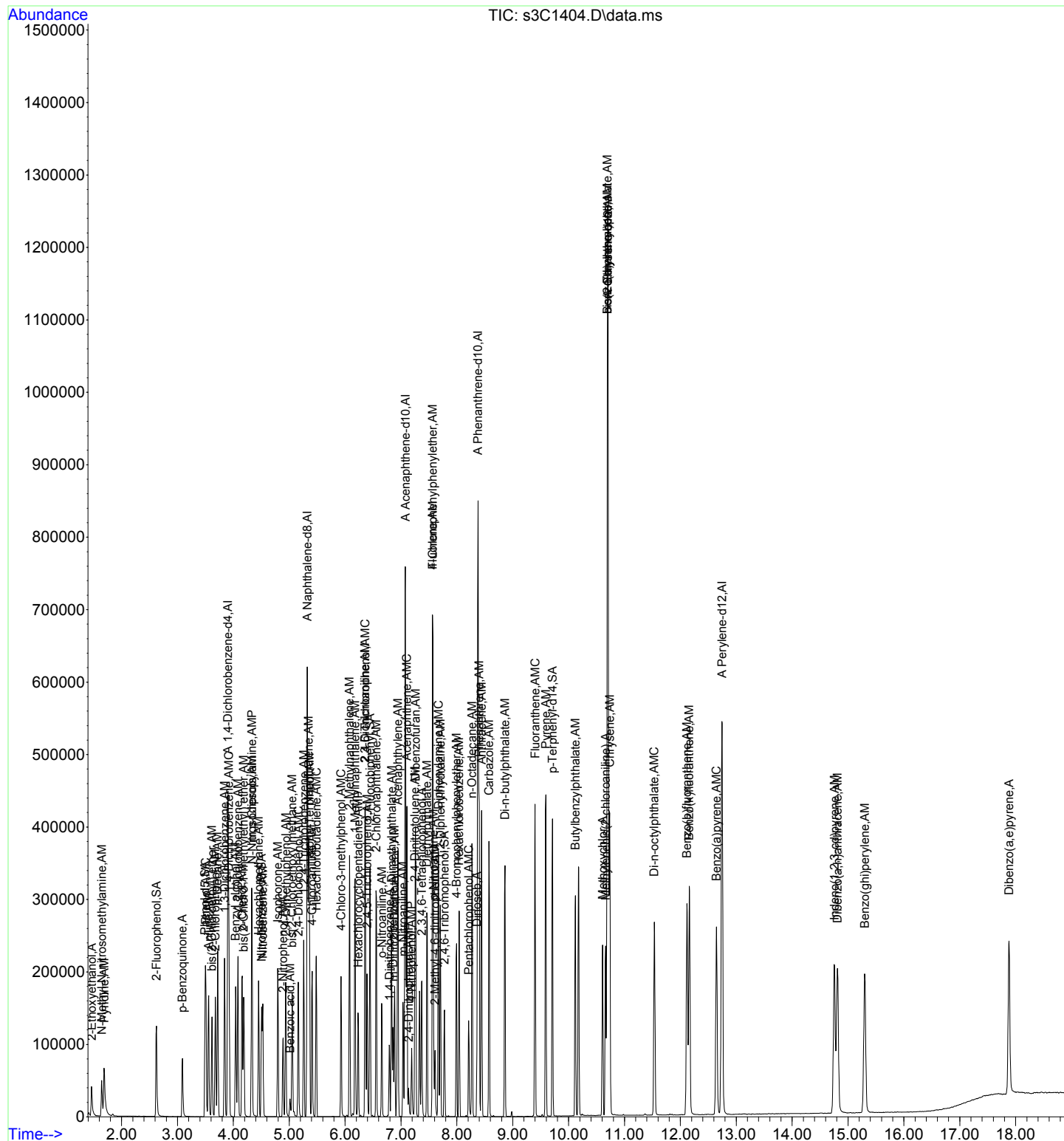
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
94) Benzo(ghi)perylene	276	15.299	15.309	1.200	185379	20.31	ng/uL 100
95) Dibenzo(a,e)pyrene	302	17.882	17.887	1.403	163408	19.59	ng/uL 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

```
Data Path   : C:\msdchem\1\data\S031424ICAL\  
Data File   : s3C1404.D  
Acq On      : 14 Mar 2024   09:03  
Operator    : LL2  
Sample      : |WBN240312-03.1|ICAL|1|SVM|1|M-3  
Misc        : |MIX[A]  
ALS Vial    : 4      Sample Multiplier: 1
```

Quant Time: Mar 15 08:48:19 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1405.D
 Acq On : 14 Mar 2024 09:27
 Operator : LL2
 Sample : |WBN240312-04.1|ICAL|1|SVM|1|M-4
 Misc : |MIX[A]
 ALS Vial : 5 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:53:02 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.906	3.906	1.000	93859	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	374221	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.078	7.078	1.000	186642	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	363359	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.710	10.710	1.000	366480	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.747	12.747	1.000	371020	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.906	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.710	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.747	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.710	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.710	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.747	12.758	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.622	2.622	0.671	121854	39.22	ng/uL	0.00
8) Phenol-d5	99	3.494	3.494	0.895	152892	39.70	ng/uL	0.00
23) Nitrobenzene-d5	82	4.505	4.505	0.846	136565	39.80	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.447	6.447	0.911	282516	39.85	ng/uL	0.00
64) 2,4,6-Tribromophenol	330	7.779	7.779	0.928	52863	39.87	ng/uL	0.00
79) p-Terphenyl-d14	244	9.709	9.709	1.159	347791	40.03	ng/uL	0.00

Target Compounds								
2) 2-Ethoxyethanol	59	1.462	1.462	0.374	64140	39.75	ng/uL	100
3) N-Methyl-N-nitrosometh...	74	1.644	1.644	0.421	77614	39.39	ng/uL	100
4) Pyridine	79	1.686	1.686	0.432	107740	38.11	ng/uL	100
6) p-Benzoquinone	54	3.088	3.088	0.790	56811	39.97	ng/uL	100
7) Aniline	93	3.559	3.559	0.911	179944	39.42	ng/uL	100
9) Phenol	94	3.510	3.510	0.899	158256	39.60	ng/uL	100
10) bis(2-Chloroethyl) ether	93	3.617	3.617	0.926	130985	39.46	ng/uL	100
11) 2-Chlorophenol	128	3.676	3.676	0.941	136807	39.73	ng/uL	100
12) n-Decane	43	3.719	3.719	0.952	115840	39.59	ng/uL	100
13) 1,3-Dichlorobenzene	146	3.842	3.842	0.984	151045	39.77	ng/uL	100
14) 1,4-Dichlorobenzene	146	3.922	3.922	1.004	152687	39.69	ng/uL	100
15) 1,2-Dichlorobenzene	146	4.083	4.083	1.045	145035	39.59	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.190	4.190	1.073	155342	39.60	ng/uL	100
17) Benzyl alcohol	108	4.040	4.040	1.034	86577	40.03	ng/uL	100
18) o-Cresol	107	4.158	4.158	1.064	104744	39.48	ng/uL	100
19) m,p-Cresols	108	4.329	4.329	1.108	123812	39.38	ng/uL	100
20) N-Nitrosodipropylamine	70	4.334	4.334	1.110	92385	39.61	ng/uL	100
21) Hexachloroethane	117	4.452	4.452	1.140	60169	39.14	ng/uL	100
24) Nitrobenzene	77	4.527	4.527	0.850	136291	40.00	ng/uL	100
25) Isophorone	82	4.799	4.799	0.902	249858	40.26	ng/uL	100
26) 2-Nitrophenol	139	4.890	4.890	0.919	67926	39.47	ng/uL	100
27) 2,4-Dimethylphenol	122	4.938	4.938	0.928	96414	39.92	ng/uL	100
28) bis(2-Chloroethoxy)met...	93	5.056	5.056	0.950	165948	40.18	ng/uL	100
29) 2,4-Dichlorophenol	162	5.163	5.163	0.970	109320	39.85	ng/uL	100

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1405.D
Acq On : 14 Mar 2024 09:27
Operator : LL2
Sample : |WBN240312-04.1|ICAL|1|SVM|1|M-4
Misc : |MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 08:53:02 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
30)	Benzoic acid	105	5.035	5.035	0.946	52084	38.62	ng/uL	100
31)	1,2,4-Trichlorobenzene	180	5.259	5.259	0.988	121467	39.66	ng/uL	100
32)	alpha-Terpineol	59	5.361	5.361	1.007	102996	40.09	ng/uL	100
33)	Naphthalene	128	5.345	5.345	1.004	394974	39.70	ng/uL	100
34)	4-Chloroaniline	127	5.409	5.409	1.016	163325	39.94	ng/uL	100
35)	Hexachlorobutadiene	225	5.484	5.484	1.030	67431	39.63	ng/uL	100
36)	4-Chloro-3-methylphenol	107	5.928	5.928	1.114	109495	39.78	ng/uL	100
37)	2-Methylnaphthalene	142	6.078	6.078	1.142	262905	40.57	ng/uL	100
38)	1-Methylnaphthalene	142	6.179	6.179	1.161	237178	39.73	ng/uL	100
40)	Hexachlorocyclopentadiene	237	6.233	6.233	0.881	63447	39.72	ng/uL	100
41)	2,3-Dichloroaniline	161	6.361	6.361	0.899	138727	40.14	ng/uL	100
42)	2,4,6-Trichlorophenol	196	6.361	6.361	0.899	81069	40.12	ng/uL	100
43)	2,4,5-Trichlorophenol	196	6.393	6.393	0.903	81655	39.44	ng/uL	100
45)	2-Chloronaphthalene	162	6.559	6.559	0.927	246502	40.48	ng/uL	100
46)	o-Nitroaniline	65	6.655	6.655	0.940	66940	40.04	ng/uL	100
47)	1,4-Dinitrobenzene	168	6.794	6.794	0.960	36235	39.51	ng/uL	100
48)	m-Nitroaniline	138	7.040	7.040	0.995	72731	40.03	ng/uL	100
49)	Dimethylphthalate	163	6.832	6.832	0.965	279812	40.92	ng/uL	100
50)	m-Dinitrobenzene	168	6.859	6.859	0.969	42011	39.73	ng/uL	100
51)	2,6-Dinitrotoluene	165	6.891	6.891	0.974	61469	40.24	ng/uL	100
52)	2,4-Dinitrotoluene	165	7.249	7.249	1.024	83088	39.98	ng/uL	100
53)	Acenaphthylene	152	6.944	6.944	0.981	385389	41.09	ng/uL	100
54)	Acenaphthene	154	7.105	7.105	1.004	229045	39.99	ng/uL	100
55)	2,4-Dinitrophenol	184	7.137	7.137	1.008	23993	37.99	ng/uL	100
56)	Dibenzofuran	168	7.260	7.260	1.026	349522	40.10	ng/uL	100
57)	2,3,4,6-Tetrachlorophenol	232	7.372	7.372	1.042	69439	40.16	ng/uL	100
58)	Diethylphthalate	149	7.468	7.468	1.055	290009	40.93	ng/uL	100
59)	4-Nitrophenol	109	7.190	7.190	1.016	30721	39.02	ng/uL	100
60)	Fluorene	166	7.565	7.565	1.069	283538	40.99	ng/uL	100
61)	4-Chlorophenylphenylether	204	7.570	7.570	1.070	132306	40.50	ng/uL	100
62)	p-Nitroaniline	138	7.586	7.586	1.072	74468	40.31	ng/uL	100
65)	2-Methyl-4,6-dinitroph...	198	7.613	7.613	0.909	41000	38.73	ng/uL	100
66)	Diphenylamine	169	7.672	7.672	0.916	236113	40.27	ng/uL	100
67)	1,2-Diphenylhydrazine	77	7.704	7.704	0.920	285453	40.48	ng/uL	100
68)	4-Bromophenylphenylether	248	7.993	7.993	0.954	77903	39.08	ng/uL	100
69)	Hexachlorobenzene	284	8.041	8.041	0.960	95467	39.43	ng/uL	100
70)	Pentachlorophenol	266	8.212	8.212	0.980	51449	38.68	ng/uL	100
71)	n-Octadecane	57	8.271	8.271	0.987	179390	40.12	ng/uL	100
72)	Dinoseb	211	8.362	8.362	0.998	59714	37.96	ng/uL	100
73)	Phenanthrene	178	8.399	8.399	1.003	399961	39.65	ng/uL	100
74)	Anthracene	178	8.442	8.442	1.008	408622	40.38	ng/uL	100
75)	Carbazole	167	8.576	8.576	1.024	381082	41.20	ng/uL	100
76)	Di-n-butylphthalate	149	8.859	8.859	1.057	497428	42.27	ng/uL	100
77)	Fluoranthene	202	9.399	9.399	1.122	431468	41.02	ng/uL	100
78)	Pyrene	202	9.592	9.592	1.145	449700	40.66	ng/uL	100
81)	Butylbenzylphthalate	149	10.121	10.121	0.945	214428	40.11	ng/uL	100
82)	bis(2-Ethylhexyl)phtha...	149	10.699	10.699	0.999	348242	40.65	ng/uL	100
83)	Benzo(a)anthracene	228	10.694	10.694	0.999	441861	40.45	ng/uL	100
84)	Chrysene	228	10.736	10.736	1.002	414099	40.59	ng/uL	100
85)	Methoxychlor	227	10.608	10.608	0.991	267520	40.44	ng/uL	100
86)	Methylenebis(2-chloroa...	231	10.661	10.661	0.996	81947	40.33	ng/uL	100
87)	Di-n-octylphthalate	149	11.533	11.533	1.077	533902	40.29	ng/uL	100
89)	Benzo(b)fluoranthene	252	12.122	12.122	0.951	424919	41.05	ng/uL	100
90)	Benzo(k)fluoranthene	252	12.164	12.164	0.954	426785	41.07	ng/uL	100
91)	Benzo(a)pyrene	252	12.651	12.651	0.992	390715	41.10	ng/uL	100
92)	Indeno(1,2,3-cd)pyrene	276	14.764	14.764	1.158	405605	40.33	ng/uL	100
93)	Dibenzo(a,h)anthracene	278	14.817	14.817	1.162	405521	41.37	ng/uL	100

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1405.D
Acq On : 14 Mar 2024 09:27
Operator : LL2
Sample : |WBN240312-04.1|ICAL|1|SVM|1|M-4
Misc : |MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 08:53:02 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
94) Benzo(ghi)perylene	276	15.309	15.309	1.201	392044	40.94	ng/uL 100
95) Dibenzo(a,e)pyrene	302	17.887	17.887	1.403	347969	39.76	ng/uL 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1406.D
 Acq On : 14 Mar 2024 09:50
 Operator : LL2
 Sample : |WBN240312-05|ICAL|1|SVM|1|M-5
 Misc : |MIX[A]
 ALS Vial : 6 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:37 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:37 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.906	3.906	1.000	91291	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	371145	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.078	7.078	1.000	186075	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	363060	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.709	10.710	1.000	373208	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.747	12.747	1.000	374160	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.906	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.709	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.747	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.709	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.709	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.747	12.758	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.622	2.622	0.671	152702	50.53	ng/uL	0.00
8) Phenol-d5	99	3.494	3.494	0.895	190036	50.74	ng/uL	0.00
23) Nitrobenzene-d5	82	4.505	4.505	0.846	170110	49.99	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.447	6.447	0.911	348175	49.26	ng/uL	0.00
64) 2,4,6-Tribromophenol	330	7.778	7.779	0.928	65997	49.81	ng/uL	0.00
79) p-Terphenyl-d14	244	9.709	9.709	1.159	433622	49.95	ng/uL	0.00

Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	1.462	1.462	0.374	78490	50.02	ng/uL	99
3) N-Methyl-N-nitrosometh...	74	1.643	1.644	0.421	95831	49.89	ng/uL	99
4) Pyridine	79	1.681	1.686	0.430	144933	52.71	ng/uL	99
6) p-Benzoquinone	54	3.088	3.088	0.790	71666	51.84	ng/uL	99
7) Aniline	93	3.558	3.559	0.911	223177	50.26	ng/uL	99
9) Phenol	94	3.510	3.510	0.899	198854	51.16	ng/uL	100
10) bis(2-Chloroethyl) ether	93	3.617	3.617	0.926	163858	50.76	ng/uL	99
11) 2-Chlorophenol	128	3.676	3.676	0.941	169601	50.64	ng/uL	100
12) n-Decane	43	3.719	3.719	0.952	143384	50.38	ng/uL	100
13) 1,3-Dichlorobenzene	146	3.842	3.842	0.984	185818	50.31	ng/uL	99
14) 1,4-Dichlorobenzene	146	3.922	3.922	1.004	188389	50.35	ng/uL	99
15) 1,2-Dichlorobenzene	146	4.082	4.083	1.045	178454	50.08	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.189	4.190	1.073	192789	50.53	ng/uL	100
17) Benzyl alcohol	108	4.045	4.040	1.036	107988	51.33	ng/uL	100
18) o-Cresol	107	4.157	4.158	1.064	130665	50.63	ng/uL	99
19) m,p-Cresols	108	4.328	4.329	1.108	156014	51.01	ng/uL	98
20) N-Nitrosodipropylamine	70	4.334	4.334	1.110	115381	50.86	ng/uL	100
21) Hexachloroethane	117	4.451	4.452	1.140	75974	50.82	ng/uL	99
24) Nitrobenzene	77	4.526	4.527	0.850	169415	50.14	ng/uL	100
25) Isophorone	82	4.799	4.799	0.902	308027	50.04	ng/uL	99
26) 2-Nitrophenol	139	4.890	4.890	0.919	85828	50.28	ng/uL	100
27) 2,4-Dimethylphenol	122	4.938	4.938	0.928	118060	49.28	ng/uL	98
28) bis(2-Chloroethoxy)met...	93	5.056	5.056	0.950	204235	49.86	ng/uL	99
29) 2,4-Dichlorophenol	162	5.163	5.163	0.970	136252	50.08	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1406.D
Acq On : 14 Mar 2024 09:50
Operator : LL2
Sample : |WBN240312-05|ICAL|1|SVM|1|M-5
Misc : |MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 08:39:37 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:37 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
30)	Benzoic acid	105	5.040	5.035	0.947	74003	47.10	ng/uL	100
31)	1,2,4-Trichlorobenzene	180	5.259	5.259	0.988	150453	49.53	ng/uL	99
32)	alpha-Terpineol	59	5.361	5.361	1.007	128127	50.29	ng/uL	99
33)	Naphthalene	128	5.345	5.345	1.004	487390	49.39	ng/uL	100
34)	4-Chloroaniline	127	5.409	5.409	1.016	203254	50.12	ng/uL	100
35)	Hexachlorobutadiene	225	5.484	5.484	1.030	83548	49.51	ng/uL	99
36)	4-Chloro-3-methylphenol	107	5.928	5.928	1.114	138117	50.59	ng/uL	99
37)	2-Methylnaphthalene	142	6.077	6.078	1.142	323141	50.27	ng/uL	100
38)	1-Methylnaphthalene	142	6.179	6.179	1.161	296332	50.05	ng/uL	99
40)	Hexachlorocyclopentadiene	237	6.233	6.233	0.881	80918	50.81	ng/uL	100
41)	2,3-Dichloroaniline	161	6.361	6.361	0.899	171605	49.80	ng/uL	99
42)	2,4,6-Trichlorophenol	196	6.361	6.361	0.899	100971	50.12	ng/uL	99
43)	2,4,5-Trichlorophenol	196	6.393	6.393	0.903	102443	49.63	ng/uL	99
45)	2-Chloronaphthalene	162	6.559	6.559	0.927	304370	50.13	ng/uL	100
46)	o-Nitroaniline	65	6.655	6.655	0.940	84085	50.45	ng/uL	99
47)	1,4-Dinitrobenzene	168	6.794	6.794	0.960	46045	50.36	ng/uL	99
48)	m-Nitroaniline	138	7.040	7.040	0.995	91282	50.39	ng/uL	99
49)	Dimethylphthalate	163	6.837	6.832	0.966	342865	50.29	ng/uL	100
50)	m-Dinitrobenzene	168	6.858	6.859	0.969	53835	51.07	ng/uL	98
51)	2,6-Dinitrotoluene	165	6.890	6.891	0.974	75649	49.67	ng/uL	99
52)	2,4-Dinitrotoluene	165	7.254	7.249	1.025	104179	50.28	ng/uL	99
53)	Acenaphthylene	152	6.949	6.944	0.982	475009	50.80	ng/uL	100
54)	Acenaphthene	154	7.104	7.105	1.004	285258	49.96	ng/uL	100
55)	2,4-Dinitrophenol	184	7.136	7.137	1.008	33044	48.12	ng/uL	99
56)	Dibenzofuran	168	7.265	7.260	1.026	427521	49.20	ng/uL	100
57)	2,3,4,6-Tetrachlorophenol	232	7.372	7.372	1.042	87631	50.84	ng/uL	99
58)	Diethylphthalate	149	7.468	7.468	1.055	358888	50.80	ng/uL	100
59)	4-Nitrophenol	109	7.190	7.190	1.016	39284	49.05	ng/uL	100
60)	Fluorene	166	7.570	7.565	1.070	349187	50.64	ng/uL	99
61)	4-Chlorophenylphenylether	204	7.570	7.570	1.070	162170	49.80	ng/uL	99
62)	p-Nitroaniline	138	7.586	7.586	1.072	93159	50.58	ng/uL	99
65)	2-Methyl-4,6-dinitroph...	198	7.613	7.613	0.909	53064	48.88	ng/uL	98
66)	Diphenylamine	169	7.671	7.672	0.916	290351	49.56	ng/uL	99
67)	1,2-Diphenylhydrazine	77	7.703	7.704	0.920	356164	50.55	ng/uL	100
68)	4-Bromophenylphenylether	248	7.992	7.993	0.954	98270	49.33	ng/uL	99
69)	Hexachlorobenzene	284	8.040	8.041	0.960	119379	49.35	ng/uL	100
70)	Pentachlorophenol	266	8.212	8.212	0.980	65889	48.46	ng/uL	99
71)	n-Octadecane	57	8.270	8.271	0.987	225503	50.47	ng/uL	99
72)	Dinoseb	211	8.367	8.362	0.999	77214	47.59	ng/uL	100
73)	Phenanthrene	178	8.399	8.399	1.003	497600	49.37	ng/uL	100
74)	Anthracene	178	8.442	8.442	1.008	506876	50.13	ng/uL	100
75)	Carbazole	167	8.575	8.576	1.024	475941	51.49	ng/uL	100
76)	Di-n-butylphthalate	149	8.859	8.859	1.057	615991	52.38	ng/uL	100
77)	Fluoranthene	202	9.399	9.399	1.122	536793	51.07	ng/uL	100
78)	Pyrene	202	9.592	9.592	1.145	562820	50.93	ng/uL	100
81)	Butylbenzylphthalate	149	10.121	10.121	0.945	270798	49.64	ng/uL	100
82)	bis(2-Ethylhexyl)phtha...	149	10.699	10.699	0.999	428564	49.03	ng/uL	99
83)	Benzo(a)anthracene	228	10.699	10.694	0.999	561119	50.45	ng/uL	99
84)	Chrysene	228	10.736	10.736	1.002	497300	47.87	ng/uL	100
85)	Methoxychlor	227	10.608	10.608	0.991	336723	49.98	ng/uL	100
86)	Methylenebis(2-chloroa...	231	10.661	10.661	0.996	103626	50.08	ng/uL	100
87)	Di-n-octylphthalate	149	11.538	11.533	1.077	673597	49.79	ng/uL	100
89)	Benzo(b)fluoranthene	252	12.121	12.122	0.951	525875	50.37	ng/uL	100
90)	Benzo(k)fluoranthene	252	12.164	12.164	0.954	541729	51.69	ng/uL	100
91)	Benzo(a)pyrene	252	12.651	12.651	0.992	496220	51.76	ng/uL	99
92)	Indeno(1,2,3-cd)pyrene	276	14.769	14.764	1.159	518513	51.12	ng/uL	100
93)	Dibenzo(a,h)anthracene	278	14.823	14.817	1.163	510076	51.60	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1406.D
Acq On : 14 Mar 2024 09:50
Operator : LL2
Sample : |WBN240312-05|ICAL|1|SVM|1|M-5
Misc : |MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 08:39:37 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:37 2024
Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
94) Benzo(ghi)perylene	276	15.315	15.309	1.201	497896	51.55	ng/uL
95) Dibenzo(a,e)pyrene	302	17.893	17.887	1.404	441744	50.06	ng/uL

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1407.D
 Acq On : 14 Mar 2024 10:14
 Operator : LL2
 Sample : |WBN240312-06|ICAL|1|SVM|1|M-6
 Misc : |MIX[A]
 ALS Vial : 7 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:44 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:43 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.906	3.906	1.000	93944	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	375534	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.078	7.078	1.000	188582	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	366011	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.710	10.710	1.000	376978	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.747	12.747	1.000	378707	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.906	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.710	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.747	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.710	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.710	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.747	12.758	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.622	2.622	0.671	255653	82.20	ng/uL	0.00
8) Phenol-d5	99	3.500	3.494	0.896	313448	81.32	ng/uL	0.00
23) Nitrobenzene-d5	82	4.510	4.505	0.847	279476	81.17	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.447	6.447	0.911	570515	79.65	ng/uL	0.00
64) 2,4,6-Tribromophenol	330	7.779	7.779	0.928	110826	82.98	ng/uL	0.00
79) p-Terphenyl-d14	244	9.709	9.709	1.159	710335	81.17	ng/uL	0.00

Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	1.456	1.462	0.373	133688	82.78	ng/uL	98
3) N-Methyl-N-nitrosometh...	74	1.638	1.644	0.419	162956	82.17	ng/uL	100
4) Pyridine	79	1.681	1.686	0.430	232931	82.32	ng/uL	98
6) p-Benzoquinone	54	3.088	3.088	0.790	121618	85.48	ng/uL	99
7) Aniline	93	3.558	3.559	0.911	367309	80.39	ng/uL	99
9) Phenol	94	3.510	3.510	0.899	328898	82.24	ng/uL	99
10) bis(2-Chloroethyl) ether	93	3.617	3.617	0.926	269748	81.20	ng/uL	99
11) 2-Chlorophenol	128	3.681	3.676	0.942	280477	81.39	ng/uL	100
12) n-Decane	43	3.719	3.719	0.952	237077	80.94	ng/uL	100
13) 1,3-Dichlorobenzene	146	3.842	3.842	0.984	305080	80.26	ng/uL	99
14) 1,4-Dichlorobenzene	146	3.922	3.922	1.004	309546	80.39	ng/uL	99
15) 1,2-Dichlorobenzene	146	4.083	4.083	1.045	295295	80.52	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.190	4.190	1.073	317955	80.98	ng/uL	100
17) Benzyl alcohol	108	4.045	4.040	1.036	175204	80.93	ng/uL	97
18) o-Cresol	107	4.157	4.158	1.064	214407	80.73	ng/uL	100
19) m,p-Cresols	108	4.334	4.329	1.110	253784	80.64	ng/uL	99
20) N-Nitrosodipropylamine	70	4.339	4.334	1.111	189124	81.01	ng/uL	100
21) Hexachloroethane	117	4.452	4.452	1.140	123691	80.40	ng/uL	100
24) Nitrobenzene	77	4.532	4.527	0.851	277186	81.07	ng/uL	99
25) Isophorone	82	4.799	4.799	0.902	504477	81.00	ng/uL	99
26) 2-Nitrophenol	139	4.890	4.890	0.919	144427	83.62	ng/uL	99
27) 2,4-Dimethylphenol	122	4.938	4.938	0.928	196603	81.11	ng/uL	100
28) bis(2-Chloroethoxy)met...	93	5.056	5.056	0.950	333579	80.49	ng/uL	98
29) 2,4-Dichlorophenol	162	5.163	5.163	0.970	223135	81.06	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1407.D
Acq On : 14 Mar 2024 10:14
Operator : LL2
Sample : |WBN240312-06|ICAL|1|SVM|1|M-6
Misc : |MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 15 08:39:44 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:43 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
30)	Benzoic acid	105	5.061	5.035	0.951	155158	77.19	ng/uL	99
31)	1,2,4-Trichlorobenzene	180	5.259	5.259	0.988	247749	80.60	ng/uL	100
32)	alpha-Terpineol	59	5.366	5.361	1.008	210681	81.73	ng/uL	100
33)	Naphthalene	128	5.350	5.345	1.005	797961	79.92	ng/uL	100
34)	4-Chloroaniline	127	5.414	5.409	1.017	331742	80.84	ng/uL	99
35)	Hexachlorobutadiene	225	5.484	5.484	1.030	137168	80.34	ng/uL	99
36)	4-Chloro-3-methylphenol	107	5.928	5.928	1.114	226170	81.88	ng/uL	100
37)	2-Methylnaphthalene	142	6.083	6.078	1.143	536997	82.57	ng/uL	99
38)	1-Methylnaphthalene	142	6.179	6.179	1.161	485681	81.07	ng/uL	99
40)	Hexachlorocyclopentadiene	237	6.233	6.233	0.881	138372	85.73	ng/uL	99
41)	2,3-Dichloroaniline	161	6.361	6.361	0.899	283176	81.09	ng/uL	100
42)	2,4,6-Trichlorophenol	196	6.361	6.361	0.899	167493	82.04	ng/uL	99
43)	2,4,5-Trichlorophenol	196	6.393	6.393	0.903	170884	81.69	ng/uL	99
45)	2-Chloronaphthalene	162	6.559	6.559	0.927	494479	80.36	ng/uL	99
46)	o-Nitroaniline	65	6.661	6.655	0.941	141545	83.80	ng/uL	99
47)	1,4-Dinitrobenzene	168	6.794	6.794	0.960	78763	85.00	ng/uL	97
48)	m-Nitroaniline	138	7.046	7.040	0.995	150686	82.08	ng/uL	99
49)	Dimethylphthalate	163	6.837	6.832	0.966	563289	81.53	ng/uL	100
50)	m-Dinitrobenzene	168	6.864	6.859	0.970	89055	83.36	ng/uL	96
51)	2,6-Dinitrotoluene	165	6.891	6.891	0.974	126379	81.87	ng/uL	99
52)	2,4-Dinitrotoluene	165	7.254	7.249	1.025	173090	82.42	ng/uL	98
53)	Acenaphthylene	152	6.949	6.944	0.982	774921	81.77	ng/uL	99
54)	Acenaphthene	154	7.110	7.105	1.005	472424	81.64	ng/uL	99
55)	2,4-Dinitrophenol	184	7.137	7.137	1.008	62406	79.81	ng/uL	98
56)	Dibenzofuran	168	7.265	7.260	1.026	697929	79.25	ng/uL	100
57)	2,3,4,6-Tetrachlorophenol	232	7.372	7.372	1.042	142749	81.72	ng/uL	100
58)	Diethylphthalate	149	7.474	7.468	1.056	588522	82.20	ng/uL	100
59)	4-Nitrophenol	109	7.196	7.190	1.017	67865	81.09	ng/uL	99
60)	Fluorene	166	7.570	7.565	1.070	573940	82.12	ng/uL	99
61)	4-Chlorophenylphenylether	204	7.570	7.570	1.070	264132	80.03	ng/uL	98
62)	p-Nitroaniline	138	7.591	7.586	1.073	153079	82.00	ng/uL	99
65)	2-Methyl-4,6-dinitroph...	198	7.613	7.613	0.909	92271	81.15	ng/uL	97
66)	Diphenylamine	169	7.672	7.672	0.916	478962	81.10	ng/uL	99
67)	1,2-Diphenylhydrazine	77	7.709	7.704	0.920	569187	80.13	ng/uL	99
68)	4-Bromophenylphenylether	248	7.992	7.993	0.954	163904	81.62	ng/uL	98
69)	Hexachlorobenzene	284	8.046	8.041	0.960	197450	80.97	ng/uL	99
70)	Pentachlorophenol	266	8.212	8.212	0.980	114589	80.71	ng/uL	99
71)	n-Octadecane	57	8.271	8.271	0.987	369432	82.02	ng/uL	99
72)	Dinoseb	211	8.367	8.362	0.999	136401	79.46	ng/uL	100
73)	Phenanthrene	178	8.399	8.399	1.003	812460	79.96	ng/uL	99
74)	Anthracene	178	8.442	8.442	1.008	838151	82.23	ng/uL	100
75)	Carbazole	167	8.581	8.576	1.024	771070	82.75	ng/uL	100
76)	Di-n-butylphthalate	149	8.859	8.859	1.057	1004529	84.73	ng/uL	100
77)	Fluoranthene	202	9.399	9.399	1.122	879468	83.00	ng/uL	100
78)	Pyrene	202	9.592	9.592	1.145	922979	82.85	ng/uL	99
81)	Butylbenzylphthalate	149	10.121	10.121	0.945	451974	81.74	ng/uL	100
82)	bis(2-Ethylhexyl)phtha...	149	10.699	10.699	0.999	719465	81.19	ng/uL	99
83)	Benzo(a)anthracene	228	10.699	10.694	0.999	905115	80.56	ng/uL	99
84)	Chrysene	228	10.742	10.736	1.003	822893	78.42	ng/uL	99
85)	Methoxychlor	227	10.608	10.608	0.991	564987	83.02	ng/uL	99
86)	Methylenebis(2-chloroa...	231	10.667	10.661	0.996	171151	81.89	ng/uL	99
87)	Di-n-octylphthalate	149	11.539	11.533	1.077	1135068	82.72	ng/uL	100
89)	Benzo(b)fluoranthene	252	12.127	12.122	0.951	875570	82.86	ng/uL	100
90)	Benzo(k)fluoranthene	252	12.175	12.164	0.955	884184	83.35	ng/uL	100
91)	Benzo(a)pyrene	252	12.656	12.651	0.993	821389	84.65	ng/uL	100
92)	Indeno(1,2,3-cd)pyrene	276	14.775	14.764	1.159	873252	85.07	ng/uL	99
93)	Dibenzo(a,h)anthracene	278	14.833	14.817	1.164	844915	84.45	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1407.D
Acq On : 14 Mar 2024 10:14
Operator : LL2
Sample : |WBN240312-06|ICAL|1|SVM|1|M-6
Misc : |MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 15 08:39:44 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:43 2024
Response via : Initial Calibration

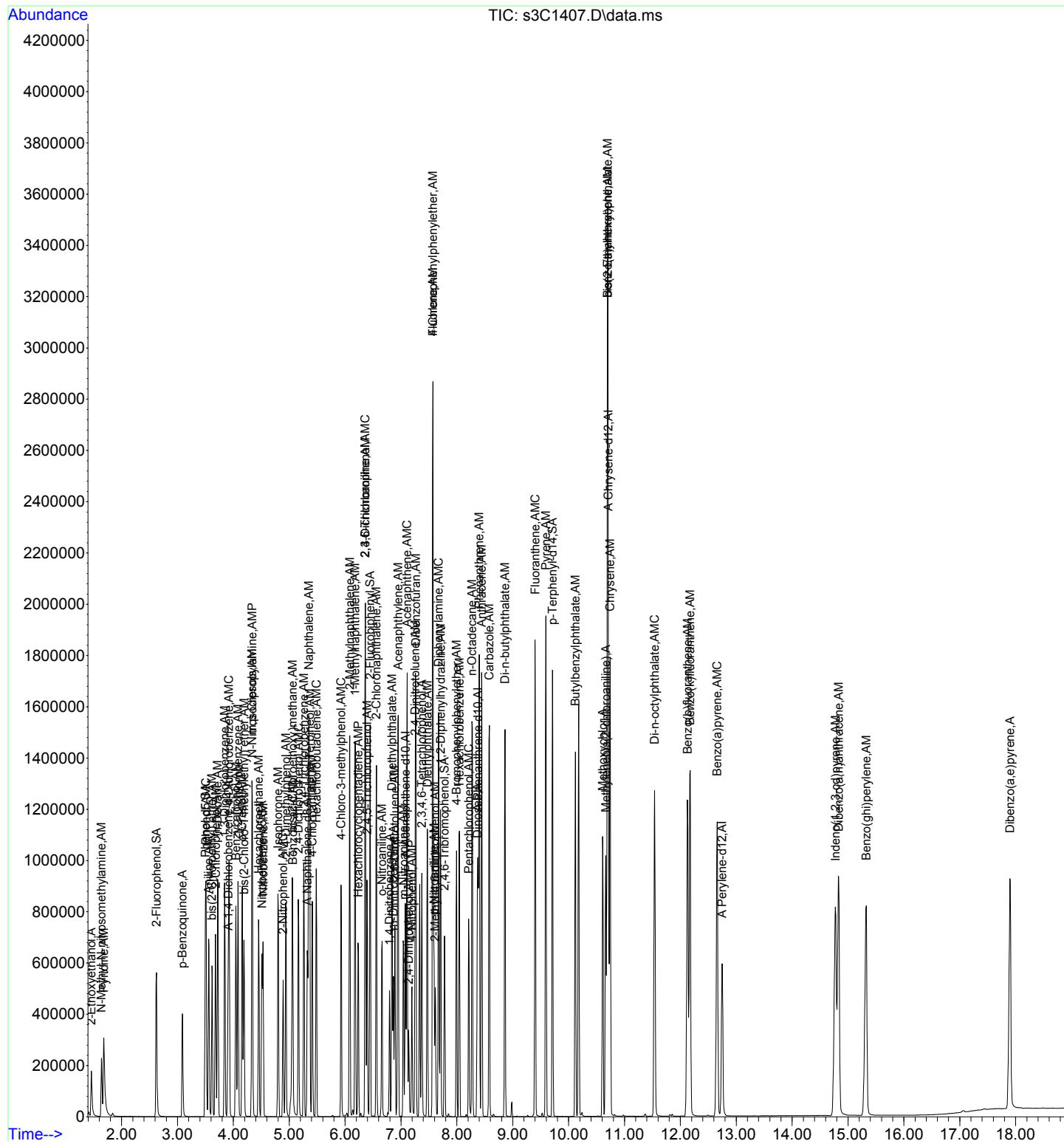
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
94) Benzo(ghi)perylene	276	15.325	15.309	1.202	815940	83.47	ng/uL
95) Dibenzo(a,e)pyrene	302	17.898	17.887	1.404	727355	81.43	ng/uL

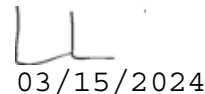
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report


```
Data Path   : C:\msdchem\1\data\S031424ICAL\
Data File   : s3C1407.D
Acq On      : 14 Mar 2024   10:14
Operator    : LL2
Sample      : |WBN240312-06|ICAL|1|SVM|1|M-6
Misc        : |MIX[A]
ALS Vial    : 7      Sample Multiplier: 1
```

Quant Time: Mar 15 08:39:44 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:43 2024
Response via : Initial Calibration





Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1408.D
 Acq On : 14 Mar 2024 10:37
 Operator : LL2
 Sample : |WBN240312-07|ICAL|1|SVM|1|M-7
 Misc : |MIX[A]
 ALS Vial : 8 Sample Multiplier: 1



03/18/2024

Quant Time: Mar 15 08:39:50 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:50 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.906	3.906	1.000	94628	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	373587	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.078	7.078	1.000	185748	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	363608	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.715	10.710	1.000	369292	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.747	12.747	1.000	378399	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.906	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.715	10.704	1.000	0m	40.00	ng/uL	0.01
149) B Perylene-d12	264	12.747	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.715	10.704	1.000	0m	40.00	ng/uL	0.01
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.715	10.704	1.000	0m	40.00	ng/uL	0.01
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.747	12.758	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.622	2.622	0.671	318352	101.62	ng/uL	0.00
8) Phenol-d5	99	3.500	3.494	0.896	394694	101.66	ng/uL	0.00
23) Nitrobenzene-d5	82	4.510	4.505	0.847	348762	101.83	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.447	6.447	0.911	707723	100.31	ng/uL	0.00
64) 2,4,6-Tribromophenol	330	7.778	7.779	0.928	137798	103.85	ng/uL	0.00
79) p-Terphenyl-d14	244	9.709	9.709	1.159	874108	100.54	ng/uL	0.00

Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	1.456	1.462	0.373	168870	103.82	ng/uL	97
3) N-Methyl-N-nitrosometh...	74	1.638	1.644	0.419	201938	101.00	ng/uL	99
4) Pyridine	79	1.681	1.686	0.430	301924	105.94	ng/uL	99
6) p-Benzoquinone	54	3.088	3.088	0.790	151696	105.85	ng/uL	99
7) Aniline	93	3.564	3.559	0.912	460481	100.05	ng/uL	99
9) Phenol	94	3.510	3.510	0.899	409090	101.55	ng/uL	99
10) bis(2-Chloroethyl) ether	93	3.623	3.617	0.927	331566	99.09	ng/uL	100
11) 2-Chlorophenol	128	3.681	3.676	0.942	349485	100.68	ng/uL	100
12) n-Decane	43	3.719	3.719	0.952	292580	99.17	ng/uL	99
13) 1,3-Dichlorobenzene	146	3.842	3.842	0.984	379870	99.22	ng/uL	99
14) 1,4-Dichlorobenzene	146	3.922	3.922	1.004	382548	98.63	ng/uL	99
15) 1,2-Dichlorobenzene	146	4.083	4.083	1.045	365333	98.90	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.190	4.190	1.073	391313	98.94	ng/uL	100
17) Benzyl alcohol	108	4.045	4.040	1.036	219704	100.76	ng/uL	97
18) o-Cresol	107	4.157	4.158	1.064	267890	100.14	ng/uL	99
19) m,p-Cresols	108	4.334	4.329	1.110	317816	100.26	ng/uL	98
20) N-Nitrosodipropylamine	70	4.339	4.334	1.111	235871	100.30	ng/uL	99
21) Hexachloroethane	117	4.452	4.452	1.140	153635	99.14	ng/uL	99
24) Nitrobenzene	77	4.532	4.527	0.851	342840	100.79	ng/uL	99
25) Isophorone	82	4.805	4.799	0.903	623040	100.56	ng/uL	99
26) 2-Nitrophenol	139	4.890	4.890	0.919	181682	105.74	ng/uL	99
27) 2,4-Dimethylphenol	122	4.938	4.938	0.928	243987	101.19	ng/uL	99
28) bis(2-Chloroethoxy)met...	93	5.056	5.056	0.950	415642	100.81	ng/uL	98
29) 2,4-Dichlorophenol	162	5.163	5.163	0.970	281234	102.69	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1408.D
 Acq On : 14 Mar 2024 10:37
 Operator : LL2
 Sample : |WBN240312-07|ICAL|1|SVM|1|M-7
 Misc : |MIX[A]
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 15 08:39:50 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:50 2024
 Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
30)	Benzoic acid	105	5.077	5.035	0.954	214045	99.69	ng/uL	99
31)	1,2,4-Trichlorobenzene	180	5.265	5.259	0.989	304761	99.67	ng/uL	100
32)	alpha-Terpineol	59	5.366	5.361	1.008	259547	101.21	ng/uL	100
33)	Naphthalene	128	5.350	5.345	1.005	986335	99.30	ng/uL	100
34)	4-Chloroaniline	127	5.414	5.409	1.017	410363	100.52	ng/uL	100
35)	Hexachlorobutadiene	225	5.484	5.484	1.030	169466	99.78	ng/uL	99
36)	4-Chloro-3-methylphenol	107	5.928	5.928	1.114	282538	102.82	ng/uL	99
37)	2-Methylnaphthalene	142	6.083	6.078	1.143	659240	101.89	ng/uL	100
38)	1-Methylnaphthalene	142	6.179	6.179	1.161	597973	100.33	ng/uL	100
40)	Hexachlorocyclopentadiene	237	6.233	6.233	0.881	172842	108.72	ng/uL	99
41)	2,3-Dichloroaniline	161	6.361	6.361	0.899	348030	101.18	ng/uL	99
42)	2,4,6-Trichlorophenol	196	6.361	6.361	0.899	208252	103.56	ng/uL	99
43)	2,4,5-Trichlorophenol	196	6.393	6.393	0.903	213717	103.73	ng/uL	100
45)	2-Chloronaphthalene	162	6.559	6.559	0.927	612964	101.14	ng/uL	99
46)	o-Nitroaniline	65	6.661	6.655	0.941	173187	104.10	ng/uL	100
47)	1,4-Dinitrobenzene	168	6.800	6.794	0.961	99521	109.04	ng/uL	97
48)	m-Nitroaniline	138	7.046	7.040	0.995	183446	101.45	ng/uL	99
49)	Dimethylphthalate	163	6.837	6.832	0.966	694746	102.09	ng/uL	99
50)	m-Dinitrobenzene	168	6.864	6.859	0.970	109543	104.10	ng/uL	95
51)	2,6-Dinitrotoluene	165	6.891	6.891	0.974	155721	102.42	ng/uL	99
52)	2,4-Dinitrotoluene	165	7.254	7.249	1.025	215919	104.39	ng/uL	97
53)	Acenaphthylene	152	6.949	6.944	0.982	958169	102.65	ng/uL	99
54)	Acenaphthene	154	7.110	7.105	1.005	579007	101.59	ng/uL	99
55)	2,4-Dinitrophenol	184	7.142	7.137	1.009	80659	101.16	ng/uL	98
56)	Dibenzofuran	168	7.265	7.260	1.026	856054	98.68	ng/uL	100
57)	2,3,4,6-Tetrachlorophenol	232	7.372	7.372	1.042	176415	102.53	ng/uL	99
58)	Diethylphthalate	149	7.474	7.468	1.056	722920	102.52	ng/uL	100
59)	4-Nitrophenol	109	7.195	7.190	1.017	83490	100.39	ng/uL	98
60)	Fluorene	166	7.570	7.565	1.070	704898	102.40	ng/uL	100
61)	4-Chlorophenylphenylether	204	7.570	7.570	1.070	324547	99.83	ng/uL	98
62)	p-Nitroaniline	138	7.591	7.586	1.073	190333	103.51	ng/uL	99
65)	2-Methyl-4,6-dinitroph...	198	7.618	7.613	0.909	115992	101.54	ng/uL	97
66)	Diphenylamine	169	7.677	7.672	0.916	585424	99.78	ng/uL	99
67)	1,2-Diphenylhydrazine	77	7.709	7.704	0.920	693820	98.33	ng/uL	98
68)	4-Bromophenylphenylether	248	7.992	7.993	0.954	202571	101.54	ng/uL	98
69)	Hexachlorobenzene	284	8.046	8.041	0.960	241868	99.84	ng/uL	99
70)	Pentachlorophenol	266	8.212	8.212	0.980	144363	101.29	ng/uL	98
71)	n-Octadecane	57	8.271	8.271	0.987	453855	101.43	ng/uL	99
72)	Dinoseb	211	8.367	8.362	0.999	174088	100.61	ng/uL	99
73)	Phenanthrene	178	8.399	8.399	1.003	999268	99.00	ng/uL	99
74)	Anthracene	178	8.447	8.442	1.008	1025971	101.32	ng/uL	100
75)	Carbazole	167	8.581	8.576	1.024	948099	102.43	ng/uL	100
76)	Di-n-butylphthalate	149	8.859	8.859	1.057	1228118	104.28	ng/uL	100
77)	Fluoranthene	202	9.399	9.399	1.122	1080965	102.69	ng/uL	99
78)	Pyrene	202	9.592	9.592	1.145	1132785	102.35	ng/uL	99
81)	Butylbenzylphthalate	149	10.121	10.121	0.945	559568	103.18	ng/uL	100
82)	bis(2-Ethylhexyl)phtha...	149	10.699	10.699	0.999	878260	101.06	ng/uL	98
83)	Benzo(a)anthracene	228	10.699	10.694	0.999	1098276	99.78	ng/uL	100
84)	Chrysene	228	10.742	10.736	1.002	1019885	99.22	ng/uL	99
85)	Methoxychlor	227	10.613	10.608	0.991	705902	105.89	ng/uL	99
86)	Methylenebis(2-chloroa...	231	10.667	10.661	0.996	212101	103.59	ng/uL	99
87)	Di-n-octylphthalate	149	11.539	11.533	1.077	1418015	105.34	ng/uL	100
89)	Benzo(b)fluoranthene	252	12.127	12.122	0.951	1132695	107.28	ng/uL	99
90)	Benzo(k)fluoranthene	252	12.175	12.164	0.955	1046521	98.74	ng/uL	98
91)	Benzo(a)pyrene	252	12.662	12.651	0.993	1018463	105.04	ng/uL	100
92)	Indeno(1,2,3-cd)pyrene	276	14.780	14.764	1.159	1104587	107.69	ng/uL	99
93)	Dibenzo(a,h)anthracene	278	14.839	14.817	1.164	1059073	105.94	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1408.D
Acq On : 14 Mar 2024 10:37
Operator : LL2
Sample : |WBN240312-07|ICAL|1|SVM|1|M-7
Misc : |MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 15 08:39:50 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:50 2024
Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
94) Benzo(ghi)perylene	276	15.331	15.309	1.203	1013621	103.78	ng/uL
95) Dibenzo(a,e)pyrene	302	17.903	17.887	1.404	913493	102.35	ng/uL

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1409.D
 Acq On : 14 Mar 2024 11:01
 Operator : LL2
 Sample : |WBN240312-08|ICAL|1|SVM|1|M-8
 Misc : |MIX[A]
 ALS Vial : 9 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:40:04 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:03 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.906	3.906	1.000	93294	40.00	ng/uL	# 0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	374451	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.078	7.078	1.000	188539	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	369205	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.715	10.710	1.000	376488	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.747	12.747	1.000	383716	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.906	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.715	10.704	1.000	0m	40.00	ng/uL	0.01
149) B Perylene-d12	264	12.747	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.715	10.704	1.000	0m	40.00	ng/uL	0.01
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.078	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.715	10.704	1.000	0m	40.00	ng/uL	0.01
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.747	12.758	1.000	0m	40.00	ng/uL	-0.01
System Monitoring Compounds								
5) 2-Fluorophenol	112	2.622	2.622	0.671	387764	125.55	ng/uL	0.00 A
8) Phenol-d5	99	3.499	3.494	0.896	478978	125.14	ng/uL	0.00 A
23) Nitrobenzene-d5	82	4.510	4.505	0.847	424718	123.72	ng/uL	0.00 A
44) 2-Fluorobiphenyl	172	6.447	6.447	0.911	871056	121.63	ng/uL	0.00 A
64) 2,4,6-Tribromophenol	330	7.784	7.779	0.929	174270	129.35	ng/uL	0.00 A
79) p-Terphenyl-d14	244	9.709	9.709	1.159	1064917	120.63	ng/uL	0.00 A
Target Compounds								
2) 2-Ethoxyethanol	59	1.462	1.462	0.374	205455	128.11	ng/uL	98 A
3) N-Methyl-N-nitrosometh...	74	1.638	1.644	0.419	245418	124.40	ng/uL	100 A
4) Pyridine	79	1.681	1.686	0.430	363261	129.28	ng/uL	99 A
6) p-Benzoquinone	54	3.088	3.088	0.790	190166	134.59	ng/uL	98 A
7) Aniline	93	3.564	3.559	0.912	562122	123.88	ng/uL	99 A
9) Phenol	94	3.515	3.510	0.900	497675	125.30	ng/uL	100 A
10) bis(2-Chloroethyl) ether	93	3.622	3.617	0.927	404213	122.52	ng/uL	100 A
11) 2-Chlorophenol	128	3.681	3.676	0.942	425360	124.29	ng/uL	99 A
12) n-Decane	43	3.724	3.719	0.953	356694	122.63	ng/uL	99 A
13) 1,3-Dichlorobenzene	146	3.847	3.842	0.985	465249	123.25	ng/uL	100 A
14) 1,4-Dichlorobenzene	146	3.922	3.922	1.004	467228	122.19	ng/uL	100 A
15) 1,2-Dichlorobenzene	146	4.082	4.083	1.045	449544	123.44	ng/uL	100 A
16) bis(2-Chloro-1-methyle...	45	4.189	4.190	1.073	476055	122.09	ng/uL	99 A
17) Benzyl alcohol	108	4.045	4.040	1.036	269896	125.54	ng/uL	98 A
18) o-Cresol	107	4.157	4.158	1.064	327227	124.07	ng/uL	99 A
19) m,p-Cresols	108	4.339	4.329	1.111	390995	125.11	ng/uL	97 A
20) N-Nitrosodipropylamine	70	4.345	4.334	1.112	290014	125.08	ng/uL	99 A
21) Hexachloroethane	117	4.452	4.452	1.140	187143	122.49	ng/uL	100 A
24) Nitrobenzene	77	4.532	4.527	0.851	417109	122.35	ng/uL	98 A
25) Isophorone	82	4.805	4.799	0.903	767757	123.63	ng/uL	99 A
26) 2-Nitrophenol	139	4.890	4.890	0.919	222722	129.33	ng/uL	99 A
27) 2,4-Dimethylphenol	122	4.944	4.938	0.929	299747	124.02	ng/uL	100 A
28) bis(2-Chloroethoxy)met...	93	5.056	5.056	0.950	504375	122.05	ng/uL	98 A
29) 2,4-Dichlorophenol	162	5.168	5.163	0.971	342649	124.83	ng/uL	99 A

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1409.D
Acq On : 14 Mar 2024 11:01
Operator : LL2
Sample : |WBN240312-08|ICAL|1|SVM|1|M-8
Misc : |MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 15 08:40:04 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:03 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
30)	Benzoic acid	105	5.088	5.035	0.956	276759	123.08	ng/uL	97 A
31)	1,2,4-Trichlorobenzene	180	5.264	5.259	0.989	376083	122.71	ng/uL	100 A
32)	alpha-Terpineol	59	5.366	5.361	1.008	317939	123.69	ng/uL	100 A
33)	Naphthalene	128	5.350	5.345	1.005	1201066	120.64	ng/uL	99 A
34)	4-Chloroaniline	127	5.414	5.409	1.017	500971	122.43	ng/uL	100 A
35)	Hexachlorobutadiene	225	5.484	5.484	1.030	209515	123.07	ng/uL	99 A
36)	4-Chloro-3-methylphenol	107	5.928	5.928	1.114	346980	125.98	ng/uL	99 A
37)	2-Methylnaphthalene	142	6.083	6.078	1.143	803778	123.94	ng/uL	100 A
38)	1-Methylnaphthalene	142	6.179	6.179	1.161	735692	123.15	ng/uL	99 A
40)	Hexachlorocyclopentadiene	237	6.238	6.233	0.881	217361	134.71	ng/uL	100 A
41)	2,3-Dichloroaniline	161	6.361	6.361	0.899	429152	122.92	ng/uL	99 A
42)	2,4,6-Trichlorophenol	196	6.361	6.361	0.899	254208	124.54	ng/uL	100 A
43)	2,4,5-Trichlorophenol	196	6.393	6.393	0.903	265189	126.80	ng/uL	100 A
45)	2-Chloronaphthalene	162	6.559	6.559	0.927	752439	122.32	ng/uL	99 A
46)	o-Nitroaniline	65	6.660	6.655	0.941	212632	125.91	ng/uL	99 A
47)	1,4-Dinitrobenzene	168	6.800	6.794	0.961	121344	130.98	ng/uL	98 A
48)	m-Nitroaniline	138	7.046	7.040	0.995	230038	125.33	ng/uL	99 A
49)	Dimethylphthalate	163	6.842	6.832	0.967	850567	123.13	ng/uL	99 A
50)	m-Dinitrobenzene	168	6.869	6.859	0.971	137047	128.31	ng/uL	94 A
51)	2,6-Dinitrotoluene	165	6.896	6.891	0.974	192795	124.93	ng/uL	98 A
52)	2,4-Dinitrotoluene	165	7.260	7.249	1.026	270912	129.04	ng/uL	95 A
53)	Acenaphthylene	152	6.949	6.944	0.982	1170253	123.52	ng/uL	99 A
54)	Acenaphthene	154	7.110	7.105	1.005	708900	122.53	ng/uL	99 A
55)	2,4-Dinitrophenol	184	7.142	7.137	1.009	104349	125.79	ng/uL	97 A
56)	Dibenzofuran	168	7.265	7.260	1.026	1057915	120.15	ng/uL	100 A
57)	2,3,4,6-Tetrachlorophenol	232	7.372	7.372	1.042	221545	126.86	ng/uL	98 A
58)	Diethylphthalate	149	7.473	7.468	1.056	890619	124.43	ng/uL	100 A
59)	4-Nitrophenol	109	7.195	7.190	1.017	105490	124.09	ng/uL	97 A
60)	Fluorene	166	7.570	7.565	1.070	857126	122.67	ng/uL	100 A
61)	4-Chlorophenylphenylether	204	7.570	7.570	1.070	396331	120.11	ng/uL	97 A
62)	p-Nitroaniline	138	7.596	7.586	1.073	230882	123.71	ng/uL	100 A
65)	2-Methyl-4,6-dinitroph...	198	7.618	7.613	0.909	145745	124.62	ng/uL	98 A
66)	Diphenylamine	169	7.677	7.672	0.916	717292	120.40	ng/uL	99 A
67)	1,2-Diphenylhydrazine	77	7.709	7.704	0.920	848477	118.42	ng/uL	98
68)	4-Bromophenylphenylether	248	7.992	7.993	0.954	253509	125.15	ng/uL	97 A
69)	Hexachlorobenzene	284	8.046	8.041	0.960	301595	122.61	ng/uL	99 A
70)	Pentachlorophenol	266	8.212	8.212	0.980	183742	125.96	ng/uL	98 A
71)	n-Octadecane	57	8.276	8.271	0.988	559580	123.17	ng/uL	98 A
72)	Dinoseb	211	8.367	8.362	0.999	220263	124.08	ng/uL	99 A
73)	Phenanthrene	178	8.399	8.399	1.003	1223385	119.36	ng/uL	98
74)	Anthracene	178	8.447	8.442	1.008	1239686	120.58	ng/uL	99 A
75)	Carbazole	167	8.581	8.576	1.024	1156066	123.00	ng/uL	99 A
76)	Di-n-butylphthalate	149	8.859	8.859	1.057	1520570	127.15	ng/uL	100 A
77)	Fluoranthene	202	9.404	9.399	1.123	1319668	123.47	ng/uL	99 A
78)	Pyrene	202	9.592	9.592	1.145	1382895	123.06	ng/uL	98 A
81)	Butylbenzylphthalate	149	10.121	10.121	0.945	699966	126.51	ng/uL	99 A
82)	bis(2-Ethylhexyl)phtha...	149	10.699	10.699	0.999	1082548	122.09	ng/uL	98 A
83)	Benzo(a)anthracene	228	10.699	10.694	0.999	1347979	120.13	ng/uL	100 A
84)	Chrysene	228	10.747	10.736	1.003	1253135	119.58	ng/uL	98
85)	Methoxychlor	227	10.613	10.608	0.991	868011	127.72	ng/uL	99 A
86)	Methylenebis(2-chloroa...	231	10.667	10.661	0.996	264831	126.87	ng/uL	99 A
87)	Di-n-octylphthalate	149	11.538	11.533	1.077	1759896	128.13	ng/uL	100 A
89)	Benzo(b)fluoranthene	252	12.132	12.122	0.952	1352456	126.32	ng/uL	99 A
90)	Benzo(k)fluoranthene	252	12.180	12.164	0.956	1336817	124.38	ng/uL	99 A
91)	Benzo(a)pyrene	252	12.662	12.651	0.993	1257714	127.92	ng/uL	100 A
92)	Indeno(1,2,3-cd)pyrene	276	14.785	14.764	1.160	1355998	130.37	ng/uL	99 A
93)	Dibenzo(a,h)anthracene	278	14.844	14.817	1.164	1304855	128.71	ng/uL	99 A

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1409.D
Acq On : 14 Mar 2024 11:01
Operator : LL2
Sample : |WBN240312-08|ICAL|1|SVM|1|M-8
Misc : |MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 15 08:40:04 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:03 2024
Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
94) Benzo(ghi)perylene	276	15.336	15.309	1.203	1248494	126.05	ng/uL
95) Dibenzo(a,e)pyrene	302	17.909	17.887	1.405	1121556	123.93	ng/uL

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Continuing Calibration Summary

Instrument ID: MSD3.I
Data File: S031424ICAL\S3C1410.D
Lab Sample ID WBN240312-43
Quant Type ISTD

Client SDG: 660968
Injection Date: 14-MAR-24 11:24
Init. Cal. Date(s) 14-MAR-24 08:17 - 14-MAR-24 19:20
Method: S031424ICAL\MSD3_8270_031424.m
Method Update: 15-MAR-24 08:40

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S2-Fluorophenol	1.3242	1.29411		.01		-2.27232	20		Averaged
SPhenol-d5	1.6411	1.60104		.01		-2.44105	20		Averaged
SNitrobenzene-d5	0.3667	0.37351		.01		1.8571	20		Averaged
S2-Fluorobiphenyl	1.5194	1.51018		.01		-0.60682	20		Averaged
S2,4,6-Tribromophenol	0.146	0.14886		.01		1.9589	20		Averaged
Sp-Terphenyl-d14	0.9564	0.98849		.01		3.35529	20		Averaged
N-Methyl-N-nitrosomethylami	40	40.92	40			2.3	20		Linear
Pyridine	1.2047	1.6134		.01		33.92546	20	*	Averaged
Phenol	1.7029	1.76926		.8		3.89688	20		Averaged
Aniline	1.9454	2.27965		.01		17.18156	20		Averaged
bis(2-Chloroethyl) ether	1.4145	1.38238		.7		-2.27077	20		Averaged
2-Chlorophenol	1.4674	1.51978		.8		3.56958	20		Averaged
1,3-Dichlorobenzene	1.6184	1.60995		.01		-0.52212	20		Averaged
1,4-Dichlorobenzene	1.6395	1.6414		.01		0.11589	20		Averaged
Benzyl alcohol	0.9217	0.97783		.01		6.08983	20		Averaged
1,2-Dichlorobenzene	1.5614	1.56904		.01		0.4893	20		Averaged
o-Cresol	1.1308	1.18424		.7		4.72586	20		Averaged
bis(2-Chloro-1-methylethyl)eth	1.6718	1.43168		.01		-14.36296	20		Averaged
N-Nitrosodipropylamine	0.9941	0.93403		.05		-6.04265	20		Averaged
m,p-Cresols	1.34	1.40274		.6		4.68209	20		Averaged
Hexachloroethane	0.6551	0.66522		.3		1.5448	20		Averaged
Nitrobenzene	0.3642	0.36274		.2		-0.40088	20		Averaged
Isophorone	0.6634	0.58906		.4		-11.20591	20		Averaged
2-Nitrophenol	0.184	0.19341		.1		5.11413	20		Averaged
2,4-Dimethylphenol	0.2582	0.31151		.2		20.64679	20	*	Averaged
Benzoic acid	40	38.56	40			-3.6	20		Linear
bis(2-Chloroethoxy)methane	0.4414	0.44862		.3		1.6357	20		Averaged
2,4-Dichlorophenol	0.2932	0.30562		.2		4.23602	20		Averaged
1,2,4-Trichlorobenzene	0.3274	0.33252		.01		1.56384	20		Averaged
Naphthalene	1.0635	1.07165		.7		0.76634	20		Averaged
4-Chloroaniline	0.4371	0.44478		.01		1.75704	20		Averaged
Hexachlorobutadiene	0.1819	0.18025		.01		-0.90709	20		Averaged
4-Chloro-3-methylphenol	0.2942	0.30629		.2		4.10945	20		Averaged
2-Methylnaphthalene	0.6927	0.71047		.4		2.56532	20		Averaged
1-Methylnaphthalene	0.6382	0.69682		.01		9.18521	20		Averaged
Hexachlorocyclopentadiene	0.3423	0.37702		.05		10.14315	20		Averaged
2,4,6-Trichlorophenol	0.4331	0.44771		.2		3.37335	20		Averaged

Continuing Calibration Summary

Instrument ID: MSD3.I

Injection Date: 14-MAR-24 11:24

Data File: S031424ICAL\S3C1410.D

Init. Cal. Date(s) 14-MAR-24 08:17 14-MAR-24 19:20

Lab Sample ID WBN240312-43

Method: S031424ICAL\MSD3_8270_031424.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
2,4,5-Trichlorophenol	0.4437	0.42593		.2		-4.00496	20		Averaged
2-Chloronaphthalene	1.3051	1.29394		.8		-0.85511	20		Averaged
o-Nitroaniline	0.3583	0.37298		.01		4.09713	20		Averaged
Dimethylphthalate	1.4655	1.42536		.01		-2.739	20		Averaged
m-Dinitrobenzene	0.2266	0.24971		.01		10.19859	20		Averaged
2,6-Dinitrotoluene	0.3274	0.32356		.2		-1.17288	20		Averaged
Acenaphthylene	2.01	2.07257		.9		3.11294	20		Averaged
m-Nitroaniline	0.3894	0.39161		.01		0.56754	20		Averaged
Acenaphthene	1.2274	1.17259		.9		-4.46554	20		Averaged
2,4-Dinitrophenol	40	40.95	40			2.375	20		Linear
4-Nitrophenol	40	40.03	40			0.075	20		Linear
2,4-Dinitrotoluene	0.4454	0.44586		.2		0.10328	20		Averaged
Dibenzofuran	1.8681	1.89522		.8		1.45174	20		Averaged
2,3,4,6-Tetrachlorophenol	0.3705	0.3536		.01		-4.5614	20		Averaged
Diethylphthalate	1.5186	1.53153		.01		0.85144	20		Averaged
4-Chlorophenylphenylether	0.7001	0.69036		.4		-1.39123	20		Averaged
Fluorene	1.4824	1.48016		.9		-0.15111	20		Averaged
p-Nitroaniline	0.396	0.40816		.01		3.07071	20		Averaged
2-Methyl-4,6-dinitrophenol	40	40.88	40			2.2	20		Linear
Diphenylamine	0.6455	0.6738		.01		4.3842	20		Averaged
1,2-Diphenylhydrazine	0.7763	0.76478		.01		-1.48396	20		Averaged
4-Bromophenylphenylether	0.2195	0.2136		.1		-2.68793	20		Averaged
Hexachlorobenzene	0.2665	0.26466		.1		-0.69043	20		Averaged
Pentachlorophenol	40	38.85	40			-2.875	20		Linear
Dinoseb	40	40.72	40			1.8	20		Linear
Phenanthrene	1.1104	1.1199		.7		0.85555	20		Averaged
Anthracene	1.1139	1.10829		.7		-0.50364	20		Averaged
Carbazole	1.0183	1.07327		.01		5.39821	20		Averaged
Di-n-butylphthalate	1.2956	1.38667		.01		7.02918	20		Averaged
Fluoranthene	1.158	1.19019		.6		2.77979	20		Averaged
Pyrene	1.2175	1.23892		.6		1.75934	20		Averaged
Butylbenzylphthalate	40	39.33	40			-1.675	20		Linear
Methoxychlor	0.7221	0.74433		.01		3.07852	20		Averaged
Benzo(a)anthracene	1.1922	1.1935		.8		0.10904	20		Averaged
bis(2-Ethylhexyl)phthalate	40	38.01	40			-4.975	20		Linear
Chrysene	1.1134	1.09892		.7		-1.30052	20		Averaged
Di-n-octylphthalate	40	39.2	40			-2	20		Linear

Continuing Calibration Summary

Instrument ID: MSD3.I

Injection Date: 14-MAR-24 11:24

Data File: S031424ICAL\s3C1410.D

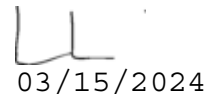
Init. Cal. Date(s) 14-MAR-24 08:17 14-MAR-24 19:20

Lab Sample ID WBN240312-43

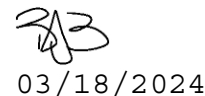
Method: S031424ICAL\MSD3_8270_031424.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Benzo(b)fluoranthene	1.1161	1.15879		.7		3.82493	20		Averaged
Benzo(k)fluoranthene	1.1204	1.06526		.7		-4.92146	20		Averaged
Benzo(a)pyrene	1.025	1.03427		.7		0.90439	20		Averaged
Indeno(1,2,3-cd)pyrene	1.0843	1.04576		.5		-3.55437	20		Averaged
Dibenzo(a,h)anthracene	1.0568	1.09228		.4		3.35731	20		Averaged
Benzo(ghi)perylene	1.0325	1.10077		.5		6.61211	20		Averaged



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1410.D
 Acq On : 14 Mar 2024 11:24
 Operator : LL2
 Sample : |WBN240312-43|ICV|1|SVM|1|M-ICV
 Misc : |MIX[A]
 ALS Vial : 10 Sample Multiplier: 1



Quant Time: Mar 15 08:49:42 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	88282	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	354045	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.078	7.078	1.000	179651	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	348786	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.710	10.710	1.000	355692	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	360330	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	88282	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	354045	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.078	7.073	1.000	179651	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	348786	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.710	10.704	1.000	355692	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	360330	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	354045	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	348786	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.710	10.704	1.000	355692	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	354045	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.078	7.073	1.000	179651	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	348786	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.710	10.704	1.000	355692	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	354045	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	360330	40.00	ng/uL	-0.02

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.622	2.622	0.672	114247	39.09	ng/uL	0.00
8) Phenol-d5	99	3.494	3.494	0.896	141343	39.02	ng/uL	0.00
23) Nitrobenzene-d5	82	4.505	4.505	0.846	132238	40.74	ng/uL	0.00
44) 2-Fluorobiphenyl	172	6.447	6.447	0.911	271306	39.76	ng/uL	0.00
64) 2,4,6-Tribromophenol	330	7.779	7.779	0.928	51919	40.79	ng/uL	0.00
79) p-Terphenyl-d14	244	9.709	9.709	1.159	344771	41.34	ng/uL	0.00

Target Compounds								
2) 2-Ethoxyethanol	59	1.462	1.462	0.375	65170	42.94	ng/uL	98
3) N-Methyl-N-nitrosometh...	74	1.644	1.644	0.421	75874	40.92	ng/uL	99
4) Pyridine	79	1.681	1.686	0.431	142434	53.57	ng/uL	99
7) Aniline	93	3.559	3.559	0.912	201252	46.87	ng/uL	99
9) Phenol	94	3.510	3.510	0.900	156194	41.56	ng/uL	100
10) bis(2-Chloroethyl) ether	93	3.617	3.617	0.927	122039	39.09	ng/uL	99
11) 2-Chlorophenol	128	3.676	3.676	0.942	134169	41.43	ng/uL	99
12) n-Decane	43	3.719	3.719	0.953	119251	43.33	ng/uL	99
13) 1,3-Dichlorobenzene	146	3.842	3.842	0.985	142130	39.79	ng/uL	99
14) 1,4-Dichlorobenzene	146	3.922	3.922	1.005	144906	40.05	ng/uL	99
15) 1,2-Dichlorobenzene	146	4.083	4.083	1.047	138518	40.20	ng/uL	99
16) bis(2-Chloro-1-methyle...	45	4.190	4.190	1.074	126392	34.25	ng/uL	93
17) Benzyl alcohol	108	4.040	4.040	1.036	86325	42.43	ng/uL	98
18) o-Cresol	107	4.158	4.158	1.066	104547	41.89	ng/uL	99
19) m,p-Cresols	108	4.329	4.329	1.110	123837	41.87	ng/uL	92
20) N-Nitrosodipropylamine	70	4.334	4.334	1.111	82458	37.58	ng/uL	99
21) Hexachloroethane	117	4.452	4.452	1.141	58727	40.62	ng/uL	99
24) Nitrobenzene	77	4.527	4.527	0.850	128428	39.84	ng/uL	100
25) Isophorone	82	4.799	4.799	0.902	208555	35.52	ng/uL	99
26) 2-Nitrophenol	139	4.890	4.890	0.919	68475	42.05	ng/uL	98
27) 2,4-Dimethylphenol	122	4.938	4.938	0.928	110288	48.26	ng/uL	99
28) bis(2-Chloroethoxy)met...	93	5.056	5.056	0.950	158830	40.65	ng/uL	99
29) 2,4-Dichlorophenol	162	5.163	5.163	0.970	108203	41.69	ng/uL	100
30) Benzoic acid	105	5.029	5.035	0.945	49108	38.56	ng/uL	98

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1410.D
Acq On : 14 Mar 2024 11:24
Operator : LL2
Sample : |WBN240312-43|ICV|1|SVM|1|M-ICV
Misc : |MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 15 08:49:42 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
31)	1,2,4-Trichlorobenzene	180	5.259	5.259	0.988	117726	40.63	ng/uL	99
32)	alpha-Terpineol	59	5.361	5.361	1.007	94165	38.75	ng/uL	100
33)	Naphthalene	128	5.345	5.345	1.004	379411	40.31	ng/uL	100
34)	4-Chloroaniline	127	5.409	5.409	1.016	157472	40.70	ng/uL	99
35)	Hexachlorobutadiene	225	5.484	5.484	1.030	63818	39.65	ng/uL	99
36)	4-Chloro-3-methylphenol	107	5.928	5.928	1.114	108439	41.64	ng/uL	100
37)	2-Methylnaphthalene	142	6.078	6.078	1.142	251540	41.02	ng/uL	99
38)	1-Methylnaphthalene	142	6.179	6.179	1.161	246704	43.68	ng/uL	100
40)	Hexachlorocyclopentadiene	237	6.233	6.233	0.881	67732	44.05	ng/uL	100
41)	2,3-Dichloroaniline	161	6.361	6.361	0.899	140383	42.20	ng/uL	99
42)	2,4,6-Trichlorophenol	196	6.361	6.361	0.899	80432	41.35	ng/uL	99
43)	2,4,5-Trichlorophenol	196	6.393	6.393	0.903	76519	38.40	ng/uL	99
45)	2-Chloronaphthalene	162	6.559	6.559	0.927	232457	39.66	ng/uL	100
46)	o-Nitroaniline	65	6.655	6.655	0.940	67007	41.64	ng/uL	99
47)	1,4-Dinitrobenzene	168	6.794	6.794	0.960	37186	42.12	ng/uL	99
48)	m-Nitroaniline	138	7.040	7.040	0.995	70353	40.23	ng/uL	99
49)	Dimethylphthalate	163	6.832	6.832	0.965	256067	38.90	ng/uL	100
50)	m-Dinitrobenzene	168	6.859	6.859	0.969	44860	44.08	ng/uL	97
51)	2,6-Dinitrotoluene	165	6.885	6.891	0.973	58127	39.53	ng/uL	99
52)	2,4-Dinitrotoluene	165	7.249	7.249	1.024	80100	40.04	ng/uL	99
53)	Acenaphthylene	152	6.944	6.944	0.981	372339	41.24	ng/uL	100
54)	Acenaphthene	154	7.105	7.105	1.004	210657	38.21	ng/uL	99
55)	2,4-Dinitrophenol	184	7.137	7.137	1.008	25666	40.95	ng/uL	99
56)	Dibenzofuran	168	7.260	7.260	1.026	340478	40.58	ng/uL	100
57)	2,3,4,6-Tetrachlorophenol	232	7.372	7.372	1.042	63525	38.17	ng/uL	99
58)	Diethylphthalate	149	7.468	7.468	1.055	275140	40.34	ng/uL	100
59)	4-Nitrophenol	109	7.190	7.190	1.016	30406	40.03	ng/uL	99
60)	Fluorene	166	7.565	7.565	1.069	265913	39.94	ng/uL	99
61)	4-Chlorophenylphenylether	204	7.565	7.570	1.069	124023	39.44	ng/uL	99
62)	p-Nitroaniline	138	7.581	7.586	1.071	73326	41.23	ng/uL	100
65)	2-Methyl-4,6-dinitroph...	198	7.613	7.613	0.909	41823	40.88	ng/uL	97
66)	Diphenylamine	169	7.672	7.672	0.916	235012	41.76	ng/uL	99
67)	1,2-Diphenylhydrazine	77	7.704	7.704	0.920	266746	39.41	ng/uL	99
68)	4-Bromophenylphenylether	248	7.993	7.993	0.954	74501	38.93	ng/uL	99
69)	Hexachlorobenzene	284	8.041	8.041	0.960	92311	39.72	ng/uL	100
70)	Pentachlorophenol	266	8.212	8.212	0.980	49627	38.85	ng/uL	99
71)	n-Octadecane	57	8.271	8.271	0.987	175681	40.93	ng/uL	99
72)	Dinoseb	211	8.362	8.362	0.998	62153	40.72	ng/uL	99
73)	Phenanthrene	178	8.399	8.399	1.003	390605	40.34	ng/uL	100
74)	Anthracene	178	8.442	8.442	1.008	386556	39.80	ng/uL	100
75)	Carbazole	167	8.576	8.576	1.024	374340	42.16	ng/uL	100
76)	Di-n-butylphthalate	149	8.859	8.859	1.057	483651	42.81	ng/uL	100
77)	Fluoranthene	202	9.399	9.399	1.122	415123	41.11	ng/uL	99
78)	Pyrene	202	9.592	9.592	1.145	432119	40.70	ng/uL	100
81)	Butylbenzylphthalate	149	10.121	10.121	0.945	204021	39.33	ng/uL	99
82)	bis(2-Ethylhexyl)phtha...	149	10.694	10.699	0.999	315830	38.01	ng/uL	99
83)	Benzo(a)anthracene	228	10.694	10.694	0.999	424517	40.04	ng/uL	99
84)	Chrysene	228	10.736	10.736	1.002	390878	39.48	ng/uL	99
85)	Methoxychlor	227	10.608	10.608	0.991	264754	41.23	ng/uL	99
86)	Methylenebis(2-chloroa...	231	10.662	10.661	0.996	83310	42.25	ng/uL	99
87)	Di-n-octylphthalate	149	11.533	11.533	1.077	503938	39.20	ng/uL	100
89)	Benzo(b)fluoranthene	252	12.122	12.122	0.951	417546	41.53	ng/uL	100
90)	Benzo(k)fluoranthene	252	12.164	12.164	0.955	383846	38.03	ng/uL	100
91)	Benzo(a)pyrene	252	12.651	12.651	0.993	372679	40.36	ng/uL	99
92)	Indeno(1,2,3-cd)pyrene	276	14.764	14.764	1.159	376819	38.58	ng/uL	100
93)	Dibenzo(a,h)anthracene	278	14.817	14.817	1.163	393580	41.34	ng/uL	100
94)	Benzo(ghi)perylene	276	15.304	15.309	1.201	396639	42.65	ng/uL	100

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1410.D
Acq On : 14 Mar 2024 11:24
Operator : LL2
Sample : |WBN240312-43|ICV|1|SVM|1|M-ICV
Misc : |MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 15 08:49:42 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
95) Dibenzo(a,e)pyrene	302	17.887	17.887	1.404	364711	42.91	ng/uL

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1411.D
 Acq On : 14 Mar 2024 11:48
 Operator : LL2
 Sample : |WBN240201-51.1|ICAL|1|SVM|1|APX-2
 Misc : |MIX[B,J]
 ALS Vial : 11 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:19 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:19 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	91748	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	360804	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	178273	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	347647	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	338965	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	339902	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	360804	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	347647	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	338965	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
97) 1,4-Dioxane	88	1.467	1.467	0.376	12185	10.20	ng/uL	98
98) Methyl methacrylate	69	1.456	1.456	0.373	16610	10.28	ng/uL	99
99) Ethyl methacrylate	69	1.922	1.922	0.493	25249	10.04	ng/uL	97
100) 2-Picoline	93	2.189	2.179	0.561	31304	9.67	ng/uL	99
101) N-Nitrosomethylethylamine	88	2.248	2.243	0.576	12122	9.57	ng/uL	96
102) Methyl methanesulfonate	80	2.489	2.489	0.638	15918	10.08	ng/uL	98
103) N-Nitrosodiethylamine	102	2.836	2.836	0.727	12858	9.70	ng/uL	98
104) 2-Butoxyethanol	57	2.895	2.895	0.742	26624	9.19	ng/uL	99
105) Ethyl methanesulfonate	79	3.109	3.109	0.797	23115	9.74	ng/uL	99
106) Benzaldehyde	77	3.457	3.457	0.886	23890	10.06	ng/uL	100
107) Pentachloroethane	167	3.612	3.612	0.926	12385	9.88	ng/uL	99
108) N-Nitrosopyrrolidine	100	4.307	4.313	1.104	12972	8.94	ng/uL	96
109) Acetophenone	105	4.334	4.334	1.111	42521	9.76	ng/uL	98
110) N-Nitrosomorpholine	56	4.355	4.355	1.117	13206	9.49	ng/uL	100
111) o-Toluidine	106	4.371	4.377	1.121	47622	9.78	ng/uL	98
113) N-Nitrosopiperidine	114	4.698	4.698	0.882	14026	9.48	ng/uL	97
114) a,a-Dimethylphenethyla...	58	5.131	5.126	0.964	51466	8.15	ng/uL	100
115) 2,6-Dichlorophenol	162	5.414	5.414	1.017	22946	9.38	ng/uL	100
116) Hexachloropropene	213	5.441	5.441	1.022	16798	9.50	ng/uL	100
117) Caprolactam	113	5.751	5.757	1.080	6470	8.55	ng/uL	85
118) N-Nitrosodi-n-butylamine	57	5.773	5.778	1.084	12865	9.50	ng/uL#	75
119) Safrole	162	5.997	5.997	1.127	21290	9.54	ng/uL	99
121) 1,2,4,5-Tetrachloroben...	216	6.243	6.244	0.883	27395	9.93	ng/uL	100
122) 1,1-Biphenyl	154	6.538	6.543	0.924	71752	9.97	ng/uL	99

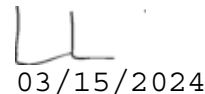
Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1411.D
 Acq On : 14 Mar 2024 11:48
 Operator : LL2
 Sample : |WBN240201-51.1|ICAL|1|SVM|1|APX-2
 Misc : |MIX[B,J]
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 15 08:39:19 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:19 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
123) Isosafrole	162	6.506	6.506	0.920	22522	9.62	ng/uL 99
124) 1,4-Naphthoquinone	158	6.730	6.730	0.952	18480	8.49	ng/uL 98
125) Pentachlorobenzene	250	7.222	7.222	1.021	24425	9.83	ng/uL 100
126) 1-Naphthylamine	143	7.329	7.329	1.036	58764	9.57	ng/uL 99
127) 2-Naphthylamine	143	7.404	7.404	1.047	59818	9.51	ng/uL 99
128) 5-Nitro-o-toluidine	152	7.575	7.575	1.071	14855	8.47	ng/uL 97
129) Tributylphosphate	99	7.650	7.650	1.082	74521	9.08	ng/uL 99
131) 1,3,5-Trinitrobenzene	75	7.902	7.902	0.943	11105	7.89	ng/uL 98
132) Phenacetin	108	7.928	7.934	0.946	29231	8.97	ng/uL 98
133) Diallate	86	7.918	7.918	0.945	18912	9.72	ng/uL 98
134) Cis Diallate	86	7.918	7.918	0.945	18912	8.26	ng/uL 98
136) Atrazine	200	8.126	8.132	0.970	16984	9.70	ng/uL 98
137) 4-Aminobiphenyl	169	8.212	8.217	0.980	71870	9.51	ng/uL 99
138) Pentachloronitrobenzene	237	8.217	8.217	0.981	7094	9.32	ng/uL 99
139) Pronamide	173	8.255	8.260	0.985	28851	9.31	ng/uL 99
140) 4-Nitroquinoline-1-oxide	128	9.046	9.046	1.080	1984	6.81	ng/uL 92
141) Methapyrilene	97	9.105	9.105	1.087	31342	8.88	ng/uL 99
142) Isodrin	193	9.271	9.271	1.107	10828	9.74	ng/uL 99
144) Aramite	185	9.683	9.683	0.905	4043	8.94	ng/uL 97
145) Kepone	272	10.169	10.169	0.950	9270	8.86	ng/uL 98
146) p-(Dimethylamino)azobe...	225	9.827	9.827	0.918	15451	8.68	ng/uL 98
147) Chlorobenzilate	251	9.859	9.859	0.921	26383	9.40	ng/uL 99
148) 2-Acetylaminofluorene	181	10.351	10.357	0.967	31992	8.10	ng/uL 99
150) 7,12-Dimethylbenz(a)an...	256	12.106	12.106	0.950	37258	9.18	ng/uL 100
151) 3-Methylcholanthrene	269	13.261	13.266	1.041	9381	8.84	ng/uL 98
153) Sulfolane	56	5.420	5.425	1.018	9606	10.17	ng/uL 96
155) Prometon	210	8.067	8.073	0.963	13876	9.21	ng/uL 98
156) Benzydine	184	9.506	9.506	1.135	59245	8.90	ng/uL 99
158) 3,3'-Dimethylbenzidine	212	10.116	10.116	0.945	60588	9.31	ng/uL 99
159) 3,3'-Dichlorobenzidine	252	10.656	10.656	0.996	35949	9.15	ng/uL 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1412.D
 Acq On : 14 Mar 2024 12:09
 Operator : LL2
 Sample : |WBN240201-52|ICAL|1|SVM|1|APX-3
 Misc : |MIX[B,J]
 ALS Vial : 12 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:26 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:25 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	91934	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	365697	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	184017	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	360647	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	358201	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	359543	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	365697	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	360647	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	358201	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	

Target Compounds								
97) 1,4-Dioxane	88	1.467	1.467	0.376	24521	20.49	ng/uL	98
98) Methyl methacrylate	69	1.456	1.456	0.373	32322	19.96	ng/uL	99
99) Ethyl methacrylate	69	1.922	1.922	0.493	49728	19.74	ng/uL	98
100) 2-Picoline	93	2.184	2.179	0.560	63235	19.50	ng/uL	99
101) N-Nitrosomethylethylamine	88	2.243	2.243	0.575	24832	19.56	ng/uL	97
102) Methyl methanesulfonate	80	2.489	2.489	0.638	31821	20.11	ng/uL	99
103) N-Nitrosodiethylamine	102	2.836	2.836	0.727	25810	19.43	ng/uL	98
104) 2-Butoxyethanol	57	2.895	2.895	0.742	54939	18.92	ng/uL	99
105) Ethyl methanesulfonate	79	3.109	3.109	0.797	47098	19.80	ng/uL	100
106) Benzaldehyde	77	3.457	3.457	0.886	48565	20.41	ng/uL	99
107) Pentachloroethane	167	3.612	3.612	0.926	24775	19.72	ng/uL	99
108) N-Nitrosopyrrolidine	100	4.307	4.313	1.104	28210	19.41	ng/uL	99
109) Acetophenone	105	4.334	4.334	1.111	86260	19.77	ng/uL	99
110) N-Nitrosomorpholine	56	4.355	4.355	1.117	27503	19.71	ng/uL	98
111) o-Toluidine	106	4.371	4.377	1.121	96767	19.84	ng/uL	100
113) N-Nitrosopiperidine	114	4.698	4.698	0.882	28926	19.29	ng/uL	98
114) a,a-Dimethylphenethyla...	58	5.131	5.126	0.964	118448	18.52	ng/uL	99
115) 2,6-Dichlorophenol	162	5.414	5.414	1.017	48104	19.39	ng/uL	100
116) Hexachloropropene	213	5.441	5.441	1.022	34142	19.06	ng/uL	99
117) Caprolactam	113	5.751	5.757	1.080	14223	18.53	ng/uL	96
118) N-Nitrosodi-n-butylamine	57	5.773	5.778	1.084	26849	19.56	ng/uL	89
119) Safrole	162	5.997	5.997	1.127	44169	19.52	ng/uL	100
121) 1,2,4,5-Tetrachloroben...	216	6.243	6.244	0.883	55434	19.47	ng/uL	100
122) 1,1-Biphenyl	154	6.538	6.543	0.924	146316	19.70	ng/uL	100

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1412.D
Acq On : 14 Mar 2024 12:09
Operator : LL2
Sample : |WBN240201-52|ICAL|1|SVM|1|APX-3
Misc : |MIX[B,J]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 15 08:39:26 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:25 2024
Response via : Initial Calibration

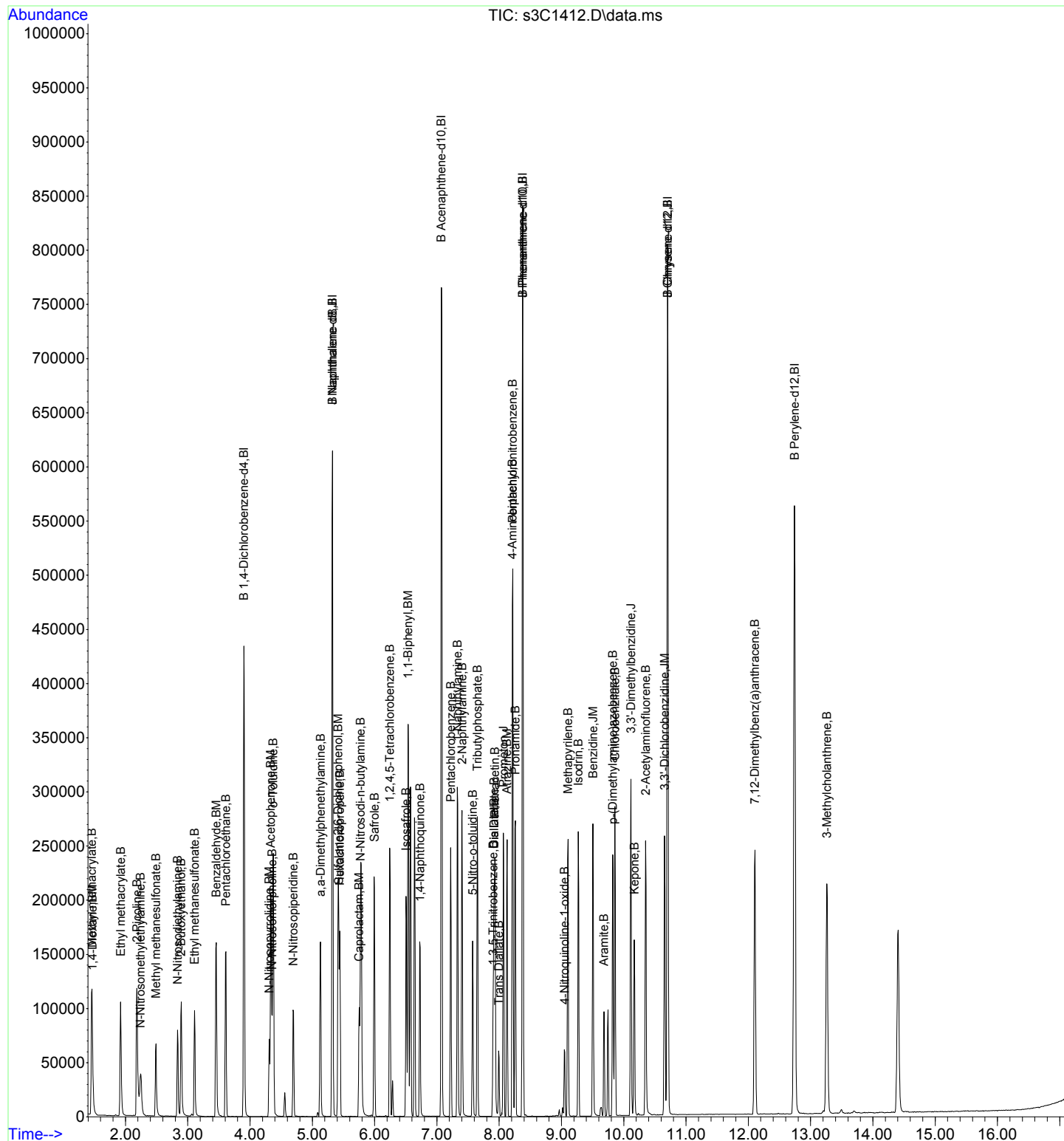
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
123) Isosafrole	162	6.505	6.506	0.920	46574	19.28	ng/uL	100
124) 1,4-Naphthoquinone	158	6.730	6.730	0.952	41176	18.32	ng/uL	100
125) Pentachlorobenzene	250	7.222	7.222	1.021	50073	19.53	ng/uL	99
126) 1-Naphthylamine	143	7.329	7.329	1.036	122349	19.31	ng/uL	99
127) 2-Naphthylamine	143	7.404	7.404	1.047	126183	19.43	ng/uL	99
128) 5-Nitro-o-toluidine	152	7.575	7.575	1.071	33263	18.37	ng/uL	99
129) Tributylphosphate	99	7.650	7.650	1.082	159089	18.79	ng/uL	100
131) 1,3,5-Trinitrobenzene	75	7.901	7.902	0.943	26086	17.87	ng/uL	98
132) Phenacetin	108	7.934	7.934	0.947	63927	18.91	ng/uL	98
133) Diallate	86	7.917	7.918	0.945	39284	19.47	ng/uL	99
134) Cis Diallate	86	7.917	7.918	0.945	39284	16.55	ng/uL	99
135) Trans Diallate	86	7.992	7.993	0.954	13607	2.92	ng/uL	98
136) Atrazine	200	8.126	8.132	0.970	35803	19.72	ng/uL	99
137) 4-Aminobiphenyl	169	8.212	8.217	0.980	152786	19.49	ng/uL	100
138) Pentachloronitrobenzene	237	8.217	8.217	0.981	14637	18.55	ng/uL	99
139) Pronamide	173	8.260	8.260	0.986	62207	19.35	ng/uL	99
140) 4-Nitroquinoline-1-oxide	128	9.046	9.046	1.080	6144	20.33	ng/uL	90
141) Methapyrilene	97	9.105	9.105	1.087	70851	19.35	ng/uL	99
142) Isodrin	193	9.271	9.271	1.107	22369	19.39	ng/uL	99
144) Aramite	185	9.683	9.683	0.905	8546	17.89	ng/uL	95
145) Kepone	272	10.169	10.169	0.950	20697	18.71	ng/uL	99
146) p-(Dimethylamino)azobe...	225	9.827	9.827	0.918	34983	18.59	ng/uL	98
147) Chlorobenzilate	251	9.859	9.859	0.921	56843	19.17	ng/uL	99
148) 2-Acetylaminofluorene	181	10.351	10.357	0.967	75422	18.07	ng/uL	100
150) 7,12-Dimethylbenz(a)an...	256	12.105	12.106	0.950	80843	18.83	ng/uL	100
151) 3-Methylcholanthrene	269	13.261	13.266	1.041	20885	18.61	ng/uL	99
153) Sulfolane	56	5.425	5.425	1.019	19086	19.94	ng/uL	99
155) Prometon	210	8.067	8.073	0.963	30208	19.33	ng/uL	99
156) Benzidine	184	9.506	9.506	1.135	132962	19.25	ng/uL	99
158) 3,3'-Dimethylbenzidine	212	10.116	10.116	0.945	132951	19.33	ng/uL	100
159) 3,3'-Dichlorobenzidine	252	10.656	10.656	0.996	78702	18.96	ng/uL	100

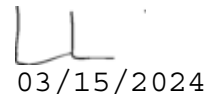
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1412.D
Acq On : 14 Mar 2024 12:09
Operator : LL2
Sample : |WBN240201-52|ICAL|1|SVM|1|APX-3
Misc : |MIX[B,J]
ALS Vial : 12 Sample Multiplier: 1

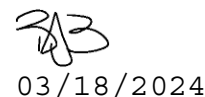
Quant Time: Mar 15 08:39:26 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:25 2024
Response via : Initial Calibration





Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1413.D
 Acq On : 14 Mar 2024 12:30
 Operator : LL2
 Sample : |WBN240201-53|ICAL|1|SVM|1|APX-9
 Misc : |MIX[B,J]
 ALS Vial : 13 Sample Multiplier: 1

03/15/2024



03/18/2024

Quant Time: Mar 15 08:40:09 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:09 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	98728	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	393755	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	196105	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	388309	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	384449	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	385729	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	393755	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	388309	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	384449	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	

Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
97) 1,4-Dioxane	88	1.467	1.467	0.376	37125	28.89	ng/uL	99
98) Methyl methacrylate	69	1.456	1.456	0.373	50089	28.80	ng/uL	100
99) Ethyl methacrylate	69	1.922	1.922	0.493	77290	28.57	ng/uL	99
100) 2-Picoline	93	2.178	2.179	0.558	100420	28.84	ng/uL	99
101) N-Nitrosomethylethylamine	88	2.243	2.243	0.575	39038	28.63	ng/uL	99
102) Methyl methanesulfonate	80	2.489	2.489	0.638	49339	29.04	ng/uL	99
103) N-Nitrosodiethylamine	102	2.836	2.836	0.727	40423	28.34	ng/uL	98
104) 2-Butoxyethanol	57	2.895	2.895	0.742	87835	28.17	ng/uL	100
105) Ethyl methanesulfonate	79	3.109	3.109	0.797	73705	28.85	ng/uL	99
106) Benzaldehyde	77	3.457	3.457	0.886	74536	29.17	ng/uL	100
107) Pentachloroethane	167	3.612	3.612	0.926	38508	28.54	ng/uL	99
108) N-Nitrosopyrrolidine	100	4.307	4.313	1.104	44333	28.40	ng/uL	99
109) Acetophenone	105	4.334	4.334	1.111	134524	28.71	ng/uL	100
110) N-Nitrosomorpholine	56	4.355	4.355	1.117	43099	28.77	ng/uL	99
111) o-Toluidine	106	4.371	4.377	1.121	150296	28.69	ng/uL	99
113) N-Nitrosopiperidine	114	4.698	4.698	0.882	45605	28.25	ng/uL	99
114) a,a-Dimethylphenethyla...	58	5.131	5.126	0.964	186827	27.12	ng/uL	100
115) 2,6-Dichlorophenol	162	5.414	5.414	1.017	74885	28.04	ng/uL	100
116) Hexachloropropene	213	5.441	5.441	1.022	54295	28.15	ng/uL	100
117) Caprolactam	113	5.757	5.757	1.081	22842	27.64	ng/uL	99
118) N-Nitrosodi-n-butylamine	57	5.773	5.778	1.084	42378	28.67	ng/uL	98
119) Safrole	162	5.997	5.997	1.127	69030	28.33	ng/uL	99
121) 1,2,4,5-Tetrachloroben...	216	6.243	6.244	0.883	86611	28.55	ng/uL	99
122) 1,1-Biphenyl	154	6.537	6.543	0.924	228029	28.81	ng/uL	100

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1413.D
Acq On : 14 Mar 2024 12:30
Operator : LL2
Sample : |WBN240201-53|ICAL|1|SVM|1|APX-9
Misc : |MIX[B,J]
ALS Vial : 13 Sample Multiplier: 1

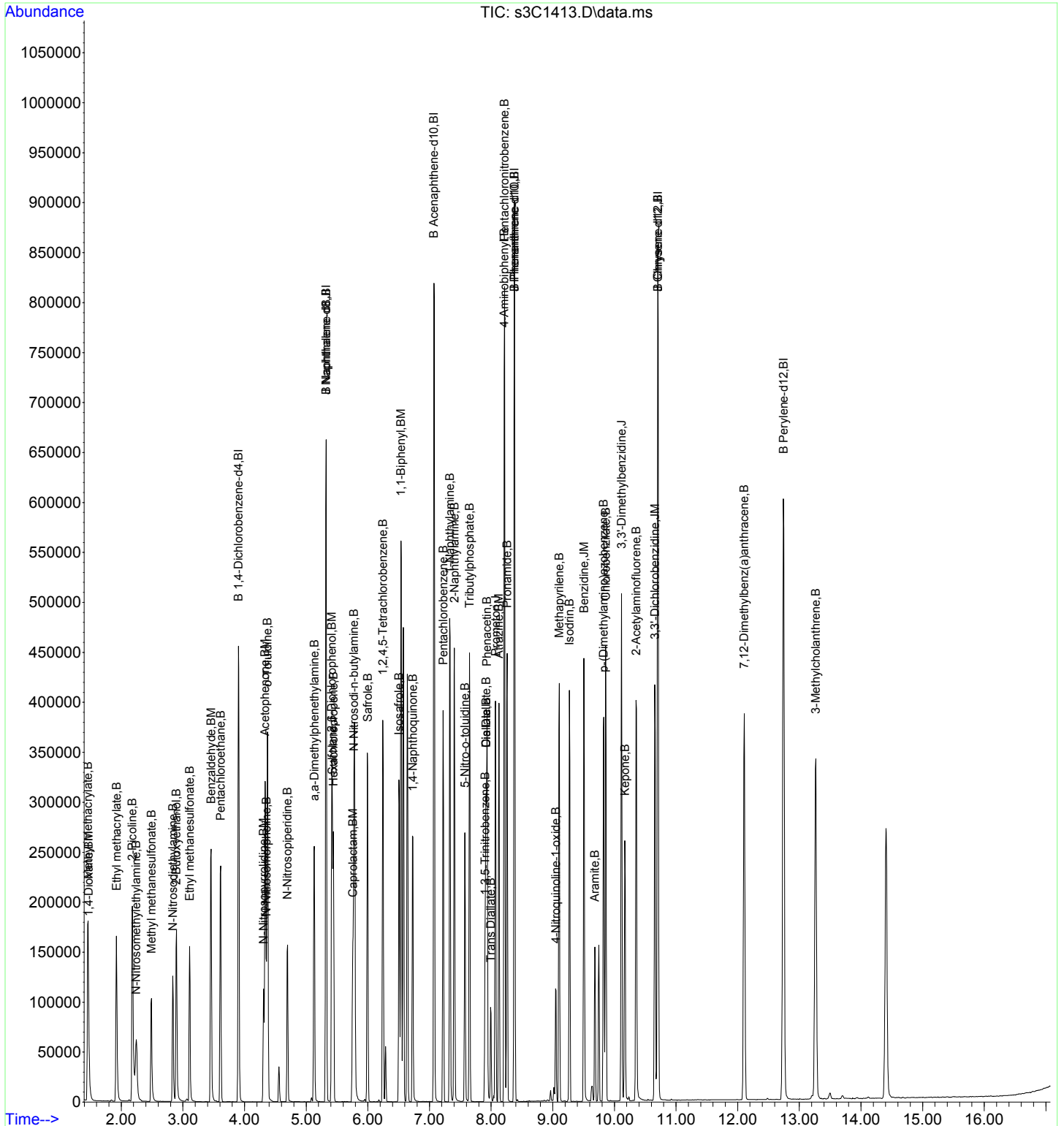
Quant Time: Mar 15 08:40:09 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:09 2024
Response via : Initial Calibration

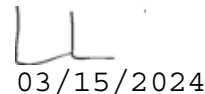
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
123) Isosafrole	162	6.505	6.506	0.920	73306	28.47	ng/uL	100
124) 1,4-Naphthoquinone	158	6.730	6.730	0.952	67979	28.39	ng/uL	99
125) Pentachlorobenzene	250	7.222	7.222	1.021	78303	28.65	ng/uL	100
126) 1-Naphthylamine	143	7.329	7.329	1.036	194453	28.79	ng/uL	100
127) 2-Naphthylamine	143	7.404	7.404	1.047	199136	28.77	ng/uL	100
128) 5-Nitro-o-toluidine	152	7.575	7.575	1.071	53922	27.94	ng/uL	99
129) Tributylphosphate	99	7.650	7.650	1.082	256961	28.48	ng/uL	99
131) 1,3,5-Trinitrobenzene	75	7.901	7.902	0.943	42848	27.27	ng/uL	99
132) Phenacetin	108	7.934	7.934	0.947	104074	28.59	ng/uL	97
133) Diallate	86	7.917	7.918	0.945	61714	28.40	ng/uL	100
134) Cis Diallate	86	7.917	7.918	0.945	61714	24.14	ng/uL	99
135) Trans Diallate	86	7.992	7.993	0.954	21138	4.21	ng/uL	97
136) Atrazine	200	8.126	8.132	0.970	55891	28.59	ng/uL	98
137) 4-Aminobiphenyl	169	8.212	8.217	0.980	240115	28.45	ng/uL	100
138) Pentachloronitrobenzene	237	8.217	8.217	0.981	23854	28.07	ng/uL	99
139) Pronamide	173	8.260	8.260	0.986	97739	28.24	ng/uL	100
140) 4-Nitroquinoline-1-oxide	128	9.046	9.046	1.080	10128	31.13	ng/uL	99
141) Methapyrilene	97	9.105	9.105	1.087	113981	28.92	ng/uL	100
142) Isodrin	193	9.271	9.271	1.107	35099	28.25	ng/uL	99
144) Aramite	185	9.682	9.683	0.905	13963	27.23	ng/uL	97
145) Kepone	272	10.169	10.169	0.950	33504	28.22	ng/uL	99
146) p-(Dimethylamino)azobe...	225	9.827	9.827	0.918	57014	28.23	ng/uL	99
147) Chlorobenzilate	251	9.859	9.859	0.921	89658	28.17	ng/uL	99
148) 2-Acetylaminofluorene	181	10.351	10.357	0.967	123304	27.53	ng/uL	100
150) 7,12-Dimethylbenz(a)an...	256	12.105	12.106	0.950	128693	27.94	ng/uL	100
151) 3-Methylcholanthrene	269	13.266	13.266	1.041	33535	27.86	ng/uL	99
153) Sulfolane	56	5.425	5.425	1.019	29242	28.37	ng/uL	99
155) Prometon	210	8.073	8.073	0.964	47261	28.09	ng/uL	100
156) Benzidine	184	9.506	9.506	1.135	211756	28.48	ng/uL	99
158) 3,3'-Dimethylbenzidine	212	10.116	10.116	0.945	212203	28.75	ng/uL	100
159) 3,3'-Dichlorobenzidine	252	10.656	10.656	0.996	125380	28.14	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

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Data Path : C:\msdchem\1\data\S031424ICAL\  
Data File : s3C1413.D  
Acq On    : 14 Mar 2024 12:30  
Operator  : LL2  
Sample    : |WBN240201-53|ICAL|1|SVM|1|APX-9  
Misc      : |MIX[B,J]  
ALS Vial  : 13 Sample Multiplier: 1
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Quant Time: Mar 15 08:40:09 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:09 2024
Response via : Initial Calibration





Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1414.D
 Acq On : 14 Mar 2024 12:52
 Operator : LL2
 Sample : |WBN240201-54.1|ICAL|1|SVM|1|APX-4
 Misc : |MIX[B,J]
 ALS Vial : 14 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:32 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:32 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.073	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	102114	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	407037	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.073	7.073	1.000	201301	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	385436	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	384685	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	386974	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	407037	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	385436	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	384685	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
97) 1,4-Dioxane	88	1.467	1.467	0.376	53152	39.99	ng/uL	100
98) Methyl methacrylate	69	1.456	1.456	0.373	71790	39.91	ng/uL	100
99) Ethyl methacrylate	69	1.922	1.922	0.493	112876	40.34	ng/uL	100
100) 2-Picoline	93	2.179	2.179	0.558	144706	40.18	ng/uL	100
101) N-Nitrosomethylethylamine	88	2.243	2.243	0.575	56918	40.36	ng/uL	100
102) Methyl methanesulfonate	80	2.489	2.489	0.638	70654	40.21	ng/uL	100
103) N-Nitrosodiethylamine	102	2.836	2.836	0.727	59101	40.06	ng/uL	100
104) 2-Butoxyethanol	57	2.895	2.895	0.742	129681	40.21	ng/uL	100
105) Ethyl methanesulfonate	79	3.109	3.109	0.797	105617	39.98	ng/uL	100
106) Benzaldehyde	77	3.457	3.457	0.886	107916	40.84	ng/uL	100
107) Pentachloroethane	167	3.612	3.612	0.926	55976	40.11	ng/uL	100
108) N-Nitrosopyrrolidine	100	4.313	4.313	1.106	64420	39.90	ng/uL	100
109) Acetophenone	105	4.334	4.334	1.111	195299	40.29	ng/uL	100
110) N-Nitrosomorpholine	56	4.355	4.355	1.117	61843	39.91	ng/uL	100
111) o-Toluidine	106	4.377	4.377	1.122	217758	40.19	ng/uL	100
113) N-Nitrosopiperidine	114	4.698	4.698	0.882	67066	40.19	ng/uL	100
114) a,a-Dimethylphenethyla...	58	5.126	5.126	0.963	282505	39.68	ng/uL	100
115) 2,6-Dichlorophenol	162	5.414	5.414	1.017	110241	39.93	ng/uL	100
116) Hexachloropropene	213	5.441	5.441	1.022	79513	39.87	ng/uL	100
117) Caprolactam	113	5.757	5.757	1.081	34061	39.88	ng/uL	100
118) N-Nitrosodi-n-butylamine	57	5.778	5.778	1.085	60536	39.62	ng/uL	100
119) Safrole	162	5.997	5.997	1.127	100650	39.97	ng/uL	100
121) 1,2,4,5-Tetrachloroben...	216	6.244	6.244	0.883	124402	39.95	ng/uL	100
122) 1,1-Biphenyl	154	6.543	6.543	0.925	326684	40.20	ng/uL	100

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1414.D
Acq On : 14 Mar 2024 12:52
Operator : LL2
Sample : |WBN240201-54.1|ICAL|1|SVM|1|APX-4
Misc : |MIX[B,J]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 15 08:39:32 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:32 2024
Response via : Initial Calibration

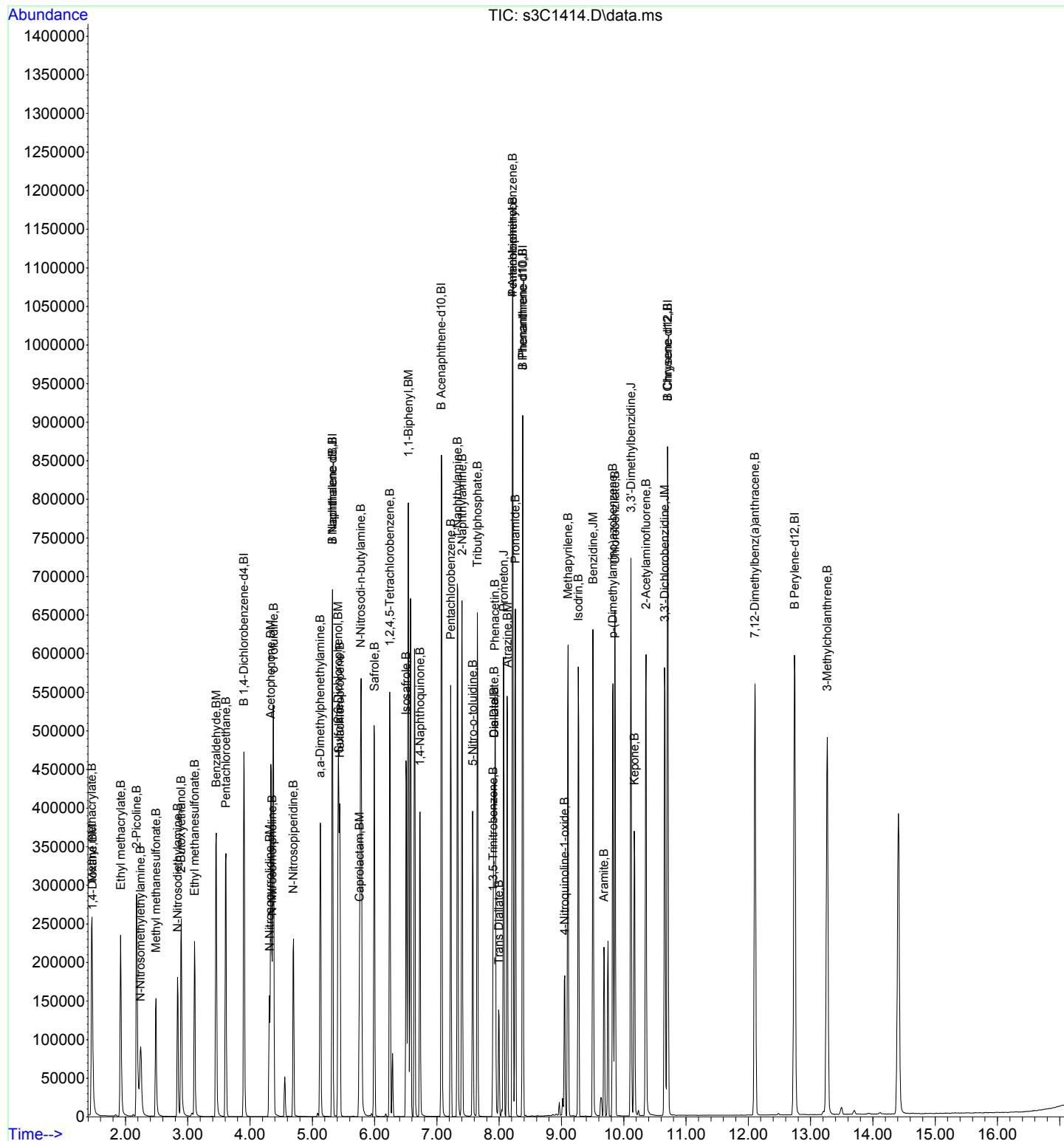
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
123) Isosafrole	162	6.506	6.506	0.920	106985	40.48	ng/uL 100
124) 1,4-Naphthoquinone	158	6.730	6.730	0.952	101233	41.18	ng/uL 100
125) Pentachlorobenzene	250	7.222	7.222	1.021	111850	39.87	ng/uL 100
126) 1-Naphthylamine	143	7.329	7.329	1.036	278577	40.18	ng/uL 100
127) 2-Naphthylamine	143	7.404	7.404	1.047	288515	40.61	ng/uL 100
128) 5-Nitro-o-toluidine	152	7.575	7.575	1.071	79549	40.15	ng/uL 100
129) Tributylphosphate	99	7.650	7.650	1.082	370188	39.97	ng/uL 100
131) 1,3,5-Trinitrobenzene	75	7.902	7.902	0.943	62217	39.89	ng/uL 100
132) Phenacetin	108	7.934	7.934	0.947	146008	40.41	ng/uL 100
133) Diallate	86	7.918	7.918	0.945	87918	40.76	ng/uL 100
134) Cis Diallate	86	7.918	7.918	0.945	87918	34.65	ng/uL 100
135) Trans Diallate	86	7.993	7.993	0.954	30455	6.12	ng/uL 100
136) Atrazine	200	8.132	8.132	0.971	79060	40.74	ng/uL 100
137) 4-Aminobiphenyl	169	8.217	8.217	0.981	343565	41.02	ng/uL 100
138) Pentachloronitrobenzene	237	8.217	8.217	0.981	34001	40.31	ng/uL 100
139) Pronamide	173	8.260	8.260	0.986	140183	40.81	ng/uL 100
140) 4-Nitroquinoline-1-oxide	128	9.046	9.046	1.080	14787	45.78	ng/uL 100
141) Methapyrilene	97	9.105	9.105	1.087	164498	42.04	ng/uL 100
142) Isodrin	193	9.271	9.271	1.107	50103	40.63	ng/uL 100
144) Aramite	185	9.683	9.683	0.905	20691	40.33	ng/uL 100
145) Kepone	272	10.169	10.169	0.950	48480	40.81	ng/uL 100
146) p-(Dimethylamino)azobe...	225	9.827	9.827	0.918	81825	40.48	ng/uL 100
147) Chlorobenzilate	251	9.859	9.859	0.921	127354	39.99	ng/uL 100
148) 2-Acetylaminofluorene	181	10.357	10.357	0.968	180542	40.28	ng/uL 100
150) 7,12-Dimethylbenz(a)an...	256	12.106	12.106	0.950	184998	40.04	ng/uL 100
151) 3-Methylcholanthrene	269	13.266	13.266	1.041	48339	40.03	ng/uL 100
153) Sulfolane	56	5.425	5.425	1.019	42511	39.90	ng/uL 100
155) Prometon	210	8.073	8.073	0.964	67608	40.48	ng/uL 100
156) Benzidine	184	9.506	9.506	1.135	300407	40.70	ng/uL 100
158) 3,3'-Dimethylbenzidine	212	10.116	10.116	0.945	301696	40.85	ng/uL 100
159) 3,3'-Dichlorobenzidine	252	10.656	10.656	0.996	179018	40.15	ng/uL 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1414.D
Acq On : 14 Mar 2024 12:52
Operator : LL2
Sample : WBN240201-54.1 | ICAL | 1 | SVM | 1 | APX-4
Misc : MIX[B,J]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 15 08:39:32 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:32 2024
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1415.D
 Acq On : 14 Mar 2024 13:13
 Operator : LL2
 Sample : |WBN240201-55|ICAL|1|SVM|1|APX-5
 Misc : |MIX[B,J]
 ALS Vial : 15 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:39 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:38 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	98472	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	394420	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	194865	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	378206	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	376443	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	375673	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	394420	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	378206	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	376443	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
97) 1,4-Dioxane	88	1.467	1.467	0.376	64487	50.32	ng/uL	99
98) Methyl methacrylate	69	1.456	1.456	0.373	87278	50.32	ng/uL	100
99) Ethyl methacrylate	69	1.922	1.922	0.493	136881	50.73	ng/uL	99
100) 2-Picoline	93	2.178	2.179	0.558	176221	50.74	ng/uL	100
101) N-Nitrosomethylethylamine	88	2.243	2.243	0.575	69382	51.02	ng/uL	97
102) Methyl methanesulfonate	80	2.489	2.489	0.638	86790	51.22	ng/uL	98
103) N-Nitrosodiethylamine	102	2.836	2.836	0.727	71977	50.60	ng/uL	99
104) 2-Butoxyethanol	57	2.895	2.895	0.742	158568	50.98	ng/uL	100
105) Ethyl methanesulfonate	79	3.109	3.109	0.797	128757	50.54	ng/uL	100
106) Benzaldehyde	77	3.457	3.457	0.886	130110	51.05	ng/uL	99
107) Pentachloroethane	167	3.612	3.612	0.926	67846	50.41	ng/uL	98
108) N-Nitrosopyrrolidine	100	4.312	4.313	1.106	79826	51.27	ng/uL	99
109) Acetophenone	105	4.339	4.334	1.112	237740	50.86	ng/uL	99
110) N-Nitrosomorpholine	56	4.355	4.355	1.117	76260	51.04	ng/uL	98
111) o-Toluidine	106	4.377	4.377	1.122	266279	50.96	ng/uL	99
113) N-Nitrosopiperidine	114	4.698	4.698	0.882	82351	50.93	ng/uL	100
114) a,a-Dimethylphenethyla...	58	5.131	5.126	0.964	356339	51.65	ng/uL	100
115) 2,6-Dichlorophenol	162	5.414	5.414	1.017	136337	50.96	ng/uL	100
116) Hexachloropropene	213	5.441	5.441	1.022	98155	50.80	ng/uL	99
117) Caprolactam	113	5.762	5.757	1.082	42412	51.24	ng/uL	99
118) N-Nitrosodi-n-butylamine	57	5.778	5.778	1.085	75275	50.85	ng/uL	99
119) Safrole	162	5.997	5.997	1.127	123646	50.67	ng/uL	100
121) 1,2,4,5-Tetrachloroben...	216	6.243	6.244	0.883	152175	50.48	ng/uL	100
122) 1,1-Biphenyl	154	6.543	6.543	0.925	396909	50.46	ng/uL	100

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1415.D
Acq On : 14 Mar 2024 13:13
Operator : LL2
Sample : |WBN240201-55|ICAL|1|SVM|1|APX-5
Misc : |MIX[B,J]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 15 08:39:39 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:38 2024
Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
123) Isosafrole	162	6.511	6.506	0.921	128588	50.26	ng/uL	99
124) 1,4-Naphthoquinone	158	6.730	6.730	0.952	125507	52.74	ng/uL	99
125) Pentachlorobenzene	250	7.222	7.222	1.021	136346	50.21	ng/uL	99
126) 1-Naphthylamine	143	7.334	7.329	1.037	343467	51.18	ng/uL	99
127) 2-Naphthylamine	143	7.404	7.404	1.047	351092	51.05	ng/uL	100
128) 5-Nitro-o-toluidine	152	7.575	7.575	1.071	99339	51.80	ng/uL	99
129) Tributylphosphate	99	7.650	7.650	1.082	460742	51.39	ng/uL	100
131) 1,3,5-Trinitrobenzene	75	7.901	7.902	0.943	79654	52.05	ng/uL	100
132) Phenacetin	108	7.939	7.934	0.948	183894	51.87	ng/uL	99
133) Diallate	86	7.917	7.918	0.945	107621	50.85	ng/uL	99
134) Cis Diallate	86	7.917	7.918	0.945	107621	43.22	ng/uL	100
135) Trans Diallate	86	7.992	7.993	0.954	37405	7.66	ng/uL	100
136) Atrazine	200	8.131	8.132	0.971	96470	50.66	ng/uL	99
137) 4-Aminobiphenyl	169	8.217	8.217	0.981	415696	50.58	ng/uL	99
138) Pentachloronitrobenzene	237	8.222	8.217	0.981	42510	51.36	ng/uL	99
139) Pronamide	173	8.260	8.260	0.986	171775	50.96	ng/uL	99
140) 4-Nitroquinoline-1-oxide	128	9.051	9.046	1.080	17682	55.79	ng/uL	99
141) Methapyrilene	97	9.105	9.105	1.087	201271	52.43	ng/uL	100
142) Isodrin	193	9.271	9.271	1.107	61634	50.94	ng/uL	100
144) Aramite	185	9.683	9.683	0.905	25544	50.88	ng/uL	99
145) Kepone	272	10.175	10.169	0.951	59836	51.47	ng/uL	100
146) p-(Dimethylamino)azobe...	225	9.827	9.827	0.918	101857	51.50	ng/uL	98
147) Chlorobenzilate	251	9.859	9.859	0.921	157447	50.52	ng/uL	100
148) 2-Acetylaminofluorene	181	10.356	10.357	0.968	226745	51.70	ng/uL	100
150) 7,12-Dimethylbenz(a)an...	256	12.111	12.106	0.950	230436	51.37	ng/uL	100
151) 3-Methylcholanthrene	269	13.271	13.266	1.042	59995	51.17	ng/uL	99
153) Sulfolane	56	5.430	5.425	1.020	52121	50.48	ng/uL	99
155) Prometon	210	8.073	8.073	0.964	84280	51.43	ng/uL	98
156) Benzidine	184	9.506	9.506	1.135	373588	51.58	ng/uL	100
158) 3,3'-Dimethylbenzidine	212	10.116	10.116	0.945	371343	51.38	ng/uL	100
159) 3,3'-Dichlorobenzidine	252	10.661	10.656	0.996	223349	51.19	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted


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Data Path   : C:\msdchem\1\data\S031424ICAL\
Data File   : s3C1415.D
Acq On      : 14 Mar 2024   13:13
Operator    : LL2
Sample      : |WBN240201-55|ICAL|1|SVM|1|APX-5
Misc        : |MIX[B,J]
ALS Vial    : 15   Sample Multiplier: 1
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[illegible]

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1416.D
 Acq On : 14 Mar 2024 13:35
 Operator : LL2
 Sample : |WBN240201-56|ICAL|1|SVM|1|APX-10
 Misc : |MIX[B,J]
 ALS Vial : 16 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:40:10 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:10 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.073	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.747	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	106650	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	421762	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.073	7.073	1.000	212478	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	412116	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	415093	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.747	12.742	1.000	421853	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	421762	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	412116	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	415093	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.747	12.758	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
97) 1,4-Dioxane	88	1.467	1.467	0.376	82673	59.56	ng/uL	99
98) Methyl methacrylate	69	1.456	1.456	0.373	112775	60.03	ng/uL	100
99) Ethyl methacrylate	69	1.922	1.922	0.493	176176	60.29	ng/uL	100
100) 2-Picoline	93	2.179	2.179	0.558	227198	60.40	ng/uL	100
101) N-Nitrosomethylethylamine	88	2.243	2.243	0.575	89929	61.06	ng/uL	98
102) Methyl methanesulfonate	80	2.489	2.489	0.638	110783	60.36	ng/uL	99
103) N-Nitrosodiethylamine	102	2.836	2.836	0.727	93929	60.96	ng/uL	99
104) 2-Butoxyethanol	57	2.895	2.895	0.742	207534	61.61	ng/uL	100
105) Ethyl methanesulfonate	79	3.109	3.109	0.797	168081	60.91	ng/uL	100
106) Benzaldehyde	77	3.457	3.457	0.886	167556	60.71	ng/uL	99
107) Pentachloroethane	167	3.612	3.612	0.926	87899	60.31	ng/uL	100
108) N-Nitrosopyrrolidine	100	4.313	4.313	1.106	104135	61.76	ng/uL	100
109) Acetophenone	105	4.339	4.334	1.112	305287	60.31	ng/uL	98
110) N-Nitrosomorpholine	56	4.361	4.355	1.118	99206	61.30	ng/uL	99
111) o-Toluidine	106	4.377	4.377	1.122	343583	60.71	ng/uL	99
113) N-Nitrosopiperidine	114	4.698	4.698	0.882	106898	61.82	ng/uL	100
114) a,a-Dimethylphenethyla...	58	5.131	5.126	0.964	470801	63.81	ng/uL	100
115) 2,6-Dichlorophenol	162	5.414	5.414	1.017	177998	62.22	ng/uL	100
116) Hexachloropropene	213	5.441	5.441	1.022	128117	62.00	ng/uL	100
117) Caprolactam	113	5.767	5.757	1.083	56191	63.49	ng/uL	99
118) N-Nitrosodi-n-butylamine	57	5.778	5.778	1.085	98379	62.14	ng/uL	99
119) Safrole	162	5.997	5.997	1.127	159848	61.26	ng/uL	100
121) 1,2,4,5-Tetrachloroben...	216	6.244	6.244	0.883	197673	60.14	ng/uL	99
122) 1,1-Biphenyl	154	6.543	6.543	0.925	520330	60.66	ng/uL	100

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1416.D
Acq On : 14 Mar 2024 13:35
Operator : LL2
Sample : |WBN240201-56|ICAL|1|SVM|1|APX-10
Misc : |MIX[B,J]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 15 08:40:10 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:10 2024
Response via : Initial Calibration

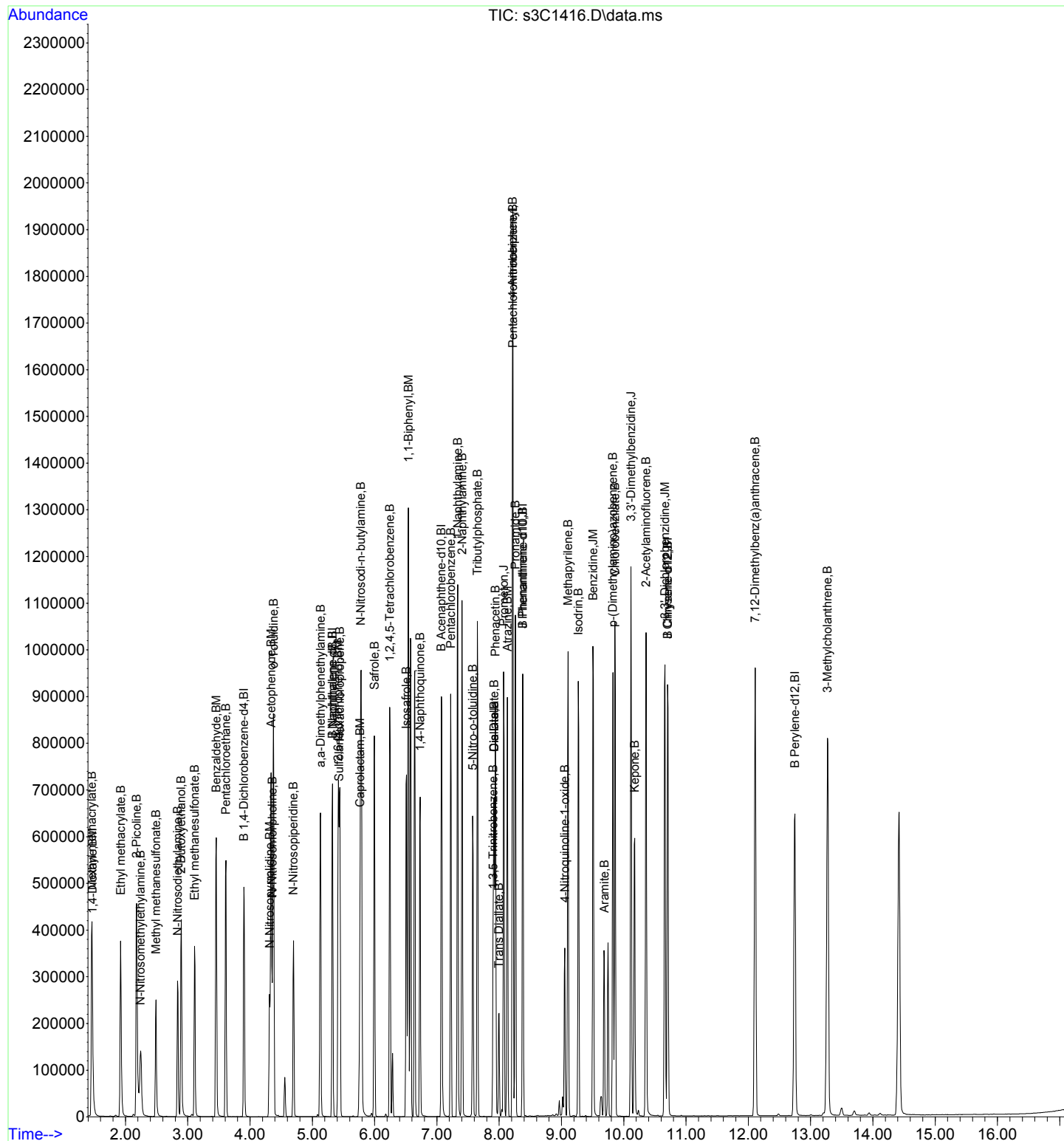
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
123) Isosafrole	162	6.511	6.506	0.921	168955	60.56	ng/uL 100
124) 1,4-Naphthoquinone	158	6.730	6.730	0.952	166161	64.04	ng/uL 99
125) Pentachlorobenzene	250	7.222	7.222	1.021	180911	61.10	ng/uL 100
126) 1-Naphthylamine	143	7.335	7.329	1.037	447048	61.09	ng/uL 100
127) 2-Naphthylamine	143	7.404	7.404	1.047	459075	61.21	ng/uL 100
128) 5-Nitro-o-toluidine	152	7.575	7.575	1.071	132143	63.19	ng/uL 99
129) Tributylphosphate	99	7.650	7.650	1.082	610070	62.40	ng/uL 100
131) 1,3,5-Trinitrobenzene	75	7.902	7.902	0.943	108141	64.85	ng/uL 99
132) Phenacetin	108	7.939	7.934	0.948	240868	62.34	ng/uL 99
133) Diallate	86	7.918	7.918	0.945	139619	60.54	ng/uL 85
134) Cis Diallate	86	7.918	7.918	0.945	139619	51.46	ng/uL 86
135) Trans Diallate	86	7.993	7.993	0.954	48201	9.05	ng/uL 98
136) Atrazine	200	8.132	8.132	0.971	127180	61.29	ng/uL 99
137) 4-Aminobiphenyl	169	8.217	8.217	0.981	550125	61.43	ng/uL 100
138) Pentachloronitrobenzene	237	8.223	8.217	0.981	55800	61.87	ng/uL 99
139) Pronamide	173	8.260	8.260	0.986	226029	61.54	ng/uL 98
140) 4-Nitroquinoline-1-oxide	128	9.052	9.046	1.080	22723	65.80	ng/uL 97
141) Methapyrilene	97	9.105	9.105	1.087	265593	63.49	ng/uL 100
142) Isodrin	193	9.271	9.271	1.107	80027	60.69	ng/uL 99
144) Aramite	185	9.688	9.683	0.905	34742	62.75	ng/uL 99
145) Kepone	272	10.175	10.169	0.951	80423	62.74	ng/uL 100
146) p-(Dimethylamino)azobe...	225	9.827	9.827	0.918	136458	62.57	ng/uL 99
147) Chlorobenzilate	251	9.859	9.859	0.921	209521	60.97	ng/uL 100
148) 2-Acetylaminofluorene	181	10.357	10.357	0.968	305793	63.23	ng/uL 99
150) 7,12-Dimethylbenz(a)an...	256	12.111	12.106	0.950	311579	61.86	ng/uL 100
151) 3-Methylcholanthrene	269	13.272	13.266	1.041	81631	62.01	ng/uL 99
153) Sulfolane	56	5.431	5.425	1.020	67324	60.98	ng/uL 99
155) Prometon	210	8.073	8.073	0.964	110050	61.62	ng/uL 99
156) Benzidine	184	9.506	9.506	1.135	501662	63.57	ng/uL 100
158) 3,3'-Dimethylbenzidine	212	10.116	10.116	0.945	493334	61.91	ng/uL 100
159) 3,3'-Dichlorobenzidine	252	10.661	10.656	0.996	297436	61.83	ng/uL 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1416.D
 Acq On : 14 Mar 2024 13:35
 Operator : LL2
 Sample : WBN240201-56 | ICAL | 1 | SVM | 1 | APX-10
 Misc : MIX[B,J]
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 15 08:40:10 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:10 2024
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1417.D
 Acq On : 14 Mar 2024 13:56
 Operator : LL2
 Sample : |WBN240201-57|ICAL|1|SVM|1|APX-6
 Misc : |MIX[B,J]
 ALS Vial : 17 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:45 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:45 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	106719	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	425448	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	211079	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	404721	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	397662	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	402321	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	425448	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	404721	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	397662	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
97) 1,4-Dioxane	88	1.462	1.467	0.375	112227	80.80	ng/uL	100
98) Methyl methacrylate	69	1.456	1.456	0.373	152623	81.19	ng/uL	99
99) Ethyl methacrylate	69	1.922	1.922	0.493	237836	81.34	ng/uL	100
100) 2-Picoline	93	2.173	2.179	0.557	309587	82.24	ng/uL	99
101) N-Nitrosomethylethylamine	88	2.243	2.243	0.575	120629	81.85	ng/uL	98
102) Methyl methanesulfonate	80	2.489	2.489	0.638	147860	80.51	ng/uL	99
103) N-Nitrosodiethylamine	102	2.836	2.836	0.727	127066	82.42	ng/uL	99
104) 2-Butoxyethanol	57	2.895	2.895	0.742	282579	83.83	ng/uL	99
105) Ethyl methanesulfonate	79	3.109	3.109	0.797	226907	82.18	ng/uL	100
106) Benzaldehyde	77	3.457	3.457	0.886	223516	80.93	ng/uL	100
107) Pentachloroethane	167	3.612	3.612	0.926	118863	81.50	ng/uL	100
108) N-Nitrosopyrrolidine	100	4.313	4.313	1.106	140302	83.15	ng/uL	100
109) Acetophenone	105	4.339	4.334	1.112	413545	81.64	ng/uL	99
110) N-Nitrosomorpholine	56	4.361	4.355	1.118	132940	82.09	ng/uL	99
111) o-Toluidine	106	4.377	4.377	1.122	462176	81.62	ng/uL	99
113) N-Nitrosopiperidine	114	4.698	4.698	0.882	143709	82.39	ng/uL	99
114) a,a-Dimethylphenethyla...	58	5.131	5.126	0.964	631158	84.80	ng/uL	100
115) 2,6-Dichlorophenol	162	5.420	5.414	1.018	237346	82.25	ng/uL	99
116) Hexachloropropene	213	5.441	5.441	1.022	172692	82.85	ng/uL	99
117) Caprolactam	113	5.773	5.757	1.084	75155	84.18	ng/uL	98
118) N-Nitrosodi-n-butylamine	57	5.778	5.778	1.085	130738	81.87	ng/uL	99
119) Safrole	162	5.997	5.997	1.127	216550	82.27	ng/uL	100
121) 1,2,4,5-Tetrachloroben...	216	6.243	6.244	0.883	267296	81.85	ng/uL	100
122) 1,1-Biphenyl	154	6.543	6.543	0.925	691040	81.10	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1417.D
Acq On : 14 Mar 2024 13:56
Operator : LL2
Sample : |WBN240201-57|ICAL|1|SVM|1|APX-6
Misc : |MIX[B,J]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 15 08:39:45 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:45 2024
Response via : Initial Calibration

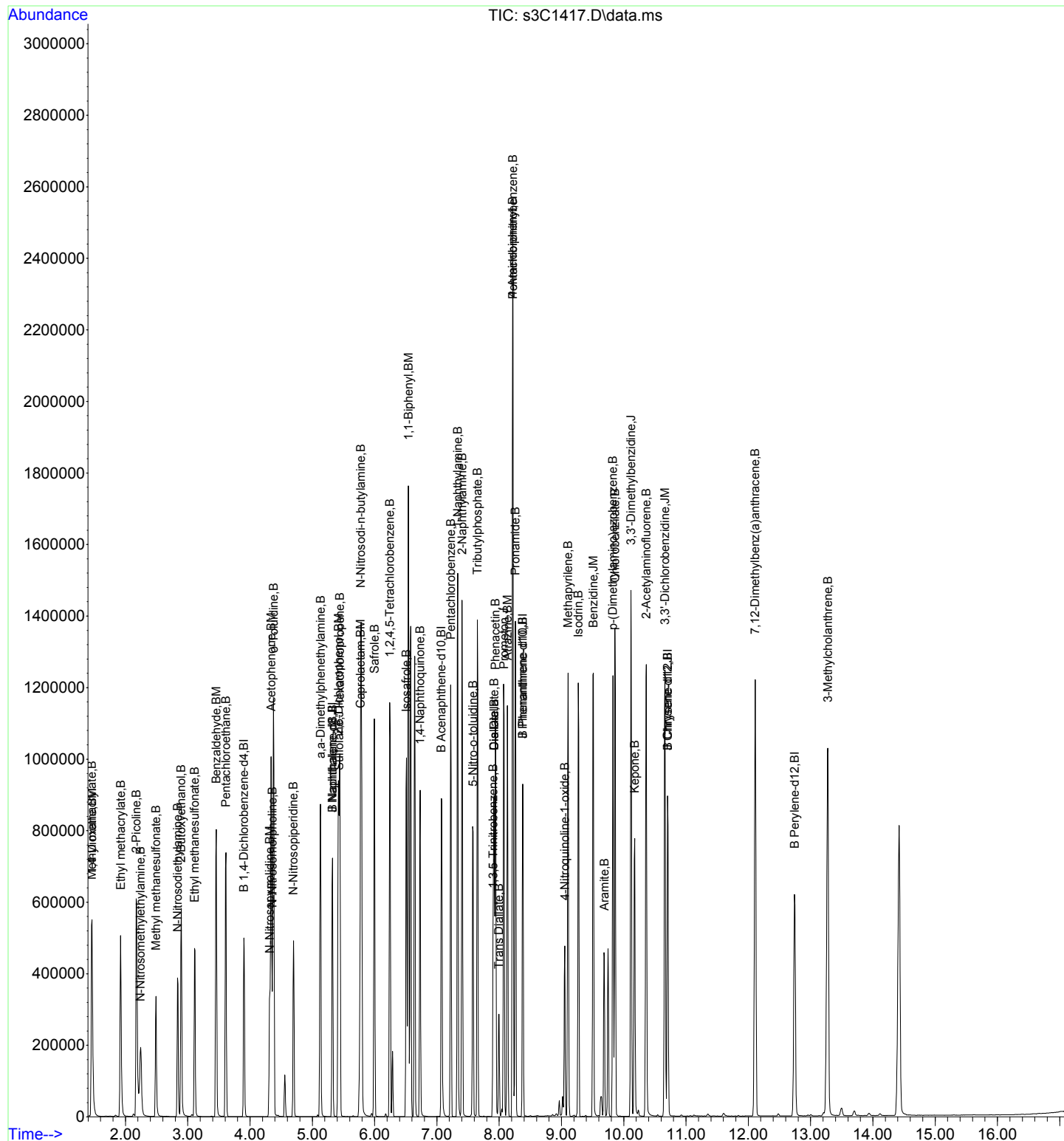
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
123) Isosafrole	162	6.511	6.506	0.921	225486	81.36	ng/uL	99
124) 1,4-Naphthoquinone	158	6.730	6.730	0.952	218150	84.63	ng/uL	98
125) Pentachlorobenzene	250	7.222	7.222	1.021	236940	80.55	ng/uL	99
126) 1-Naphthylamine	143	7.335	7.329	1.037	589829	81.14	ng/uL	100
127) 2-Naphthylamine	143	7.404	7.404	1.047	599885	80.52	ng/uL	100
128) 5-Nitro-o-toluidine	152	7.581	7.575	1.072	174181	83.85	ng/uL	98
129) Tributylphosphate	99	7.650	7.650	1.082	796751	82.04	ng/uL	99
131) 1,3,5-Trinitrobenzene	75	7.902	7.902	0.943	139836	85.38	ng/uL	99
132) Phenacetin	108	7.939	7.934	0.948	318475	83.94	ng/uL	100
133) Diallate	86	7.918	7.918	0.945	183940	81.22	ng/uL	83
134) Cis Diallate	86	7.918	7.918	0.945	183940	69.04	ng/uL	84
135) Trans Diallate	86	7.992	7.993	0.954	63682	12.18	ng/uL	99
136) Atrazine	200	8.132	8.132	0.971	166623	81.77	ng/uL	98
137) 4-Aminobiphenyl	169	8.217	8.217	0.981	719012	81.75	ng/uL	99
138) Pentachloronitrobenzene	237	8.222	8.217	0.981	73899	83.44	ng/uL	98
139) Pronamide	173	8.260	8.260	0.986	296907	82.31	ng/uL	99
140) 4-Nitroquinoline-1-oxide	128	9.051	9.046	1.080	27507	81.11	ng/uL	97
141) Methapyrilene	97	9.105	9.105	1.087	335713	81.72	ng/uL	100
142) Isodrin	193	9.271	9.271	1.107	104731	80.88	ng/uL	99
144) Aramite	185	9.688	9.683	0.905	45392	85.58	ng/uL	98
145) Kepone	272	10.175	10.169	0.951	102961	83.84	ng/uL	100
146) p-(Dimethylamino)azobe...	225	9.827	9.827	0.918	176322	84.39	ng/uL	98
147) Chlorobenzilate	251	9.859	9.859	0.921	274794	83.47	ng/uL	98
148) 2-Acetylaminofluorene	181	10.362	10.357	0.968	396111	85.50	ng/uL	100
150) 7,12-Dimethylbenz(a)an...	256	12.111	12.106	0.950	399592	83.19	ng/uL	99
151) 3-Methylcholanthrene	269	13.277	13.266	1.042	105963	84.40	ng/uL	100
153) Sulfolane	56	5.430	5.425	1.020	89385	80.25	ng/uL	99
155) Prometon	210	8.078	8.073	0.964	144250	82.25	ng/uL	99
156) Benzidine	184	9.511	9.506	1.135	635105	81.95	ng/uL	100
158) 3,3'-Dimethylbenzidine	212	10.116	10.116	0.945	626590	82.08	ng/uL	99
159) 3,3'-Dichlorobenzidine	252	10.661	10.656	0.996	381743	82.83	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

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Data Path   : C:\msdchem\1\data\S031424ICAL\  
Data File   : s3C1417.D  
Acq On      : 14 Mar 2024   13:56  
Operator    : LL2  
Sample      : |WBN240201-57|ICAL|1|SVM|1|APX-6  
Misc        : |MIX[B,J]  
ALS Vial    : 17      Sample Multiplier: 1
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Quant Time: Mar 15 08:39:45 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:45 2024
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1418.D
 Acq On : 14 Mar 2024 14:17
 Operator : LL2
 Sample : |WBN240201-58|ICAL|1|SVM|1|APX-7
 Misc : |MIX[B,J]
 ALS Vial : 18 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:58 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:57 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.747	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	105325	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	415822	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	206632	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	405589	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	401209	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.747	12.742	1.000	408509	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	415822	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	405589	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	401209	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.747	12.758	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
97) 1,4-Dioxane	88	1.462	1.467	0.375	135417	98.79	ng/uL	100
98) Methyl methacrylate	69	1.456	1.456	0.373	183272	98.79	ng/uL	99
99) Ethyl methacrylate	69	1.922	1.922	0.493	286775	99.37	ng/uL	100
100) 2-Picoline	93	2.173	2.179	0.557	374761	100.88	ng/uL	100
101) N-Nitrosomethylethylamine	88	2.243	2.243	0.575	146160	100.49	ng/uL	98
102) Methyl methanesulfonate	80	2.489	2.489	0.638	177789	98.09	ng/uL	99
103) N-Nitrosodiethylamine	102	2.842	2.836	0.729	154165	101.32	ng/uL	99
104) 2-Butoxyethanol	57	2.895	2.895	0.742	342885	103.07	ng/uL	99
105) Ethyl methanesulfonate	79	3.114	3.109	0.798	271948	99.79	ng/uL	100
106) Benzaldehyde	77	3.457	3.457	0.886	264978	97.21	ng/uL	100
107) Pentachloroethane	167	3.612	3.612	0.926	144948	100.70	ng/uL	100
108) N-Nitrosopyrrolidine	100	4.318	4.313	1.107	171698	103.11	ng/uL	100
109) Acetophenone	105	4.339	4.334	1.112	502357	100.49	ng/uL	99
110) N-Nitrosomorpholine	56	4.366	4.355	1.119	161158	100.83	ng/uL	99
111) o-Toluidine	106	4.377	4.377	1.122	556725	99.61	ng/uL	99
113) N-Nitrosopiperidine	114	4.703	4.698	0.883	174701	102.48	ng/uL	99
114) a,a-Dimethylphenethyla...	58	5.131	5.126	0.964	795697	109.39	ng/uL	100
115) 2,6-Dichlorophenol	162	5.420	5.414	1.018	290711	103.08	ng/uL	100
116) Hexachloropropene	213	5.441	5.441	1.022	210487	103.32	ng/uL	99
117) Caprolactam	113	5.778	5.757	1.085	93657	107.33	ng/uL	97
118) N-Nitrosodi-n-butylamine	57	5.778	5.778	1.085	160065	102.55	ng/uL	99
119) Safrole	162	5.997	5.997	1.127	264252	102.71	ng/uL	100
121) 1,2,4,5-Tetrachloroben...	216	6.249	6.244	0.884	327344	102.40	ng/uL	100
122) 1,1-Biphenyl	154	6.543	6.543	0.925	839914	100.70	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1418.D
Acq On : 14 Mar 2024 14:17
Operator : LL2
Sample : |WBN240201-58|ICAL|1|SVM|1|APX-7
Misc : |MIX[B,J]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 15 08:39:58 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:57 2024
Response via : Initial Calibration

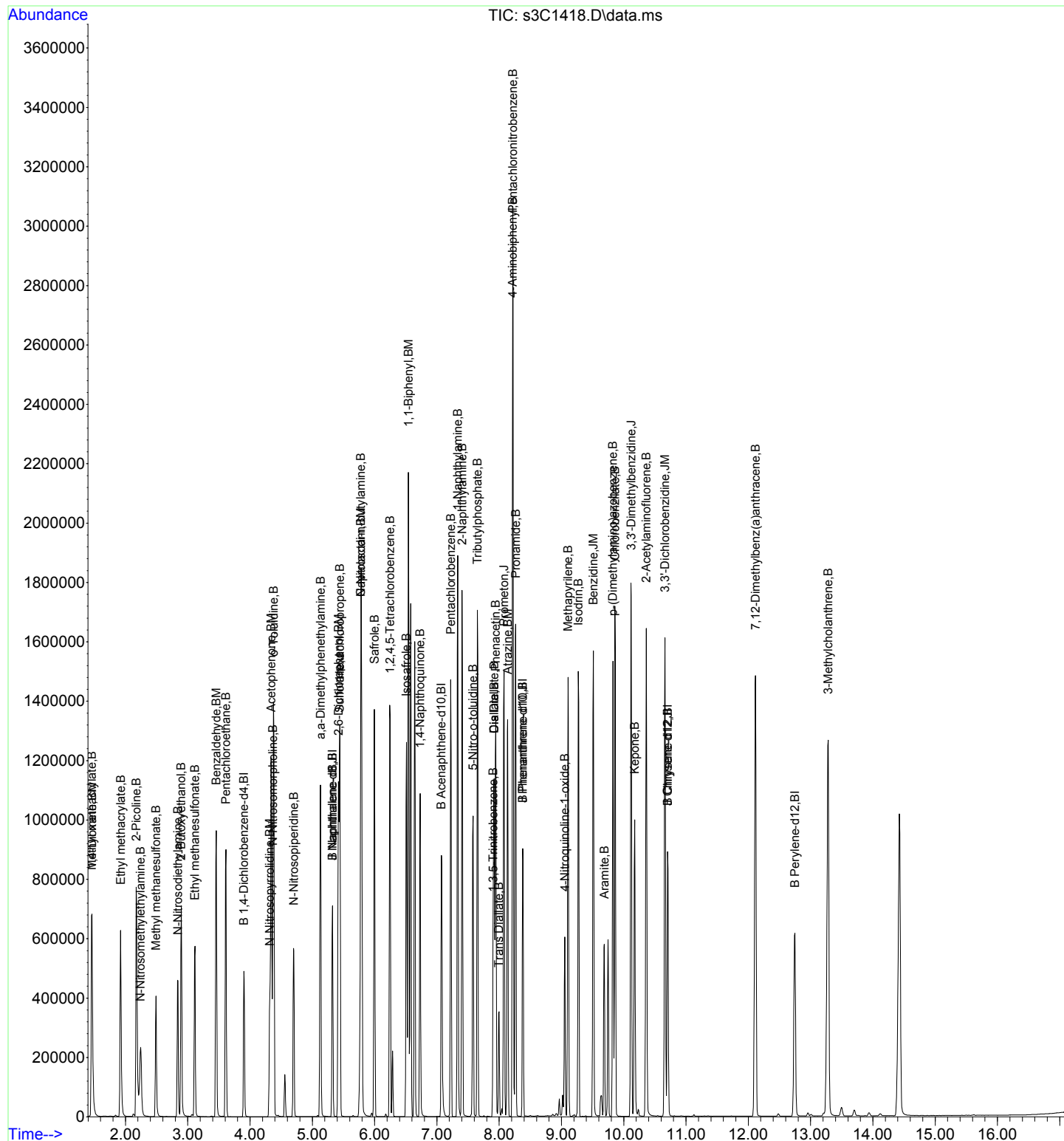
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
123) Isosafrole	162	6.511	6.506	0.921	279702	103.09	ng/uL	100
124) 1,4-Naphthoquinone	158	6.730	6.730	0.952	265852	105.36	ng/uL	99
125) Pentachlorobenzene	250	7.222	7.222	1.021	294877	102.40	ng/uL	99
126) 1-Naphthylamine	143	7.335	7.329	1.037	725975	102.02	ng/uL	100
127) 2-Naphthylamine	143	7.404	7.404	1.047	743666	101.96	ng/uL	100
128) 5-Nitro-o-toluidine	152	7.581	7.575	1.072	216459	106.44	ng/uL	99
129) Tributylphosphate	99	7.650	7.650	1.082	997343	104.90	ng/uL	99
131) 1,3,5-Trinitrobenzene	75	7.901	7.902	0.943	179760	109.53	ng/uL	98
132) Phenacetin	108	7.944	7.934	0.948	384818	101.21	ng/uL	99
133) Diallate	86	7.918	7.918	0.945	228175	100.54	ng/uL#	79
134) Cis Diallate	86	7.918	7.918	0.945	228175	85.46	ng/uL	81
135) Trans Diallate	86	7.992	7.993	0.954	78941	15.07	ng/uL	98
136) Atrazine	200	8.137	8.132	0.971	202166	98.99	ng/uL	99
137) 4-Aminobiphenyl	169	8.217	8.217	0.981	885285	100.44	ng/uL	99
138) Pentachloronitrobenzene	237	8.222	8.217	0.981	91670	103.28	ng/uL	99
139) Pronamide	173	8.265	8.260	0.987	368677	101.99	ng/uL	99
140) 4-Nitroquinoline-1-oxide	128	9.051	9.046	1.080	33691	99.13	ng/uL	97
141) Methapyrilene	97	9.105	9.105	1.087	410122	99.62	ng/uL	99
142) Isodrin	193	9.271	9.271	1.107	131136	101.06	ng/uL	98
144) Aramite	185	9.688	9.683	0.905	57249	106.98	ng/uL	99
145) Kepone	272	10.175	10.169	0.951	127989	103.30	ng/uL	99
146) p-(Dimethylamino)azobe...	225	9.827	9.827	0.918	220894	104.79	ng/uL	98
147) Chlorobenzilate	251	9.859	9.859	0.921	343912	103.54	ng/uL	99
148) 2-Acetylaminofluorene	181	10.362	10.357	0.968	507658	108.60	ng/uL	99
150) 7,12-Dimethylbenz(a)an...	256	12.116	12.106	0.950	509870	104.54	ng/uL	99
151) 3-Methylcholanthrene	269	13.282	13.266	1.042	134336	105.37	ng/uL	99
153) Sulfolane	56	5.436	5.425	1.021	109350	100.45	ng/uL	99
155) Prometon	210	8.078	8.073	0.964	179106	101.91	ng/uL	98
156) Benzidine	184	9.511	9.506	1.135	792311	102.01	ng/uL	100
158) 3,3'-Dimethylbenzidine	212	10.121	10.116	0.946	790154	102.59	ng/uL	99
159) 3,3'-Dichlorobenzidine	252	10.661	10.656	0.996	486660	104.66	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1418.D
Acq On : 14 Mar 2024 14:17
Operator : LL2
Sample : |WBN240201-58|ICAL|1|SVM|1|APX-7
Misc : |MIX[B,J]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 15 08:39:58 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:39:57 2024
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1419.D
 Acq On : 14 Mar 2024 14:39
 Operator : LL2
 Sample : |WBN240201-59|ICAL|1|SVM|1|APX-8
 Misc : |MIX[B,J]
 ALS Vial : 19 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:40:05 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:05 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.073	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.383	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.747	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	104154	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	416775	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.073	7.073	1.000	207865	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.383	8.378	1.000	399976	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	402634	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.747	12.742	1.000	408662	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	416775	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.383	8.378	1.000	399976	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	402634	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.383	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.747	12.758	1.000	0m	40.00	ng/uL	-0.01

System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
97) 1,4-Dioxane	88	1.462	1.467	0.375	161818	119.38	ng/uL	99
98) Methyl methacrylate	69	1.456	1.456	0.373	221561	120.77	ng/uL	99 A
99) Ethyl methacrylate	69	1.922	1.922	0.493	348473	122.11	ng/uL	100 A
100) 2-Picoline	93	2.173	2.179	0.557	455798	124.07	ng/uL	100 A
101) N-Nitrosomethylethylamine	88	2.243	2.243	0.575	178765	124.29	ng/uL	99 A
102) Methyl methanesulfonate	80	2.489	2.489	0.638	214054	119.43	ng/uL	99
103) N-Nitrosodiethylamine	102	2.842	2.836	0.729	187888	124.87	ng/uL	100 A
104) 2-Butoxyethanol	57	2.895	2.895	0.742	421023	127.98	ng/uL	99 A
105) Ethyl methanesulfonate	79	3.115	3.109	0.798	331086	122.86	ng/uL	99 A
106) Benzaldehyde	77	3.457	3.457	0.886	311639	115.61	ng/uL	99
107) Pentachloroethane	167	3.612	3.612	0.926	176492	123.99	ng/uL	99 A
108) N-Nitrosopyrrolidine	100	4.318	4.313	1.107	210575	127.88	ng/uL	99 A
109) Acetophenone	105	4.339	4.334	1.112	606940	122.77	ng/uL	99 A
110) N-Nitrosomorpholine	56	4.366	4.355	1.119	195758	123.86	ng/uL	100 A
111) o-Toluidine	106	4.382	4.377	1.123	677544	122.59	ng/uL	99 A
113) N-Nitrosopiperidine	114	4.703	4.698	0.883	212581	124.42	ng/uL	99 A
114) a,a-Dimethylphenethyla...	58	5.131	5.126	0.964	973297	133.50	ng/uL	100 A
115) 2,6-Dichlorophenol	162	5.420	5.414	1.018	354235	125.32	ng/uL	99 A
116) Hexachloropropene	213	5.441	5.441	1.022	255735	125.25	ng/uL	99 A
117) Caprolactam	113	5.784	5.757	1.086	114613	131.04	ng/uL	96 A
118) N-Nitrosodi-n-butylamine	57	5.784	5.778	1.086	192264	122.90	ng/uL	98 A
119) Safrole	162	5.997	5.997	1.127	320838	124.42	ng/uL	100 A
121) 1,2,4,5-Tetrachloroben...	216	6.249	6.244	0.884	395076	122.86	ng/uL	100 A
122) 1,1-Biphenyl	154	6.543	6.543	0.925	1018886	121.43	ng/uL	99 A

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1419.D
Acq On : 14 Mar 2024 14:39
Operator : LL2
Sample : |WBN240201-59|ICAL|1|SVM|1|APX-8
Misc : |MIX[B,J]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 15 08:40:05 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:05 2024
Response via : Initial Calibration

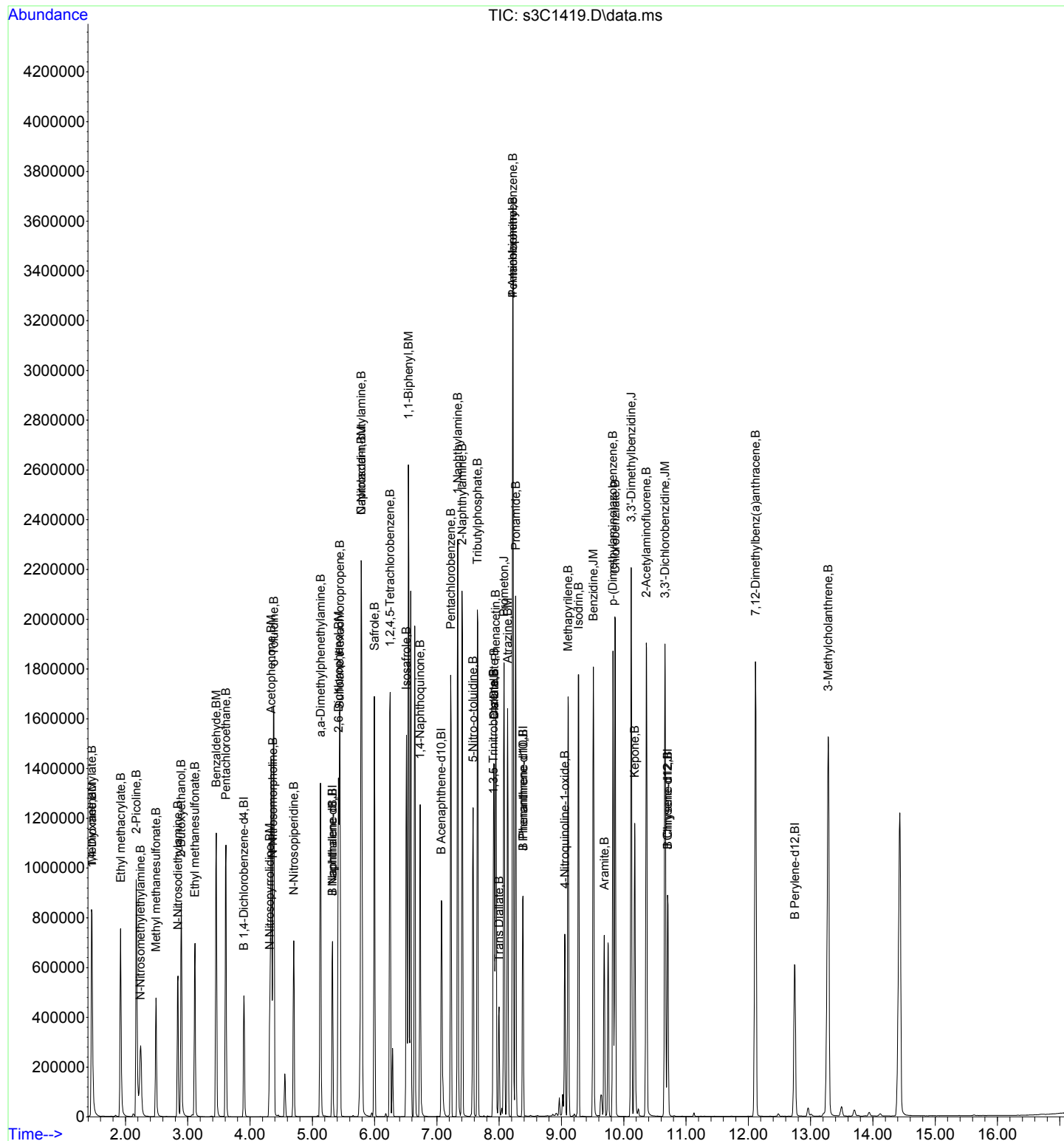
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
123) Isosafrole	162	6.511	6.506	0.921	344080	126.07	ng/uL	100 A
124) 1,4-Naphthoquinone	158	6.730	6.730	0.952	312359	123.06	ng/uL	99 A
125) Pentachlorobenzene	250	7.222	7.222	1.021	359900	124.24	ng/uL	99 A
126) 1-Naphthylamine	143	7.335	7.329	1.037	890838	124.44	ng/uL	100 A
127) 2-Naphthylamine	143	7.404	7.404	1.047	912684	124.40	ng/uL	100 A
128) 5-Nitro-o-toluidine	152	7.581	7.575	1.072	269567	131.77	ng/uL	98 A
129) Tributylphosphate	99	7.650	7.650	1.082	1218156	127.37	ng/uL	99 A
131) 1,3,5-Trinitrobenzene	75	7.907	7.902	0.943	218788	135.18	ng/uL	98 A
132) Phenacetin	108	7.944	7.934	0.948	475578	126.83	ng/uL	99 A
133) Diallate	86	7.918	7.918	0.944	279855	125.04	ng/uL#	77 A
134) Cis Diallate	86	7.918	7.918	0.944	279855	106.28	ng/uL#	78 A
135) Trans Diallate	86	7.998	7.993	0.954	95836	18.55	ng/uL	99 A
136) Atrazine	200	8.137	8.132	0.971	247937	123.11	ng/uL	98 A
137) 4-Aminobiphenyl	169	8.217	8.217	0.980	1083041	124.60	ng/uL	99 A
138) Pentachloronitrobenzene	237	8.223	8.217	0.981	111607	127.51	ng/uL	99 A
139) Pronamide	173	8.265	8.260	0.986	447314	125.48	ng/uL	99 A
140) 4-Nitroquinoline-1-oxide	128	9.052	9.046	1.080	36298	108.30	ng/uL	93
141) Methapyrilene	97	9.105	9.105	1.086	489566	120.58	ng/uL	100 A
142) Isodrin	193	9.276	9.271	1.107	160893	125.73	ng/uL	98 A
144) Aramite	185	9.688	9.683	0.905	70405	131.10	ng/uL	99 A
145) Kepone	272	10.175	10.169	0.951	158440	127.43	ng/uL	100 A
146) p-(Dimethylamino)azobe...	225	9.827	9.827	0.918	272757	128.94	ng/uL	98 A
147) Chlorobenzilate	251	9.865	9.859	0.922	422905	126.87	ng/uL	98 A
148) 2-Acetylaminofluorene	181	10.362	10.357	0.968	629974	134.29	ng/uL	100 A
150) 7,12-Dimethylbenz(a)an...	256	12.116	12.106	0.950	623087	127.70	ng/uL	99 A
151) 3-Methylcholanthrene	269	13.282	13.266	1.042	166825	130.81	ng/uL	100 A
153) Sulfolane	56	5.436	5.425	1.021	132188	121.16	ng/uL	98 A
155) Prometon	210	8.078	8.073	0.964	220760	127.37	ng/uL	98 A
156) Benzidine	184	9.512	9.506	1.135	960377	125.39	ng/uL	99 A
158) 3,3'-Dimethylbenzidine	212	10.121	10.116	0.946	937860	121.33	ng/uL	99 A
159) 3,3'-Dichlorobenzidine	252	10.661	10.656	0.996	592834	127.05	ng/uL	100 A

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1419.D
Acq On : 14 Mar 2024 14:39
Operator : LL2
Sample : |WBN240201-59|ICAL|1|SVM|1|APX-8
Misc : |MIX[B,J]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 15 08:40:05 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:05 2024
Response via : Initial Calibration



Continuing Calibration Summary

Instrument ID: MSD3.I
Data File: S031424ICAL\s3C1420.D
Lab Sample ID WBN240221-20
Quant Type ISTD

Client SDG: 660968
Injection Date: 14-MAR-24 15:00
Init. Cal. Date(s) 14-MAR-24 08:17 - 14-MAR-24 19:20
Method: S031424ICAL\MSD3_8270_031424.m
Method Update: 15-MAR-24 08:40

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,4-Dioxane	0.5206	0.53591		.01		2.94084	20		Averaged
Methyl methacrylate	0.7046	0.74974		.01		6.40647	20		Averaged
Ethyl methacrylate	1.096	1.12689		.01		2.81843	20		Averaged
2-Picoline	1.4109	1.45981		.01		3.46658	20		Averaged
N-Nitrosomethylethylamine	0.5524	0.57903		.01		4.82078	20		Averaged
Methyl methanesulfonate	0.6883	0.74433		.01		8.14035	20		Averaged
N-Nitrosodiethylamine	0.5779	0.60857		.01		5.30715	20		Averaged
Ethyl Methanesulfonate	1.0349	1.10562		.01		6.83351	20		Averaged
Pentachloroethane	0.5467	0.57417		.01		5.02469	20		Averaged
N-Nitrosopyrrolidine	0.6324	0.69226		.01		9.46553	20		Averaged
Acetophenone	1.8986	2.0544		.01		8.20605	20		Averaged
N-Nitrosomorpholine	0.607	0.64524		.01		6.29984	20		Averaged
o-Toluidine	2.1225	2.26439		.01		6.68504	20		Averaged
N-Nitrosopiperidine	0.164	0.17937		.01		9.37195	20		Averaged
a,a-Dimethylphenethylamine	0.6997	0.67165		.01		-4.00886	20		Averaged
2,6-Dichlorophenol	0.2713	0.28971		.01		6.78585	20		Averaged
Hexachloropropene	0.196	0.20465		.01		4.41327	20		Averaged
N-Nitrosodi-n-butylamine	0.1501	0.15873		.01		5.7495	20		Averaged
Safrole	0.2475	0.24209		.01		-2.18586	20		Averaged
1,2,4,5-Tetrachlorobenzene	0.6188	0.66205		.01		6.98933	20		Averaged
Isosafrole	0.5252	0.54624		.01		4.00609	20		Averaged
1,4-Naphthoquinone	0.4885	0.52868		.01		8.22518	20		Averaged
Pentachlorobenzene	0.5574	0.62545		.01		12.20847	20		Averaged
1-Naphthylamine	1.3776	1.45646		.01		5.72445	20		Averaged
2-Naphthylamine	1.4119	1.49778		.01		6.08258	20		Averaged
5-Nitro-o-toluidine	0.3937	0.41095		.01		4.38151	20		Averaged
Tributylphosphate	1.8405	2.06938		.01		12.43575	20		Averaged
1,3,5-Trinitrobenzene	0.1619	0.1703		.01		5.18839	20		Averaged
Diallate	0.2238	0.26341		.01		17.69884	20		Averaged
Phenacetin	0.375	0.40446		.01		7.856	20		Averaged
4-Aminobiphenyl	0.8692	0.88496		.01		1.81316	20		Averaged
Pentachloronitrobenzene	0.0875	0.09406		.01		7.49714	20		Averaged
Pronamide	0.3565	0.387		.01		8.5554	20		Averaged
4-Nitroquinoline-1-oxide	0.0335	0.03923		.01		17.10448	20		Averaged
Methapyrilene	0.406	0.29193		.01		-28.09606	20	*	Averaged
Isodrin	0.128	0.13471		.01		5.24219	20		Averaged
Aramite	0.0534	0.06239		.01		16.83521	20		Averaged

Continuing Calibration Summary

Instrument ID: MSD3.I

Injection Date: 14-MAR-24 15:00

Data File: S031424ICAL\s3C1420.D

Init. Cal. Date(s) 14-MAR-24 08:17 14-MAR-24 19:20

Lab Sample ID WBN240221-20

Method: S031424ICAL\MSD3_8270_031424.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
p-(Dimethylamino)azobenzene	0.2102	0.23207		.01		10.40438	20		Averaged
Chlorobenzilate	0.3311	0.357		.01		7.82241	20		Averaged
3,3'-Dimethylbenzidine	0.7679	0.88324		.01		15.02018	20		Averaged
Kepone	0.1235	0.1149		.01		-6.96356	20		Averaged
2-Acetylaminofluorene	0.466	0.48843		.01		4.8133	20		Averaged
3,3'-Dichlorobenzidine	0.4636	0.54419		.01		17.38352	20		Averaged
7,12Dimethylbenz(a)anthracene	0.4776	0.51814		.01		8.48827	20		Averaged
3-Methylcholanthrene	0.1248	0.1289		.01		3.28526	20		Averaged

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1420.D
 Acq On : 14 Mar 2024 15:00
 Operator : LL2
 Sample : |WBN240221-20|ICV|1|SVM|1|APX-ICV
 Misc : |MIX[B,J]
 ALS Vial : 20 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:50:36 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	90857	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	359429	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	177042	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	345934	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	343487	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	345416	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	90857	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	359429	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	177042	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	345934	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	343487	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	345416	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	359429	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	345934	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	343487	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	359429	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	177042	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	345934	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	343487	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	359429	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	345416	40.00	ng/uL	-0.02

System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	

Target Compounds								
97) 1,4-Dioxane	88	1.462	1.467	0.375	48691	41.18	ng/uL	QValue
98) Methyl methacrylate	69	1.456	1.456	0.373	68119	42.57	ng/uL	99
99) Ethyl methacrylate	69	1.922	1.922	0.493	102386	41.13	ng/uL	100
100) 2-Picoline	93	2.178	2.179	0.558	132634	41.39	ng/uL	100
101) N-Nitrosomethylethylamine	88	2.243	2.243	0.575	52609	41.93	ng/uL	99
102) Methyl methanesulfonate	80	2.489	2.489	0.638	67628	43.25	ng/uL	99
103) N-Nitrosodiethylamine	102	2.836	2.836	0.727	55293	42.13	ng/uL	98
104) 2-Butoxyethanol	57	2.895	2.895	0.742	114774	39.99	ng/uL	99
105) Ethyl methanesulfonate	79	3.109	3.109	0.797	100453	42.73	ng/uL	98
106) Benzaldehyde	77	3.451	3.457	0.885	103995	44.23	ng/uL	99
107) Pentachloroethane	167	3.612	3.612	0.926	52167	42.01	ng/uL	98
108) N-Nitrosopyrrolidine	100	4.307	4.313	1.104	62897	43.79	ng/uL	99
109) Acetophenone	105	4.334	4.334	1.111	186657	43.28	ng/uL	100
110) N-Nitrosomorpholine	56	4.355	4.355	1.117	58625	42.52	ng/uL	99
111) o-Toluidine	106	4.371	4.377	1.121	205736	42.67	ng/uL	100
113) N-Nitrosopiperidine	114	4.698	4.698	0.882	64469	43.75	ng/uL	99
114) a,a-Dimethylphenethyla...	58	5.125	5.126	0.963	241411	38.39	ng/uL	100
115) 2,6-Dichlorophenol	162	5.414	5.414	1.017	104131	42.72	ng/uL	99
116) Hexachloropropene	213	5.441	5.441	1.022	73557	41.77	ng/uL	99
117) Caprolactam	113	5.757	5.757	1.081	31546	41.82	ng/uL	97
118) N-Nitrosodi-n-butylamine	57	5.773	5.778	1.084	57052	42.29	ng/uL	96
119) Safrole	162	5.992	5.997	1.126	87013	39.13	ng/uL	100
121) 1,2,4,5-Tetrachloroben...	216	6.243	6.244	0.883	117210	42.79	ng/uL	100
122) 1,1-Biphenyl	154	6.538	6.543	0.924	307047	42.96	ng/uL	100

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1420.D
Acq On : 14 Mar 2024 15:00
Operator : LL2
Sample : |WBN240221-20|ICV|1|SVM|1|APX-ICV
Misc : |MIX[B,J]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 15 08:50:36 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

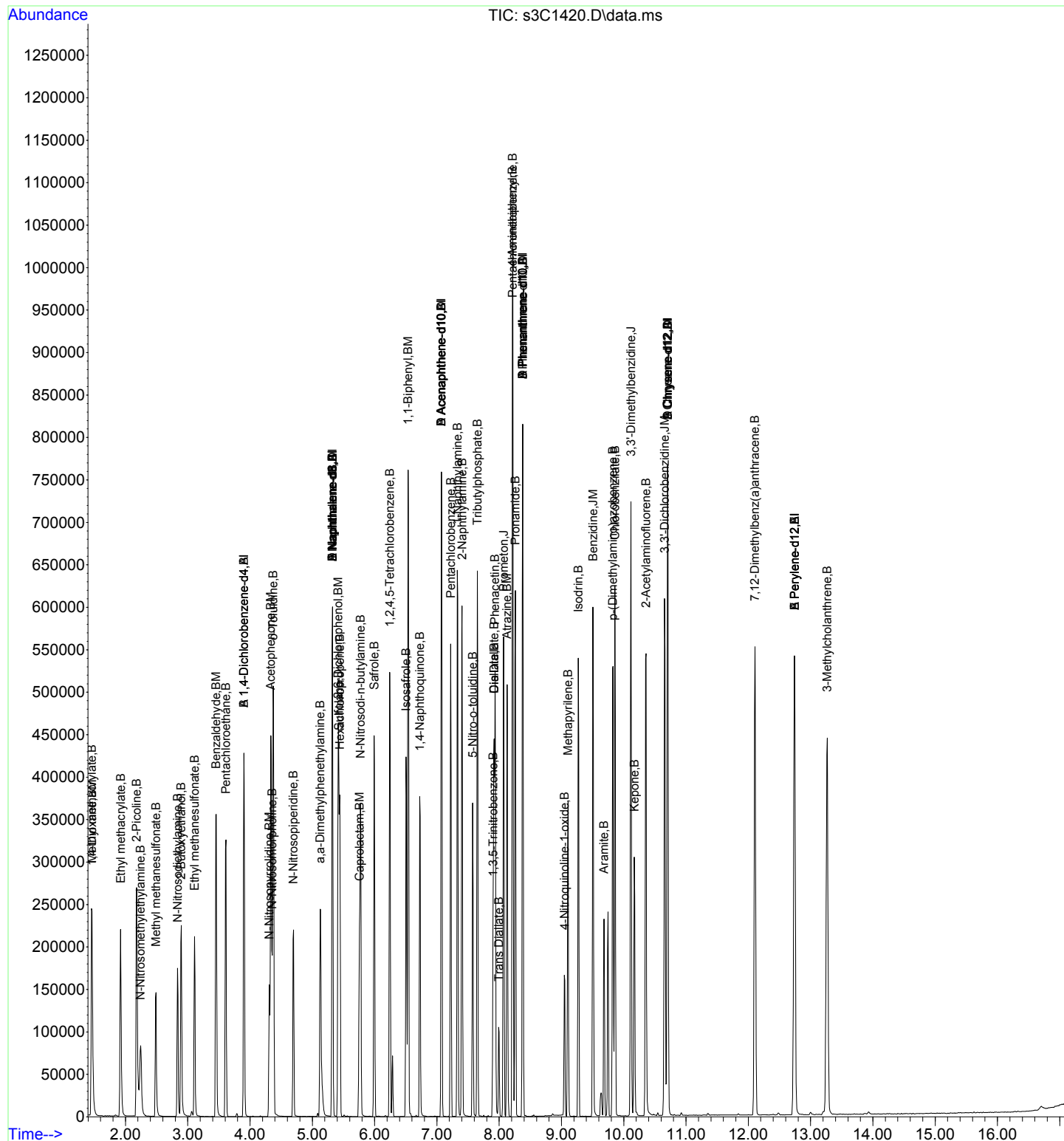
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
123) Isosafrole	162	6.505	6.506	0.920	96707	41.60	ng/uL	99
124) 1,4-Naphthoquinone	158	6.725	6.730	0.951	93599	43.29	ng/uL	99
125) Pentachlorobenzene	250	7.222	7.222	1.021	110731	44.88	ng/uL	99
126) 1-Naphthylamine	143	7.329	7.329	1.036	257854	42.29	ng/uL	99
127) 2-Naphthylamine	143	7.404	7.404	1.047	265170	42.43	ng/uL	100
128) 5-Nitro-o-toluidine	152	7.575	7.575	1.071	72755	41.76	ng/uL	99
129) Tributylphosphate	99	7.650	7.650	1.082	366367	44.97	ng/uL	100
131) 1,3,5-Trinitrobenzene	75	7.901	7.902	0.943	58914	42.09	ng/uL	99
132) Phenacetin	108	7.934	7.934	0.947	139917	43.14	ng/uL	99
133) Diallate	86	7.917	7.918	0.945	91124	47.07	ng/uL	98
134) Cis Diallate	86	7.917	7.918	0.945	91124	40.01	ng/uL	98
135) Trans Diallate	86	7.992	7.993	0.954	23753	5.31	ng/uL	99
136) Atrazine	200	8.126	8.132	0.970	72271	41.49	ng/uL	100
137) 4-Aminobiphenyl	169	8.212	8.217	0.980	306138	40.72	ng/uL	100
138) Pentachloronitrobenzene	237	8.217	8.217	0.981	32539	42.98	ng/uL	99
139) Pronamide	173	8.260	8.260	0.986	133877	43.42	ng/uL	100
140) 4-Nitroquinoline-1-oxide	128	9.046	9.046	1.080	13572	46.82	ng/uL	94
141) Methapyrilene	97	9.105	9.105	1.087	100988	28.76	ng/uL	100
142) Isodrin	193	9.271	9.271	1.107	46602	42.11	ng/uL	99
144) Aramite	185	9.683	9.683	0.905	21429	46.77	ng/uL	99
145) Kepone	272	10.169	10.169	0.950	39466	37.21	ng/uL	100
146) p-(Dimethylamino)azobe...	225	9.827	9.827	0.918	79713	44.17	ng/uL	98
147) Chlorobenzilate	251	9.859	9.859	0.921	122626	43.12	ng/uL	99
148) 2-Acetylaminofluorene	181	10.356	10.357	0.968	167768	41.92	ng/uL	99
150) 7,12-Dimethylbenz(a)an...	256	12.105	12.106	0.950	178973	43.40	ng/uL	100
151) 3-Methylcholanthrene	269	13.266	13.266	1.041	44524	41.30	ng/uL	99
153) Sulfolane	56	5.425	5.425	1.019	44206	46.98	ng/uL	99
155) Prometon	210	8.073	8.073	0.964	66576	44.41	ng/uL	98
156) Benzidine	184	9.506	9.506	1.135	286358	43.23	ng/uL	99
158) 3,3'-Dimethylbenzidine	212	10.116	10.116	0.945	303381	46.01	ng/uL	100
159) 3,3'-Dichlorobenzidine	252	10.656	10.656	0.996	186921	46.96	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

```
Data Path   : C:\msdchem\1\data\S031424ICAL\  
Data File   : s3C1420.D  
Acq On      : 14 Mar 2024   15:00  
Operator    : LL2  
Sample      : |WBN240221-20|ICV|1|SVM|1|APX-ICV  
Misc        : |MIX[B,J]  
ALS Vial    : 20      Sample Multiplier: 1
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Quant Time: Mar 15 08:50:36 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration



Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1421.D
 Acq On : 14 Mar 2024 15:22
 Operator : LL2
 Sample : |WBN240227-27.1|ICAL|1|SVM|1|P-2
 Misc : |MIX[D]
 ALS Vial : 21 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:21 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:20 2024
 Response via : Initial Calibration

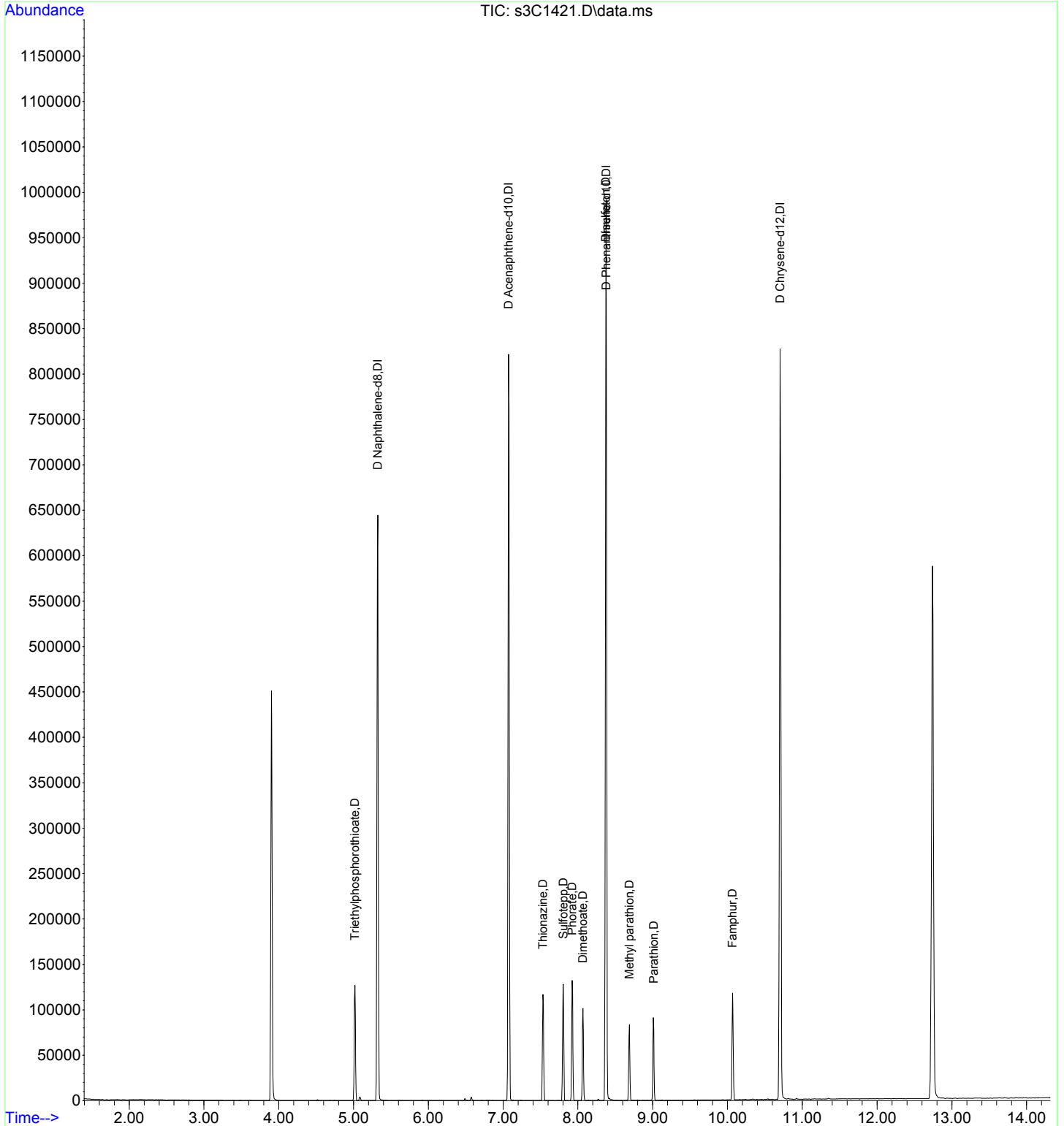
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	389680	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	192045	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	386581	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	367705	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								
161) Triethylphosphorothioate	198	5.019	5.019	0.943	15828	9.89	ng/uL	100
163) Thionazine	107	7.532	7.533	1.065	10961	9.57	ng/uL	98
165) Sulfotepp	322	7.805	7.805	0.932	10917	9.63	ng/uL	98
166) Phorate	75	7.923	7.923	0.946	43549	9.91	ng/uL	100
167) Dimethoate	87	8.067	8.067	0.963	25909	9.17	ng/uL	99
168) Disulfoton	88	8.372	8.372	0.999	41149	10.34	ng/uL	98
169) Methyl parathion	109	8.688	8.688	1.037	18412	8.24	ng/uL	96
170) Parathion	291	9.014	9.014	1.076	5481	7.92	ng/uL	92
172) Famphur	218	10.068	10.073	0.941	40169	9.10	ng/uL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1421.D
 Acq On : 14 Mar 2024 15:22
 Operator : LL2
 Sample : |WBN240227-27.1|ICAL|1|SVM|1|P-2
 Misc : |MIX[D]
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 15 08:39:21 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:20 2024
 Response via : Initial Calibration



Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1422.D
 Acq On : 14 Mar 2024 15:40
 Operator : LL2
 Sample : |WBN240227-26|ICAL|1|SVM|1|P-3
 Misc : |MIX[D]
 ALS Vial : 22 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:27 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:27 2024
 Response via : Initial Calibration

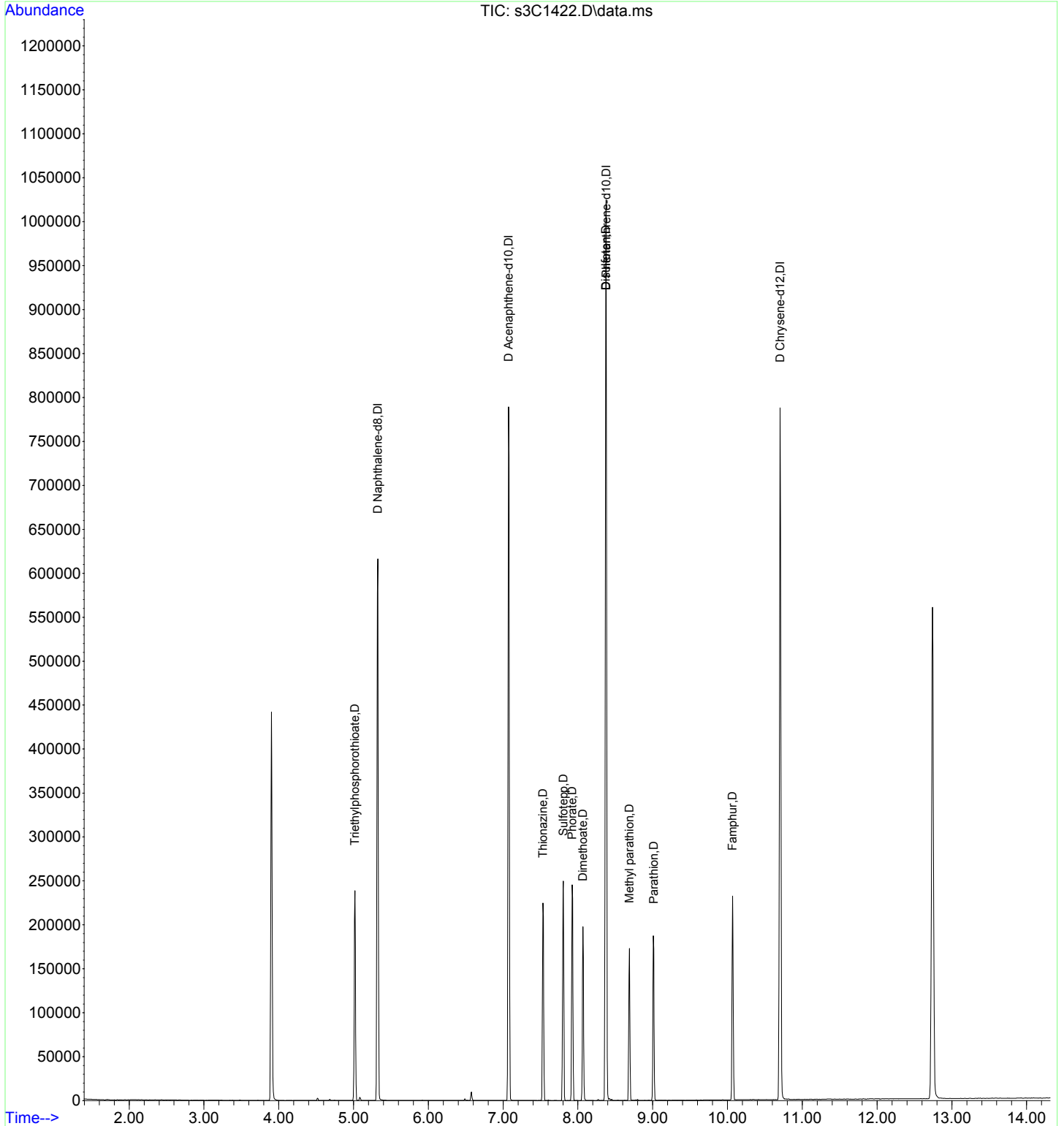
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	371435	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	184601	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	371452	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	350648	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								
161) Triethylphosphorothioate	198	5.019	5.019	0.943	29742	19.55	ng/uL	QValue
163) Thionazine	107	7.532	7.533	1.065	20806	18.94	ng/uL	100
165) Sulfotepp	322	7.805	7.805	0.932	20203	18.55	ng/uL	98
166) Phorate	75	7.923	7.923	0.946	82793	19.60	ng/uL	100
167) Dimethoate	87	8.067	8.067	0.963	50189	18.51	ng/uL	99
168) Disulfoton	88	8.372	8.372	0.999	76336	19.97	ng/uL	99
169) Methyl parathion	109	8.688	8.688	1.037	37402	17.48	ng/uL	98
170) Parathion	291	9.014	9.014	1.076	11696	17.69	ng/uL	98
172) Famphur	218	10.068	10.073	0.941	76485	18.23	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1422.D
 Acq On : 14 Mar 2024 15:40
 Operator : LL2
 Sample : |WBN240227-26|ICAL|1|SVM|1|P-3
 Misc : |MIX[D]
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 15 08:39:27 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:27 2024
 Response via : Initial Calibration



Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1423.D
 Acq On : 14 Mar 2024 15:58
 Operator : LL2
 Sample : |WBN240227-25.1|ICAL|1|SVM|1|P-4
 Misc : |MIX[D]
 ALS Vial : 23 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:34 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:33 2024
 Response via : Initial Calibration

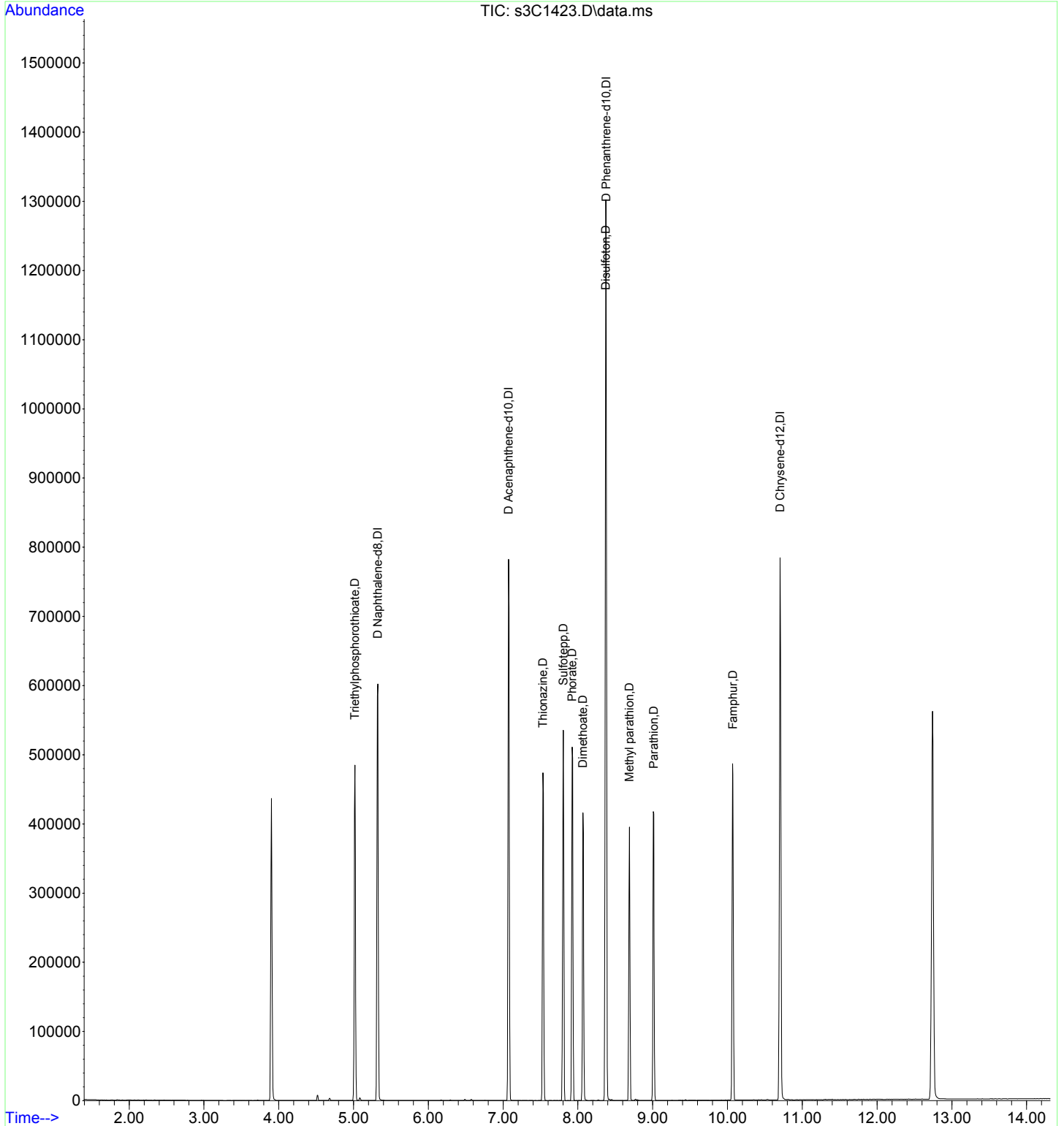
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.073	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	367889	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.073	7.073	1.000	182496	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	368634	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	352177	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								
161) Triethylphosphorothioate	198	5.019	5.019	0.943	58898	38.97	ng/uL	QValue
163) Thionazine	107	7.533	7.533	1.065	42997	39.39	ng/uL	100
165) Sulfotepp	322	7.805	7.805	0.932	42403	39.26	ng/uL	100
166) Phorate	75	7.923	7.923	0.946	172221	40.83	ng/uL	100
167) Dimethoate	87	8.067	8.067	0.963	108257	40.09	ng/uL	100
168) Disulfoton	88	8.372	8.372	0.999	154771	40.56	ng/uL	100
169) Methyl parathion	109	8.688	8.688	1.037	84885	39.83	ng/uL	100
170) Parathion	291	9.014	9.014	1.076	26342	40.06	ng/uL	100
172) Famphur	218	10.073	10.073	0.941	164692	39.04	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1423.D
 Acq On : 14 Mar 2024 15:58
 Operator : LL2
 Sample : |WBN240227-25.1|ICAL|1|SVM|1|P-4
 Misc : |MIX[D]
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 15 08:39:34 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:33 2024
 Response via : Initial Calibration



Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1424.D
 Acq On : 14 Mar 2024 16:17
 Operator : LL2
 Sample : |WBN240227-24|ICAL|1|SVM|1|P-5
 Misc : |MIX[D]
 ALS Vial : 24 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:40 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:40 2024
 Response via : Initial Calibration

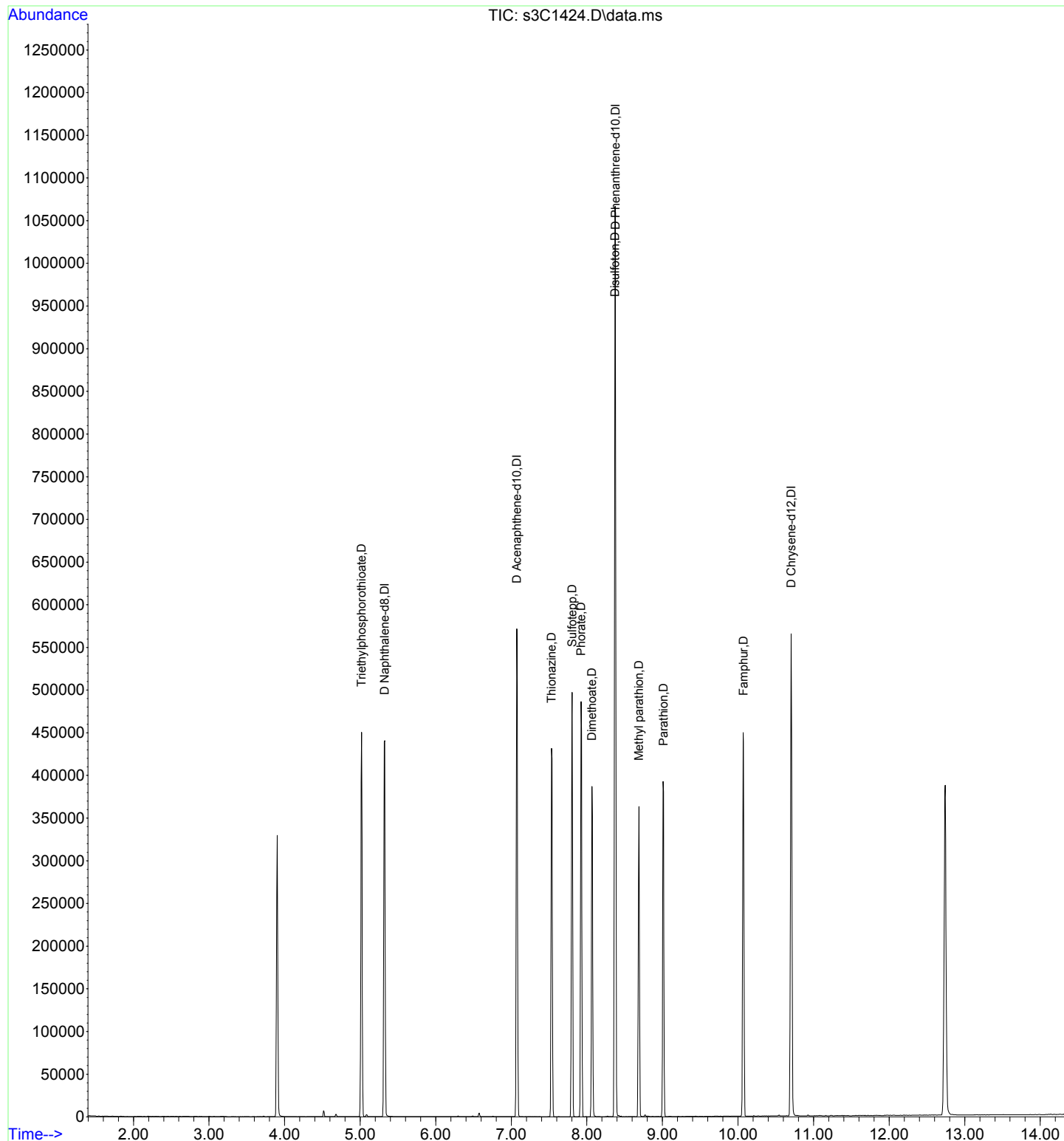
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	274633	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	132344	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	271676	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	252564	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								
161) Triethylphosphorothioate	198	5.019	5.019	0.943	55984	49.62	ng/uL	99
163) Thionazine	107	7.532	7.533	1.065	40028	50.57	ng/uL	100
165) Sulfotepp	322	7.805	7.805	0.932	39273	49.34	ng/uL	99
166) Phorate	75	7.923	7.923	0.946	160551	51.64	ng/uL	100
167) Dimethoate	87	8.067	8.067	0.963	100337	50.42	ng/uL	99
168) Disulfoton	88	8.372	8.372	0.999	142302	50.60	ng/uL	100
169) Methyl parathion	109	8.688	8.688	1.037	78314	49.86	ng/uL	99
170) Parathion	291	9.014	9.014	1.076	24165	49.87	ng/uL	98
172) Famphur	218	10.073	10.073	0.941	154369	51.02	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1424.D
 Acq On : 14 Mar 2024 16:17
 Operator : LL2
 Sample : |WBN240227-24|ICAL|1|SVM|1|P-5
 Misc : |MIX[D]
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 15 08:39:40 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:40 2024
 Response via : Initial Calibration



Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1425.D
 Acq On : 14 Mar 2024 16:35
 Operator : LL2
 Sample : |WBN240227-23|ICAL|1|SVM|1|P-6
 Misc : |MIX[D]
 ALS Vial : 25 Sample Multiplier: 1

LL
 03/15/2024

RB
 03/18/2024

Quant Time: Mar 15 08:39:47 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:46 2024
 Response via : Initial Calibration

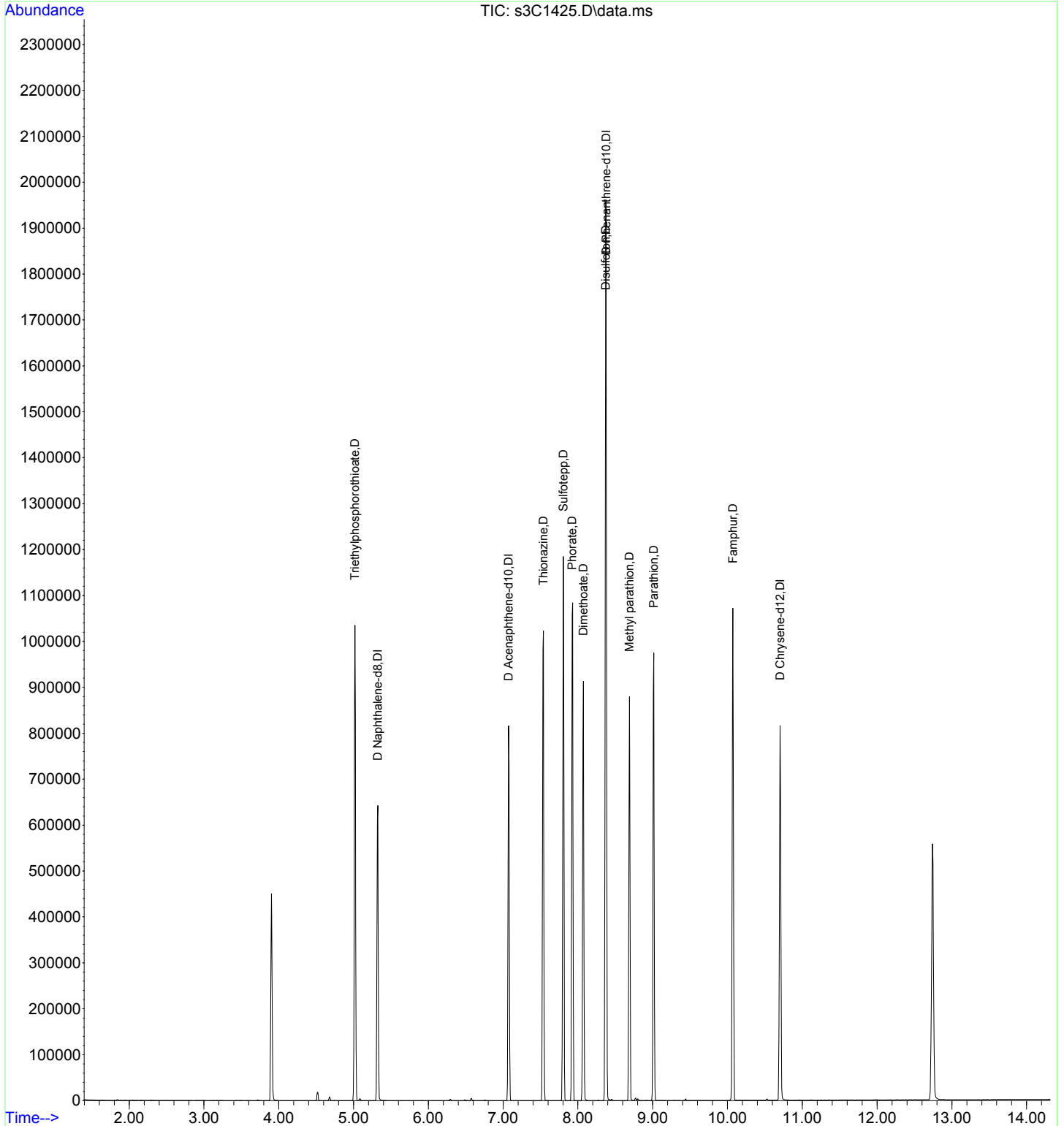
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	386761	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	189153	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	383553	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	358138	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								QValue
161) Triethylphosphorothioate	198	5.019	5.019	0.943	127163	80.01	ng/uL	99
163) Thionazine	107	7.538	7.533	1.066	93934	82.99	ng/uL	99
165) Sulfotepp	322	7.805	7.805	0.932	92347	82.41	ng/uL	99
166) Phorate	75	7.923	7.923	0.946	367876	83.40	ng/uL	99
167) Dimethoate	87	8.073	8.067	0.964	236464	84.19	ng/uL	98
168) Disulfoton	88	8.372	8.372	0.999	325638	81.76	ng/uL	99
169) Methyl parathion	109	8.688	8.688	1.037	192803	87.09	ng/uL	99
170) Parathion	291	9.014	9.014	1.076	59269	87.02	ng/uL	99
172) Famphur	218	10.073	10.073	0.941	358478	83.53	ng/uL	99

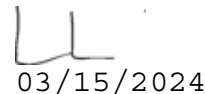
(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1425.D
 Acq On : 14 Mar 2024 16:35
 Operator : LL2
 Sample : |WBN240227-23|ICAL|1|SVM|1|P-6
 Misc : |MIX[D]
 ALS Vial : 25 Sample Multiplier: 1

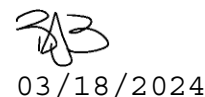
Quant Time: Mar 15 08:39:47 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:46 2024
 Response via : Initial Calibration





Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1426.D
 Acq On : 14 Mar 2024 16:54
 Operator : LL2
 Sample : |WBN240227-22|ICAL|1|SVM|1|P-7
 Misc : |MIX[D]
 ALS Vial : 26 Sample Multiplier: 1

03/15/2024



03/18/2024

Quant Time: Mar 15 08:40:00 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:59 2024
 Response via : Initial Calibration

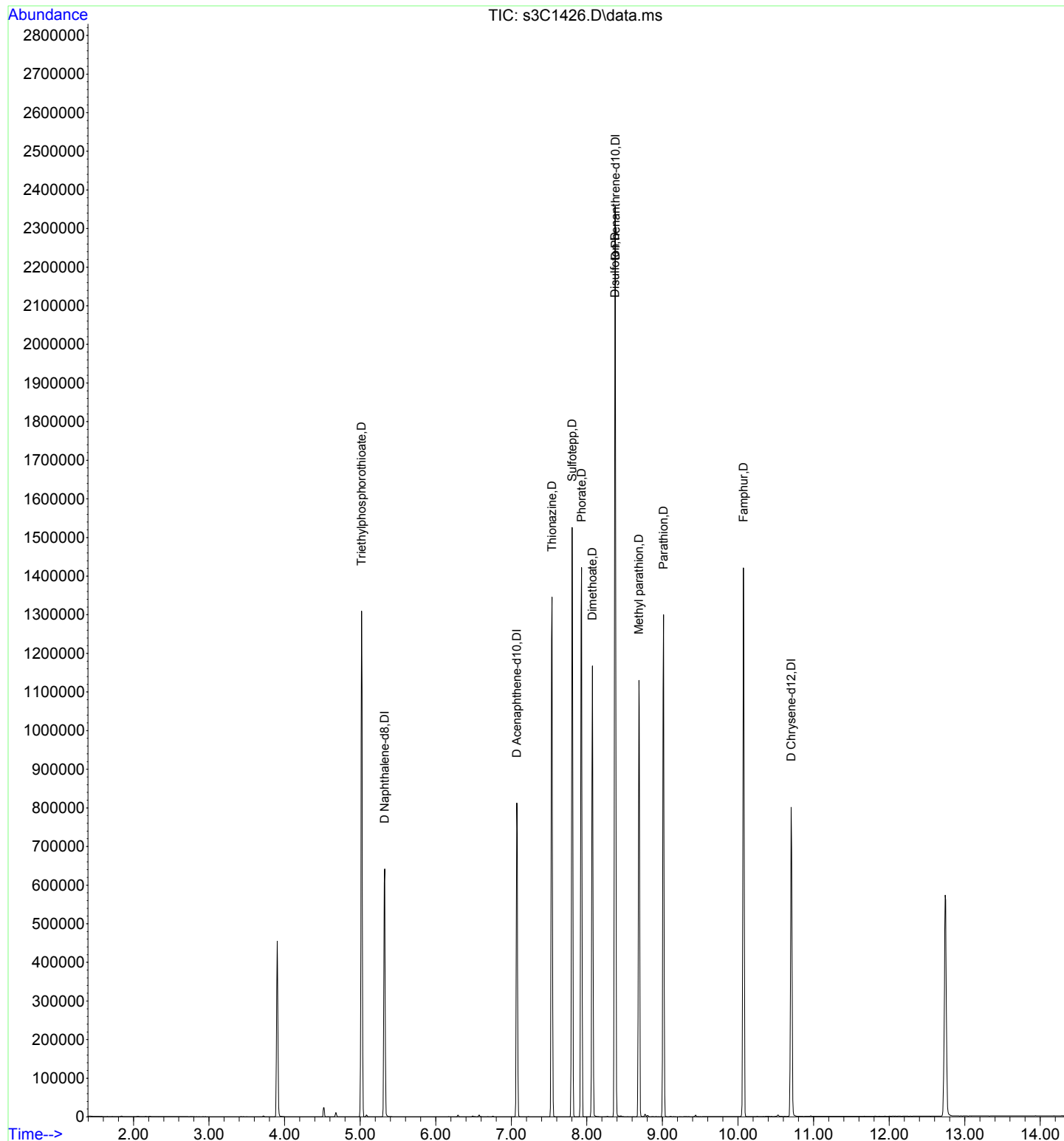
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	386725	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	189664	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	392776	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	364038	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								
161) Triethylphosphorothioate	198	5.019	5.019	0.943	162105	102.04	ng/uL	98
163) Thionazine	107	7.538	7.533	1.066	122334	107.28	ng/uL	99
165) Sulfotepp	322	7.805	7.805	0.932	120094	104.54	ng/uL	98
166) Phorate	75	7.928	7.923	0.946	463862	101.88	ng/uL	100
167) Dimethoate	87	8.073	8.067	0.964	306355	106.01	ng/uL	99
168) Disulfoton	88	8.372	8.372	0.999	416452	101.41	ng/uL	100
169) Methyl parathion	109	8.688	8.688	1.037	258937	113.74	ng/uL	98
170) Parathion	291	9.014	9.014	1.076	78177	111.77	ng/uL	98
172) Famphur	218	10.073	10.073	0.941	467584	106.93	ng/uL	99

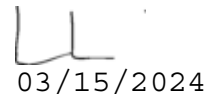
(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1426.D
 Acq On : 14 Mar 2024 16:54
 Operator : LL2
 Sample : |WBN240227-22|ICAL|1|SVM|1|P-7
 Misc : |MIX[D]
 ALS Vial : 26 Sample Multiplier: 1

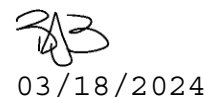
Quant Time: Mar 15 08:40:00 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:59 2024
 Response via : Initial Calibration





Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1427.D
 Acq On : 14 Mar 2024 17:12
 Operator : LL2
 Sample : |WBN240227-21|ICAL|1|SVM|1|P-8
 Misc : |MIX[D]
 ALS Vial : 27 Sample Multiplier: 1

03/15/2024



03/18/2024

Quant Time: Mar 15 08:40:07 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:07 2024
 Response via : Initial Calibration

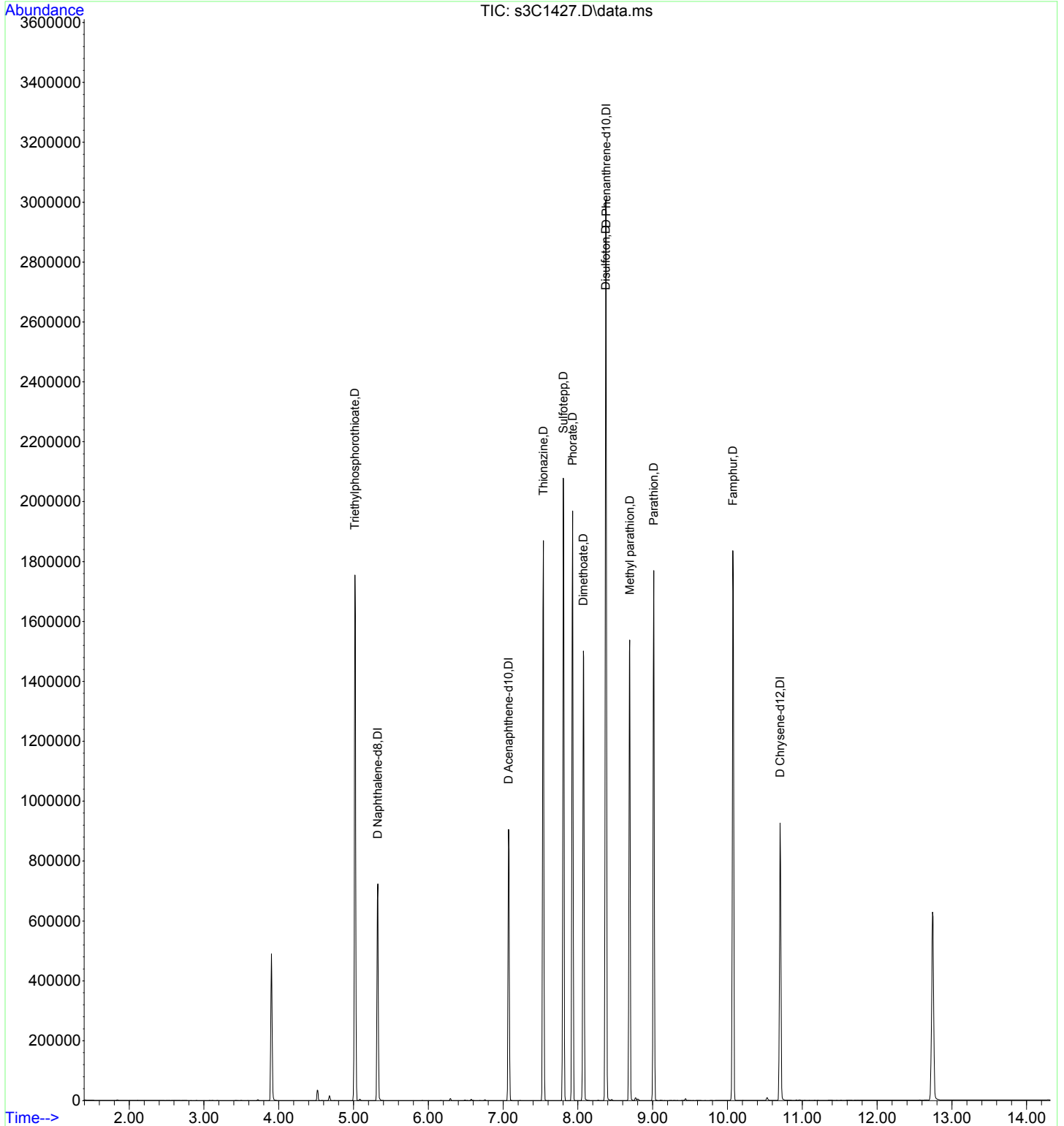
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.073	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	0m	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	429060	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.073	7.073	1.000	213383	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	441950	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	408612	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	0m	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	0m	40.00	ng/uL	-0.02
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								QValue
161) Triethylphosphorothioate	198	5.019	5.019	0.943	221215	125.47	ng/uL	99 A
163) Thionazine	107	7.538	7.533	1.066	168268	130.53	ng/uL	99 A
165) Sulfotepp	322	7.805	7.805	0.932	165143	127.75	ng/uL	98 A
166) Phorate	75	7.928	7.923	0.946	632442	123.22	ng/uL	99 A
167) Dimethoate	87	8.073	8.067	0.964	425109	130.69	ng/uL	98 A
168) Disulfoton	88	8.372	8.372	0.999	563672	121.67	ng/uL	99 A
169) Methyl parathion	109	8.693	8.688	1.038	358874	139.86	ng/uL	99 A
170) Parathion	291	9.014	9.014	1.076	109470	139.07	ng/uL	97 A
172) Famphur	218	10.073	10.073	0.941	633090	128.77	ng/uL	99 A

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1427.D
 Acq On : 14 Mar 2024 17:12
 Operator : LL2
 Sample : |WBN240227-21|ICAL|1|SVM|1|P-8
 Misc : |MIX[D]
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 15 08:40:07 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:07 2024
 Response via : Initial Calibration

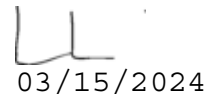


Continuing Calibration Summary

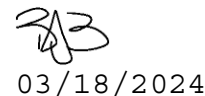
Instrument ID: MSD3.I
Data File: S031424ICAL\s3C1428.D
Lab Sample ID WBN240228-26
Quant Type ISTD

Client SDG: 660968
Injection Date: 14-MAR-24 17:30
Init. Cal. Date(s) 14-MAR-24 08:17 - 14-MAR-24 19:20
Method: S031424ICAL\MSD3_8270_031424.m
Method Update: 15-MAR-24 08:40

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Triethylphosphorothioate	0.1642	0.16545		.01		0.76127	20		Averaged
Thionazin	0.2429	0.25181		.01		3.66818	20		Averaged
Sulfotepp	0.1171	0.12187		.01		4.07344	20		Averaged
Phorate	0.4665	0.48506		.01		3.97856	20		Averaged
Dimethoate	0.2955	0.32061		.01		8.49746	20		Averaged
Disulfoton	0.4213	0.42058		.01		-0.1709	20		Averaged
Methyl parathion	0.2341	0.22921		.01		-2.08885	20		Averaged
Parathion	0.0717	0.07275		.01		1.46444	20		Averaged
Famphur	0.4801	0.49602		.01		3.31598	20		Averaged



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1428.D
 Acq On : 14 Mar 2024 17:30
 Operator : LL2
 Sample : |WBN240228-26|ICV|1|SVM|1|P-ICV
 Misc : |MIX[D]
 ALS Vial : 28 Sample Multiplier: 1



Quant Time: Mar 15 08:51:09 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

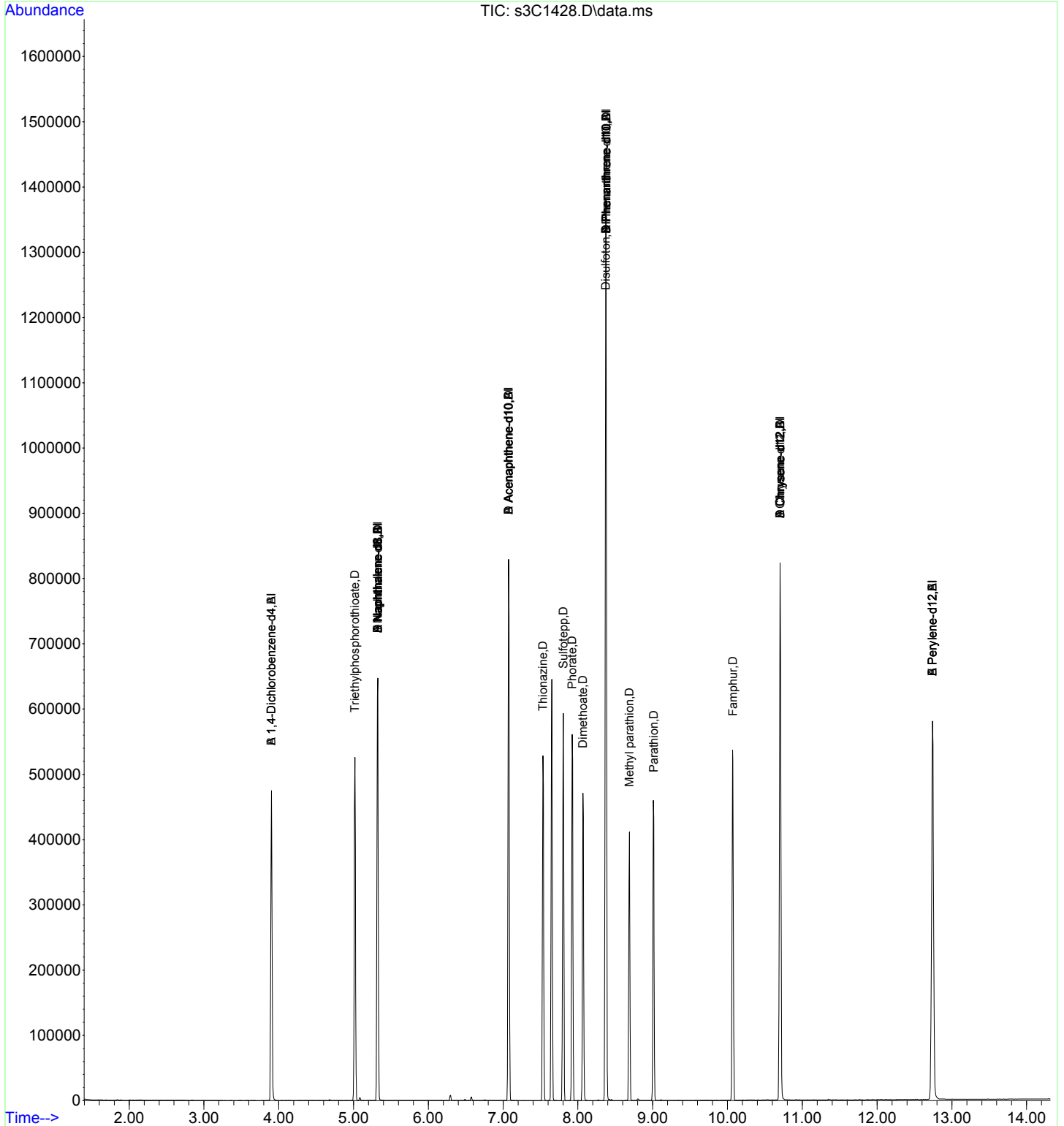
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	100469	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	394105	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.073	7.078	1.000	192938	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	387496	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	370990	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.742	12.747	1.000	376153	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	100469	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	394105	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.073	7.073	1.000	192938	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	387496	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	370990	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.742	12.742	1.000	376153	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.324	5.324	1.000	394105	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	387496	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	370990	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	394105	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.073	7.073	1.000	192938	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	387496	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	370990	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	394105	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.742	12.758	1.000	376153	40.00	ng/uL	-0.02
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								QValue
161) Triethylphosphorothioate	198	5.019	5.019	0.943	65204	40.29	ng/uL	99
163) Thionazine	107	7.533	7.533	1.065	48583	41.46	ng/uL	98
165) Sulfotepp	322	7.805	7.805	0.932	47226	41.63	ng/uL	100
166) Phorate	75	7.923	7.923	0.946	187958	41.59	ng/uL	99
167) Dimethoate	87	8.067	8.067	0.963	124237	43.40	ng/uL	98
168) Disulfoton	88	8.372	8.372	0.999	162973	39.93	ng/uL	100
169) Methyl parathion	109	8.688	8.688	1.037	88817	39.17	ng/uL	100
170) Parathion	291	9.014	9.014	1.076	28189	40.60	ng/uL	99
172) Famphur	218	10.073	10.073	0.941	184017	41.33	ng/uL	99

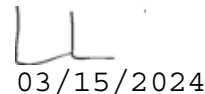
(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1428.D
 Acq On : 14 Mar 2024 17:30
 Operator : LL2
 Sample : WBN240228-26|ICV|1|SVM|1|P-ICV
 Misc : MIX[D]
 ALS Vial : 28 Sample Multiplier: 1

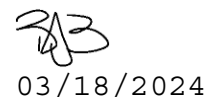
Quant Time: Mar 15 08:51:09 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration





Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1429.D
 Acq On : 14 Mar 2024 17:49
 Operator : LL2
 Sample : |WBN240313-31.1|ICAL|1|SVM|1|H-2
 Misc : |MIX[E]
 ALS Vial : 29 Sample Multiplier: 1

03/15/2024



03/18/2024

Quant Time: Mar 15 08:49:13 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

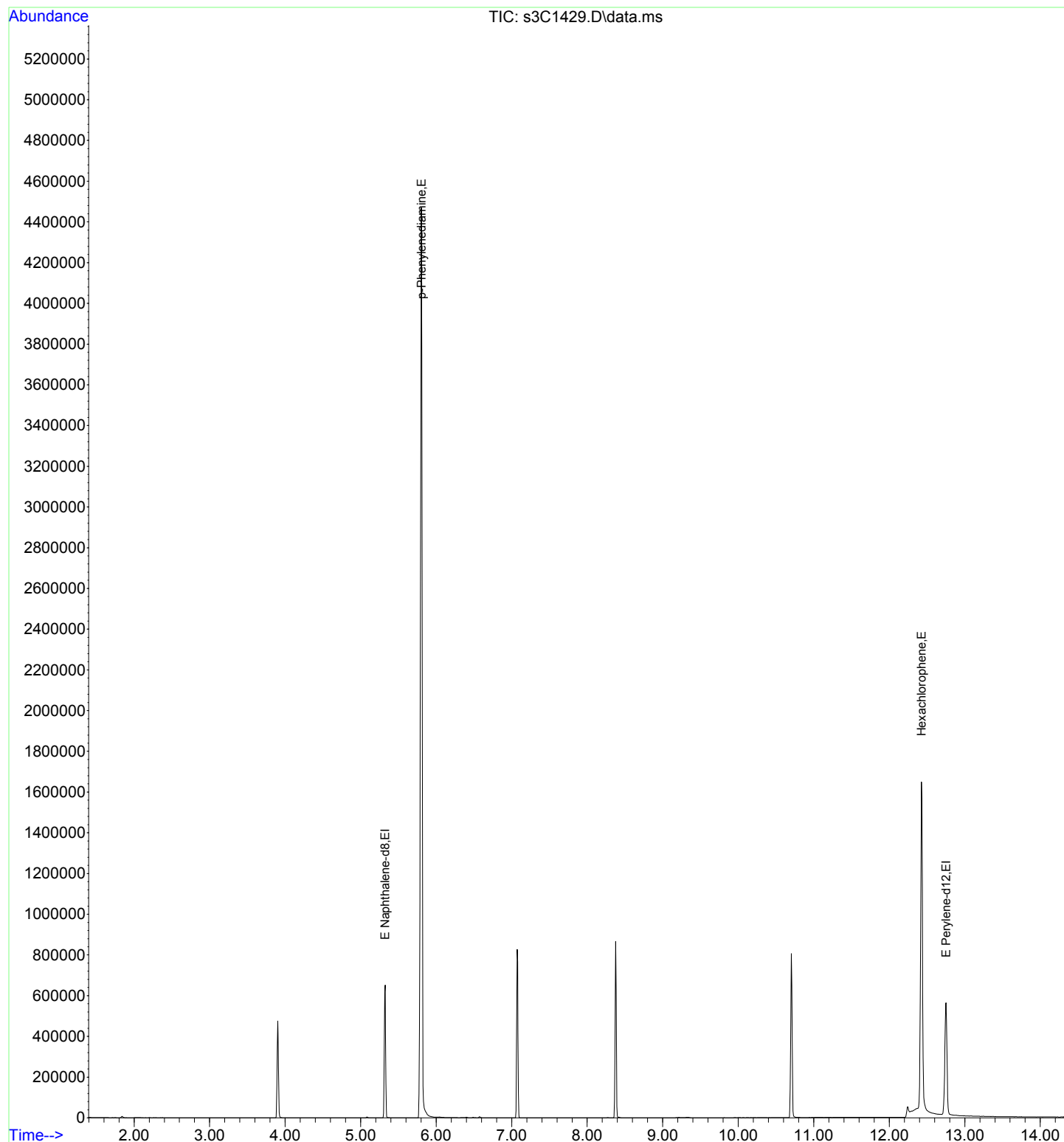
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.753	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.753	12.742	1.000	0m	40.00	ng/uL	0.01
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	395902	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.753	12.758	1.000	379275	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								QValue
174) p-Phenylenediamine	108	5.805	5.810	1.090	2582748	505.74	ng/uL	100
176) Hexachlorophene	196	12.426	12.437	0.974	242514	493.27	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1429.D
 Acq On : 14 Mar 2024 17:49
 Operator : LL2
 Sample : |WBN240313-31.1|ICAL|1|SVM|1|H-2
 Misc : |MIX[E]
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 15 08:49:13 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration



LL
03/15/2024

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1430.D
 Acq On : 14 Mar 2024 18:07
 Operator : LL2
 Sample : |WBN240313-32|ICAL|1|SVM|1|H-3
 Misc : |MIX[E]
 ALS Vial : 30 Sample Multiplier: 1

RB
 03/18/2024

Quant Time: Mar 15 08:39:29 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:29 2024
 Response via : Initial Calibration

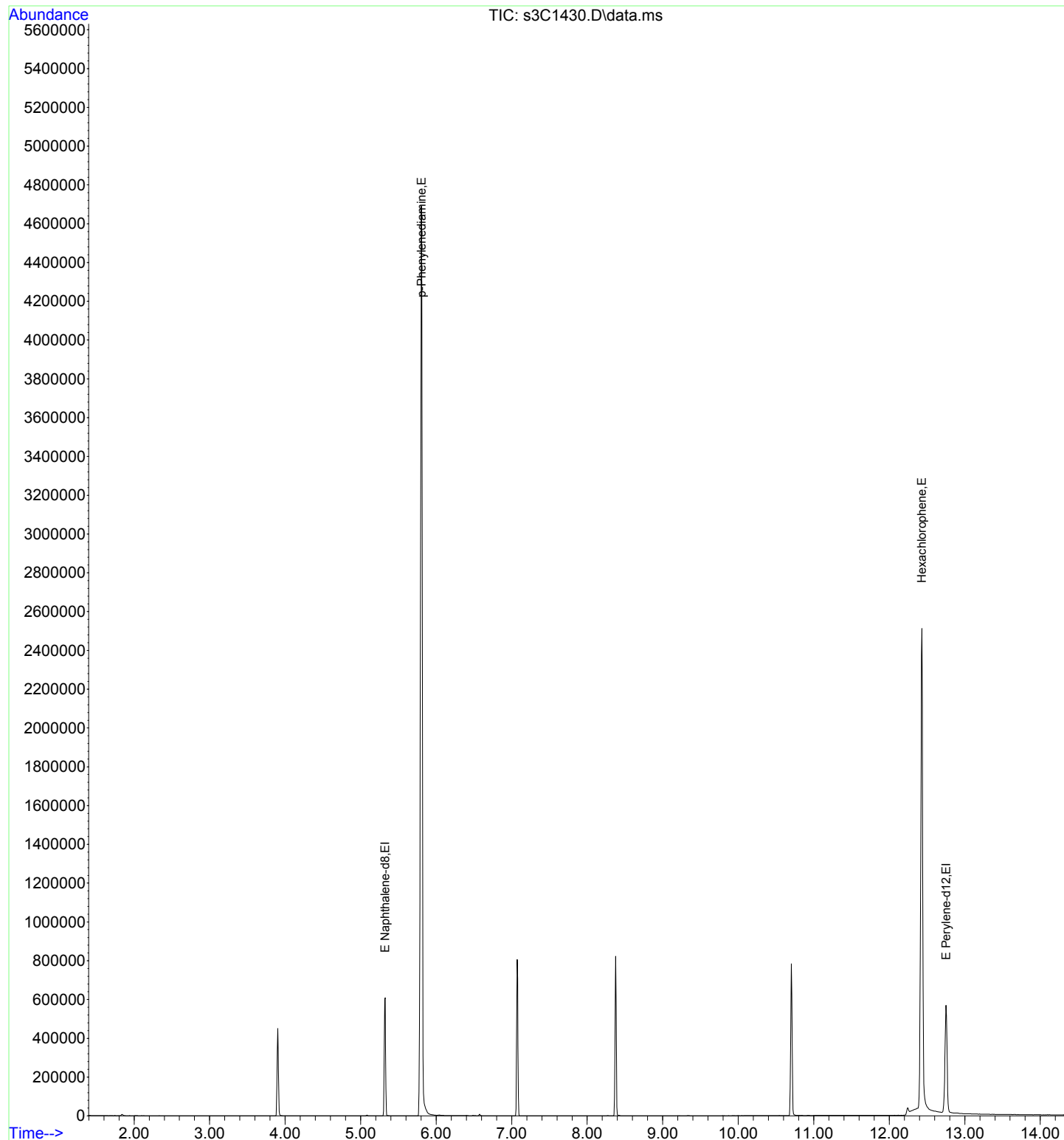
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.753	12.747	1.000	0m	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.753	12.742	1.000	0m	40.00	ng/uL	0.01
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	376327	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.753	12.758	1.000	368169	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								QValue
174) p-Phenylenediamine	108	5.805	5.810	1.090	2880355	593.36	ng/uL	100
176) Hexachlorophene	196	12.432	12.437	0.975	400922	600.11	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1430.D
 Acq On : 14 Mar 2024 18:07
 Operator : LL2
 Sample : |WBN240313-32|ICAL|1|SVM|1|H-3
 Misc : |MIX[E]
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 15 08:39:29 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:29 2024
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1431.D
 Acq On : 14 Mar 2024 18:25
 Operator : LL2
 Sample : |WBN240313-33|ICAL|1|SVM|1|H-4
 Misc : |MIX[E]
 ALS Vial : 31 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:35 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:35 2024
 Response via : Initial Calibration

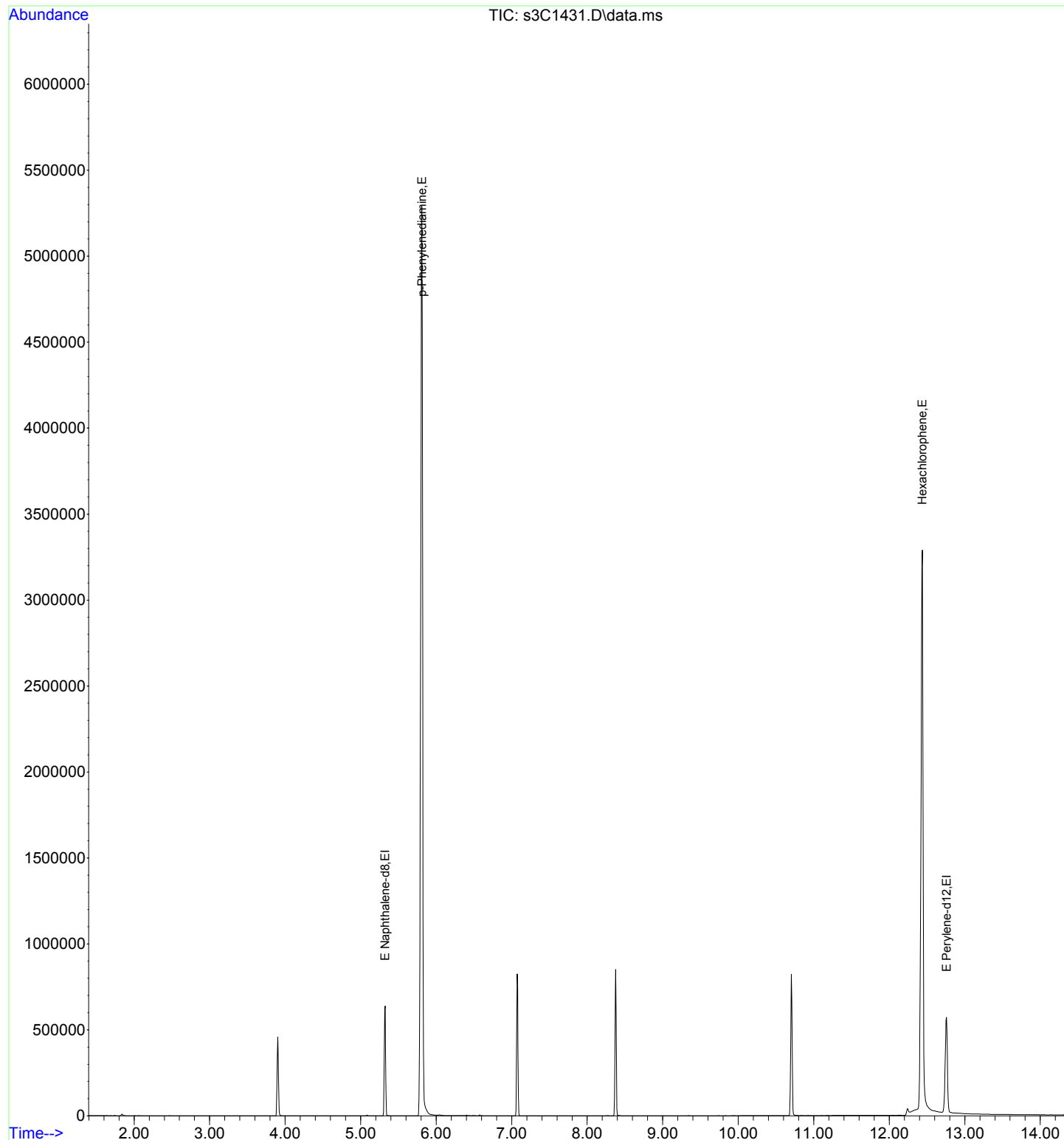
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.758	12.747	1.000	0m	40.00	ng/uL	0.01
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.758	12.742	1.000	0m	40.00	ng/uL	0.02
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	391834	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.758	12.758	1.000	382276	40.00	ng/uL	0.00
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								
174) p-Phenylenediamine	108	5.810	5.810	1.091	3515170	697.41	ng/uL	100
176) Hexachlorophene	196	12.437	12.437	0.975	561272	705.35	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1431.D
 Acq On : 14 Mar 2024 18:25
 Operator : LL2
 Sample : |WBN240313-33|ICAL|1|SVM|1|H-4
 Misc : |MIX[E]
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 15 08:39:35 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:35 2024
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1432.D
 Acq On : 14 Mar 2024 18:44
 Operator : LL2
 Sample : |WBN240313-34|ICAL|1|SVM|1|H-5
 Misc : |MIX[E]
 ALS Vial : 32 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:39:42 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:42 2024
 Response via : Initial Calibration

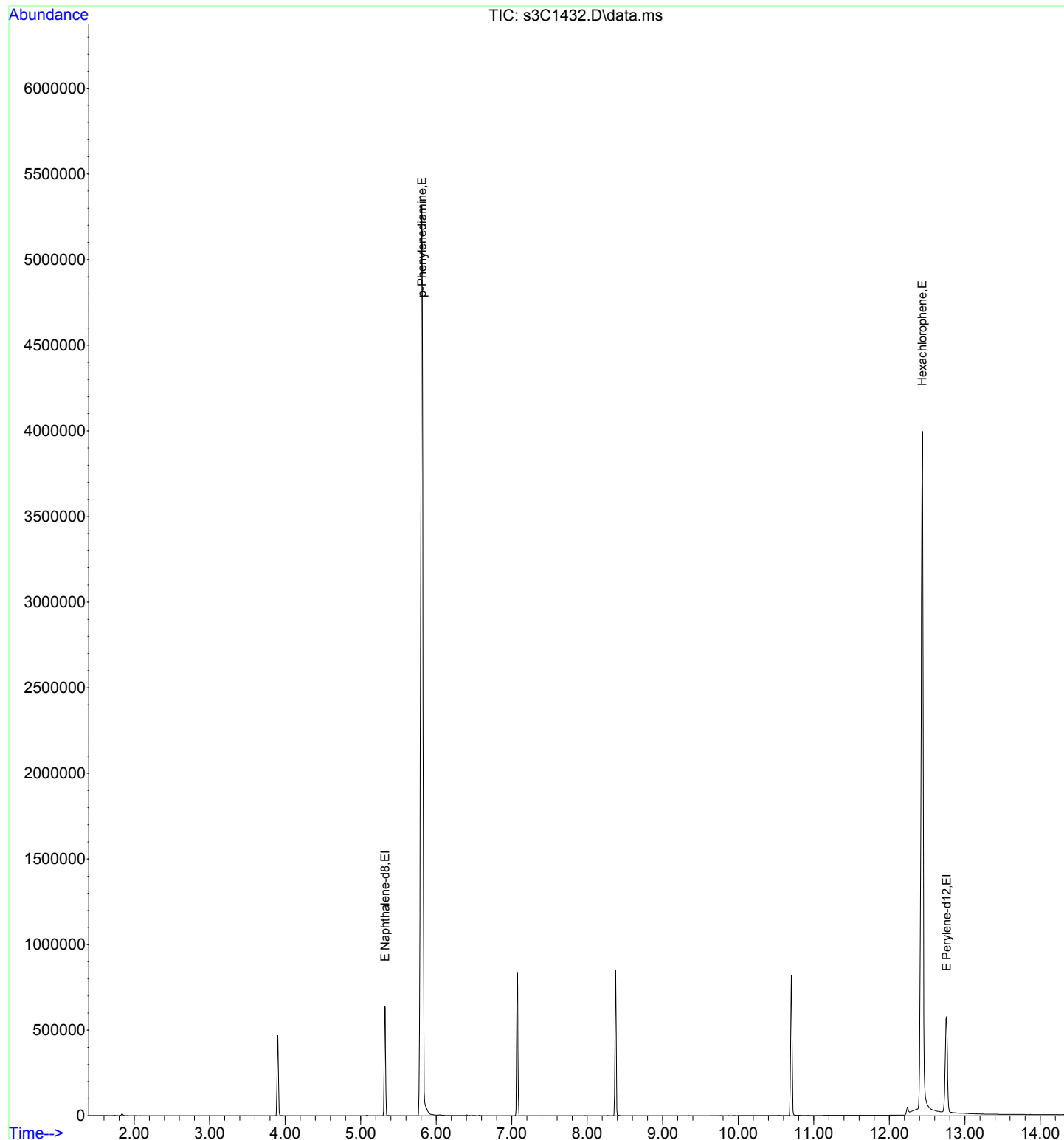
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.758	12.747	1.000	0m	40.00	ng/uL	0.01
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.758	12.742	1.000	0m	40.00	ng/uL	0.02
152) J Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	395215	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.758	12.758	1.000	387688	40.00	ng/uL	0.00
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								
174) p-Phenylenediamine	108	5.810	5.810	1.091	4064145	799.43	ng/uL	100
176) Hexachlorophene	196	12.437	12.437	0.975	705790	796.44	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1432.D
 Acq On : 14 Mar 2024 18:44
 Operator : LL2
 Sample : |WBN240313-34|ICAL|1|SVM|1|H-5
 Misc : |MIX[E]
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 15 08:39:42 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:42 2024
 Response via : Initial Calibration



LL
03/15/2024

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1433.D
 Acq On : 14 Mar 2024 19:02
 Operator : LL2
 Sample : |WBN240313-35|ICAL|1|SVM|1|H-6
 Misc : |MIX[E]
 ALS Vial : 33 Sample Multiplier: 1

RB
03/18/2024

Quant Time: Mar 15 08:39:49 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:48 2024
 Response via : Initial Calibration

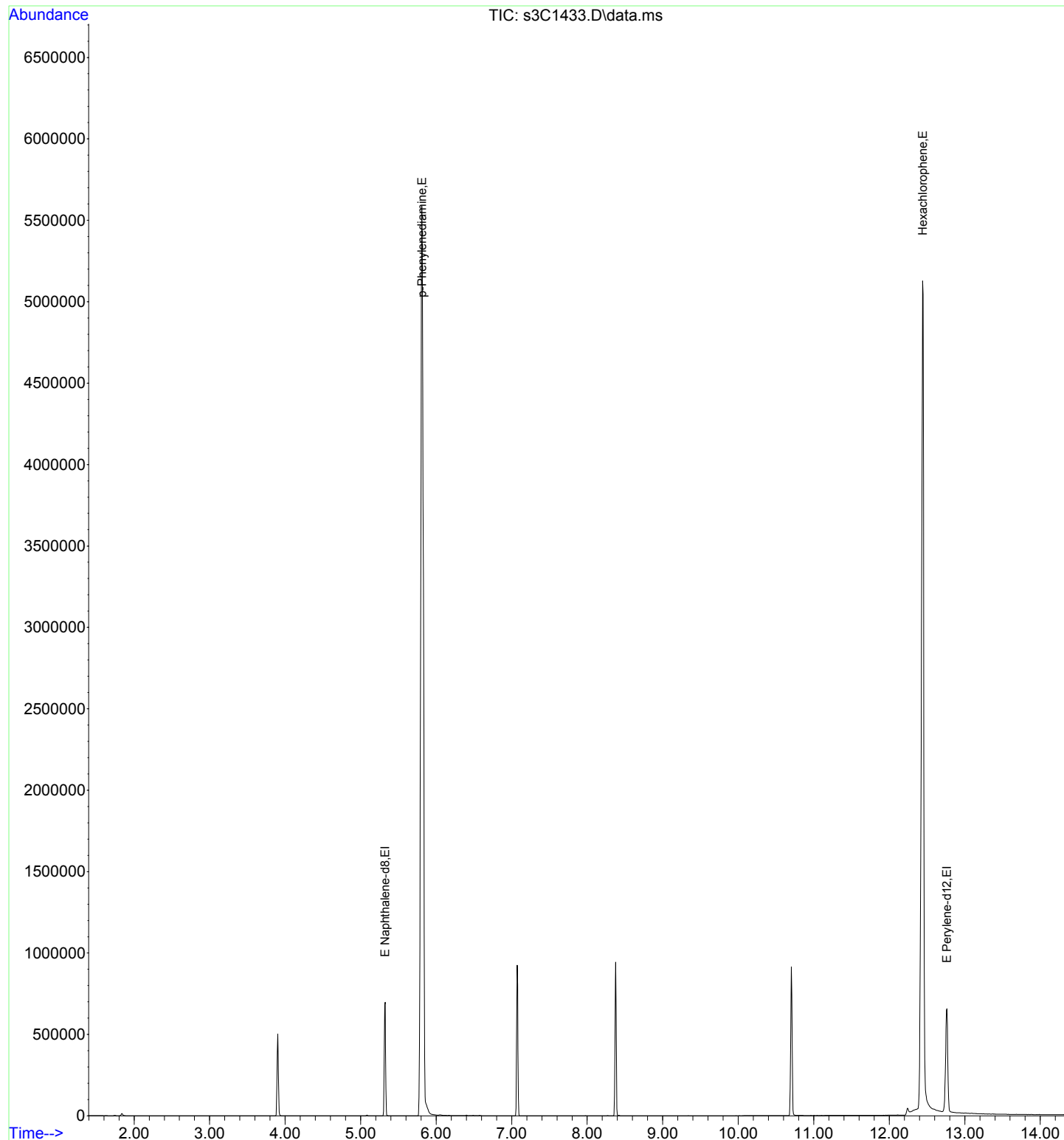
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.073	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.764	12.747	1.000	0m	40.00	ng/uL	0.02
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.764	12.742	1.000	0m	40.00	ng/uL	0.02
152) J Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	428879	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.764	12.758	1.000	431685	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								QValue
174) p-Phenylenediamine	108	5.810	5.810	1.091	5008578	905.30	ng/uL	100
176) Hexachlorophene	196	12.443	12.437	0.975	979365	915.81	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1433.D
 Acq On : 14 Mar 2024 19:02
 Operator : LL2
 Sample : |WBN240313-35|ICAL|1|SVM|1|H-6
 Misc : |MIX[E]
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 15 08:39:49 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:39:48 2024
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1434.D
 Acq On : 14 Mar 2024 19:20
 Operator : LL2
 Sample : |WBN240313-37|ICAL|1|SVM|1|H-7
 Misc : |MIX[E]
 ALS Vial : 34 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:40:02 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:01 2024
 Response via : Initial Calibration

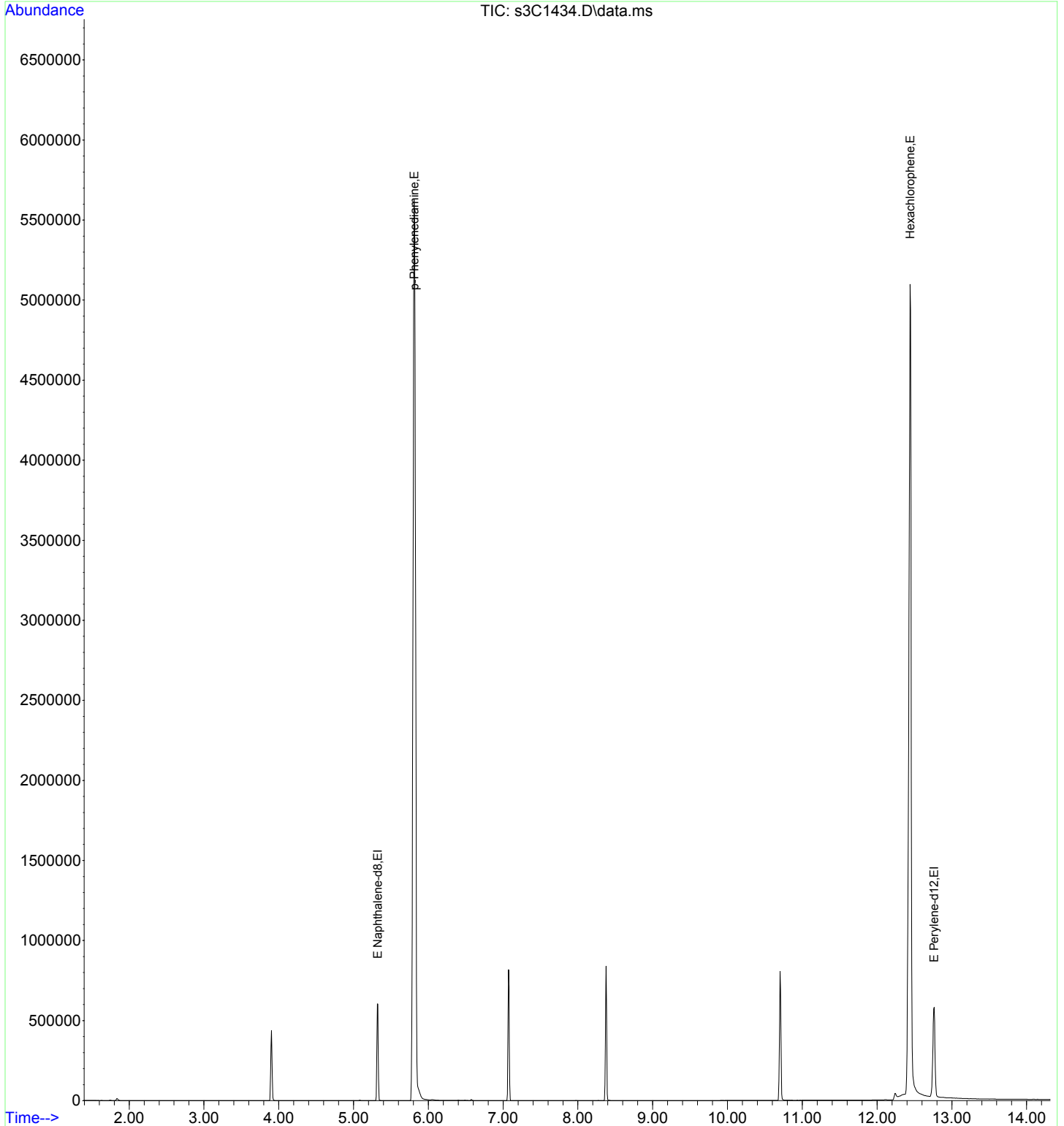
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	0m	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.073	7.078	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	0m	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.764	12.747	1.000	0m	40.00	ng/uL	0.02
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	0m	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.764	12.742	1.000	0m	40.00	ng/uL	0.02
152) J Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.324	5.324	1.000	0m	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.073	7.073	1.000	0m	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.378	8.378	1.000	0m	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	0m	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.324	5.323	1.000	378181	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.764	12.758	1.000	376142	40.00	ng/uL	0.00
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								
174) p-Phenylenediamine	108	5.810	5.810	1.091	4895818	1001.80	ng/uL	100 A
176) Hexachlorophene	196	12.443	12.437	0.975	975546	992.70	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1434.D
 Acq On : 14 Mar 2024 19:20
 Operator : LL2
 Sample : |WBN240313-37|ICAL|1|SVM|1|H-7
 Misc : |MIX[E]
 ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 15 08:40:02 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:01 2024
 Response via : Initial Calibration



Continuing Calibration Summary

Instrument ID: MSD3.I

Data File: S031424ICAL\s3C1435.D

Lab Sample ID WBN240228-38

Quant Type ISTD

Client SDG: 660968

Injection Date: 14-MAR-24 19:39

Init. Cal. Date(s) 14-MAR-24 08:17 - 14-MAR-24 19:20

Method: S031424ICAL\MSD3_8270_031424.m

Method Update: 15-MAR-24 08:40

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
p-Phenylenediamine	0.516	0.46887		.01		-9.13372	20		Averaged
Hexachlorophene	600	714.14	600			19.02333	20		Linear

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1435.D
 Acq On : 14 Mar 2024 19:39
 Operator : LL2
 Sample : |WBN240228-38|ICV|1|SVM|1|H-ICV
 Misc : |MIX[E]
 ALS Vial : 35 Sample Multiplier: 1

03/15/2024

03/18/2024

Quant Time: Mar 15 08:51:35 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

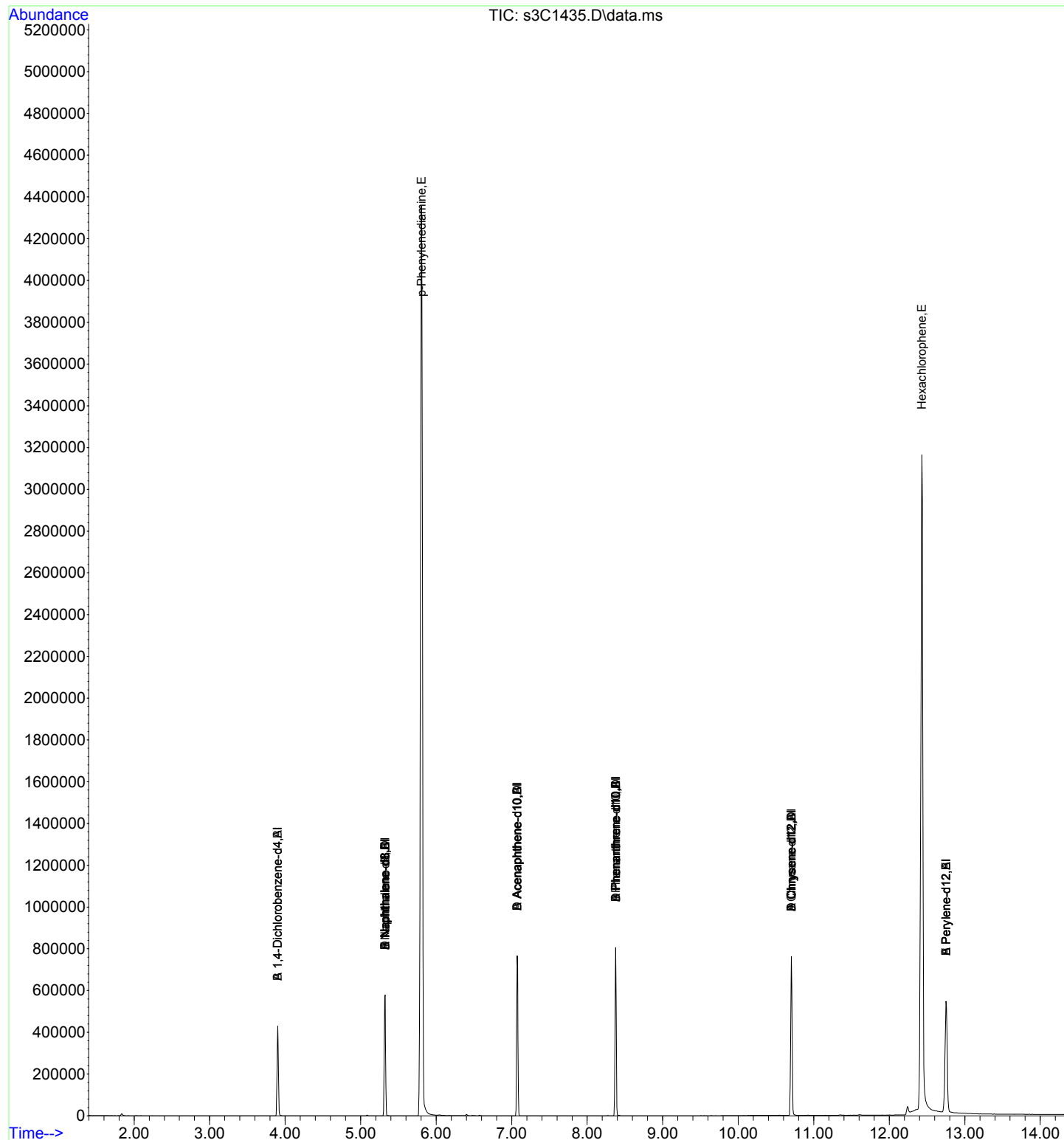
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.901	3.906	1.000	91170	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.323	5.324	1.000	358655	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.072	7.078	1.000	179972	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.377	8.378	1.000	347004	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.704	10.710	1.000	342903	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.753	12.747	1.000	360736	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.901	3.901	1.000	91170	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.323	5.324	1.000	358655	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.072	7.073	1.000	179972	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.377	8.378	1.000	347004	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.704	10.704	1.000	342903	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.753	12.742	1.000	360736	40.00	ng/uL	0.01
152) J Naphthalene-d8	136	5.323	5.324	1.000	358655	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.377	8.378	1.000	347004	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.704	10.704	1.000	342903	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.323	5.324	1.000	358655	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.072	7.073	1.000	179972	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.377	8.378	1.000	347004	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.704	10.704	1.000	342903	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.323	5.323	1.000	358655	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.753	12.758	1.000	360736	40.00	ng/uL	0.00
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.622	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.494	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.505	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.447	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.779	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.709	0.000	0	0.00	ng/uL	
Target Compounds								
174) p-Phenylenediamine	108	5.805	5.810	1.090	2942849	636.10	ng/uL	100
176) Hexachlorophene	196	12.432	12.437	0.975	543230	714.14	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1435.D
 Acq On : 14 Mar 2024 19:39
 Operator : LL2
 Sample : |WBN240228-38|ICV|1|SVM|1|H-ICV
 Misc : |MIX[E]
 ALS Vial : 35 Sample Multiplier: 1

Quant Time: Mar 15 08:51:35 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration



Continuing Calibration Summary

Instrument ID: MSD3.I
Data File: S040424.S\3D0402.D
Lab Sample ID WBN240304-04.5
Quant Type ISTD

Client SDG: 660968
Injection Date: 04-APR-24 14:04
Init. Cal. Date(s) 14-MAR-24 08:17 - 14-MAR-24 19:20
Method: S040424.S\MSD3_8270_031424.m
Method Update: 15-MAR-24 08:40

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S2-Fluorophenol	1.3242	1.35093		.01		2.01858	20		Averaged
SPhenol-d5	1.6411	1.75731		.01		7.08123	20		Averaged
SNitrobenzene-d5	0.3667	0.3782		.01		3.13608	20		Averaged
S2-Fluorobiphenyl	1.5194	1.49835		.01		-1.38542	20		Averaged
S2,4,6-Tribromophenol	0.146	0.13844		.01		-5.17808	20		Averaged
Sp-Terphenyl-d14	0.9564	0.99938		.01		4.49394	20		Averaged
N-Methyl-N-nitrosomethylami	40	41.91	40			4.775	20		Linear
Pyridine	1.2047	1.30057		.01		7.958	20		Averaged
Phenol	1.7029	1.82261		.8		7.02977	20		Averaged
Aniline	1.9454	2.0446		.01		5.09921	20		Averaged
bis(2-Chloroethyl) ether	1.4145	1.50131		.7		6.13715	20		Averaged
2-Chlorophenol	1.4674	1.54306		.8		5.15606	20		Averaged
1,3-Dichlorobenzene	1.6184	1.67863		.01		3.72158	20		Averaged
1,4-Dichlorobenzene	1.6395	1.69682		.01		3.49619	20		Averaged
Benzyl alcohol	0.9217	0.97506		.01		5.7893	20		Averaged
1,2-Dichlorobenzene	1.5614	1.63208		.01		4.52671	20		Averaged
o-Cresol	1.1308	1.19078		.7		5.30421	20		Averaged
bis(2-Chloro-1-methylethyl)eth	1.6718	1.77864		.01		6.39072	20		Averaged
N-Nitrosodipropylamine	0.9941	1.08024		.05		8.66512	20		Averaged
m,p-Cresols	1.34	1.4281		.6		6.57463	20		Averaged
Hexachloroethane	0.6551	0.68462		.3		4.50618	20		Averaged
Nitrobenzene	0.3642	0.377		.2		3.51455	20		Averaged
Isophorone	0.6634	0.69602		.4		4.91709	20		Averaged
2-Nitrophenol	0.184	0.18966		.1		3.07609	20		Averaged
2,4-Dimethylphenol	0.2582	0.26404		.2		2.26181	20		Averaged
Benzoic acid	40	35.65	40			-10.875	20		Linear
bis(2-Chloroethoxy)methane	0.4414	0.4577		.3		3.6928	20		Averaged
2,4-Dichlorophenol	0.2932	0.30022		.2		2.39427	20		Averaged
1,2,4-Trichlorobenzene	0.3274	0.32862		.01		0.37263	20		Averaged
Naphthalene	1.0635	1.10711		.7		4.10061	20		Averaged
4-Chloroaniline	0.4371	0.45838		.01		4.86845	20		Averaged
Hexachlorobutadiene	0.1819	0.17966		.01		-1.23145	20		Averaged
4-Chloro-3-methylphenol	0.2942	0.31236		.2		6.17267	20		Averaged
2-Methylnaphthalene	0.6927	0.73817		.4		6.56417	20		Averaged
1-Methylnaphthalene	0.6382	0.67472		.01		5.72234	20		Averaged
Hexachlorocyclopentadiene	0.3423	0.32177		.05		-5.99766	20		Averaged
2,4,6-Trichlorophenol	0.4331	0.42088		.2		-2.82152	20		Averaged

Continuing Calibration Summary

Instrument ID: MSD3.I

Injection Date: 04-APR-24 14:04

Data File: S040424.S\3D0402.D

Init. Cal. Date(s) 14-MAR-24 08:17 14-MAR-24 19:20

Lab Sample ID WBN240304-04.5

Method: S040424.S\MSD3_8270_031424.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
2,4,5-Trichlorophenol	0.4437	0.43548		.2		-1.8526	20		Averaged
2-Chloronaphthalene	1.3051	1.31172		.8		0.50724	20		Averaged
o-Nitroaniline	0.3583	0.37011		.01		3.29612	20		Averaged
Dimethylphthalate	1.4655	1.51896		.01		3.6479	20		Averaged
m-Dinitrobenzene	0.2266	0.23034		.01		1.65049	20		Averaged
2,6-Dinitrotoluene	0.3274	0.34		.2		3.8485	20		Averaged
Acenaphthylene	2.01	2.09763		.9		4.3597	20		Averaged
m-Nitroaniline	0.3894	0.40398		.01		3.74422	20		Averaged
Acenaphthene	1.2274	1.25173		.9		1.98224	20		Averaged
2,4-Dinitrophenol	40	42.23	40			5.575	20		Linear
4-Nitrophenol	40	41.65	40			4.125	20		Linear
2,4-Dinitrotoluene	0.4454	0.47564		.2		6.7894	20		Averaged
Dibenzofuran	1.8681	1.90661		.8		2.06145	20		Averaged
2,3,4,6-Tetrachlorophenol	0.3705	0.37941		.01		2.40486	20		Averaged
Diethylphthalate	1.5186	1.62539		.01		7.03213	20		Averaged
4-Chlorophenylphenylether	0.7001	0.69299		.4		-1.01557	20		Averaged
Fluorene	1.4824	1.56798		.9		5.77307	20		Averaged
p-Nitroaniline	0.396	0.42579		.01		7.52273	20		Averaged
2-Methyl-4,6-dinitrophenol	40	40.91	40			2.275	20		Linear
Diphenylamine	0.6455	0.63613		.01		-1.45159	20		Averaged
1,2-Diphenylhydrazine	0.7763	0.77808		.01		0.22929	20		Averaged
4-Bromophenylphenylether	0.2195	0.21434		.1		-2.3508	20		Averaged
Hexachlorobenzene	0.2665	0.25393		.1		-4.7167	20		Averaged
Pentachlorophenol	40	36.88	40			-7.8	20		Linear
Dinoseb	40	39.99	40			-0.025	20		Linear
Phenanthrene	1.1104	1.11799		.7		0.68354	20		Averaged
Anthracene	1.1139	1.13807		.7		2.16985	20		Averaged
Carbazole	1.0183	1.09977		.01		8.00059	20		Averaged
Di-n-butylphthalate	1.2956	1.39211		.01		7.44906	20		Averaged
Fluoranthene	1.158	1.2417		.6		7.22798	20		Averaged
Pyrene	1.2175	1.30164		.6		6.91088	20		Averaged
Butylbenzylphthalate	40	39.46	40			-1.35	20		Linear
Methoxychlor	0.7221	0.74953		.01		3.79864	20		Averaged
Benzo(a)anthracene	1.1922	1.24068		.8		4.06643	20		Averaged
bis(2-Ethylhexyl)phthalate	40	40.03	40			0.075	20		Linear
Chrysene	1.1134	1.10648		.7		-0.62152	20		Averaged
Di-n-octylphthalate	40	40.48	40			1.2	20		Linear

Continuing Calibration Summary

Instrument ID: MSD3.I

Injection Date: 04-APR-24 14:04

Data File: S040424.S\s3D0402.D

Init. Cal. Date(s) 14-MAR-24 08:17 14-MAR-24 19:20

Lab Sample ID WBN240304-04.5

Method: S040424.S\MSD3_8270_031424.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Benzo(b)fluoranthene	1.1161	1.13713		.7		1.88424	20		Averaged
Benzo(k)fluoranthene	1.1204	1.1464		.7		2.3206	20		Averaged
Benzo(a)pyrene	1.025	1.05922		.7		3.33854	20		Averaged
Indeno(1,2,3-cd)pyrene	1.0843	1.13251		.5		4.44619	20		Averaged
Dibenzo(a,h)anthracene	1.0568	1.11689		.4		5.68603	20		Averaged
Benzo(ghi)perylene	1.0325	1.08594		.5		5.17579	20		Averaged

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0402.D
 Acq On : 04 Apr 2024 14:04
 Operator : LL2
 Sample : |WBN240304-04.5|CCV|1|SVM|1|M-4
 Misc : |MIX[A]
 ALS Vial : 2 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 07:45:55 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.890	1.000	67398	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.307	1.000	283317	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.062	1.000	152313	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.362	8.367	1.000	314709	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.688	10.693	1.000	344439	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.715	12.721	1.000	362053	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.890	1.000	67398	40.00	ng/uL	# 0.00
112) B Naphthalene-d8	136	5.302	5.307	1.000	283317	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.062	1.000	152313	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.362	8.367	1.000	314709	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.688	10.693	1.000	344439	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.715	12.721	1.000	362053	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.307	1.000	283317	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.362	8.367	1.000	314709	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.688	10.693	1.000	344439	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.307	1.000	283317	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.062	1.000	152313	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.362	8.367	1.000	314709	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.688	10.693	1.000	344439	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.307	1.000	283317	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.715	12.721	1.000	362053	40.00	ng/uL	0.00

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.606	2.627	0.671	91050	40.81	ng/uL	-0.02
8) Phenol-d5	99	3.478	3.486	0.895	118439	42.83	ng/uL	0.00
23) Nitrobenzene-d5	82	4.484	4.502	0.846	107150	41.25	ng/uL	-0.02
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	228218	39.45	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.763	7.773	0.928	43567	37.94	ng/uL	-0.01
79) p-Terphenyl-d14	244	9.693	9.686	1.159	314513	41.80	ng/uL	0.00

Target Compounds								
2) 2-Ethoxyethanol	59	1.451	1.480	0.374	49758	42.95	ng/uL	99
3) N-Methyl-N-nitrosometh...	74	1.633	1.663	0.420	59336	41.91	ng/uL	98
4) Pyridine	79	1.676	1.705	0.431	87656	43.18	ng/uL	95
6) p-Benzoquinone	54	3.072	3.088	0.791	40679	39.85	ng/uL	99
7) Aniline	93	3.537	3.555	0.911	137802	42.04	ng/uL	98
9) Phenol	94	3.494	3.502	0.899	122840	42.81	ng/uL	99
10) bis(2-Chloroethyl) ether	93	3.596	3.607	0.926	101185	42.46	ng/uL	99
11) 2-Chlorophenol	128	3.660	3.670	0.942	103999	42.06	ng/uL	99
12) n-Decane	43	3.698	3.707	0.952	86297	41.07	ng/uL	99
13) 1,3-Dichlorobenzene	146	3.821	3.832	0.983	113136	41.49	ng/uL	99
14) 1,4-Dichlorobenzene	146	3.901	3.912	1.004	114362	41.40	ng/uL	99
15) 1,2-Dichlorobenzene	146	4.061	4.068	1.045	109999	41.81	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.168	4.168	1.073	119877	42.56	ng/uL	99
17) Benzyl alcohol	108	4.024	4.026	1.036	65717	42.31	ng/uL	98
18) o-Cresol	107	4.136	4.137	1.065	80256	42.12	ng/uL	99
19) m,p-Cresols	108	4.313	4.309	1.110	96251	42.63	ng/uL	98
20) N-Nitrosodipropylamine	70	4.313	4.314	1.110	72806	43.47	ng/uL	99
21) Hexachloroethane	117	4.430	4.430	1.140	46142	41.80	ng/uL	98
24) Nitrobenzene	77	4.505	4.523	0.850	106810	41.41	ng/uL	100
25) Isophorone	82	4.778	4.792	0.901	197194	41.97	ng/uL	100
26) 2-Nitrophenol	139	4.869	4.881	0.918	53733	41.24	ng/uL	98
27) 2,4-Dimethylphenol	122	4.917	4.928	0.927	74807	40.91	ng/uL	99
28) bis(2-Chloroethoxy)met...	93	5.035	5.039	0.950	129673	41.47	ng/uL	100
29) 2,4-Dichlorophenol	162	5.142	5.149	0.970	85057	40.95	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0402.D
 Acq On : 04 Apr 2024 14:04
 Operator : LL2
 Sample : |WBN240304-04.5|CCV|1|SVM|1|M-4
 Misc : |MIX[A]
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 05 07:45:55 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
30)	Benzoic acid	105	5.019	5.040	0.947	33446	35.65	ng/uL	95
31)	1,2,4-Trichlorobenzene	180	5.238	5.244	0.988	93104	40.15	ng/uL	100
32)	alpha-Terpineol	59	5.340	5.344	1.007	81846	42.08	ng/uL	100
33)	Naphthalene	128	5.324	5.328	1.004	313662	41.64	ng/uL	99
34)	4-Chloroaniline	127	5.388	5.391	1.016	129866	41.95	ng/uL	100
35)	Hexachlorobutadiene	225	5.463	5.460	1.030	50901	39.52	ng/uL	100
36)	4-Chloro-3-methylphenol	107	5.912	5.897	1.115	88498	42.47	ng/uL	100
37)	2-Methylnaphthalene	142	6.062	6.045	1.143	209135	42.62	ng/uL	100
38)	1-Methylnaphthalene	142	6.158	6.144	1.161	191159	42.29	ng/uL	99
40)	Hexachlorocyclopentadiene	237	6.217	6.215	0.881	49010	37.60	ng/uL	100
41)	2,3-Dichloroaniline	161	6.340	6.357	0.898	110568	39.20	ng/uL	98
42)	2,4,6-Trichlorophenol	196	6.340	6.357	0.898	64105	38.87	ng/uL	99
43)	2,4,5-Trichlorophenol	196	6.377	6.389	0.904	66329	39.26	ng/uL	99
45)	2-Chloronaphthalene	162	6.538	6.548	0.926	199792	40.20	ng/uL	100
46)	o-Nitroaniline	65	6.639	6.648	0.941	56372	41.32	ng/uL	99
47)	1,4-Dinitrobenzene	168	6.778	6.781	0.961	30586	40.87	ng/uL	96
48)	m-Nitroaniline	138	7.024	7.024	0.995	61531	41.50	ng/uL	98
49)	Dimethylphthalate	163	6.816	6.817	0.966	231358	41.46	ng/uL	100
50)	m-Dinitrobenzene	168	6.843	6.850	0.970	35084	40.66	ng/uL	99
51)	2,6-Dinitrotoluene	165	6.869	6.876	0.973	51786	41.54	ng/uL	100
52)	2,4-Dinitrotoluene	165	7.233	7.236	1.025	72446	42.71	ng/uL	98
53)	Acenaphthylene	152	6.928	6.934	0.982	319497	41.74	ng/uL	100
54)	Acenaphthene	154	7.089	7.093	1.005	190654	40.79	ng/uL	100
55)	2,4-Dinitrophenol	184	7.121	7.125	1.009	22710	42.23	ng/uL	99
56)	Dibenzofuran	168	7.244	7.247	1.027	290402	40.82	ng/uL	99
57)	2,3,4,6-Tetrachlorophenol	232	7.356	7.353	1.042	57789	40.96	ng/uL	100
58)	Diethylphthalate	149	7.452	7.448	1.056	247568	42.81	ng/uL	100
59)	4-Nitrophenol	109	7.180	7.173	1.017	26926	41.65	ng/uL	99
60)	Fluorene	166	7.549	7.549	1.070	238824	42.31	ng/uL	99
61)	4-Chlorophenylphenylether	204	7.549	7.549	1.070	105551	39.59	ng/uL	96
62)	p-Nitroaniline	138	7.570	7.564	1.073	64854	43.01	ng/uL	99
65)	2-Methyl-4,6-dinitroph...	198	7.591	7.603	0.908	37767	40.91	ng/uL	98
66)	Diphenylamine	169	7.656	7.661	0.916	200195	39.42	ng/uL	100
67)	1,2-Diphenylhydrazine	77	7.688	7.699	0.919	244870	40.09	ng/uL	100
68)	4-Bromophenylphenylether	248	7.976	7.979	0.954	67456	39.07	ng/uL	98
69)	Hexachlorobenzene	284	8.025	8.033	0.960	79913	38.11	ng/uL	100
70)	Pentachlorophenol	266	8.196	8.192	0.980	42254	36.88	ng/uL	99
71)	n-Octadecane	57	8.255	8.255	0.987	152061	39.27	ng/uL	99
72)	Dinoseb	211	8.345	8.351	0.998	54934	39.99	ng/uL	100
73)	Phenanthrene	178	8.378	8.388	1.002	351841	40.27	ng/uL	99
74)	Anthracene	178	8.426	8.430	1.008	358160	40.87	ng/uL	100
75)	Carbazole	167	8.559	8.562	1.024	346107	43.20	ng/uL	100
76)	Di-n-butylphthalate	149	8.843	8.839	1.058	438108	42.98	ng/uL	100
77)	Fluoranthene	202	9.383	9.379	1.122	390775	42.89	ng/uL	99
78)	Pyrene	202	9.576	9.570	1.145	409637	42.76	ng/uL	99
81)	Butylbenzylphthalate	149	10.105	10.089	0.945	198208	39.46	ng/uL	98
82)	bis(2-Ethylhexyl)phtha...	149	10.678	10.678	0.999	322245	40.03	ng/uL	99
83)	Benzo(a)anthracene	228	10.678	10.683	0.999	427337	41.63	ng/uL	99
84)	Chrysene	228	10.715	10.725	1.003	381116	39.75	ng/uL	100
85)	Methoxychlor	227	10.587	10.587	0.990	258169	41.52	ng/uL	99
86)	Methylenebis(2-chloroa...	231	10.645	10.646	0.996	77534	40.60	ng/uL	99
87)	Di-n-octylphthalate	149	11.512	11.531	1.077	504097	40.48	ng/uL	100
89)	Benzo(b)fluoranthene	252	12.095	12.087	0.951	411700	40.75	ng/uL	99
90)	Benzo(k)fluoranthene	252	12.138	12.135	0.955	415057	40.93	ng/uL	99
91)	Benzo(a)pyrene	252	12.619	12.626	0.992	383493	41.34	ng/uL	99
92)	Indeno(1,2,3-cd)pyrene	276	14.726	14.754	1.158	410027	41.78	ng/uL	99
93)	Dibenzo(a,h)anthracene	278	14.780	14.811	1.162	404374	42.28	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
Data File : s3D0402.D
Acq On : 04 Apr 2024 14:04
Operator : LL2
Sample : |WBN240304-04.5|CCV|1|SVM|1|M-4
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 05 07:45:55 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
94) Benzo(ghi)perylene	276	15.272	15.303	1.201	393167	42.07	ng/uL
95) Dibenzo(a,e)pyrene	302	17.855	17.810	1.404	349523	40.93	ng/uL

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Continuing Calibration Summary

Client SDG: 660968
Instrument ID: MSD3.I
Injection Date: 04-APR-24 14:27
Data File: S040424.S\3D0403.D
Init. Cal. Date(s): 14-MAR-24 08:17 - 14-MAR-24 19:20
Lab Sample ID: WBN240201-54.2
Method: S040424.S\MSD3_8270_031424.m
Quant Type: ISTD
Method Update: 15-MAR-24 08:40

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Methyl methacrylate	0.7046	0.75149		.01		6.65484	20		Averaged
1,4-Dioxane	0.5206	0.57288		.01		10.04226	20		Averaged
Ethyl methacrylate	1.096	1.15355		.01		5.25091	20		Averaged
2-Picoline	1.4109	1.52647		.01		8.19123	20		Averaged
N-Nitrosomethylethylamine	0.5524	0.59402		.01		7.5344	20		Averaged
Methyl methanesulfonate	0.6883	0.7537		.01		9.50167	20		Averaged
N-Nitrosodiethylamine	0.5779	0.62028		.01		7.33345	20		Averaged
Ethyl Methanesulfonate	1.0349	1.11056		.01		7.31085	20		Averaged
Pentachloroethane	0.5467	0.56294		.01		2.97055	20		Averaged
N-Nitrosopyrrolidine	0.6324	0.68068		.01		7.63441	20		Averaged
Acetophenone	1.8986	2.00515		.01		5.61203	20		Averaged
N-Nitrosomorpholine	0.607	0.66622		.01		9.75618	20		Averaged
o-Toluidine	2.1225	2.27908		.01		7.37715	20		Averaged
N-Nitrosopiperidine	0.164	0.17389		.01		6.03049	20		Averaged
a,a-Dimethylphenethylamine	0.6997	0.7103		.01		1.51493	20		Averaged
2,6-Dichlorophenol	0.2713	0.27125		.01		-0.01843	20		Averaged
Hexachloropropene	0.196	0.1992		.01		1.63265	20		Averaged
N-Nitrosodi-n-butylamine	0.1501	0.15847		.01		5.57628	20		Averaged
Safrole	0.2475	0.25292		.01		2.1899	20		Averaged
1,2,4,5-Tetrachlorobenzene	0.6188	0.61048		.01		-1.34454	20		Averaged
Isosafrole	0.5252	0.52464		.01		-0.10663	20		Averaged
1,4-Naphthoquinone	0.4885	0.49249		.01		0.81679	20		Averaged
Pentachlorobenzene	0.5574	0.55512		.01		-0.40904	20		Averaged
1-Naphthylamine	1.3776	1.47418		.01		7.01074	20		Averaged
2-Naphthylamine	1.4119	1.46847		.01		4.00666	20		Averaged
5-Nitro-o-toluidine	0.3937	0.40558		.01		3.01753	20		Averaged
Tributylphosphate	1.8405	1.93275		.01		5.01222	20		Averaged
1,3,5-Trinitrobenzene	0.1619	0.18089		.01		11.72946	20		Averaged
Diallate	0.2238	0.22812		.01		1.93029	20		Averaged
Phenacetin	0.375	0.38707		.01		3.21867	20		Averaged
Pentachloronitrobenzene	0.0875	0.08725		.01		-0.28571	20		Averaged
4-Aminobiphenyl	0.8692	0.88611		.01		1.94547	20		Averaged
Pronamide	0.3565	0.3647		.01		2.30014	20		Averaged
4-Nitroquinoline-1-oxide	0.0335	0.04683		.01		39.79104	20	*	Averaged
Methapyrilene	0.406	0.4891		.01		20.46798	20	*	Averaged
Isodrin	0.128	0.13137		.01		2.63281	20		Averaged
Aramite	0.0534	0.05234		.01		-1.98502	20		Averaged

Continuing Calibration Summary

Instrument ID: MSD3.I

Injection Date: 04-APR-24 14:27

Data File: S040424.S\3D0403.D

Init. Cal. Date(s) 14-MAR-24 08:17 14-MAR-24 19:20

Lab Sample ID WBN240201-54.2

Method: S040424.S\MSD3_8270_031424.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
p-(Dimethylamino)azobenzene	0.2102	0.20131		.01		-4.22931	20		Averaged
Chlorobenzilate	0.3311	0.31908		.01		-3.63032	20		Averaged
3,3'-Dimethylbenzidine	0.7679	0.7966		.01		3.73747	20		Averaged
Kepone	0.1235	0.11536		.01		-6.59109	20		Averaged
2-Acetylaminofluorene	0.466	0.47342		.01		1.59227	20		Averaged
3,3'-Dichlorobenzidine	0.4636	0.47567		.01		2.60354	20		Averaged
7,12Dimethylbenz(a)anthracene	0.4776	0.47106		.01		-1.36935	20		Averaged
3-Methylcholanthrene	0.1248	0.12412		.01		-0.54487	20		Averaged

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0403.D
 Acq On : 04 Apr 2024 14:27
 Operator : LL2
 Sample : |WBN240201-54.2|CCV|1|SVM|1|APX-4
 Misc : |MIX[B,J]
 ALS Vial : 3 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 07:49:12 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	62936	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	257957	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.056	1.000	131021	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.362	8.362	1.000	269174	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.683	10.683	1.000	292534	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.715	12.715	1.000	305134	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	62936	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	257957	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.056	1.000	131021	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.362	8.362	1.000	269174	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.683	10.683	1.000	292534	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.715	12.715	1.000	305134	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.302	1.000	257957	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.362	8.362	1.000	269174	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.683	10.683	1.000	292534	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	257957	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.056	1.000	131021	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.362	8.362	1.000	269174	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.683	10.683	1.000	292534	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	257957	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.715	12.715	1.000	305134	40.00	ng/uL	0.00

System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.627	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.486	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.502	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.436	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.773	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.686	0.000	0	0.00	ng/uL	

Target Compounds								
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
97) 1,4-Dioxane	88	1.456	1.456	0.375	36055	44.02	ng/uL	99
98) Methyl methacrylate	69	1.446	1.446	0.372	47296	42.66	ng/uL	99
99) Ethyl methacrylate	69	1.911	1.911	0.492	72600	42.10	ng/uL	99
100) 2-Picoline	93	2.168	2.168	0.558	96070	43.28	ng/uL	99
101) N-Nitrosomethylethylamine	88	2.232	2.232	0.575	37385	43.01	ng/uL	98
102) Methyl methanesulfonate	80	2.473	2.473	0.637	47435	43.80	ng/uL	98
103) N-Nitrosodiethylamine	102	2.820	2.820	0.726	39038	42.94	ng/uL	100
104) 2-Butoxyethanol	57	2.879	2.879	0.741	79846	40.17	ng/uL	100
105) Ethyl methanesulfonate	79	3.093	3.093	0.796	69894	42.92	ng/uL	98
106) Benzaldehyde	77	3.435	3.435	0.884	70046	43.00	ng/uL	100
107) Pentachloroethane	167	3.591	3.591	0.924	35429	41.19	ng/uL	99
108) N-Nitrosopyrrolidine	100	4.291	4.291	1.105	42839	43.05	ng/uL	99
109) Acetophenone	105	4.318	4.318	1.112	126196	42.25	ng/uL	100
110) N-Nitrosomorpholine	56	4.339	4.339	1.117	41929	43.90	ng/uL	97
111) o-Toluidine	106	4.355	4.355	1.121	143436	42.95	ng/uL	100
113) N-Nitrosopiperidine	114	4.676	4.676	0.882	44856	42.42	ng/uL	100
114) a,a-Dimethylphenethyla...	58	5.110	5.110	0.964	183228	40.60	ng/uL	100
115) 2,6-Dichlorophenol	162	5.398	5.398	1.018	69971	39.99	ng/uL	99
116) Hexachloropropene	213	5.420	5.420	1.022	51384	40.66	ng/uL	99
117) Caprolactam	113	5.746	5.746	1.084	22554	41.66	ng/uL	98
118) N-Nitrosodi-n-butylamine	57	5.757	5.757	1.086	40879	42.22	ng/uL	99
119) Safrole	162	5.976	5.976	1.127	65242	40.88	ng/uL	99
121) 1,2,4,5-Tetrachloroben...	216	6.227	6.227	0.883	79986	39.46	ng/uL	100
122) 1,1-Biphenyl	154	6.522	6.522	0.924	217156	41.06	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
Data File : s3D0403.D
Acq On : 04 Apr 2024 14:27
Operator : LL2
Sample : |WBN240201-54.2|CCV|1|SVM|1|APX-4
Misc : |MIX[B,J]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 07:49:12 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

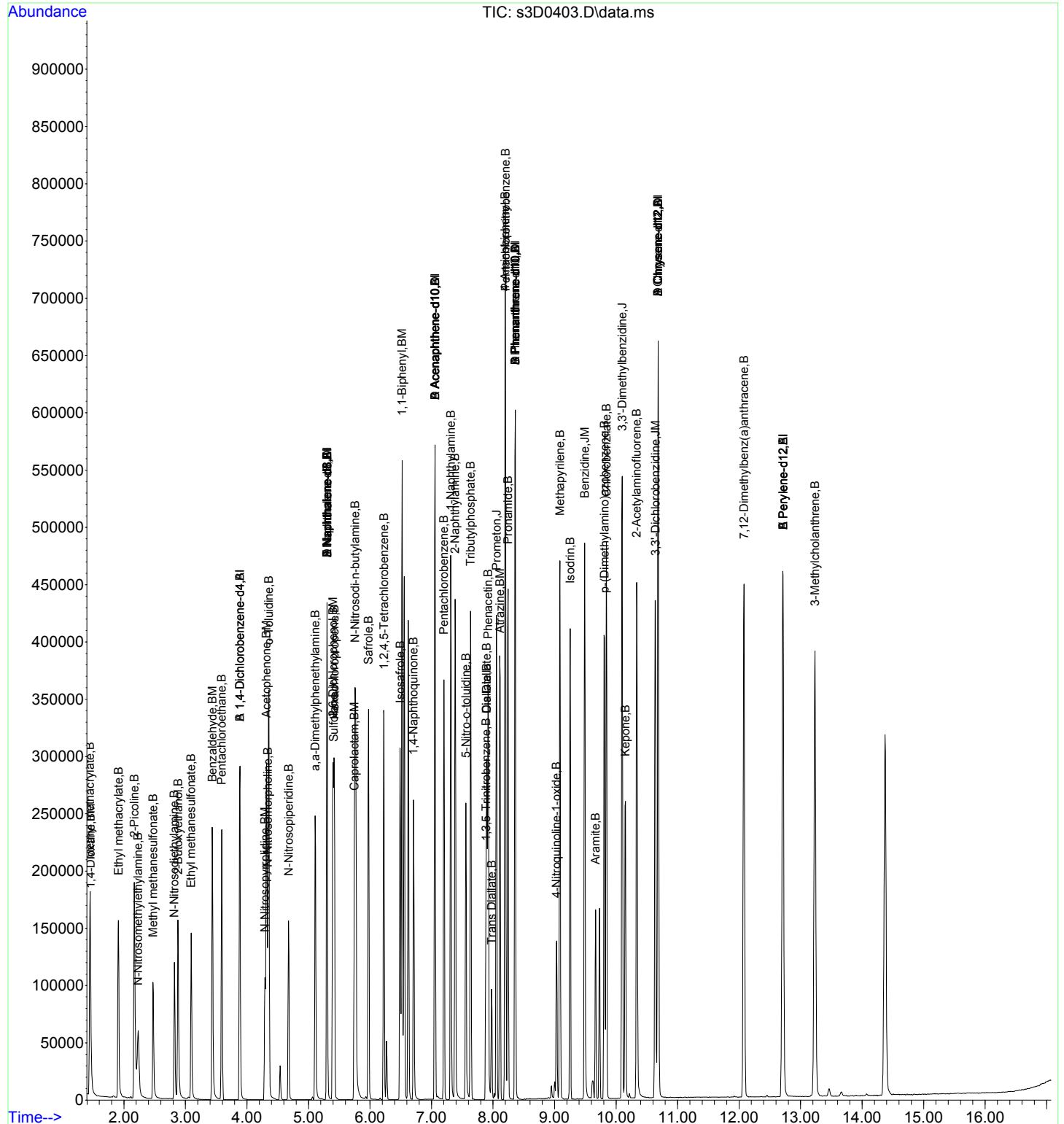
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
123) Isosafrole	162	6.490	6.490	0.920	68739	39.96	ng/uL	99
124) 1,4-Naphthoquinone	158	6.709	6.709	0.951	64527	40.33	ng/uL	98
125) Pentachlorobenzene	250	7.201	7.201	1.020	72733	39.83	ng/uL	99
126) 1-Naphthylamine	143	7.313	7.313	1.036	193148	42.81	ng/uL	100
127) 2-Naphthylamine	143	7.383	7.383	1.046	192401	41.60	ng/uL	99
128) 5-Nitro-o-toluidine	152	7.559	7.559	1.071	53139	41.21	ng/uL	97
129) Tributylphosphate	99	7.634	7.634	1.082	253231	42.01	ng/uL	99
131) 1,3,5-Trinitrobenzene	75	7.886	7.886	0.943	48691	44.70	ng/uL	98
132) Phenacetin	108	7.918	7.918	0.947	104189	41.29	ng/uL	99
133) Diallate	86	7.896	7.896	0.944	61403	40.77	ng/uL#	79
134) Cis Diallate	86	7.896	7.896	0.944	61401	34.65	ng/uL	80
135) Trans Diallate	86	7.976	7.976	0.954	20988	6.04	ng/uL	97
136) Atrazine	200	8.116	8.116	0.971	55774	41.15	ng/uL	98
137) 4-Aminobiphenyl	169	8.196	8.196	0.980	238517	40.78	ng/uL	100
138) Pentachloronitrobenzene	237	8.201	8.201	0.981	23485	39.87	ng/uL	99
139) Pronamide	173	8.244	8.244	0.986	98167	40.92	ng/uL	99
140) 4-Nitroquinoline-1-oxide	128	9.030	9.030	1.080	12605	55.88	ng/uL	93
141) Methapyrilene	97	9.089	9.089	1.087	131653	48.18	ng/uL	100
142) Isodrin	193	9.255	9.255	1.107	35361	41.06	ng/uL	98
144) Aramite	185	9.667	9.667	0.905	15311	39.24	ng/uL	97
145) Kepone	272	10.153	10.153	0.950	33747	37.36	ng/uL	99
146) p-(Dimethylamino)azobe...	225	9.811	9.811	0.918	58891	38.32	ng/uL	95
147) Chlorobenzilate	251	9.843	9.843	0.921	93343	38.54	ng/uL	97
148) 2-Acetylaminofluorene	181	10.335	10.335	0.967	138491	40.63	ng/uL	99
150) 7,12-Dimethylbenz(a)an...	256	12.079	12.079	0.950	143736	39.45	ng/uL	99
151) 3-Methylcholanthrene	269	13.234	13.234	1.041	37874	39.77	ng/uL	96
153) Sulfolane	56	5.409	5.409	1.020	28632	42.40	ng/uL	98
155) Prometon	210	8.057	8.057	0.964	46876	40.19	ng/uL	99
156) Benzidine	184	9.490	9.490	1.135	234657	45.53	ng/uL	100
158) 3,3'-Dimethylbenzidine	212	10.100	10.100	0.945	233032	41.50	ng/uL	100
159) 3,3'-Dichlorobenzidine	252	10.640	10.640	0.996	139150	41.04	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
Data File : s3D0403.D
Acq On : 04 Apr 2024 14:27
Operator : LL2
Sample : WBN240201-54.2|CCV|1|SVM|1|APX-4
Misc : MIX[B,J]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 07:49:12 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration



Continuing Calibration Summary

Instrument ID: MSD3.I
Data File: S040424.S\s3D0404.D
Lab Sample ID WBN240227-25.7
Quant Type ISTD

Client SDG: 660968
Injection Date: 04-APR-24 14:48
Init. Cal. Date(s) 14-MAR-24 08:17 - 14-MAR-24 19:20
Method: S040424.S\MSD3_8270_031424.m
Method Update: 15-MAR-24 08:40

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Triethylphosphorothioate	0.1642	0.15785		.01		-3.86724	20		Averaged
Thionazin	0.2429	0.24917		.01		2.58131	20		Averaged
Sulfotepp	0.1171	0.11003		.01		-6.03757	20		Averaged
Phorate	0.4665	0.46898		.01		0.53162	20		Averaged
Dimethoate	0.2955	0.30625		.01		3.6379	20		Averaged
Disulfoton	0.4213	0.42971		.01		1.9962	20		Averaged
Methyl parathion	0.2341	0.24841		.01		6.11277	20		Averaged
Parathion	0.0717	0.07384		.01		2.98466	20		Averaged
Famphur	0.4801	0.47671		.01		-0.7061	20		Averaged

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0404.D
 Acq On : 04 Apr 2024 14:48
 Operator : LL2
 Sample : |WBN240227-25.7|CCV|1|SVM|1|P-4
 Misc : |MIX[D]
 ALS Vial : 4 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 07:49:40 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

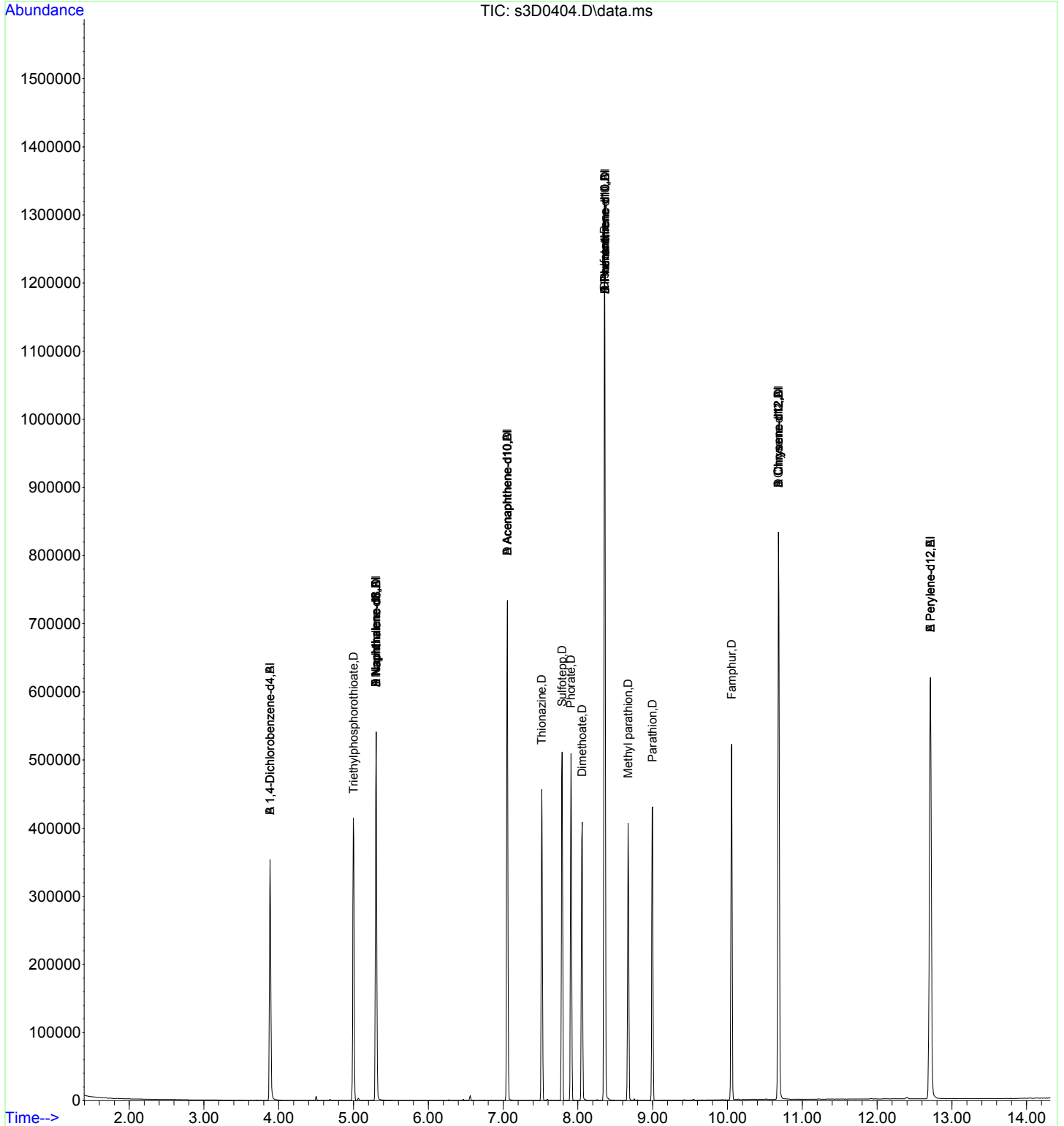
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	77272	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	320852	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.057	7.056	1.000	167816	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.362	8.362	1.000	355356	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.683	10.683	1.000	369775	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.715	12.715	1.000	396206	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	77272	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	320852	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.057	7.056	1.000	167816	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.362	8.362	1.000	355356	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.683	10.683	1.000	369775	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.715	12.715	1.000	396206	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.302	1.000	320852	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.362	8.362	1.000	355356	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.683	10.683	1.000	369775	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	320852	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.057	7.056	1.000	167816	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.362	8.362	1.000	355356	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.683	10.683	1.000	369775	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	320852	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.715	12.715	1.000	396206	40.00	ng/uL	0.00
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.627	0.000	0	0.00	ng/uL	Dev(Min)
8) Phenol-d5	99	0.000	3.486	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.502	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.436	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.773	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.686	0.000	0	0.00	ng/uL	
Target Compounds								
161) Triethylphosphorothioate	198	5.003	5.003	0.944	50645	38.44	ng/uL	98
163) Thionazine	107	7.517	7.527	1.065	41814	41.03	ng/uL	99
165) Sulfotepp	322	7.789	7.795	0.932	39099	37.59	ng/uL	96
166) Phorate	75	7.907	7.912	0.946	166654	40.21	ng/uL	99
167) Dimethoate	87	8.057	8.056	0.964	108829	41.46	ng/uL	98
168) Disulfoton	88	8.356	8.361	0.999	152700	40.79	ng/uL	99
169) Methyl parathion	109	8.672	8.676	1.037	88274	42.45	ng/uL	99
170) Parathion	291	8.998	9.002	1.076	26241	41.21	ng/uL	93
172) Famphur	218	10.057	10.063	0.941	176274	39.72	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0404.D
 Acq On : 04 Apr 2024 14:48
 Operator : LL2
 Sample : |WBN240227-25.7|CCV|1|SVM|1|P-4
 Misc : |MIX[D]
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 05 07:49:40 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration



Continuing Calibration Summary

Instrument ID: MSD3.I
Data File: S040424.S\s3D0405.D
Lab Sample ID WBN240212-33.6
Quant Type ISTD

Client SDG: 660968
Injection Date: 04-APR-24 15:07
Init. Cal. Date(s) 14-MAR-24 08:17 - 14-MAR-24 19:20
Method: S040424.S\MSD3_8270_031424.m
Method Update: 15-MAR-24 08:40

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
p-Phenylenediamine	0.516	0.52012		.01		0.79845	20		Averaged
Hexachlorophene	700	654.42	700			-6.51143	20		Linear

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0405.D
 Acq On : 04 Apr 2024 15:07
 Operator : LL2
 Sample : |WBN240212-33.6|CCV|1|SVM|1|H-4
 Misc : |MIX[E]
 ALS Vial : 5 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 07:50:42 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

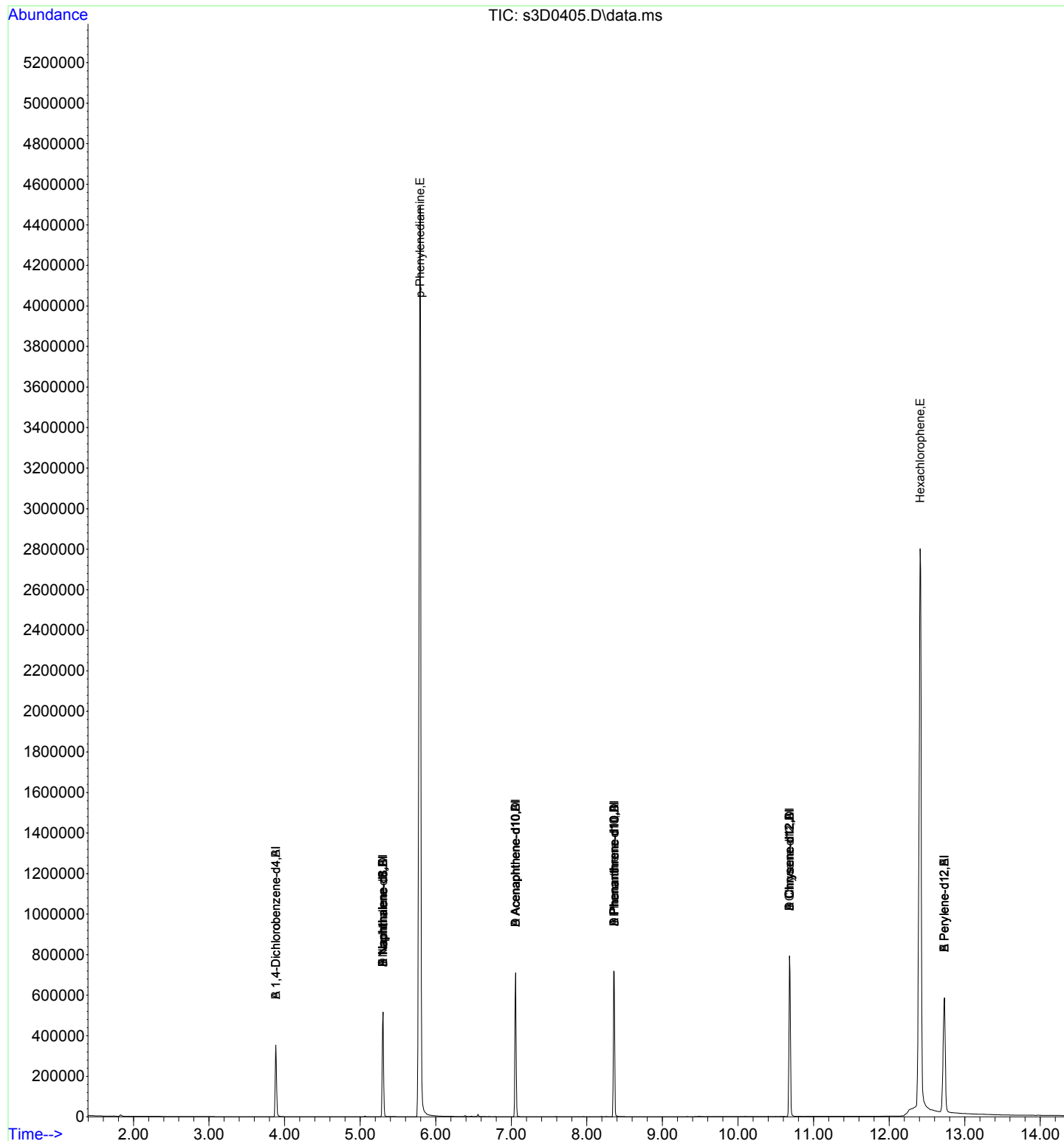
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	76707	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	313184	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	162908	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.361	8.362	1.000	330873	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.683	10.683	1.000	356836	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.731	12.715	1.000	384270	40.00	ng/uL	0.02
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	76707	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	313184	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	162908	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.361	8.362	1.000	330873	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.683	10.683	1.000	356836	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.731	12.715	1.000	384270	40.00	ng/uL	0.02
152) J Naphthalene-d8	136	5.302	5.302	1.000	313184	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.361	8.362	1.000	330873	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.683	10.683	1.000	356836	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	313184	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	162908	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.361	8.362	1.000	330873	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.683	10.683	1.000	356836	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	313184	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.731	12.715	1.000	384270	40.00	ng/uL	0.02
System Monitoring Compounds								
5) 2-Fluorophenol	112	0.000	2.627	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	3.486	0.000	0	0.00	ng/uL	
23) Nitrobenzene-d5	82	0.000	4.502	0.000	0	0.00	ng/uL	
44) 2-Fluorobiphenyl	172	0.000	6.436	0.000	0	0.00	ng/uL	
64) 2,4,6-Tribromophenol	330	0.000	7.773	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	9.686	0.000	0	0.00	ng/uL	
Target Compounds								
174) p-Phenylenediamine	108	5.794	5.793	1.093	2850649	705.63	ng/uL	99
176) Hexachlorophene	196	12.410	12.401	0.975	488642	654.42	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0405.D
 Acq On : 04 Apr 2024 15:07
 Operator : LL2
 Sample : WBN240212-33.6|CCV|1|SVM|1|H-4
 Misc : MIX[E]
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 05 07:50:42 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration



Quality Control Data

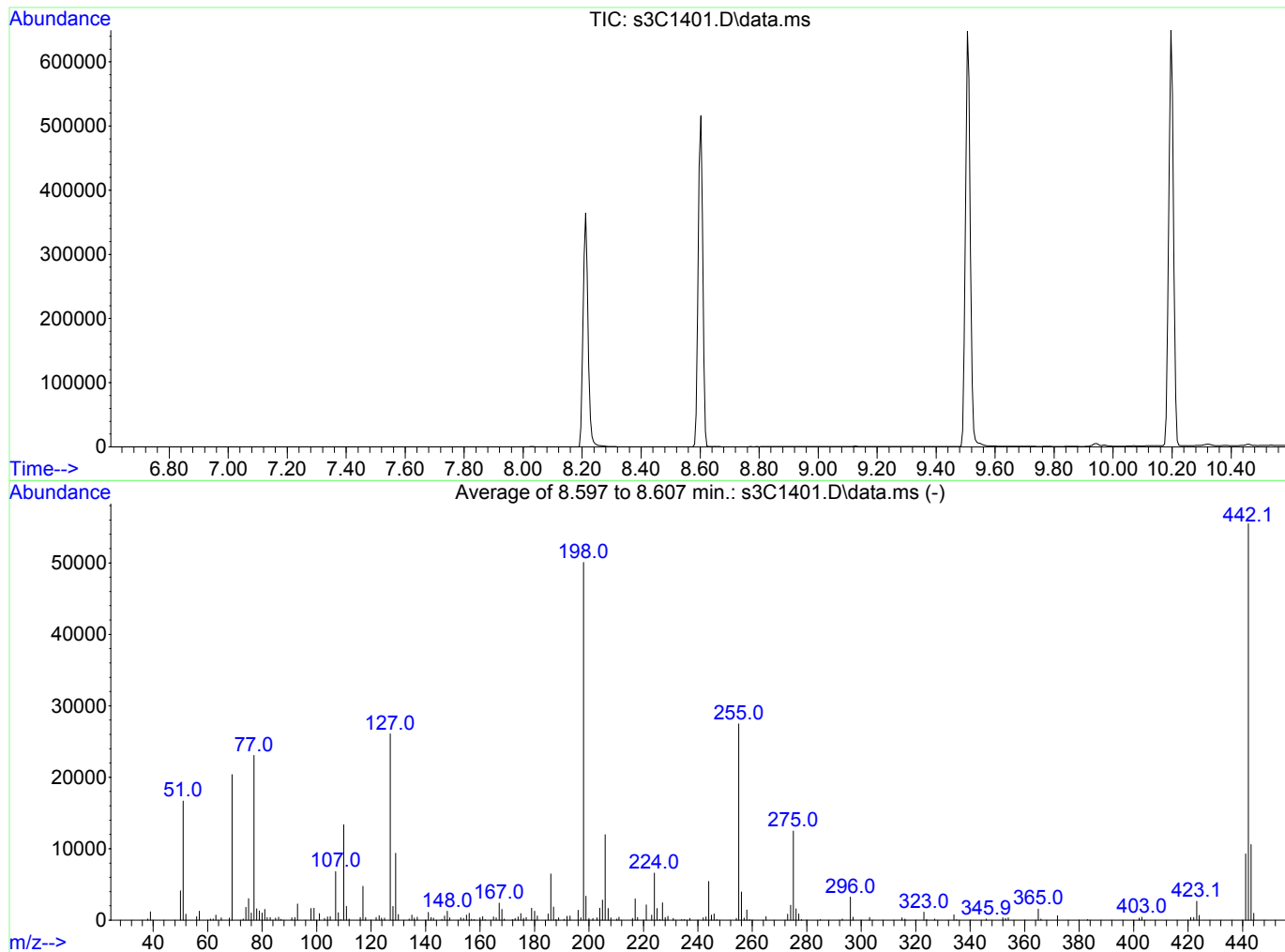
Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1401.D
Acq On : 14 Mar 2024 08:00
Operator : LL2
Sample : |WBN240308-98|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

LL
03/15/2024

RB
03/18/2024

Integration File: rteint.p

Method : C:\msdchem\1\data\S031424ICAL\BNABrk_Down8270E.m
Title : dftpp / endrin / ddt
Last Update : Tue Jun 08 08:47:00 2010



AutoFind: Scans 1347, 1348, 1349; Background Corrected with Scan 1341

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	1.5	312	PASS
69	198	0.00	100	40.7	20369	PASS
70	69	0.00	2	0.0	0	PASS
197	198	0.00	2	0.7	337	PASS
198	442	0.01	100	90.3	50085	PASS
199	198	5	9	6.7	3357	PASS
365	198	1	100	3.1	1544	PASS
441	443	0.01	150	87.5	9268	PASS
442	442	0.01	100	100.0	55480	PASS
443	442	15	24	19.1	10593	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

Data Path : C:\msdchem\1\data\S031424ICAL\
Data File : s3C1401.D
Acq On : 14 Mar 2024 08:00
Operator : LL2
Sample : |WBN240308-98|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

LL
03/15/2024RAB
03/18/2024

Quant Time: Mar 14 09:05:41 2024
Quant Method : C:\msdchem\1\data\S031424ICAL\BNABrk_Down8270E.m
Quant Title : dftpp / endrin / ddt
QLast Update : Tue Jun 08 08:47:00 2010
Response via : Initial Calibration

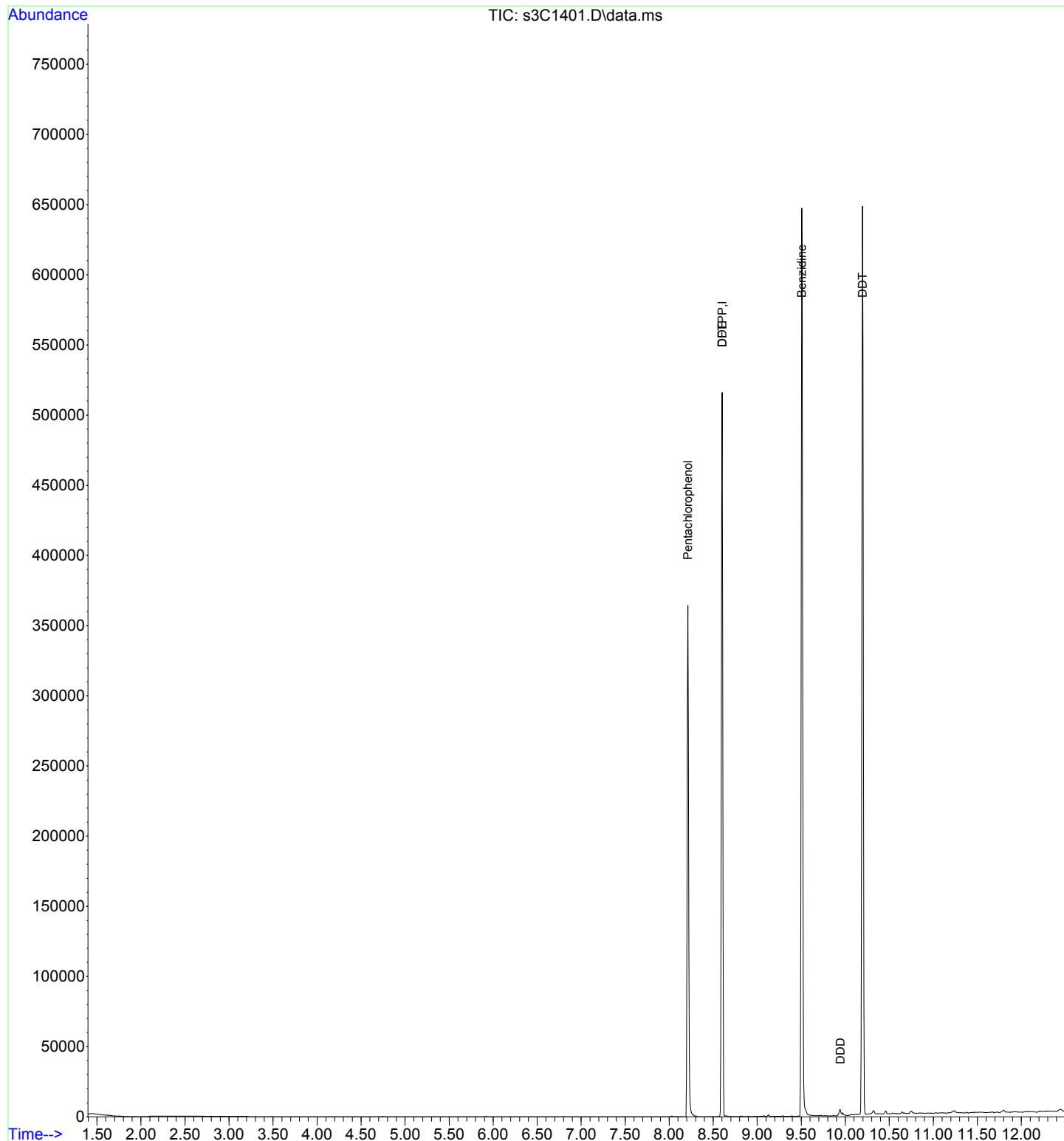
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) DFTPP	TIC	8.602	8.602	1.000	556830	5.00	ug/l	# 0.00
Target Compounds								QValue
3) Pentachlorophenol	266	8.212	8.231	0.955	54621	4.88	ug/l	100
4) Benzidine	184	9.506	9.501	1.105	313147	16.45	ug/l	100
5) DDE	246	8.602	8.602	1.000	1072	3.85	ug/l	# 83
6) DDD	235	9.945	9.927	1.156	1419	1.37	ug/l	92
7) DDT	235	10.196	10.198	1.185	145279	5.19	ug/l	99

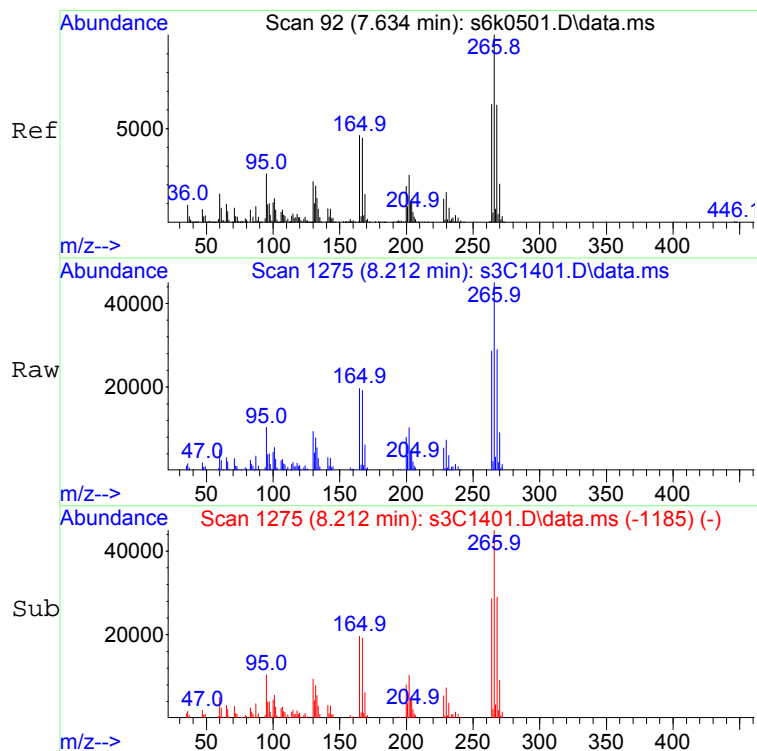
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S031424ICAL\
 Data File : s3C1401.D
 Acq On : 14 Mar 2024 08:00
 Operator : LL2
 Sample : |WBN240308-98|DFTPP|1|SVM|1|DFTPP
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

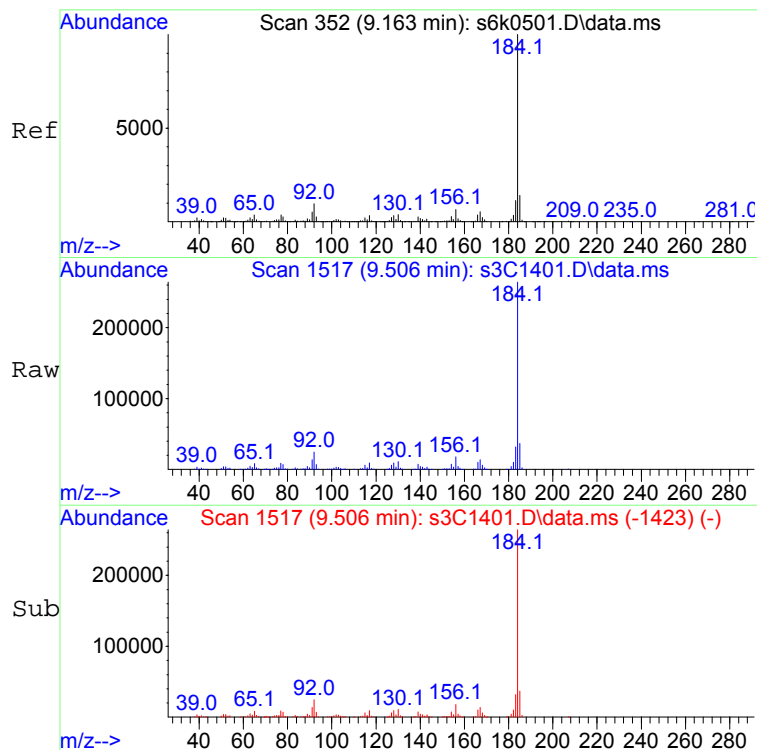
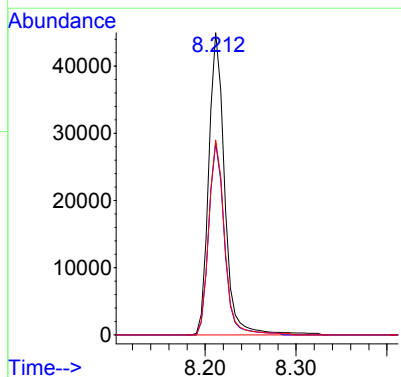
Quant Time: Mar 14 09:05:41 2024
 Quant Method : C:\msdchem\1\data\S031424ICAL\BNABrk_Down8270E.m
 Quant Title : dftpp / endrin / ddt
 QLast Update : Tue Jun 08 08:47:00 2010
 Response via : Initial Calibration





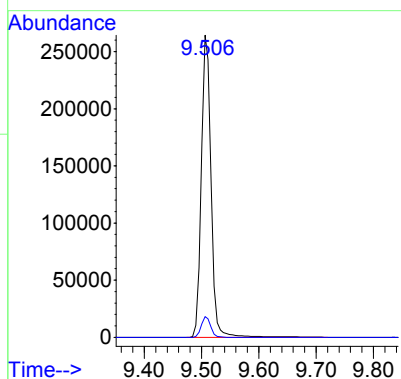
#3
Pentachlorophenol
Concen: 4.88 ug/l
RT: 8.212 min Scan# 1275
Delta R.T. -0.019 min
Lab File: s3C1401.D
Acq: 14 Mar 2024 08:00

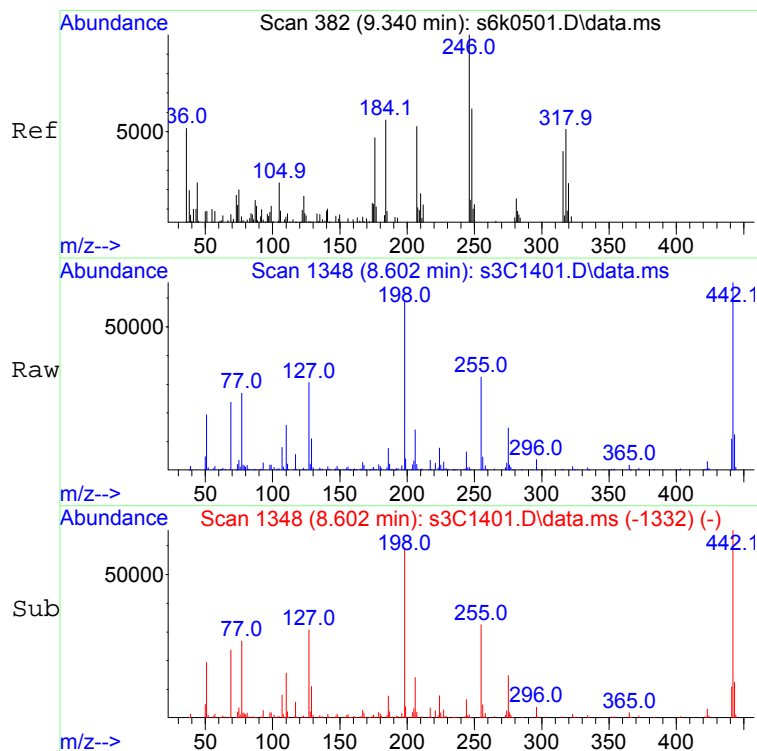
Tgt Ion	Ratio	Resp	Lower	Upper
266	100	54621		
264	62.4	0.0	162.5	
268	63.9	0.0	163.5	



#4
Benzidine
Concen: 16.45 ug/l
RT: 9.506 min Scan# 1517
Delta R.T. 0.005 min
Lab File: s3C1401.D
Acq: 14 Mar 2024 08:00

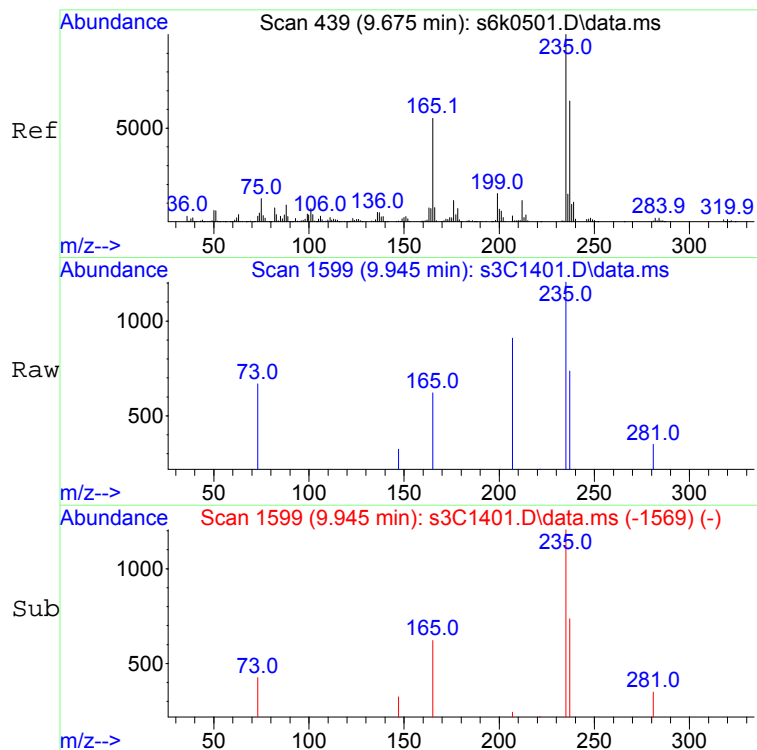
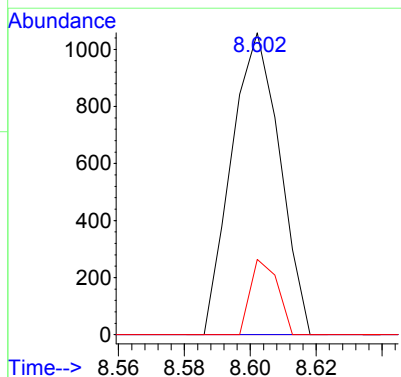
Tgt Ion	Ratio	Resp	Lower	Upper
184	100	313147		
156	6.6	0.0	106.4	





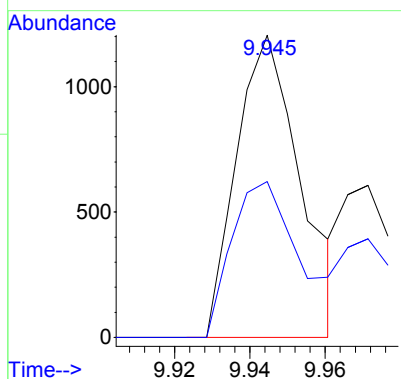
#5
DDE
Concen: 3.85 ug/l
RT: 8.602 min Scan# 1348
Delta R.T. 0.000 min
Lab File: s3C1401.D
Acq: 14 Mar 2024 08:00

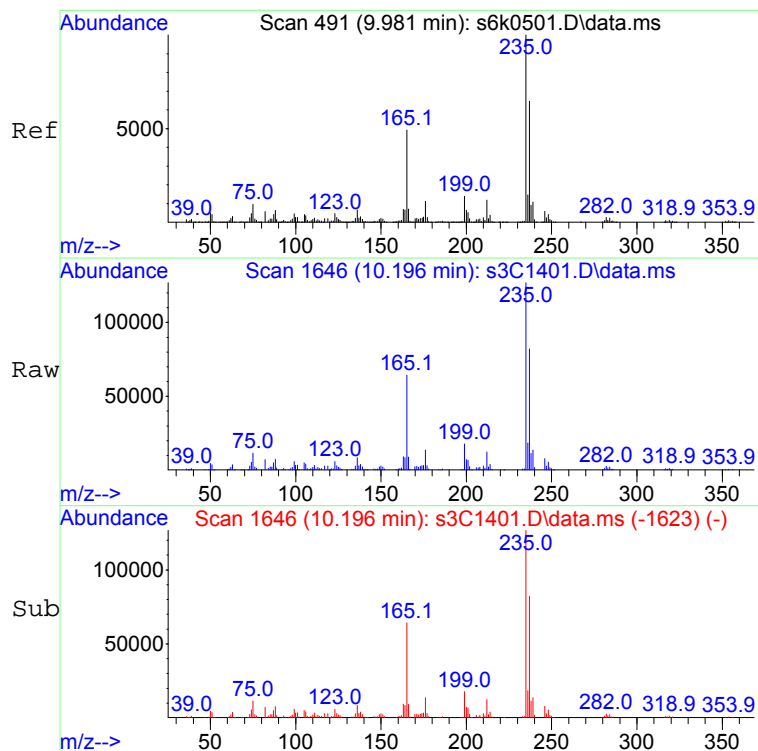
Tgt Ion	Ratio	Lower	Upper
246	100		
318	0.0	0.0	100.0
316	14.2	0.0	122.1



#6
DDD
Concen: 1.37 ug/l
RT: 9.945 min Scan# 1599
Delta R.T. 0.018 min
Lab File: s3C1401.D
Acq: 14 Mar 2024 08:00

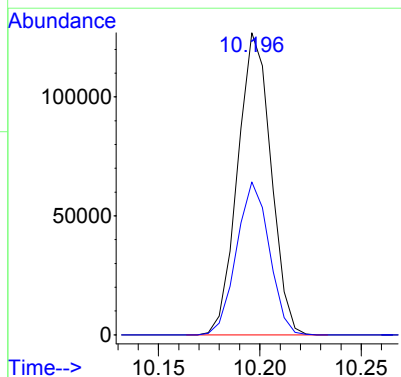
Tgt Ion	Ratio	Lower	Upper
235	100		
165	49.6	0.0	155.3





#7
DDT
Concen: 5.19 ug/l
RT: 10.196 min Scan# 1646
Delta R.T. -0.002 min
Lab File: s3C1401.D
Acq: 14 Mar 2024 08:00

Tgt Ion	Ratio	Lower	Upper
235	100		
165	49.9	0.0	149.4



8270 Breakdown Report

Data File : C:\msdchem\1\data\S031424ICAL\s3C1401.D Vial: 1
Acq On : 14 Mar 2024 08:00 Operator: LL2
Sample : |WBN240308-98|DFTPP|1|SVM|1|DFTPP Inst : MSD3
Misc : Multiplr: 1.00
IntFile : rteint.p

LL
03/15/2024

RB
03/18/2024

Compounds	Area/%Breakdown	8270C	8270D
DDE	1072		
DDD	1419		
DDT	145279		
Breakdown	1.69%	Pass(<20)	Pass(<20)

Compounds	Tailing Factor	8270C	8270D
Benzidine	1.33	Pass(<3)	Pass(<2)
Pentachlorophenol	1.26	Pass(<5)	Pass(<2)

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Matrix:	MISC SOLID
Lab Sample ID:	1205692351		
Client Sample:	QC for batch 2590877	Client:	PERM001
Client ID:	MB for batch 2590877	Method:	SW846 3541/8270E
Batch ID:	2590892	Inst:	MSD3.I
Run Date:	04/04/2024 15:25	Analyst:	LL2
Prep Date:	04/04/2024 09:45	Aliquot:	10.25 g
Data File:	S040424.S\3D0406.D	Column:	DB-5ms
		Project:	PERM00224
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	1 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	976	ug/kg	293	976
110-86-1	Pyridine	U	976	ug/kg	293	976
62-53-3	Aniline	U	976	ug/kg	293	976
108-95-2	Phenol	U	976	ug/kg	293	976
111-44-4	bis(2-Chloroethyl) ether	U	976	ug/kg	293	976
95-57-8	2-Chlorophenol	U	976	ug/kg	293	976
541-73-1	1,3-Dichlorobenzene	U	976	ug/kg	293	976
106-46-7	1,4-Dichlorobenzene	U	976	ug/kg	293	976
95-50-1	1,2-Dichlorobenzene	U	976	ug/kg	293	976
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	976	ug/kg	293	976
100-51-6	Benzyl alcohol	U	976	ug/kg	293	976
95-48-7	o-Cresol	U	976	ug/kg	293	976
65794-96-9	m,p-Cresols	U	976	ug/kg	293	976
621-64-7	N-Nitrosodipropylamine	U	976	ug/kg	293	976
67-72-1	Hexachloroethane	U	976	ug/kg	293	976
98-95-3	Nitrobenzene	U	976	ug/kg	293	976
78-59-1	Isophorone	U	976	ug/kg	293	976
88-75-5	2-Nitrophenol	U	976	ug/kg	293	976
105-67-9	2,4-Dimethylphenol	U	976	ug/kg	293	976
111-91-1	bis(2-Chloroethoxy)methane	U	976	ug/kg	293	976
120-83-2	2,4-Dichlorophenol	U	976	ug/kg	293	976
65-85-0	Benzoic acid	U	1950	ug/kg	488	1950
106-47-8	4-Chloroaniline	U	976	ug/kg	293	976
87-68-3	Hexachlorobutadiene	U	976	ug/kg	293	976
59-50-7	4-Chloro-3-methylphenol	U	976	ug/kg	390	976
91-57-6	2-Methylnaphthalene	U	97.6	ug/kg	29.3	97.6
91-20-3	Naphthalene	U	97.6	ug/kg	29.3	97.6
90-12-0	1-Methylnaphthalene	U	97.6	ug/kg	29.3	97.6
77-47-4	Hexachlorocyclopentadiene	U	976	ug/kg	293	976
88-06-2	2,4,6-Trichlorophenol	U	976	ug/kg	293	976
95-95-4	2,4,5-Trichlorophenol	U	976	ug/kg	293	976
91-58-7	2-Chloronaphthalene	U	97.6	ug/kg	29.3	97.6
88-74-4	o-Nitroaniline	U	976	ug/kg	322	976
99-09-2	m-Nitroaniline	U	976	ug/kg	293	976
131-11-3	Dimethylphthalate	U	97.6	ug/kg	29.3	97.6
99-65-0	m-Dinitrobenzene	U	976	ug/kg	293	976
606-20-2	2,6-Dinitrotoluene	U	976	ug/kg	293	976
121-14-2	2,4-Dinitrotoluene	U	976	ug/kg	293	976

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Matrix:	MISC SOLID
Lab Sample ID:	1205692351		
Client Sample:	QC for batch 2590877	Client:	PERM001
Client ID:	MB for batch 2590877	Method:	SW846 3541/8270E
Batch ID:	2590892	Inst:	MSD3.I
Run Date:	04/04/2024 15:25	Analyst:	LL2
Prep Date:	04/04/2024 09:45	Aliquot:	10.25 g
Data File:	S040424.S\3D0406.D	Column:	DB-5ms
		Project:	PERM00224
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	1 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene	U	97.6	ug/kg	29.3	97.6
83-32-9	Acenaphthene	U	97.6	ug/kg	29.3	97.6
51-28-5	2,4-Dinitrophenol	U	1950	ug/kg	293	1950
132-64-9	Dibenzofuran	U	976	ug/kg	293	976
58-90-2	2,3,4,6-Tetrachlorophenol	U	976	ug/kg	293	976
84-66-2	Diethylphthalate	U	97.6	ug/kg	29.3	97.6
100-02-7	4-Nitrophenol	U	976	ug/kg	293	976
86-73-7	Fluorene	U	97.6	ug/kg	29.3	97.6
7005-72-3	4-Chlorophenylphenylether	U	976	ug/kg	293	976
100-01-6	p-Nitroaniline	U	976	ug/kg	293	976
534-52-1	2-Methyl-4,6-dinitrophenol	U	976	ug/kg	293	976
122-39-4	Diphenylamine	U	976	ug/kg	293	976
122-66-7	1,2-Diphenylhydrazine	U	976	ug/kg	293	976
101-55-3	4-Bromophenylphenylether	U	976	ug/kg	293	976
118-74-1	Hexachlorobenzene	U	976	ug/kg	293	976
87-86-5	Pentachlorophenol	U	976	ug/kg	293	976
88-85-7	Dinoseb	U	976	ug/kg	293	976
85-01-8	Phenanthrene	U	97.6	ug/kg	29.3	97.6
120-12-7	Anthracene	U	97.6	ug/kg	29.3	97.6
86-74-8	Carbazole	U	97.6	ug/kg	29.3	97.6
84-74-2	Di-n-butylphthalate	U	97.6	ug/kg	29.3	97.6
206-44-0	Fluoranthene	U	97.6	ug/kg	29.3	97.6
129-00-0	Pyrene	U	97.6	ug/kg	29.3	97.6
85-68-7	Butylbenzylphthalate	U	97.6	ug/kg	29.3	97.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	97.6	ug/kg	29.3	97.6
56-55-3	Benzo(a)anthracene	U	97.6	ug/kg	29.3	97.6
218-01-9	Chrysene	U	97.6	ug/kg	29.3	97.6
72-43-5	Methoxychlor	U	976	ug/kg	293	976
117-84-0	Di-n-octylphthalate	U	97.6	ug/kg	29.3	97.6
205-99-2	Benzo(b)fluoranthene	U	97.6	ug/kg	29.3	97.6
207-08-9	Benzo(k)fluoranthene	U	97.6	ug/kg	29.3	97.6
50-32-8	Benzo(a)pyrene	U	97.6	ug/kg	29.3	97.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	97.6	ug/kg	29.3	97.6
53-70-3	Dibenzo(a,h)anthracene	U	97.6	ug/kg	29.3	97.6
191-24-2	Benzo(ghi)perylene	U	97.6	ug/kg	29.3	97.6
123-91-1	1,4-Dioxane	U	976	ug/kg	293	976
80-62-6	Methyl methacrylate	U	976	ug/kg	293	976
97-63-2	Ethyl methacrylate	U	976	ug/kg	293	976

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Matrix:	MISC SOLID
Lab Sample ID:	1205692351		
Client Sample:	QC for batch 2590877	Client:	PERM001
Client ID:	MB for batch 2590877	Method:	SW846 3541/8270E
Batch ID:	2590892	Inst:	MSD3.I
Run Date:	04/04/2024 15:25	Analyst:	LL2
Prep Date:	04/04/2024 09:45	Aliquot:	10.25 g
Data File:	S040424.S\3D0406.D	Column:	DB-5ms
		Project:	PERM00224
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	1 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	976	ug/kg	293	976
10595-95-6	N-Nitrosomethylethylamine	U	976	ug/kg	293	976
66-27-3	Methyl methanesulfonate	U	976	ug/kg	293	976
55-18-5	N-Nitrosodiethylamine	U	976	ug/kg	293	976
62-50-0	Ethyl Methanesulfonate	U	976	ug/kg	293	976
76-01-7	Pentachloroethane	U	976	ug/kg	293	976
930-55-2	N-Nitrosopyrrolidine	U	976	ug/kg	293	976
98-86-2	Acetophenone	U	976	ug/kg	293	976
59-89-2	N-Nitrosomorpholine	U	976	ug/kg	293	976
95-53-4	o-Toluidine	U	976	ug/kg	293	976
100-75-4	N-Nitrosopiperidine	U	976	ug/kg	293	976
122-09-8	a,a-Dimethylphenethylamine	U	976	ug/kg	341	976
87-65-0	2,6-Dichlorophenol	U	976	ug/kg	293	976
1888-71-7	Hexachloropropene	U	976	ug/kg	293	976
924-16-3	N-Nitrosodi-n-butylamine	U	976	ug/kg	293	976
94-59-7	Safrole	U	976	ug/kg	293	976
95-94-3	1,2,4,5-Tetrachlorobenzene	U	976	ug/kg	293	976
120-58-1	Isosafrole	U	976	ug/kg	293	976
130-15-4	1,4-Naphthoquinone	U	976	ug/kg	293	976
608-93-5	Pentachlorobenzene	U	976	ug/kg	293	976
134-32-7	1-Naphthylamine	U	976	ug/kg	293	976
91-59-8	2-Naphthylamine	U	976	ug/kg	293	976
99-55-8	5-Nitro-o-toluidine	U	976	ug/kg	293	976
62-44-2	Phenacetin	U	976	ug/kg	293	976
99-35-4	1,3,5-Trinitrobenzene	U	976	ug/kg	293	976
2303-16-4	Diallate	U	976	ug/kg	293	976
92-67-1	4-Aminobiphenyl	U	976	ug/kg	293	976
82-68-8	Pentachloronitrobenzene	U	976	ug/kg	293	976
23950-58-5	Pronamide	U	976	ug/kg	293	976
56-57-5	4-Nitroquinoline-1-oxide	U	976	ug/kg	293	976
91-80-5	Methapyrilene	U	976	ug/kg	293	976
465-73-6	Isodrin	U	976	ug/kg	195	976
140-57-8	Aramite	U	976	ug/kg	293	976
143-50-0	Kepone	U	976	ug/kg	293	976
60-11-7	p-(Dimethylamino)azobenzene	U	976	ug/kg	293	976
510-15-6	Chlorobenzilate	U	976	ug/kg	293	976
119-93-7	3,3'-Dimethylbenzidine	U	976	ug/kg	293	976
53-96-3	2-Acetylaminofluorene	U	976	ug/kg	293	976

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Matrix:	MISC SOLID
Lab Sample ID:	1205692351		
Client Sample:	QC for batch 2590877	Client:	PERM001
Client ID:	MB for batch 2590877	Method:	SW846 3541/8270E
Batch ID:	2590892	Inst:	MSD3.I
Run Date:	04/04/2024 15:25	Analyst:	LL2
Prep Date:	04/04/2024 09:45	Aliquot:	10.25 g
Data File:	S040424.S\3D0406.D	Column:	DB-5ms
		Project:	PERM00224
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	1 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	U	976	ug/kg	293	976
57-97-6	7,12-Dimethylbenz(a)anthracene	U	976	ug/kg	293	976
56-49-5	3-Methylcholanthrene	U	976	ug/kg	293	976
126-68-1	Triethylphosphorothioate	U	976	ug/kg	293	976
297-97-2	Thionazin	U	976	ug/kg	293	976
126-73-8	Tributylphosphate	U	976	ug/kg	293	976
3689-24-5	Sulfotepp	U	976	ug/kg	293	976
298-02-2	Phorate	U	976	ug/kg	293	976
60-51-5	Dimethoate	U	976	ug/kg	293	976
298-04-4	Disulfoton	U	976	ug/kg	293	976
298-00-0	Methyl parathion	U	976	ug/kg	293	976
56-38-2	Parathion	U	976	ug/kg	293	976
52-85-7	Famphur	U	976	ug/kg	293	976
106-50-3	p-Phenylenediamine	U	48800	ug/kg	9760	48800
70-30-4	Hexachlorophene	U	48800	ug/kg	11300	48800
120-82-1	1,2,4-Trichlorobenzene	U	976	ug/kg	293	976

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0406.D
 Acq On : 04 Apr 2024 15:25
 Operator : LL2
 Sample : |1205692351|2590892|1|SVM|1|MB|||
 Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
 ALS Vial : 6 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 07:53:43 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	74563	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	305218	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	155365	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.356	8.362	1.000	318450	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.683	10.683	1.000	348183	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.715	12.715	1.000	376506	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	74563	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	305218	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	155365	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.356	8.362	1.000	318450	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.683	10.683	1.000	348183	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.715	12.715	1.000	376506	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.302	1.000	305218	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.356	8.362	1.000	318450	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.683	10.683	1.000	348183	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	305218	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	155365	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.356	8.362	1.000	318450	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.683	10.683	1.000	348183	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	305218	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.715	12.715	1.000	376506	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	2.617	2.627	0.674	192175	77.85	ng/uL	-0.01
8) Phenol-d5	99	3.483	3.486	0.897	248696	81.30	ng/uL	0.00
23) Nitrobenzene-d5	82	4.484	4.502	0.846	95976	34.30	ng/uL	-0.02
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	211928	35.91	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.757	7.773	0.928	89130	76.70	ng/uL	-0.02
79) p-Terphenyl-d14	244	9.693	9.686	1.160	341965	44.91	ng/uL	0.00
Compound	Amount	Range		Recovery				
5) 2-Fluorophenol	100.000	11 - 79		78%				
8) Phenol-d5	100.000	15 - 85		81%				
23) Nitrobenzene-d5	50.000	39 - 112		69%				
44) 2-Fluorobiphenyl	50.000	39 - 112		72%				
64) 2,4,6-Tribromophenol	100.000	37 - 132		77%				
79) p-Terphenyl-d14	50.000	24 - 129		90%				

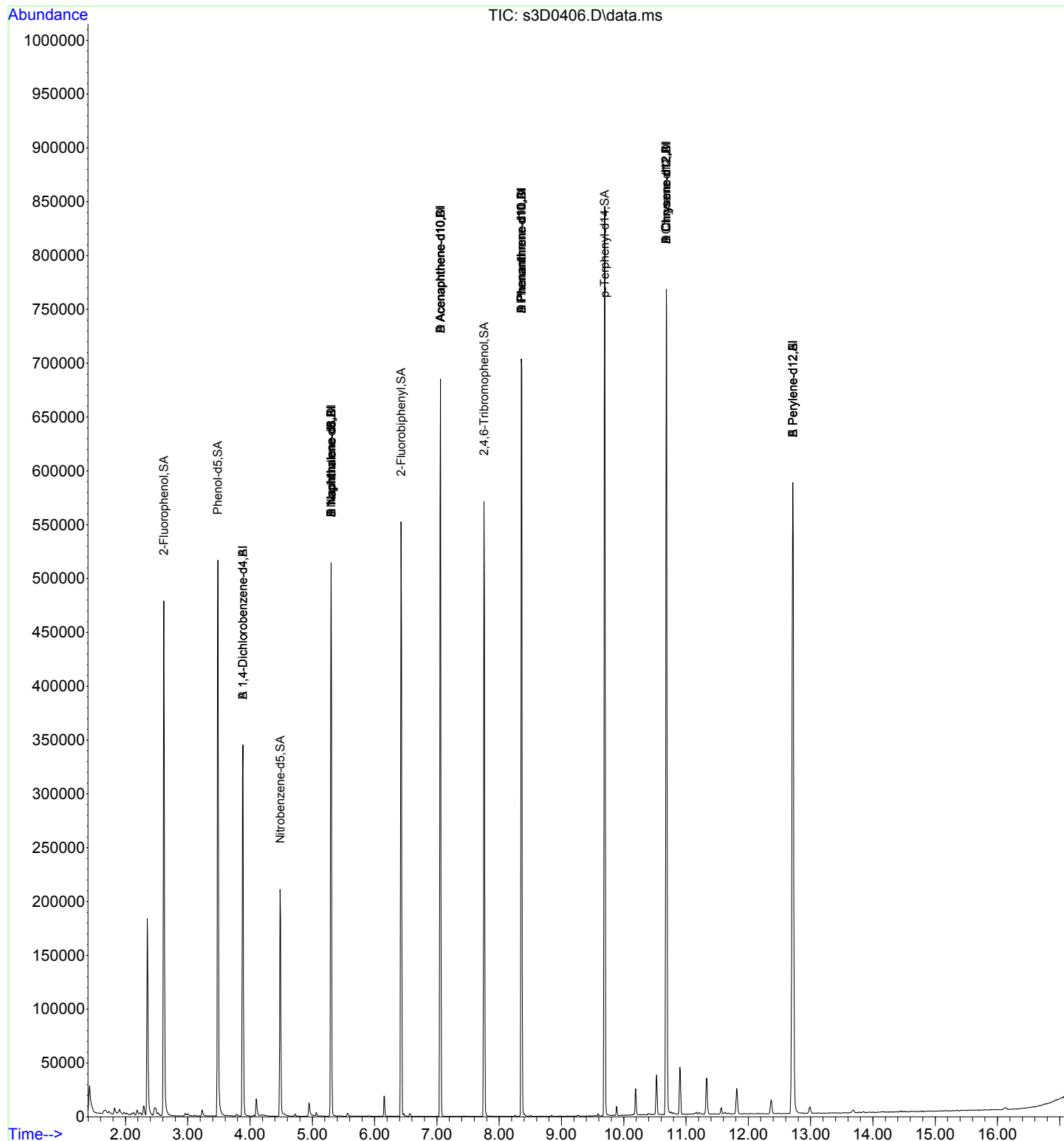
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
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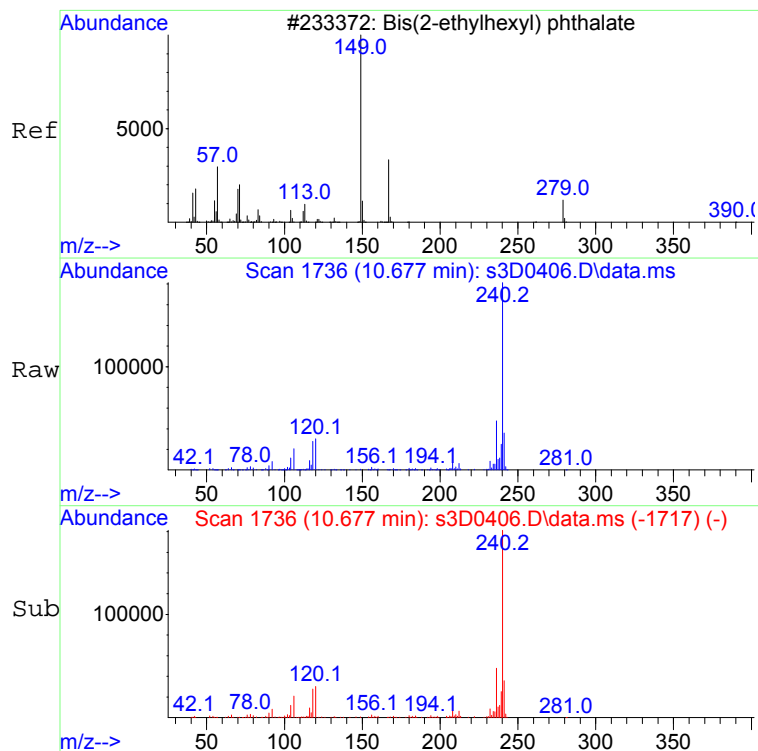
(#) = qualifier out of range (m) = manual integration (+) = signals summed
 (A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0406.D
 Acq On : 04 Apr 2024 15:25
 Operator : LL2
 Sample : |1205692351|2590892|1|SVM|1|MB|||
 Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
 ALS Vial : 6 Sample Multiplier: 1

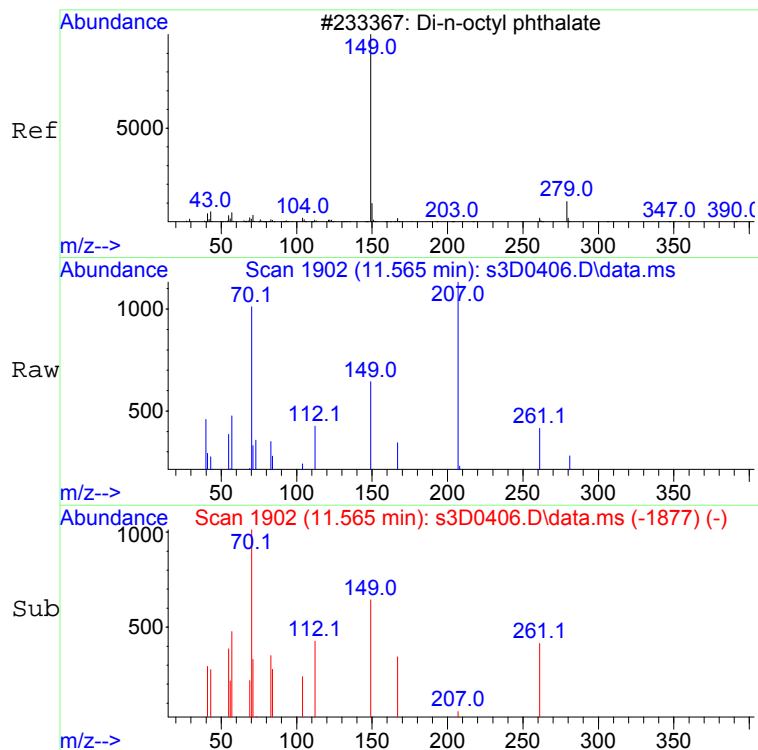
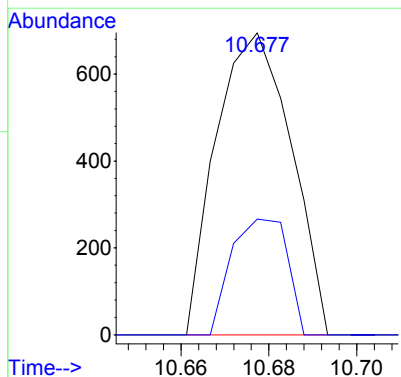
Quant Time: Apr 05 07:53:43 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration





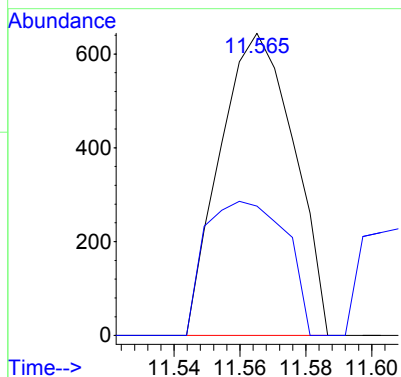
#82 BEFORE analyst DELETION
bis(2-Ethylhexyl)phthalate
Concen: 0.55 ng/uL
RT: 10.677 min Scan# 1736
Delta R.T. -0.000 min
Lab File: s3D0406.D
Acq: 04 Apr 2024 15:25

Tgt Ion:149 Resp: 827
Ion Ratio Lower Upper
149 100
167 0.0 0.0 55.6



#87 BEFORE analyst DELETION
Di-n-octylphthalate
Concen: 0.60 ng/uL
RT: 11.565 min Scan# 1902
Delta R.T. 0.035 min
Lab File: s3D0406.D
Acq: 04 Apr 2024 15:25

Tgt Ion:149 Resp: 999
Ion Ratio Lower Upper
149 100
43 48.6 0.0 37.4#



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Matrix:	MISC SOLID
Lab Sample ID:	1205692352		
Client Sample:	QC for batch 2590877	Client:	PERM001
Client ID:	LCS for batch 2590877	Method:	SW846 3541/8270E
Batch ID:	2590892	Inst:	MSD3.I
Run Date:	04/04/2024 15:46	Analyst:	LL2
Prep Date:	04/04/2024 09:45	Aliquot:	10.67 g
Data File:	S040424.S\3D0407.D	Column:	DB-5ms
		Project:	PERM00224
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	1 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		3710	ug/kg	281	937
110-86-1	Pyridine		2930	ug/kg	281	937
62-53-3	Aniline		3180	ug/kg	281	937
108-95-2	Phenol		4120	ug/kg	281	937
111-44-4	bis(2-Chloroethyl) ether		3910	ug/kg	281	937
95-57-8	2-Chlorophenol		4050	ug/kg	281	937
541-73-1	1,3-Dichlorobenzene		3510	ug/kg	281	937
106-46-7	1,4-Dichlorobenzene		3550	ug/kg	281	937
95-50-1	1,2-Dichlorobenzene		3720	ug/kg	281	937
108-60-1	bis(2-Chloro-1-methylethyl)ether		3750	ug/kg	281	937
100-51-6	Benzyl alcohol		4190	ug/kg	281	937
95-48-7	o-Cresol		3970	ug/kg	281	937
65794-96-9	m,p-Cresols		4080	ug/kg	281	937
621-64-7	N-Nitrosodipropylamine		4100	ug/kg	281	937
67-72-1	Hexachloroethane		3550	ug/kg	281	937
98-95-3	Nitrobenzene		3740	ug/kg	281	937
78-59-1	Isophorone		3820	ug/kg	281	937
88-75-5	2-Nitrophenol		3880	ug/kg	281	937
105-67-9	2,4-Dimethylphenol		2740	ug/kg	281	937
111-91-1	bis(2-Chloroethoxy)methane		3950	ug/kg	281	937
120-83-2	2,4-Dichlorophenol		4060	ug/kg	281	937
65-85-0	Benzoic acid		4860	ug/kg	469	1870
106-47-8	4-Chloroaniline		3460	ug/kg	281	937
87-68-3	Hexachlorobutadiene		3590	ug/kg	281	937
59-50-7	4-Chloro-3-methylphenol		4360	ug/kg	375	937
91-57-6	2-Methylnaphthalene		3880	ug/kg	28.1	93.7
91-20-3	Naphthalene		3790	ug/kg	28.1	93.7
90-12-0	1-Methylnaphthalene		4090	ug/kg	28.1	93.7
77-47-4	Hexachlorocyclopentadiene		1900	ug/kg	281	937
88-06-2	2,4,6-Trichlorophenol		4020	ug/kg	281	937
95-95-4	2,4,5-Trichlorophenol		4330	ug/kg	281	937
91-58-7	2-Chloronaphthalene		3870	ug/kg	28.1	93.7
88-74-4	o-Nitroaniline		4190	ug/kg	309	937
99-09-2	m-Nitroaniline		3830	ug/kg	281	937
131-11-3	Dimethylphthalate		4370	ug/kg	28.1	93.7
99-65-0	m-Dinitrobenzene	U	937	ug/kg	281	937
606-20-2	2,6-Dinitrotoluene		4160	ug/kg	281	937
121-14-2	2,4-Dinitrotoluene		4520	ug/kg	281	937

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Matrix:	MISC SOLID
Lab Sample ID:	1205692352		
Client Sample:	QC for batch 2590877	Client:	PERM001
Client ID:	LCS for batch 2590877	Method:	SW846 3541/8270E
Batch ID:	2590892	Inst:	MSD3.I
Run Date:	04/04/2024 15:46	Analyst:	LL2
Prep Date:	04/04/2024 09:45	Aliquot:	10.67 g
Data File:	S040424.S\3D0407.D	Column:	DB-5ms
		Project:	PERM00224
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	1 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene		3860	ug/kg	28.1	93.7
83-32-9	Acenaphthene		4010	ug/kg	28.1	93.7
51-28-5	2,4-Dinitrophenol		3100	ug/kg	281	1870
132-64-9	Dibenzofuran		4080	ug/kg	281	937
58-90-2	2,3,4,6-Tetrachlorophenol		3910	ug/kg	281	937
84-66-2	Diethylphthalate		4660	ug/kg	28.1	93.7
100-02-7	4-Nitrophenol		4530	ug/kg	281	937
86-73-7	Fluorene		4220	ug/kg	28.1	93.7
7005-72-3	4-Chlorophenylphenylether		4240	ug/kg	281	937
100-01-6	p-Nitroaniline		4400	ug/kg	281	937
534-52-1	2-Methyl-4,6-dinitrophenol		3580	ug/kg	281	937
122-39-4	Diphenylamine		4330	ug/kg	281	937
122-66-7	1,2-Diphenylhydrazine		4110	ug/kg	281	937
101-55-3	4-Bromophenylphenylether		4270	ug/kg	281	937
118-74-1	Hexachlorobenzene		4100	ug/kg	281	937
87-86-5	Pentachlorophenol		4220	ug/kg	281	937
88-85-7	Dinoseb	U	937	ug/kg	281	937
85-01-8	Phenanthrene		4410	ug/kg	28.1	93.7
120-12-7	Anthracene		4330	ug/kg	28.1	93.7
86-74-8	Carbazole		4720	ug/kg	28.1	93.7
84-74-2	Di-n-butylphthalate		5050	ug/kg	28.1	93.7
206-44-0	Fluoranthene		4760	ug/kg	28.1	93.7
129-00-0	Pyrene		4780	ug/kg	28.1	93.7
85-68-7	Butylbenzylphthalate		4660	ug/kg	28.1	93.7
117-81-7	bis(2-Ethylhexyl)phthalate		4530	ug/kg	28.1	93.7
56-55-3	Benzo(a)anthracene		4490	ug/kg	28.1	93.7
218-01-9	Chrysene		4320	ug/kg	28.1	93.7
72-43-5	Methoxychlor	U	937	ug/kg	281	937
117-84-0	Di-n-octylphthalate		4880	ug/kg	28.1	93.7
205-99-2	Benzo(b)fluoranthene		4570	ug/kg	28.1	93.7
207-08-9	Benzo(k)fluoranthene		4440	ug/kg	28.1	93.7
50-32-8	Benzo(a)pyrene		4410	ug/kg	28.1	93.7
193-39-5	Indeno(1,2,3-cd)pyrene		4400	ug/kg	28.1	93.7
53-70-3	Dibenzo(a,h)anthracene		4620	ug/kg	28.1	93.7
191-24-2	Benzo(ghi)perylene		4920	ug/kg	28.1	93.7
123-91-1	1,4-Dioxane		1970	ug/kg	281	937
80-62-6	Methyl methacrylate	U	937	ug/kg	281	937
97-63-2	Ethyl methacrylate	U	937	ug/kg	281	937

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Matrix:	MISC SOLID
Lab Sample ID:	1205692352		
Client Sample:	QC for batch 2590877	Client:	PERM001
Client ID:	LCS for batch 2590877	Method:	SW846 3541/8270E
Batch ID:	2590892	Inst:	MSD3.I
Run Date:	04/04/2024 15:46	Analyst:	LL2
Prep Date:	04/04/2024 09:45	Aliquot:	10.67 g
Data File:	S040424.S\3D0407.D	Column:	DB-5ms
		Project:	PERM00224
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	1 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	937	ug/kg	281	937
10595-95-6	N-Nitrosomethylethylamine	U	937	ug/kg	281	937
66-27-3	Methyl methanesulfonate	U	937	ug/kg	281	937
55-18-5	N-Nitrosodiethylamine	U	937	ug/kg	281	937
62-50-0	Ethyl Methanesulfonate	U	937	ug/kg	281	937
76-01-7	Pentachloroethane	U	937	ug/kg	281	937
930-55-2	N-Nitrosopyrrolidine		4210	ug/kg	281	937
98-86-2	Acetophenone		4230	ug/kg	281	937
59-89-2	N-Nitrosomorpholine	J	408	ug/kg	281	937
95-53-4	o-Toluidine	J	310	ug/kg	281	937
100-75-4	N-Nitrosopiperidine	U	937	ug/kg	281	937
122-09-8	a,a-Dimethylphenethylamine	U	937	ug/kg	328	937
87-65-0	2,6-Dichlorophenol		4340	ug/kg	281	937
1888-71-7	Hexachloropropene	U	937	ug/kg	281	937
924-16-3	N-Nitrosodi-n-butylamine	J	365	ug/kg	281	937
94-59-7	Safrole	U	937	ug/kg	281	937
95-94-3	1,2,4,5-Tetrachlorobenzene		3960	ug/kg	281	937
120-58-1	Isosafrole		9560	ug/kg	281	937
130-15-4	1,4-Naphthoquinone	U	937	ug/kg	281	937
608-93-5	Pentachlorobenzene	U	937	ug/kg	281	937
134-32-7	1-Naphthylamine	U	937	ug/kg	281	937
91-59-8	2-Naphthylamine	U	937	ug/kg	281	937
99-55-8	5-Nitro-o-toluidine	U	937	ug/kg	281	937
62-44-2	Phenacetin	U	937	ug/kg	281	937
99-35-4	1,3,5-Trinitrobenzene	U	937	ug/kg	281	937
2303-16-4	Diallate	U	937	ug/kg	281	937
92-67-1	4-Aminobiphenyl	U	937	ug/kg	281	937
82-68-8	Pentachloronitrobenzene	U	937	ug/kg	281	937
23950-58-5	Pronamide	U	937	ug/kg	281	937
56-57-5	4-Nitroquinoline-1-oxide	U	937	ug/kg	281	937
91-80-5	Methapyrilene	U	937	ug/kg	281	937
465-73-6	Isodrin	U	937	ug/kg	187	937
140-57-8	Aramite	U	937	ug/kg	281	937
143-50-0	Kepone	U	937	ug/kg	281	937
60-11-7	p-(Dimethylamino)azobenzene	U	937	ug/kg	281	937
510-15-6	Chlorobenzilate	U	937	ug/kg	281	937
119-93-7	3,3'-Dimethylbenzidine	U	937	ug/kg	281	937
53-96-3	2-Acetylaminofluorene	U	937	ug/kg	281	937

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Matrix:	MISC SOLID
Lab Sample ID:	1205692352		
Client Sample:	QC for batch 2590877	Client:	PERM001
Client ID:	LCS for batch 2590877	Method:	SW846 3541/8270E
Batch ID:	2590892	Inst:	MSD3.I
Run Date:	04/04/2024 15:46	Analyst:	LL2
Prep Date:	04/04/2024 09:45	Aliquot:	10.67 g
Data File:	S040424.S\3D0407.D	Column:	DB-5ms
		Project:	PERM00224
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	1 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine		3570	ug/kg	281	937
57-97-6	7,12-Dimethylbenz(a)anthracene	U	937	ug/kg	281	937
56-49-5	3-Methylcholanthrene	U	937	ug/kg	281	937
126-68-1	Triethylphosphorothioate	U	937	ug/kg	281	937
297-97-2	Thionazin	U	937	ug/kg	281	937
126-73-8	Tributylphosphate		4730	ug/kg	281	937
3689-24-5	Sulfotepp	U	937	ug/kg	281	937
298-02-2	Phorate	J	303	ug/kg	281	937
60-51-5	Dimethoate	U	937	ug/kg	281	937
298-04-4	Disulfoton		1050	ug/kg	281	937
298-00-0	Methyl parathion	U	937	ug/kg	281	937
56-38-2	Parathion	U	937	ug/kg	281	937
52-85-7	Famphur	U	937	ug/kg	281	937
106-50-3	p-Phenylenediamine	U	46900	ug/kg	9370	46900
70-30-4	Hexachlorophene	U	46900	ug/kg	10900	46900
120-82-1	1,2,4-Trichlorobenzene		3690	ug/kg	281	937

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0407.D
 Acq On : 04 Apr 2024 15:46
 Operator : LL2
 Sample : |1205692352|2590892|1|SVM|1|LCS|||
 Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
 ALS Vial : 7 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 07:54:36 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	81101	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	340804	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	176666	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.361	8.362	1.000	353904	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.688	10.683	1.000	393321	40.00	ng/uL	0.00
88) A Perylene-d12	264	12.715	12.715	1.000	416873	40.00	ng/uL	0.00
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	81101	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	340804	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	176666	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.361	8.362	1.000	353904	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.688	10.683	1.000	393321	40.00	ng/uL	0.00
149) B Perylene-d12	264	12.715	12.715	1.000	416873	40.00	ng/uL	0.00
152) J Naphthalene-d8	136	5.302	5.302	1.000	340804	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.361	8.362	1.000	353904	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.688	10.683	1.000	393321	40.00	ng/uL	0.00
160) D Naphthalene-d8	136	5.302	5.302	1.000	340804	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	176666	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.361	8.362	1.000	353904	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.688	10.683	1.000	393321	40.00	ng/uL	0.00
173) E Naphthalene-d8	136	5.302	5.302	1.000	340804	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.715	12.715	1.000	416873	40.00	ng/uL	0.00

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.617	2.627	0.674	207887	77.43	ng/uL	0.00
8) Phenol-d5	99	3.483	3.486	0.897	272543	81.91	ng/uL	0.00
23) Nitrobenzene-d5	82	4.489	4.502	0.847	108015	34.57	ng/uL	-0.01
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	234036	34.88	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.762	7.773	0.928	107235	83.04	ng/uL	-0.01
79) p-Terphenyl-d14	244	9.693	9.686	1.159	376481	44.49	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	77%
8) Phenol-d5	100.000	15 - 85	82%
23) Nitrobenzene-d5	50.000	39 - 112	69%
44) 2-Fluorobiphenyl	50.000	39 - 112	70%
64) 2,4,6-Tribromophenol	100.000	37 - 132	83%
79) p-Terphenyl-d14	50.000	24 - 129	89%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
3) N-Methyl-N-nitrosometh...	74	1.633	1.663	0.420	67459	39.62	ng/uL	98
4) Pyridine	79	1.676	1.705	0.431	76437	31.29	ng/uL	98
7) Aniline	93	3.542	3.555	0.912	133776	33.92	ng/uL	99
9) Phenol	94	3.500	3.502	0.901	151701	43.94	ng/uL	97
10) bis(2-Chloroethyl) ether	93	3.601	3.607	0.927	119551	41.69	ng/uL	98
11) 2-Chlorophenol	128	3.665	3.670	0.944	128680	43.25	ng/uL	99
12) n-Decane	43	3.697	3.707	0.952	73467	29.05	ng/uL	96
13) 1,3-Dichlorobenzene	146	3.826	3.832	0.985	122904	37.45	ng/uL	99
14) 1,4-Dichlorobenzene	146	3.901	3.912	1.004	126089	37.93	ng/uL	99
15) 1,2-Dichlorobenzene	146	4.061	4.068	1.045	125649	39.69	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.173	4.168	1.074	135792	40.06	ng/uL	98
17) Benzyl alcohol	108	4.029	4.026	1.037	83577	44.72	ng/uL	99
18) o-Cresol	107	4.147	4.137	1.067	97050	42.33	ng/uL	99
19) m,p-Cresols	108	4.313	4.309	1.110	118168	43.49	ng/uL	48
20) N-Nitrosodipropylamine	70	4.318	4.314	1.112	88236	43.78	ng/uL	60
21) Hexachloroethane	117	4.430	4.430	1.140	50368	37.92	ng/uL	99
24) Nitrobenzene	77	4.510	4.523	0.851	123774	39.89	ng/uL	98

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
Data File : s3D0407.D
Acq On : 04 Apr 2024 15:46
Operator : LL2
Sample : |1205692352|2590892|1|SVM|1|LCS|||
Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 05 07:54:36 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
25)	Isophorone	82	4.778	4.792	0.901	230185	40.73	ng/uL	99
26)	2-Nitrophenol	139	4.869	4.881	0.918	64905	41.41	ng/uL	99
27)	2,4-Dimethylphenol	122	4.922	4.928	0.928	64342	29.25	ng/uL	98
28)	bis(2-Chloroethoxy)met...	93	5.035	5.039	0.950	158613	42.17	ng/uL	99
29)	2,4-Dichlorophenol	162	5.147	5.149	0.971	108337	43.36	ng/uL	100
30)	Benzoic acid	105	5.040	5.040	0.951	79572	51.90	ng/uL	91
31)	1,2,4-Trichlorobenzene	180	5.238	5.244	0.988	109819	39.37	ng/uL	99
32)	alpha-Terpineol	59	5.345	5.344	1.008	93739	40.07	ng/uL	100
33)	Naphthalene	128	5.329	5.328	1.005	366047	40.40	ng/uL	100
34)	4-Chloroaniline	127	5.393	5.391	1.017	137365	36.89	ng/uL	98
35)	Hexachlorobutadiene	225	5.463	5.460	1.030	59345	38.30	ng/uL	99
36)	4-Chloro-3-methylphenol	107	5.917	5.897	1.116	116681	46.55	ng/uL	99
37)	2-Methylnaphthalene	142	6.062	6.045	1.143	244384	41.41	ng/uL	100
38)	1-Methylnaphthalene	142	6.158	6.144	1.161	237273	43.64	ng/uL	100
40)	Hexachlorocyclopentadiene	237	6.217	6.215	0.881	30585	20.23	ng/uL	99
41)	2,3-Dichloroaniline	161	6.340	6.357	0.898	137078	41.90	ng/uL	99
42)	2,4,6-Trichlorophenol	196	6.345	6.357	0.899	82042	42.89	ng/uL	99
43)	2,4,5-Trichlorophenol	196	6.382	6.389	0.904	90520	46.19	ng/uL	98
45)	2-Chloronaphthalene	162	6.538	6.548	0.926	237945	41.28	ng/uL	95
46)	o-Nitroaniline	65	6.639	6.648	0.941	70781	44.73	ng/uL	99
48)	m-Nitroaniline	138	7.024	7.024	0.995	70315	40.88	ng/uL	97
49)	Dimethylphthalate	163	6.816	6.817	0.966	301778	46.62	ng/uL	100
51)	2,6-Dinitrotoluene	165	6.869	6.876	0.973	64267	44.44	ng/uL	98
52)	2,4-Dinitrotoluene	165	7.233	7.236	1.025	94802	48.19	ng/uL	96
53)	Acenaphthylene	152	6.928	6.934	0.982	365210	41.14	ng/uL	100
54)	Acenaphthene	154	7.088	7.093	1.005	231977	42.79	ng/uL	99
55)	2,4-Dinitrophenol	184	7.121	7.125	1.009	18524	33.09	ng/uL	99
56)	Dibenzofuran	168	7.244	7.247	1.027	358957	43.51	ng/uL	99
57)	2,3,4,6-Tetrachlorophenol	232	7.356	7.353	1.042	68339	41.76	ng/uL	99
58)	Diethylphthalate	149	7.452	7.448	1.056	333326	49.70	ng/uL	100
59)	4-Nitrophenol	109	7.185	7.173	1.018	36734	48.36	ng/uL	99
60)	Fluorene	166	7.548	7.549	1.070	294468	44.98	ng/uL	100
61)	4-Chlorophenylphenylether	204	7.548	7.549	1.070	139768	45.20	ng/uL	98
62)	p-Nitroaniline	138	7.570	7.564	1.073	82036	46.91	ng/uL	100
65)	2-Methyl-4,6-dinitroph...	198	7.597	7.603	0.909	39263	38.15	ng/uL	96
66)	Diphenylamine	169	7.655	7.661	0.916	263931	46.22	ng/uL	98
67)	1,2-Diphenylhydrazine	77	7.688	7.699	0.919	300952	43.82	ng/uL	99
68)	4-Bromophenylphenylether	248	7.976	7.979	0.954	88458	45.56	ng/uL	99
69)	Hexachlorobenzene	284	8.024	8.033	0.960	103128	43.74	ng/uL	99
70)	Pentachlorophenol	266	8.196	8.192	0.980	59318	45.06	ng/uL	100
71)	n-Octadecane	57	8.254	8.255	0.987	188631	43.31	ng/uL	98
73)	Phenanthrene	178	8.383	8.388	1.003	461870	47.01	ng/uL	100
74)	Anthracene	178	8.426	8.430	1.008	455075	46.18	ng/uL	100
75)	Carbazole	167	8.559	8.562	1.024	453302	50.31	ng/uL	99
76)	Di-n-butylphthalate	149	8.843	8.839	1.058	617208	53.84	ng/uL	100
77)	Fluoranthene	202	9.383	9.379	1.122	520530	50.81	ng/uL	99
78)	Pyrene	202	9.576	9.570	1.145	549298	50.99	ng/uL	99
81)	Butylbenzylphthalate	149	10.105	10.089	0.945	285806	49.71	ng/uL	99
82)	bis(2-Ethylhexyl)phtha...	149	10.677	10.678	0.999	445148	48.33	ng/uL	99
83)	Benzo(a)anthracene	228	10.677	10.683	0.999	561151	47.87	ng/uL	99
84)	Chrysene	228	10.720	10.725	1.003	504840	46.11	ng/uL	99
87)	Di-n-octylphthalate	149	11.512	11.531	1.077	742768	52.07	ng/uL	100
89)	Benzo(b)fluoranthene	252	12.095	12.087	0.951	567462	48.79	ng/uL	99
90)	Benzo(k)fluoranthene	252	12.138	12.135	0.955	552919	47.35	ng/uL	99
91)	Benzo(a)pyrene	252	12.624	12.626	0.993	502552	47.05	ng/uL	99
92)	Indeno(1,2,3-cd)pyrene	276	14.732	14.754	1.159	531093	47.00	ng/uL	98
93)	Dibenzo(a,h)anthracene	278	14.785	14.811	1.163	543311	49.33	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
Data File : s3D0407.D
Acq On : 04 Apr 2024 15:46
Operator : LL2
Sample : |1205692352|2590892|1|SVM|1|LCS|||
Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 05 07:54:36 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

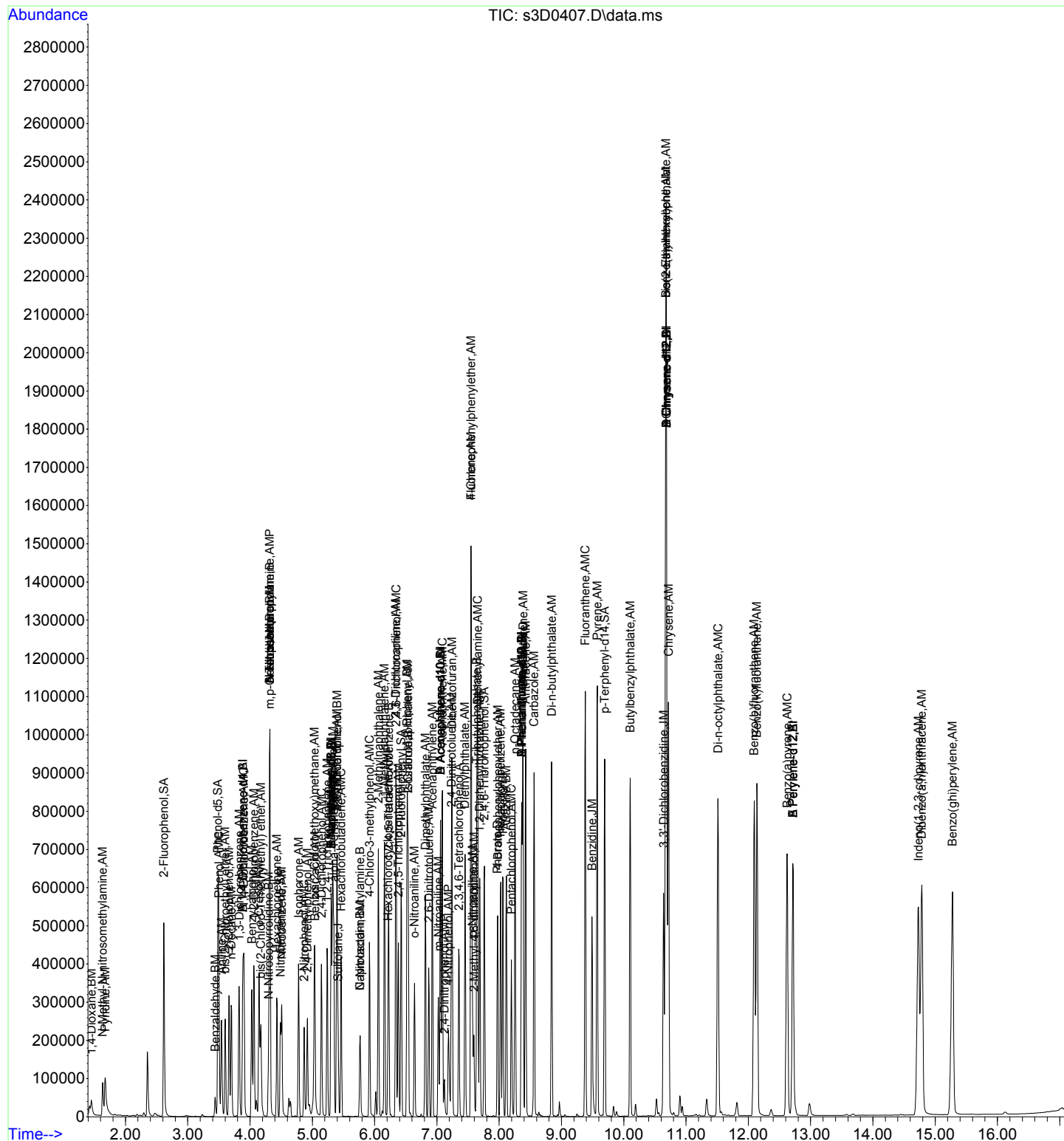
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
94) Benzo(ghi)perylene	276	15.277	15.303	1.201	564651	52.47	ng/uL	99
97) 1,4-Dioxane	88	1.451	1.456	0.374	22239	21.07	ng/uL	91
106) Benzaldehyde	77	3.441	3.435	0.886	16087	7.66	ng/uL	94
108) N-Nitrosopyrrolidine	100	4.296	4.291	1.106	57638	44.95	ng/uL	96
109) Acetophenone	105	4.318	4.318	1.112	173903	45.18	ng/uL	75
110) N-Nitrosomorpholine	56	4.318	4.339	1.112	5357	4.35	ng/uL#	35
111) o-Toluidine	106	4.318	4.355	1.112	14223	3.31	ng/uL#	1
115) 2,6-Dichlorophenol	162	5.398	5.398	1.018	107049	46.31	ng/uL	99
117) Caprolactam	113	5.767	5.746	1.088	34896	48.79	ng/uL#	74
118) N-Nitrosodi-n-butylamine	57	5.767	5.757	1.088	4978	3.89	ng/uL#	1
121) 1,2,4,5-Tetrachloroben...	216	6.227	6.227	0.883	115358	42.21	ng/uL	100
122) 1,1-Biphenyl	154	6.522	6.522	0.924	315091	44.18	ng/uL	98
123) Isosafrole	162	6.538	6.490	0.926	236712	102.05	ng/uL#	34
129) Tributylphosphate	99	7.639	7.634	1.083	410008	50.44	ng/uL	99
136) Atrazine	200	8.115	8.116	0.971	89519	50.24	ng/uL	98
153) Sulfolane	56	5.414	5.409	1.021	41215	46.20	ng/uL	99
155) Prometon	210	8.062	8.057	0.964	73886	48.18	ng/uL	100
156) Benzidine	184	9.490	9.490	1.135	270714	39.95	ng/uL	100
159) 3,3'-Dichlorobenzidine	252	10.640	10.640	0.995	173407	38.04	ng/uL	99
166) Phorate	75	7.971	7.907	0.953	13321	3.23	ng/uL#	46
168) Disulfoton	88	8.383	8.356	1.003	41667	11.18	ng/uL#	10

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
Data File : s3D0407.D
Acq On : 04 Apr 2024 15:46
Operator : LL2
Sample : |1205692352|2590892|1|SVM|1|LCS|||
Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 05 07:54:36 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/26/2024 08:20	Matrix:	RS
Lab Sample ID:	1205692353	Date Received:	03/28/2024 09:25		
Client Sample:	QC for batch 2590877	Client:	PERM001	Project:	PERM00224
Client ID:	Y12EU4RS-68B(660558002MS)	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 16:53	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.08 g	Final Volume:	1 mL
Data File:	S040424.S\3D0410.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		3060	ug/kg	298	992
110-86-1	Pyridine		2480	ug/kg	298	992
62-53-3	Aniline		2300	ug/kg	298	992
108-95-2	Phenol		3630	ug/kg	298	992
111-44-4	bis(2-Chloroethyl) ether		3260	ug/kg	298	992
95-57-8	2-Chlorophenol		3430	ug/kg	298	992
541-73-1	1,3-Dichlorobenzene		2790	ug/kg	298	992
106-46-7	1,4-Dichlorobenzene		2870	ug/kg	298	992
95-50-1	1,2-Dichlorobenzene		3090	ug/kg	298	992
108-60-1	bis(2-Chloro-1-methylethyl)ether		3330	ug/kg	298	992
100-51-6	Benzyl alcohol		3720	ug/kg	298	992
95-48-7	o-Cresol		3570	ug/kg	298	992
65794-96-9	m,p-Cresols		3610	ug/kg	298	992
621-64-7	N-Nitrosodipropylamine		3580	ug/kg	298	992
67-72-1	Hexachloroethane		2860	ug/kg	298	992
98-95-3	Nitrobenzene		3270	ug/kg	298	992
78-59-1	Isophorone		3440	ug/kg	298	992
88-75-5	2-Nitrophenol		3450	ug/kg	298	992
105-67-9	2,4-Dimethylphenol		2550	ug/kg	298	992
111-91-1	bis(2-Chloroethoxy)methane		3460	ug/kg	298	992
120-83-2	2,4-Dichlorophenol		3640	ug/kg	298	992
65-85-0	Benzoic acid		8810	ug/kg	496	1980
106-47-8	4-Chloroaniline		2500	ug/kg	298	992
87-68-3	Hexachlorobutadiene		3020	ug/kg	298	992
59-50-7	4-Chloro-3-methylphenol		4060	ug/kg	397	992
91-57-6	2-Methylnaphthalene		3690	ug/kg	29.8	99.2
91-20-3	Naphthalene		3380	ug/kg	29.8	99.2
90-12-0	1-Methylnaphthalene		3820	ug/kg	29.8	99.2
77-47-4	Hexachlorocyclopentadiene		1290	ug/kg	298	992
88-06-2	2,4,6-Trichlorophenol		3720	ug/kg	298	992
95-95-4	2,4,5-Trichlorophenol		3750	ug/kg	298	992
91-58-7	2-Chloronaphthalene		3440	ug/kg	29.8	99.2
88-74-4	o-Nitroaniline		3950	ug/kg	327	992
99-09-2	m-Nitroaniline		2860	ug/kg	298	992
131-11-3	Dimethylphthalate		3870	ug/kg	29.8	99.2
99-65-0	m-Dinitrobenzene	U	992	ug/kg	298	992
606-20-2	2,6-Dinitrotoluene		3820	ug/kg	298	992
121-14-2	2,4-Dinitrotoluene		3880	ug/kg	298	992

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/26/2024 08:20	Matrix:	RS
Lab Sample ID:	1205692353	Date Received:	03/28/2024 09:25		
Client Sample:	QC for batch 2590877	Client:	PERM001	Project:	PERM00224
Client ID:	Y12EU4RS-68B(660558002MS)	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 16:53	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.08 g	Final Volume:	1 mL
Data File:	S040424.S\3D0410.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene		3480	ug/kg	29.8	99.2
83-32-9	Acenaphthene		3600	ug/kg	29.8	99.2
51-28-5	2,4-Dinitrophenol		2900	ug/kg	298	1980
132-64-9	Dibenzofuran		3720	ug/kg	298	992
58-90-2	2,3,4,6-Tetrachlorophenol		3630	ug/kg	298	992
84-66-2	Diethylphthalate		4340	ug/kg	29.8	99.2
100-02-7	4-Nitrophenol		4050	ug/kg	298	992
86-73-7	Fluorene		3790	ug/kg	29.8	99.2
7005-72-3	4-Chlorophenylphenylether		3780	ug/kg	298	992
100-01-6	p-Nitroaniline		3100	ug/kg	298	992
534-52-1	2-Methyl-4,6-dinitrophenol		2750	ug/kg	298	992
122-39-4	Diphenylamine		3980	ug/kg	298	992
122-66-7	1,2-Diphenylhydrazine		3740	ug/kg	298	992
101-55-3	4-Bromophenylphenylether		3840	ug/kg	298	992
118-74-1	Hexachlorobenzene		3560	ug/kg	298	992
87-86-5	Pentachlorophenol		4260	ug/kg	298	992
88-85-7	Dinoseb	J	553	ug/kg	298	992
85-01-8	Phenanthrene		4080	ug/kg	29.8	99.2
120-12-7	Anthracene		3680	ug/kg	29.8	99.2
86-74-8	Carbazole		4010	ug/kg	29.8	99.2
84-74-2	Di-n-butylphthalate		5390	ug/kg	29.8	99.2
206-44-0	Fluoranthene		3860	ug/kg	29.8	99.2
129-00-0	Pyrene		3790	ug/kg	29.8	99.2
85-68-7	Butylbenzylphthalate		6850	ug/kg	29.8	99.2
117-81-7	bis(2-Ethylhexyl)phthalate	E	81900	ug/kg	29.8	99.2
56-55-3	Benzo(a)anthracene		3450	ug/kg	29.8	99.2
218-01-9	Chrysene		3230	ug/kg	29.8	99.2
72-43-5	Methoxychlor	U	992	ug/kg	298	992
117-84-0	Di-n-octylphthalate		6040	ug/kg	29.8	99.2
205-99-2	Benzo(b)fluoranthene		2290	ug/kg	29.8	99.2
207-08-9	Benzo(k)fluoranthene		2040	ug/kg	29.8	99.2
50-32-8	Benzo(a)pyrene		1900	ug/kg	29.8	99.2
193-39-5	Indeno(1,2,3-cd)pyrene		959	ug/kg	29.8	99.2
53-70-3	Dibenzo(a,h)anthracene		1110	ug/kg	29.8	99.2
191-24-2	Benzo(ghi)perylene		955	ug/kg	29.8	99.2
123-91-1	1,4-Dioxane		1440	ug/kg	298	992
80-62-6	Methyl methacrylate	U	992	ug/kg	298	992
97-63-2	Ethyl methacrylate	U	992	ug/kg	298	992

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/26/2024 08:20	Matrix:	RS
Lab Sample ID:	1205692353	Date Received:	03/28/2024 09:25		
Client Sample:	QC for batch 2590877	Client:	PERM001	Project:	PERM00224
Client ID:	Y12EU4RS-68B(660558002MS)	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 16:53	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.08 g	Final Volume:	1 mL
Data File:	S040424.S\3D0410.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	992	ug/kg	298	992
10595-95-6	N-Nitrosomethylethylamine	U	992	ug/kg	298	992
66-27-3	Methyl methanesulfonate	U	992	ug/kg	298	992
55-18-5	N-Nitrosodiethylamine	U	992	ug/kg	298	992
62-50-0	Ethyl Methanesulfonate	U	992	ug/kg	298	992
76-01-7	Pentachloroethane	U	992	ug/kg	298	992
930-55-2	N-Nitrosopyrrolidine		3690	ug/kg	298	992
98-86-2	Acetophenone		3600	ug/kg	298	992
59-89-2	N-Nitrosomorpholine	J	504	ug/kg	298	992
95-53-4	o-Toluidine	U	992	ug/kg	298	992
100-75-4	N-Nitrosopiperidine	U	992	ug/kg	298	992
122-09-8	a,a-Dimethylphenethylamine	U	992	ug/kg	347	992
87-65-0	2,6-Dichlorophenol		3820	ug/kg	298	992
1888-71-7	Hexachloropropene	U	992	ug/kg	298	992
924-16-3	N-Nitrosodi-n-butylamine	J	549	ug/kg	298	992
94-59-7	Safrole	U	992	ug/kg	298	992
95-94-3	1,2,4,5-Tetrachlorobenzene		3490	ug/kg	298	992
120-58-1	Isosafrole		8510	ug/kg	298	992
130-15-4	1,4-Naphthoquinone	U	992	ug/kg	298	992
608-93-5	Pentachlorobenzene	U	992	ug/kg	298	992
134-32-7	1-Naphthylamine	U	992	ug/kg	298	992
91-59-8	2-Naphthylamine	U	992	ug/kg	298	992
99-55-8	5-Nitro-o-toluidine	U	992	ug/kg	298	992
62-44-2	Phenacetin	U	992	ug/kg	298	992
99-35-4	1,3,5-Trinitrobenzene	U	992	ug/kg	298	992
2303-16-4	Diallate	U	992	ug/kg	298	992
92-67-1	4-Aminobiphenyl	U	992	ug/kg	298	992
82-68-8	Pentachloronitrobenzene	U	992	ug/kg	298	992
23950-58-5	Pronamide	U	992	ug/kg	298	992
56-57-5	4-Nitroquinoline-1-oxide	J	312	ug/kg	298	992
91-80-5	Methapyrilene	U	992	ug/kg	298	992
465-73-6	Isodrin	U	992	ug/kg	198	992
140-57-8	Aramite	J	435	ug/kg	298	992
143-50-0	Kepone	U	992	ug/kg	298	992
60-11-7	p-(Dimethylamino)azobenzene	U	992	ug/kg	298	992
510-15-6	Chlorobenzilate	U	992	ug/kg	298	992
119-93-7	3,3'-Dimethylbenzidine	U	992	ug/kg	298	992
53-96-3	2-Acetylaminofluorene	U	992	ug/kg	298	992

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/26/2024 08:20	Matrix:	RS
Lab Sample ID:	1205692353	Date Received:	03/28/2024 09:25		
Client Sample:	QC for batch 2590877	Client:	PERM001	Project:	PERM00224
Client ID:	Y12EU4RS-68B(660558002MS)	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 16:53	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.08 g	Final Volume:	1 mL
Data File:	S040424.S\3D0410.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	J	486	ug/kg	298	992
57-97-6	7,12-Dimethylbenz(a)anthracene	U	992	ug/kg	298	992
56-49-5	3-Methylcholanthrene	U	992	ug/kg	298	992
126-68-1	Triethylphosphorothioate	U	992	ug/kg	298	992
297-97-2	Thionazin	U	992	ug/kg	298	992
126-73-8	Tributylphosphate		4410	ug/kg	298	992
3689-24-5	Sulfotepp	U	992	ug/kg	298	992
298-02-2	Phorate	U	992	ug/kg	298	992
60-51-5	Dimethoate	U	992	ug/kg	298	992
298-04-4	Disulfoton		1000	ug/kg	298	992
298-00-0	Methyl parathion	U	992	ug/kg	298	992
56-38-2	Parathion	U	992	ug/kg	298	992
52-85-7	Famphur	U	992	ug/kg	298	992
106-50-3	p-Phenylenediamine	U	49600	ug/kg	9920	49600
70-30-4	Hexachlorophene	U	49600	ug/kg	11500	49600
120-82-1	1,2,4-Trichlorobenzene		3130	ug/kg	298	992

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0410.D
 Acq On : 04 Apr 2024 16:53
 Operator : LL2
 Sample : |1205692353|2590892|1|SVM|1|MS|||
 Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
 ALS Vial : 10 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 08:01:40 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	86991	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	360464	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	188306	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.361	8.362	1.000	371213	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.693	10.683	1.000	314816	40.00	ng/uL	0.01
88) A Perylene-d12	264	12.737	12.715	1.000	394897	40.00	ng/uL	0.02
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	86991	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	360464	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	188306	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.361	8.362	1.000	371213	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.693	10.683	1.000	314816	40.00	ng/uL	0.01
149) B Perylene-d12	264	12.737	12.715	1.000	394897	40.00	ng/uL	0.02
152) J Naphthalene-d8	136	5.302	5.302	1.000	360464	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.361	8.362	1.000	371213	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.693	10.683	1.000	314816	40.00	ng/uL	0.01
160) D Naphthalene-d8	136	5.302	5.302	1.000	360464	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	188306	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.361	8.362	1.000	371213	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.693	10.683	1.000	314816	40.00	ng/uL	0.01
173) E Naphthalene-d8	136	5.302	5.302	1.000	360464	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.737	12.715	1.000	394897	40.00	ng/uL	0.02

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.617	2.627	0.674	177550	61.65	ng/uL	0.00
8) Phenol-d5	99	3.489	3.486	0.898	244475	68.50	ng/uL	0.00
23) Nitrobenzene-d5	82	4.489	4.502	0.847	94469	28.59	ng/uL	-0.01
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	209507	29.29	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.762	7.773	0.928	96443	71.20	ng/uL	-0.01
79) p-Terphenyl-d14	244	9.699	9.686	1.160	294917	33.23	ng/uL	0.01

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	62%
8) Phenol-d5	100.000	15 - 85	69%
23) Nitrobenzene-d5	50.000	39 - 112	57%
44) 2-Fluorobiphenyl	50.000	39 - 112	59%
64) 2,4,6-Tribromophenol	100.000	37 - 132	71%
79) p-Terphenyl-d14	50.000	24 - 129	66%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
3) N-Methyl-N-nitrosometh...	74	1.638	1.663	0.422	56215	30.87	ng/uL	82
4) Pyridine	79	1.681	1.705	0.433	65497	25.00	ng/uL	96
7) Aniline	93	3.542	3.555	0.912	98117	23.19	ng/uL	99
9) Phenol	94	3.499	3.502	0.901	135622	36.62	ng/uL	97
10) bis(2-Chloroethyl) ether	93	3.601	3.607	0.927	101066	32.85	ng/uL	99
11) 2-Chlorophenol	128	3.665	3.670	0.944	110415	34.60	ng/uL	98
12) n-Decane	43	3.703	3.707	0.953	61704	22.75	ng/uL	99
13) 1,3-Dichlorobenzene	146	3.826	3.832	0.985	98858	28.09	ng/uL	99
14) 1,4-Dichlorobenzene	146	3.901	3.912	1.004	103053	28.90	ng/uL	99
15) 1,2-Dichlorobenzene	146	4.061	4.068	1.045	105629	31.11	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.173	4.168	1.074	122113	33.59	ng/uL	97
17) Benzyl alcohol	108	4.029	4.026	1.037	75247	37.54	ng/uL	99
18) o-Cresol	107	4.147	4.137	1.067	88596	36.03	ng/uL	98
19) m,p-Cresols	108	4.312	4.309	1.110	106096	36.41	ng/uL#	49
20) N-Nitrosodipropylamine	70	4.318	4.314	1.112	78002	36.08	ng/uL	60
21) Hexachloroethane	117	4.430	4.430	1.140	41067	28.83	ng/uL	98
24) Nitrobenzene	77	4.510	4.523	0.851	108310	33.00	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
Data File : s3D0410.D
Acq On : 04 Apr 2024 16:53
Operator : LL2
Sample : |1205692353|2590892|1|SVM|1|MS|||
Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 05 08:01:40 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
25) Isophorone	82	4.783	4.792	0.902	207216	34.66	ng/uL	100
26) 2-Nitrophenol	139	4.869	4.881	0.918	57715	34.81	ng/uL	99
27) 2,4-Dimethylphenol	122	4.922	4.928	0.928	59841	25.72	ng/uL	100
28) bis(2-Chloroethoxy)met...	93	5.035	5.039	0.950	138777	34.89	ng/uL	94
29) 2,4-Dichlorophenol	162	5.147	5.149	0.971	96951	36.69	ng/uL	99
30) Benzoic acid	105	5.056	5.040	0.954	178665	88.81	ng/uL	96
31) 1,2,4-Trichlorobenzene	180	5.238	5.244	0.988	93225	31.60	ng/uL	100
32) alpha-Terpineol	59	5.345	5.344	1.008	88944	35.95	ng/uL	97
33) Naphthalene	128	5.329	5.328	1.005	326714	34.09	ng/uL	100
34) 4-Chloroaniline	127	5.393	5.391	1.017	99426	25.24	ng/uL	98
35) Hexachlorobutadiene	225	5.462	5.460	1.030	49908	30.45	ng/uL	99
36) 4-Chloro-3-methylphenol	107	5.922	5.897	1.117	108477	40.91	ng/uL	99
37) 2-Methylnaphthalene	142	6.061	6.045	1.143	232072	37.17	ng/uL	100
38) 1-Methylnaphthalene	142	6.158	6.144	1.161	221645	38.54	ng/uL	99
40) Hexachlorocyclopentadiene	237	6.217	6.215	0.881	21034	13.05	ng/uL	99
41) 2,3-Dichloroaniline	161	6.345	6.357	0.899	120991	34.70	ng/uL	99
42) 2,4,6-Trichlorophenol	196	6.345	6.357	0.899	76420	37.48	ng/uL	99
43) 2,4,5-Trichlorophenol	196	6.382	6.389	0.904	79054	37.85	ng/uL	100
45) 2-Chloronaphthalene	162	6.538	6.548	0.926	212948	34.66	ng/uL	95
46) o-Nitroaniline	65	6.639	6.648	0.941	67147	39.81	ng/uL	99
48) m-Nitroaniline	138	7.024	7.024	0.995	52774	28.79	ng/uL	98
49) Dimethylphthalate	163	6.816	6.817	0.966	269038	39.00	ng/uL	99
51) 2,6-Dinitrotoluene	165	6.869	6.876	0.973	59308	38.48	ng/uL	98
52) 2,4-Dinitrotoluene	165	7.238	7.236	1.026	81943	39.08	ng/uL	98
53) Acenaphthylene	152	6.928	6.934	0.982	331835	35.07	ng/uL	99
54) Acenaphthene	154	7.088	7.093	1.005	209554	36.27	ng/uL	98
55) 2,4-Dinitrophenol	184	7.121	7.125	1.009	16241	29.25	ng/uL	95
56) Dibenzofuran	168	7.244	7.247	1.027	329316	37.45	ng/uL	99
57) 2,3,4,6-Tetrachlorophenol	232	7.356	7.353	1.042	63783	36.57	ng/uL	99
58) Diethylphthalate	149	7.452	7.448	1.056	312390	43.70	ng/uL	99
59) 4-Nitrophenol	109	7.190	7.173	1.019	32557	40.81	ng/uL	94
60) Fluorene	166	7.548	7.549	1.070	266376	38.17	ng/uL	99
61) 4-Chlorophenylphenylether	204	7.548	7.549	1.070	125584	38.11	ng/uL	98
62) p-Nitroaniline	138	7.570	7.564	1.073	58290	31.27	ng/uL	98
65) 2-Methyl-4,6-dinitroph...	198	7.597	7.603	0.909	28430	27.68	ng/uL	93
66) Diphenylamine	169	7.655	7.661	0.916	240150	40.09	ng/uL	98
67) 1,2-Diphenylhydrazine	77	7.687	7.699	0.919	271284	37.66	ng/uL	97
68) 4-Bromophenylphenylether	248	7.976	7.979	0.954	78846	38.71	ng/uL	98
69) Hexachlorobenzene	284	8.024	8.033	0.960	88693	35.86	ng/uL	100
70) Pentachlorophenol	266	8.201	8.192	0.981	59039	42.96	ng/uL	98
71) n-Octadecane	57	8.260	8.255	0.988	216220	47.33	ng/uL	98
72) Dinoseb	211	8.388	8.351	1.003	660	5.57	ng/uL#	1
73) Phenanthrene	178	8.383	8.388	1.003	423538	41.10	ng/uL	99
74) Anthracene	178	8.426	8.430	1.008	383857	37.13	ng/uL	99
75) Carbazole	167	8.565	8.562	1.024	382023	40.43	ng/uL	100
76) Di-n-butylphthalate	149	8.848	8.839	1.058	653604	54.36	ng/uL	99
77) Fluoranthene	202	9.388	9.379	1.123	418090	38.91	ng/uL	98
78) Pyrene	202	9.576	9.570	1.145	432060	38.24	ng/uL	99
81) Butylbenzylphthalate	149	10.110	10.089	0.945	318625	69.07	ng/uL	99
82) bis(2-Ethylhexyl)phtha...	149	10.704	10.678	1.001	6140412	825.55	ng/uL	94 A
83) Benzo(a)anthracene	228	10.683	10.683	0.999	326404	34.79	ng/uL	99
84) Chrysene	228	10.726	10.725	1.003	285422	32.57	ng/uL	99
87) Di-n-octylphthalate	149	11.522	11.531	1.078	696460	60.91	ng/uL	99
89) Benzo(b)fluoranthene	252	12.111	12.087	0.951	254183	23.07	ng/uL	99
90) Benzo(k)fluoranthene	252	12.154	12.135	0.954	226940	20.52	ng/uL	100
91) Benzo(a)pyrene	252	12.640	12.626	0.992	194053	19.18	ng/uL	98
92) Indeno(1,2,3-cd)pyrene	276	14.753	14.754	1.158	103496	9.67	ng/uL	99

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
Data File : s3D0410.D
Acq On : 04 Apr 2024 16:53
Operator : LL2
Sample : |1205692353|2590892|1|SVM|1|MS|||
Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 05 08:01:40 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
93)	Dibenzo(a,h)anthracene	278	14.812	14.811	1.163	116965	11.21	ng/uL	97
94)	Benzo(ghi)perylene	276	15.299	15.303	1.201	98180	9.63	ng/uL	98
97)	1,4-Dioxane	88	1.456	1.456	0.375	16404	14.49	ng/uL	93
106)	Benzaldehyde	77	3.441	3.435	0.886	57941	25.74	ng/uL	100
108)	N-Nitrosopyrrolidine	100	4.296	4.291	1.106	51094	37.15	ng/uL	96
109)	Acetophenone	105	4.318	4.318	1.112	149838	36.29	ng/uL	72
110)	N-Nitrosomorpholine	56	4.318	4.339	1.112	6707	5.08	ng/uL#	35
115)	2,6-Dichlorophenol	162	5.398	5.398	1.018	94125	38.50	ng/uL	100
117)	Caprolactam	113	5.773	5.746	1.089	32996	43.62	ng/uL#	76
118)	N-Nitrosodi-n-butylamine	57	5.778	5.757	1.090	7487	5.53	ng/uL#	1
121)	1,2,4,5-Tetrachloroben...	216	6.227	6.227	0.883	102578	35.21	ng/uL	99
122)	1,1-Biphenyl	154	6.521	6.522	0.924	288224	37.92	ng/uL	98
123)	Isosafrole	162	6.538	6.490	0.926	212182	85.82	ng/uL#	35
129)	Tributylphosphate	99	7.650	7.634	1.084	384817	44.41	ng/uL	98
134)	Cis Diallate	86	7.875	7.896	0.942	2019	0.83	ng/uL#	1
136)	Atrazine	200	8.121	8.116	0.971	75549	40.42	ng/uL	99
140)	4-Nitroquinoline-1-oxide	128	8.971	9.030	1.073	977	3.14	ng/uL#	41
144)	Aramite	185	9.699	9.667	0.907	1840	4.38	ng/uL#	64
153)	Sulfolane	56	5.414	5.409	1.021	37911	40.18	ng/uL	98
155)	Prometon	210	8.078	8.057	0.966	68584	42.64	ng/uL	97
159)	3,3'-Dichlorobenzidine	252	10.651	10.640	0.996	17876	4.90	ng/uL	99
168)	Disulfoton	88	8.383	8.356	1.003	39441	10.09	ng/uL#	32

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

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Data Path : C:\msdchem\1\data\S040424.S\  
Data File : s3D0410.D  
Acq On    : 04 Apr 2024   16:53  
Operator  : LL2  
Sample    : |1205692353|2590892|1|SVM|1|MS|||  
Misc      : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||  
ALS Vial  : 10   Sample Multiplier: 1
```

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/26/2024 08:20	Matrix:	RS
Lab Sample ID:	1205692354	Date Received:	03/28/2024 09:25		
Client Sample:	QC for batch 2590877	Client:	PERM001	Project:	PERM00224
Client ID:	Y12EU4RS-68B(660558002MSD)	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 17:14	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.09 g	Final Volume:	1 mL
Data File:	S040424.S\3D0411.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		3150	ug/kg	297	991
110-86-1	Pyridine		2750	ug/kg	297	991
62-53-3	Aniline		2150	ug/kg	297	991
108-95-2	Phenol		3540	ug/kg	297	991
111-44-4	bis(2-Chloroethyl) ether		3270	ug/kg	297	991
95-57-8	2-Chlorophenol		3380	ug/kg	297	991
541-73-1	1,3-Dichlorobenzene		2880	ug/kg	297	991
106-46-7	1,4-Dichlorobenzene		2950	ug/kg	297	991
95-50-1	1,2-Dichlorobenzene		3380	ug/kg	297	991
108-60-1	bis(2-Chloro-1-methylethyl)ether		3400	ug/kg	297	991
100-51-6	Benzyl alcohol		3620	ug/kg	297	991
95-48-7	o-Cresol		3470	ug/kg	297	991
65794-96-9	m,p-Cresols		3510	ug/kg	297	991
621-64-7	N-Nitrosodipropylamine		3560	ug/kg	297	991
67-72-1	Hexachloroethane		2960	ug/kg	297	991
98-95-3	Nitrobenzene		3340	ug/kg	297	991
78-59-1	Isophorone		3450	ug/kg	297	991
88-75-5	2-Nitrophenol		3450	ug/kg	297	991
105-67-9	2,4-Dimethylphenol		2480	ug/kg	297	991
111-91-1	bis(2-Chloroethoxy)methane		3520	ug/kg	297	991
120-83-2	2,4-Dichlorophenol		3640	ug/kg	297	991
65-85-0	Benzoic acid		7910	ug/kg	496	1980
106-47-8	4-Chloroaniline		2370	ug/kg	297	991
87-68-3	Hexachlorobutadiene		3100	ug/kg	297	991
59-50-7	4-Chloro-3-methylphenol		4010	ug/kg	396	991
91-57-6	2-Methylnaphthalene		3650	ug/kg	29.7	99.1
91-20-3	Naphthalene		3410	ug/kg	29.7	99.1
90-12-0	1-Methylnaphthalene		3810	ug/kg	29.7	99.1
77-47-4	Hexachlorocyclopentadiene		1360	ug/kg	297	991
88-06-2	2,4,6-Trichlorophenol		3690	ug/kg	297	991
95-95-4	2,4,5-Trichlorophenol		3870	ug/kg	297	991
91-58-7	2-Chloronaphthalene		3430	ug/kg	29.7	99.1
88-74-4	o-Nitroaniline		3980	ug/kg	327	991
99-09-2	m-Nitroaniline		2800	ug/kg	297	991
131-11-3	Dimethylphthalate		3890	ug/kg	29.7	99.1
99-65-0	m-Dinitrobenzene	U	991	ug/kg	297	991
606-20-2	2,6-Dinitrotoluene		3810	ug/kg	297	991
121-14-2	2,4-Dinitrotoluene		3890	ug/kg	297	991

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/26/2024 08:20	Matrix:	RS
Lab Sample ID:	1205692354	Date Received:	03/28/2024 09:25		
Client Sample:	QC for batch 2590877	Client:	PERM001	Project:	PERM00224
Client ID:	Y12EU4RS-68B(660558002MSD)	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 17:14	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.09 g	Final Volume:	1 mL
Data File:	S040424.S\3D0411.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
208-96-8	Acenaphthylene		3490	ug/kg	29.7	99.1
83-32-9	Acenaphthene		3600	ug/kg	29.7	99.1
51-28-5	2,4-Dinitrophenol		2340	ug/kg	297	1980
132-64-9	Dibenzofuran		3730	ug/kg	297	991
58-90-2	2,3,4,6-Tetrachlorophenol		3640	ug/kg	297	991
84-66-2	Diethylphthalate		4390	ug/kg	29.7	99.1
100-02-7	4-Nitrophenol		3980	ug/kg	297	991
86-73-7	Fluorene		3810	ug/kg	29.7	99.1
7005-72-3	4-Chlorophenylphenylether		3800	ug/kg	297	991
100-01-6	p-Nitroaniline		3050	ug/kg	297	991
534-52-1	2-Methyl-4,6-dinitrophenol		2220	ug/kg	297	991
122-39-4	Diphenylamine		3940	ug/kg	297	991
122-66-7	1,2-Diphenylhydrazine		3770	ug/kg	297	991
101-55-3	4-Bromophenylphenylether		3840	ug/kg	297	991
118-74-1	Hexachlorobenzene		3530	ug/kg	297	991
87-86-5	Pentachlorophenol		3980	ug/kg	297	991
88-85-7	Dinoseb	J	554	ug/kg	297	991
85-01-8	Phenanthrene		4030	ug/kg	29.7	99.1
120-12-7	Anthracene		3630	ug/kg	29.7	99.1
86-74-8	Carbazole		3940	ug/kg	29.7	99.1
84-74-2	Di-n-butylphthalate		5380	ug/kg	29.7	99.1
206-44-0	Fluoranthene		3680	ug/kg	29.7	99.1
129-00-0	Pyrene		3590	ug/kg	29.7	99.1
85-68-7	Butylbenzylphthalate		6510	ug/kg	29.7	99.1
117-81-7	bis(2-Ethylhexyl)phthalate	E	53000	ug/kg	29.7	99.1
56-55-3	Benzo(a)anthracene		3150	ug/kg	29.7	99.1
218-01-9	Chrysene		3130	ug/kg	29.7	99.1
72-43-5	Methoxychlor	U	991	ug/kg	297	991
117-84-0	Di-n-octylphthalate		5440	ug/kg	29.7	99.1
205-99-2	Benzo(b)fluoranthene		2060	ug/kg	29.7	99.1
207-08-9	Benzo(k)fluoranthene		1970	ug/kg	29.7	99.1
50-32-8	Benzo(a)pyrene		1780	ug/kg	29.7	99.1
193-39-5	Indeno(1,2,3-cd)pyrene		966	ug/kg	29.7	99.1
53-70-3	Dibenzo(a,h)anthracene		1110	ug/kg	29.7	99.1
191-24-2	Benzo(ghi)perylene		931	ug/kg	29.7	99.1
123-91-1	1,4-Dioxane		1610	ug/kg	297	991
80-62-6	Methyl methacrylate	U	991	ug/kg	297	991
97-63-2	Ethyl methacrylate	U	991	ug/kg	297	991

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/26/2024 08:20	Matrix:	RS
Lab Sample ID:	1205692354	Date Received:	03/28/2024 09:25		
Client Sample:	QC for batch 2590877	Client:	PERM001	Project:	PERM00224
Client ID:	Y12EU4RS-68B(660558002MSD)	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 17:14	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.09 g	Final Volume:	1 mL
Data File:	S040424.S\3D0411.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
109-06-8	2-Picoline	U	991	ug/kg	297	991
10595-95-6	N-Nitrosomethylethylamine	U	991	ug/kg	297	991
66-27-3	Methyl methanesulfonate	U	991	ug/kg	297	991
55-18-5	N-Nitrosodiethylamine	U	991	ug/kg	297	991
62-50-0	Ethyl Methanesulfonate	U	991	ug/kg	297	991
76-01-7	Pentachloroethane	U	991	ug/kg	297	991
930-55-2	N-Nitrosopyrrolidine		3610	ug/kg	297	991
98-86-2	Acetophenone		3550	ug/kg	297	991
59-89-2	N-Nitrosomorpholine	J	469	ug/kg	297	991
95-53-4	o-Toluidine	U	991	ug/kg	297	991
100-75-4	N-Nitrosopiperidine	U	991	ug/kg	297	991
122-09-8	a,a-Dimethylphenethylamine	U	991	ug/kg	347	991
87-65-0	2,6-Dichlorophenol		3820	ug/kg	297	991
1888-71-7	Hexachloropropene	U	991	ug/kg	297	991
924-16-3	N-Nitrosodi-n-butylamine	J	543	ug/kg	297	991
94-59-7	Safrole	U	991	ug/kg	297	991
95-94-3	1,2,4,5-Tetrachlorobenzene		3490	ug/kg	297	991
120-58-1	Isosafrole		8530	ug/kg	297	991
130-15-4	1,4-Naphthoquinone	U	991	ug/kg	297	991
608-93-5	Pentachlorobenzene	U	991	ug/kg	297	991
134-32-7	1-Naphthylamine	U	991	ug/kg	297	991
91-59-8	2-Naphthylamine	U	991	ug/kg	297	991
99-55-8	5-Nitro-o-toluidine	U	991	ug/kg	297	991
62-44-2	Phenacetin	U	991	ug/kg	297	991
99-35-4	1,3,5-Trinitrobenzene	U	991	ug/kg	297	991
2303-16-4	Diallate	U	991	ug/kg	297	991
92-67-1	4-Aminobiphenyl	U	991	ug/kg	297	991
82-68-8	Pentachloronitrobenzene	U	991	ug/kg	297	991
23950-58-5	Pronamide	U	991	ug/kg	297	991
56-57-5	4-Nitroquinoline-1-oxide	J	382	ug/kg	297	991
91-80-5	Methapyrilene	U	991	ug/kg	297	991
465-73-6	Isodrin	U	991	ug/kg	198	991
140-57-8	Aramite	U	991	ug/kg	297	991
143-50-0	Kepone	U	991	ug/kg	297	991
60-11-7	p-(Dimethylamino)azobenzene	U	991	ug/kg	297	991
510-15-6	Chlorobenzilate	U	991	ug/kg	297	991
119-93-7	3,3'-Dimethylbenzidine	U	991	ug/kg	297	991
53-96-3	2-Acetylaminofluorene	U	991	ug/kg	297	991

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	660968	Date Collected:	03/26/2024 08:20	Matrix:	RS
Lab Sample ID:	1205692354	Date Received:	03/28/2024 09:25		
Client Sample:	QC for batch 2590877	Client:	PERM001	Project:	PERM00224
Client ID:	Y12EU4RS-68B(660558002MSD)	Method:	SW846 3541/8270E	SOP Ref:	GL-OA-E-009
Batch ID:	2590892	Inst:	MSD3.I	Dilution:	1
Run Date:	04/04/2024 17:14	Analyst:	LL2	Inj. Vol:	1 uL
Prep Date:	04/04/2024 09:45	Aliquot:	10.09 g	Final Volume:	1 mL
Data File:	S040424.S\3D0411.D	Column:	DB-5ms		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
91-94-1	3,3'-Dichlorobenzidine	J	471	ug/kg	297	991
57-97-6	7,12-Dimethylbenz(a)anthracene	U	991	ug/kg	297	991
56-49-5	3-Methylcholanthrene	U	991	ug/kg	297	991
126-68-1	Triethylphosphorothioate	U	991	ug/kg	297	991
297-97-2	Thionazin	U	991	ug/kg	297	991
126-73-8	Tributylphosphate		4460	ug/kg	297	991
3689-24-5	Sulfotepp	U	991	ug/kg	297	991
298-02-2	Phorate	U	991	ug/kg	297	991
60-51-5	Dimethoate	U	991	ug/kg	297	991
298-04-4	Disulfoton		1000	ug/kg	297	991
298-00-0	Methyl parathion	U	991	ug/kg	297	991
56-38-2	Parathion	U	991	ug/kg	297	991
52-85-7	Famphur	U	991	ug/kg	297	991
106-50-3	p-Phenylenediamine	U	49600	ug/kg	9910	49600
70-30-4	Hexachlorophene	U	49600	ug/kg	11500	49600
120-82-1	1,2,4-Trichlorobenzene		3190	ug/kg	297	991

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0411.D
 Acq On : 04 Apr 2024 17:14
 Operator : LL2
 Sample : |1205692354|2590892|1|SVM|1|MSD|||
 Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
 ALS Vial : 11 Sample Multiplier: 1

04/05/2024

04/09/2024

Quant Time: Apr 05 08:01:57 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	93827	40.00	ng/uL	0.00
22) A Naphthalene-d8	136	5.302	5.302	1.000	379844	40.00	ng/uL	0.00
39) A Acenaphthene-d10	164	7.056	7.057	1.000	198076	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	8.367	8.362	1.000	392294	40.00	ng/uL	0.00
80) A Chrysene-d12	240	10.694	10.683	1.000	341975	40.00	ng/uL	0.01
88) A Perylene-d12	264	12.737	12.715	1.000	407418	40.00	ng/uL	0.02
96) B 1,4-Dichlorobenzene-d4	152	3.885	3.885	1.000	93827	40.00	ng/uL	0.00
112) B Naphthalene-d8	136	5.302	5.302	1.000	379844	40.00	ng/uL	0.00
120) B Acenaphthene-d10	164	7.056	7.057	1.000	198076	40.00	ng/uL	0.00
130) B Phenanthrene-d10	188	8.367	8.362	1.000	392294	40.00	ng/uL	0.00
143) B Chrysene-d12	240	10.694	10.683	1.000	341975	40.00	ng/uL	0.01
149) B Perylene-d12	264	12.737	12.715	1.000	407418	40.00	ng/uL	0.02
152) J Naphthalene-d8	136	5.302	5.302	1.000	379844	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	8.367	8.362	1.000	392294	40.00	ng/uL	0.00
157) J Chrysene-d12	240	10.694	10.683	1.000	341975	40.00	ng/uL	0.01
160) D Naphthalene-d8	136	5.302	5.302	1.000	379844	40.00	ng/uL	0.00
162) D Acenaphthene-d10	164	7.056	7.057	1.000	198076	40.00	ng/uL	0.00
164) D Phenanthrene-d10	188	8.367	8.362	1.000	392294	40.00	ng/uL	0.00
171) D Chrysene-d12	240	10.694	10.683	1.000	341975	40.00	ng/uL	0.01
173) E Naphthalene-d8	136	5.302	5.302	1.000	379844	40.00	ng/uL	0.00
175) E Perylene-d12	264	12.737	12.715	1.000	407418	40.00	ng/uL	0.02

System Monitoring Compounds								
5) 2-Fluorophenol	112	2.617	2.627	0.674	190819	61.43	ng/uL	0.00
8) Phenol-d5	99	3.489	3.486	0.898	256663	66.67	ng/uL	0.00
23) Nitrobenzene-d5	82	4.489	4.502	0.847	101534	29.16	ng/uL	-0.01
44) 2-Fluorobiphenyl	172	6.425	6.436	0.911	222198	29.53	ng/uL	-0.01
64) 2,4,6-Tribromophenol	330	7.762	7.773	0.928	101093	70.62	ng/uL	-0.01
79) p-Terphenyl-d14	244	9.699	9.686	1.159	308773	32.92	ng/uL	0.01

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	11 - 79	61%
8) Phenol-d5	100.000	15 - 85	67%
23) Nitrobenzene-d5	50.000	39 - 112	58%
44) 2-Fluorobiphenyl	50.000	39 - 112	59%
64) 2,4,6-Tribromophenol	100.000	37 - 132	71%
79) p-Terphenyl-d14	50.000	24 - 129	66%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
3) N-Methyl-N-nitrosometh...	74	1.633	1.663	0.420	62380	31.75	ng/uL#	1
4) Pyridine	79	1.676	1.705	0.431	78453	27.76	ng/uL	96
7) Aniline	93	3.542	3.555	0.912	99066	21.71	ng/uL	98
9) Phenol	94	3.505	3.502	0.902	142766	35.74	ng/uL	97
10) bis(2-Chloroethyl) ether	93	3.601	3.607	0.927	109469	32.99	ng/uL	100
11) 2-Chlorophenol	128	3.665	3.670	0.944	117556	34.15	ng/uL	98
12) n-Decane	43	3.697	3.707	0.952	72653	24.84	ng/uL	97
13) 1,3-Dichlorobenzene	146	3.826	3.832	0.985	110116	29.01	ng/uL	99
14) 1,4-Dichlorobenzene	146	3.901	3.912	1.004	114322	29.73	ng/uL	99
15) 1,2-Dichlorobenzene	146	4.061	4.068	1.045	125069	34.15	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	4.174	4.168	1.074	134465	34.29	ng/uL	94
17) Benzyl alcohol	108	4.029	4.026	1.037	78974	36.53	ng/uL	98
18) o-Cresol	107	4.147	4.137	1.067	92939	35.04	ng/uL	96
19) m,p-Cresols	108	4.318	4.309	1.112	111267	35.40	ng/uL#	48
20) N-Nitrosodipropylamine	70	4.318	4.314	1.112	83785	35.93	ng/uL	60
21) Hexachloroethane	117	4.430	4.430	1.140	45958	29.91	ng/uL	96
24) Nitrobenzene	77	4.511	4.523	0.851	116701	33.74	ng/uL	100

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
 Data File : s3D0411.D
 Acq On : 04 Apr 2024 17:14
 Operator : LL2
 Sample : |1205692354|2590892|1|SVM|1|MSD||
 Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 05 08:01:57 2024
 Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
 Quant Title : BNA01
 QLast Update : Fri Mar 15 08:40:12 2024
 Response via : Initial Calibration

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
25)	Isophorone	82	4.783	4.792	0.902	219289	34.81	ng/uL	100
26)	2-Nitrophenol	139	4.869	4.881	0.918	60832	34.82	ng/uL	99
27)	2,4-Dimethylphenol	122	4.922	4.928	0.928	61357	25.03	ng/uL	99
28)	bis(2-Chloroethoxy)met...	93	5.035	5.039	0.950	148913	35.52	ng/uL	95
29)	2,4-Dichlorophenol	162	5.147	5.149	0.971	102169	36.69	ng/uL	99
30)	Benzoic acid	105	5.056	5.040	0.954	163929	79.78	ng/uL	95
31)	1,2,4-Trichlorobenzene	180	5.238	5.244	0.988	100115	32.20	ng/uL	99
32)	alpha-Terpineol	59	5.345	5.344	1.008	92854	35.61	ng/uL	98
33)	Naphthalene	128	5.329	5.328	1.005	347888	34.45	ng/uL	100
34)	4-Chloroaniline	127	5.393	5.391	1.017	99173	23.89	ng/uL	98
35)	Hexachlorobutadiene	225	5.463	5.460	1.030	53979	31.26	ng/uL	100
36)	4-Chloro-3-methylphenol	107	5.923	5.897	1.117	113076	40.47	ng/uL	100
37)	2-Methylnaphthalene	142	6.062	6.045	1.143	242211	36.82	ng/uL	99
38)	1-Methylnaphthalene	142	6.158	6.144	1.161	233042	38.46	ng/uL	99
40)	Hexachlorocyclopentadiene	237	6.217	6.215	0.881	23288	13.74	ng/uL	98
41)	2,3-Dichloroaniline	161	6.345	6.357	0.899	127466	34.75	ng/uL	99
42)	2,4,6-Trichlorophenol	196	6.345	6.357	0.899	79867	37.24	ng/uL	99
43)	2,4,5-Trichlorophenol	196	6.383	6.389	0.904	85728	39.02	ng/uL	99
45)	2-Chloronaphthalene	162	6.538	6.548	0.926	223794	34.63	ng/uL	95
46)	o-Nitroaniline	65	6.645	6.648	0.942	71247	40.16	ng/uL	98
48)	m-Nitroaniline	138	7.024	7.024	0.995	54472	28.25	ng/uL	100
49)	Dimethylphthalate	163	6.816	6.817	0.966	285217	39.30	ng/uL	99
51)	2,6-Dinitrotoluene	165	6.875	6.876	0.974	62264	38.40	ng/uL	98
52)	2,4-Dinitrotoluene	165	7.238	7.236	1.026	86647	39.28	ng/uL	98
53)	Acenaphthylene	152	6.928	6.934	0.982	350096	35.17	ng/uL	99
54)	Acenaphthene	154	7.089	7.093	1.005	220727	36.32	ng/uL	98
55)	2,4-Dinitrophenol	184	7.121	7.125	1.009	11696	23.63	ng/uL	95
56)	Dibenzofuran	168	7.244	7.247	1.027	348580	37.68	ng/uL	99
57)	2,3,4,6-Tetrachlorophenol	232	7.356	7.353	1.042	67416	36.74	ng/uL	99
58)	Diethylphthalate	149	7.452	7.448	1.056	333071	44.29	ng/uL	99
59)	4-Nitrophenol	109	7.190	7.173	1.019	33613	40.12	ng/uL	93
60)	Fluorene	166	7.549	7.549	1.070	281998	38.42	ng/uL	99
61)	4-Chlorophenylphenylether	204	7.554	7.549	1.070	133088	38.39	ng/uL	98
62)	p-Nitroaniline	138	7.570	7.564	1.073	60394	30.80	ng/uL	94
65)	2-Methyl-4,6-dinitroph...	198	7.597	7.603	0.908	23291	22.44	ng/uL	89
66)	Diphenylamine	169	7.655	7.661	0.915	251869	39.79	ng/uL	98
67)	1,2-Diphenylhydrazine	77	7.693	7.699	0.919	289626	38.04	ng/uL	98
68)	4-Bromophenylphenylether	248	7.976	7.979	0.953	83371	38.73	ng/uL	97
69)	Hexachlorobenzene	284	8.030	8.033	0.960	93044	35.60	ng/uL	99
70)	Pentachlorophenol	266	8.201	8.192	0.980	57895	40.15	ng/uL	98
71)	n-Octadecane	57	8.260	8.255	0.987	229669	47.58	ng/uL	98
72)	Dinoseb	211	8.394	8.351	1.003	744	5.59	ng/uL#	1
73)	Phenanthrene	178	8.383	8.388	1.002	442367	40.62	ng/uL	99
74)	Anthracene	178	8.431	8.430	1.008	399946	36.61	ng/uL	99
75)	Carbazole	167	8.565	8.562	1.024	396874	39.74	ng/uL	100
76)	Di-n-butylphthalate	149	8.848	8.839	1.058	689403	54.26	ng/uL	99
77)	Fluoranthene	202	9.388	9.379	1.122	421649	37.13	ng/uL	98
78)	Pyrene	202	9.576	9.570	1.144	432123	36.19	ng/uL	99
81)	Butylbenzylphthalate	149	10.111	10.089	0.945	329229	65.72	ng/uL	98
82)	bis(2-Ethylhexyl)phtha...	149	10.699	10.678	1.001	4316673	534.43	ng/uL	95 A
83)	Benzo(a)anthracene	228	10.683	10.683	0.999	323596	31.75	ng/uL	100
84)	Chrysene	228	10.720	10.725	1.003	300347	31.55	ng/uL	100
87)	Di-n-octylphthalate	149	11.523	11.531	1.078	680553	54.85	ng/uL	100
89)	Benzo(b)fluoranthene	252	12.111	12.087	0.951	236744	20.83	ng/uL	99
90)	Benzo(k)fluoranthene	252	12.148	12.135	0.954	227378	19.92	ng/uL	99
91)	Benzo(a)pyrene	252	12.635	12.626	0.992	187324	17.94	ng/uL	99
92)	Indeno(1,2,3-cd)pyrene	276	14.753	14.754	1.158	107678	9.75	ng/uL	98

Quantitation Report

Data Path : C:\msdchem\1\data\S040424.S\
Data File : s3D0411.D
Acq On : 04 Apr 2024 17:14
Operator : LL2
Sample : |1205692354|2590892|1|SVM|1|MSD|||
Misc : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 05 08:01:57 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration

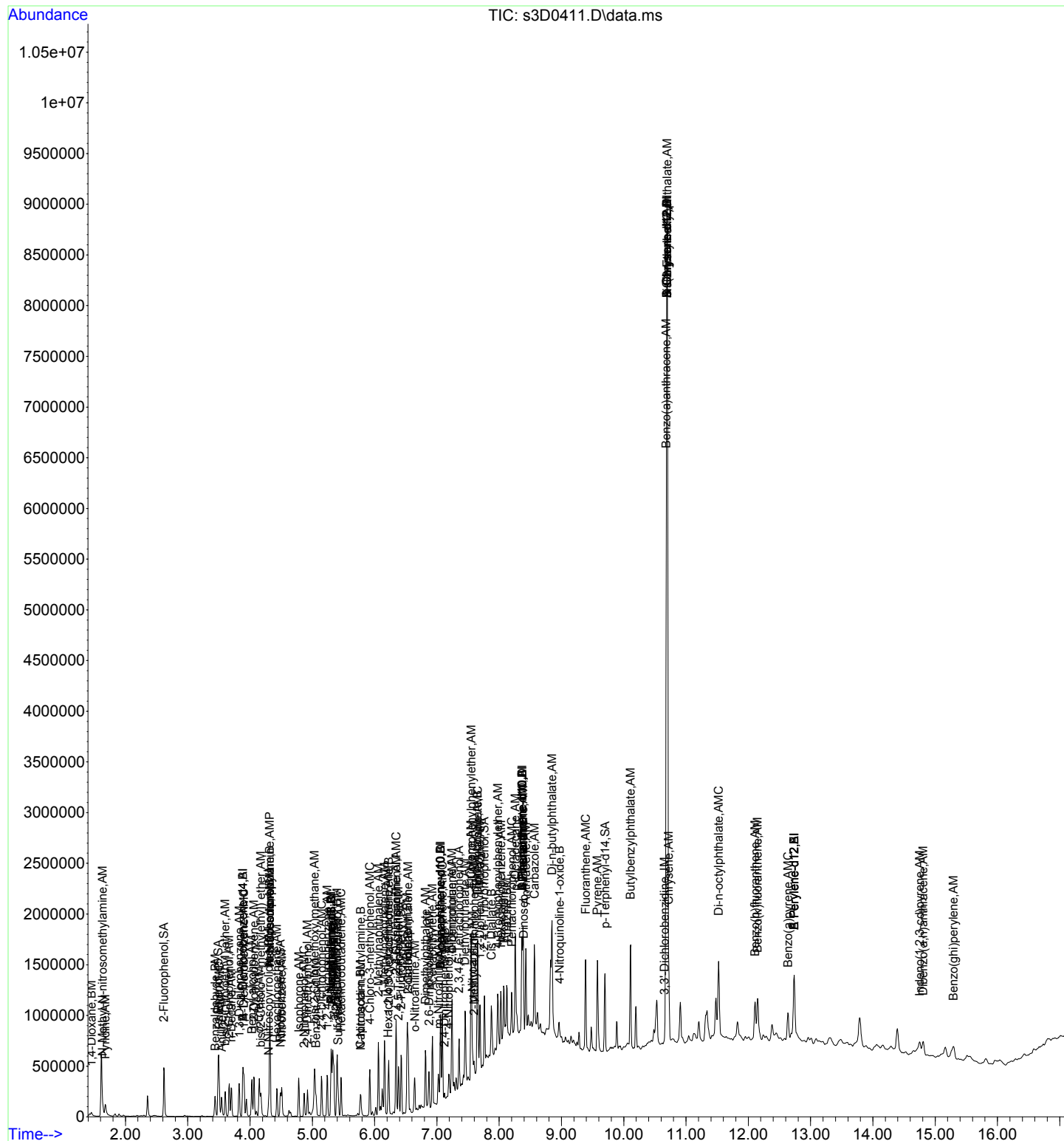
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
93) Dibenzo(a,h)anthracene	278	14.807	14.811	1.163	120792	11.22	ng/uL	98
94) Benzo(ghi)perylene	276	15.293	15.303	1.201	98729	9.39	ng/uL	99
97) 1,4-Dioxane	88	1.451	1.456	0.374	19854	16.26	ng/uL	97
106) Benzaldehyde	77	3.441	3.435	0.886	55792	22.98	ng/uL	98
108) N-Nitrosopyrrolidine	100	4.297	4.291	1.106	54037	36.43	ng/uL	96
109) Acetophenone	105	4.318	4.318	1.112	159667	35.85	ng/uL	72
110) N-Nitrosomorpholine	56	4.318	4.339	1.112	6738	4.73	ng/uL#	35
115) 2,6-Dichlorophenol	162	5.398	5.398	1.018	99360	38.57	ng/uL	99
117) Caprolactam	113	5.773	5.746	1.089	35037	43.95	ng/uL#	75
118) N-Nitrosodi-n-butylamine	57	5.778	5.757	1.090	7818	5.48	ng/uL#	1
121) 1,2,4,5-Tetrachloroben...	216	6.227	6.227	0.883	107778	35.17	ng/uL	99
122) 1,1-Biphenyl	154	6.522	6.522	0.924	301596	37.72	ng/uL	98
123) Isosafrole	162	6.538	6.490	0.926	223794	86.05	ng/uL#	34
129) Tributylphosphate	99	7.650	7.634	1.084	409918	44.98	ng/uL	98
134) Cis Diallate	86	7.875	7.896	0.941	2244	0.87	ng/uL#	1
136) Atrazine	200	8.126	8.116	0.971	81215	41.12	ng/uL	98
140) 4-Nitroquinoline-1-oxide	128	8.971	9.030	1.072	1267	3.85	ng/uL#	7
153) Sulfolane	56	5.414	5.409	1.021	39859	40.08	ng/uL	99
155) Prometon	210	8.078	8.057	0.965	70875	41.69	ng/uL	95
159) 3,3'-Dichlorobenzidine	252	10.651	10.640	0.996	18843	4.75	ng/uL	99
168) Disulfoton	88	8.383	8.356	1.002	41810	10.12	ng/uL#	32

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report

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Data Path : C:\msdchem\1\data\S040424.S\  
Data File : s3D0411.D  
Acq On    : 04 Apr 2024 17:14  
Operator  : LL2  
Sample    : |1205692354|2590892|1|SVM|1|MSD|||  
Misc      : |MSD827E4_S|MISC SOLID|QC A|mix[a,b,j,d,e]||  
ALS Vial  : 11 Sample Multiplier: 1
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Quant Time: Apr 05 08:01:57 2024
Quant Method : C:\msdchem\1\data\S040424.S\MSD3_8270_031424.m
Quant Title : BNA01
QLast Update : Fri Mar 15 08:40:12 2024
Response via : Initial Calibration



Miscellaneous

Prep Logbook

Automated Soxhlet Extraction

Batch ID: 2590877
Analyst: Jacob Stewart
Method: SW846 3541

Verified by: _____

Lab SOP: GL-OA-E-066 REV# 9
Instrument: Semi-Volatiles Manual

Sample ID	Prep Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1205692351 MB	04-APR-2024 09:45:00	10.25	1	0.09756
1205692352 LCS	04-APR-2024 09:45:00	10.67	1	0.09372
660397001	04-APR-2024 09:45:00	10	1	0.1
660558002	04-APR-2024 09:45:00	10.26	1	0.09747
1205692353 MS (660558002)	04-APR-2024 09:45:00	10.08	1	0.09921
1205692354 MSD (660558002)	04-APR-2024 09:45:00	10.09	1	0.09911
660950001	04-APR-2024 09:45:00	10.33	1	0.09681
660950002	04-APR-2024 09:45:00	10.19	1	0.09814
660950003	04-APR-2024 09:45:00	10.73	1	0.0932
660950004	04-APR-2024 09:45:00	10.56	1	0.0947
660950005	04-APR-2024 09:45:00	10.76	1	0.09294
660950006	04-APR-2024 09:45:00	10.31	1	0.09699
660968001	04-APR-2024 09:45:00	10.7	1	0.09346
660968002	04-APR-2024 09:45:00	10.68	1	0.09363
660968003	04-APR-2024 09:45:00	10.66	1	0.09381
660968004	04-APR-2024 09:45:00	10.28	1	0.09728
660968005	04-APR-2024 09:45:00	10.82	1	0.09242
660968006	04-APR-2024 09:45:00	10.69	1	0.09355
660974001	04-APR-2024 09:45:00	10.24	1	0.09766
660974002	04-APR-2024 09:45:00	10.26	1	0.09747
660974003	04-APR-2024 09:45:00	10.22	1	0.09785
660974004	04-APR-2024 09:45:00	10.23	1	0.09775
660974005	04-APR-2024 09:45:00	10.25	1	0.09756
660974006	04-APR-2024 09:45:00	10.93	1	0.09149

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1205692352	BNALCS Prom/Sulf w/o Benzidine/Atrazine 50ppm	WE240308-42	1	mL	Balance #: OPBAL-845
LCS	1205692352	BENZIDINE/Atrazine LCS	WE240320-49	1	mL	Soxtherm Unit: 11A, 7A, 8A, 9A
MS	1205692353	BNALCS Prom/Sulf w/o Benzidine/Atrazine 50ppm	WE240308-42	1	mL	Logbook Reviewer: DS
MS	1205692353	BENZIDINE/Atrazine LCS	WE240320-49	1	mL	Final Solvent: Methylene Chloride
MSD	1205692354	BNALCS Prom/Sulf w/o Benzidine/Atrazine 50ppm	WE240308-42	1	mL	Start Time: 10:07
MSD	1205692354	BENZIDINE/Atrazine LCS	WE240320-49	1	mL	End Time: 11:07
SURR	All	BNA for all Surrogate	UE230912-15	1	mL	Verified by: CB

Prep Logbook

Batch ID: 2590877

Verified by: _____

Analyst: Jacob Stewart

Lab SOP: GL-OA-E-066 REV# 9

Method: SW846 3541

Instrument: Semi-Volatiles Manual

Sample ID	Prep Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)	
REGNT All	Methylene Chloride		4211387	60	mL
REGNT All	Sand pure 40-100 mesh		4226226-A	30	g
REGNT All	Acetone		4318865-B4	60	mL

ORGANIC RUN LOG - INSTRUMENT ID#MSD3

GEL ORGANIC RUN LOG

03/15/2024

DATE: 14-Mar-24

METHOD: See Data

OPERATOR: LL2

Sequence Number: S031424IC

03/18/2024

Internal Std ID: UBN240111-01.1

Calibration Information:

Initial Calibration Dates: See Calibration History

Initial Calibration Std ID's: See Associated Data and Run Log

GEL SOP: GL-OA-E-009

Solvent Reference ID: 3859329

Analysis		Data File	Lab Sample ID	Client	Batch #	Dil.	AS	Analyst	Comments
Date	Time					Factor	Slot #		
03/14/2024	08:00	s3C1401.D	WBN240308-98	DFTPP	DFTPP	1	1	LL2	
03/14/2024	08:17	s3C1402.D	WBN240312-01.1	M-1	ICAL	1	2	LL2	
03/14/2024	08:40	s3C1403.D	WBN240312-02.1	M-2	ICAL	1	3	LL2	
03/14/2024	09:03	s3C1404.D	WBN240312-03.1	M-3	ICAL	1	4	LL2	
03/14/2024	09:27	s3C1405.D	WBN240312-04.1	M-4	ICAL	1	5	LL2	
03/14/2024	09:50	s3C1406.D	WBN240312-05	M-5	ICAL	1	6	LL2	
03/14/2024	10:14	s3C1407.D	WBN240312-06	M-6	ICAL	1	7	LL2	
03/14/2024	10:37	s3C1408.D	WBN240312-07	M-7	ICAL	1	8	LL2	
03/14/2024	11:01	s3C1409.D	WBN240312-08	M-8	ICAL	1	9	LL2	
03/14/2024	11:24	s3C1410.D	WBN240312-43	M-ICV	ICV	1	10	LL2	
03/14/2024	11:48	s3C1411.D	WBN240201-51.1	APX-2	ICAL	1	11	LL2	
03/14/2024	12:09	s3C1412.D	WBN240201-52	APX-3	ICAL	1	12	LL2	
03/14/2024	12:30	s3C1413.D	WBN240201-53	APX-9	ICAL	1	13	LL2	
03/14/2024	12:52	s3C1414.D	WBN240201-54.1	APX-4	ICAL	1	14	LL2	
03/14/2024	13:13	s3C1415.D	WBN240201-55	APX-5	ICAL	1	15	LL2	
03/14/2024	13:35	s3C1416.D	WBN240201-56	APX-10	ICAL	1	16	LL2	
03/14/2024	13:56	s3C1417.D	WBN240201-57	APX-6	ICAL	1	17	LL2	
03/14/2024	14:17	s3C1418.D	WBN240201-58	APX-7	ICAL	1	18	LL2	
03/14/2024	14:39	s3C1419.D	WBN240201-59	APX-8	ICAL	1	19	LL2	
03/14/2024	15:00	s3C1420.D	WBN240221-20	APX-ICV	ICV	1	20	LL2	
03/14/2024	15:22	s3C1421.D	WBN240227-27.1	P-2	ICAL	1	21	LL2	
03/14/2024	15:40	s3C1422.D	WBN240227-26	P-3	ICAL	1	22	LL2	
03/14/2024	15:58	s3C1423.D	WBN240227-25.1	P-4	ICAL	1	23	LL2	
03/14/2024	16:17	s3C1424.D	WBN240227-24	P-5	ICAL	1	24	LL2	
03/14/2024	16:35	s3C1425.D	WBN240227-23	P-6	ICAL	1	25	LL2	
03/14/2024	16:54	s3C1426.D	WBN240227-22	P-7	ICAL	1	26	LL2	
03/14/2024	17:12	s3C1427.D	WBN240227-21	P-8	ICAL	1	27	LL2	
03/14/2024	17:30	s3C1428.D	WBN240228-26	P-ICV	ICV	1	28	LL2	
03/14/2024	17:49	s3C1429.D	WBN240313-31.1	H-2	ICAL	1	29	LL2	
03/14/2024	18:07	s3C1430.D	WBN240313-32	H-3	ICAL	1	30	LL2	
03/14/2024	18:25	s3C1431.D	WBN240313-33	H-4	ICAL	1	31	LL2	
03/14/2024	18:44	s3C1432.D	WBN240313-34	H-5	ICAL	1	32	LL2	
03/14/2024	19:02	s3C1433.D	WBN240313-35	H-6	ICAL	1	33	LL2	
03/14/2024	19:20	s3C1434.D	WBN240313-37	H-7	ICAL	1	34	LL2	
03/14/2024	19:39	s3C1435.D	WBN240228-38	H-ICV	ICV	1	35	LL2	

GEL ORGANIC RUN LOG

DATE: 4-Apr-24METHOD: See DataOPERATOR: LL2Sequence Number: S040424.SInternal Std ID: UBN240111-01.1

Calibration Information:

Initial Calibration Dates: See Calibration History

Initial Calibration Std ID's: See Associated Data and Run Log

GEL SOP: GL-OA-E-009

Solvent Reference ID: 3859329

Analysis		Data File	Lab Sample ID	Client	Batch #	Dil.	AS	Analyst	Comments
Date	Time					Factor	Slot #		
04/04/2024	05:24	rinse01.D	WBN240304-04.12	M-4	CCV	1	2	LL2	
04/04/2024	13:50	s3D0401.D	WBN240308-98	DFTPP	DFTPP	1	1	LL2	
04/04/2024	14:04	s3D0402.D	WBN240304-04.5	M-4	CCV	1	2	LL2	
04/04/2024	14:27	s3D0403.D	WBN240201-54.2	APX-4	CCV	1	3	LL2	
04/04/2024	14:48	s3D0404.D	WBN240227-25.7	P-4	CCV	1	4	LL2	
04/04/2024	15:07	s3D0405.D	WBN240212-33.6	H-4	CCV	1	5	LL2	
04/04/2024	15:25	s3D0406.D	1205692351	MB	2590892	1	6	LL2	
04/04/2024	15:46	s3D0407.D	1205692352	LCS	2590892	1	7	LL2	
04/04/2024	16:08	s3D0408.D	660397001	CARE	2590892	1	8	LL2	overrange hit - RR @ 5x
04/04/2024	16:31	s3D0409.D	660558002	UCOR	2590892	1	9	LL2	overrange hit - RR @ 5x
04/04/2024	16:53	s3D0410.D	1205692353	MS	2590892	1	10	LL2	
04/04/2024	17:14	s3D0411.D	1205692354	MSD	2590892	1	11	LL2	
04/04/2024	17:36	s3D0412.D	660950001	PERM	2590892	1	12	LL2	overrange hits - RR @ 200x
04/04/2024	17:57	s3D0413.D	660950002	PERM	2590892	1	13	LL2	overrange hits - RR @ 200x
04/04/2024	18:18	s3D0414.D	660950003	PERM	2590892	1	14	LL2	overrange hits - RR @ 200x
04/04/2024	18:40	s3D0415.D	660950004	PERM	2590892	1	15	LL2	overrange hits - RR @ 200x
04/04/2024	19:01	s3D0416.D	660950005	PERM	2590892	1	16	LL2	overrange hits - RR @ 200x
04/04/2024	19:22	s3D0417.D	660950006	PERM	2590892	1	17	LL2	overrange hits - RR @ 200x
04/04/2024	19:44	s3D0418.D	660968001	PERM	2590892	1	18	LL2	
04/04/2024	20:05	s3D0419.D	660968002	PERM	2590892	1	19	LL2	
04/04/2024	20:26	s3D0420.D	660968003	PERM	2590892	1	20	LL2	
04/04/2024	20:48	s3D0421.D	660968004	PERM	2590892	1	21	LL2	
04/04/2024	21:09	s3D0422.D	660968005	PERM	2590892	1	22	LL2	
04/04/2024	21:30	s3D0423.D	660968006	PERM	2590892	1	23	LL2	
04/04/2024	21:51	s3D0424.D	660974001	PERM	2590892	1	24	LL2	
04/04/2024	22:13	s3D0425.D	660974002	PERM	2590892	1	25	LL2	
04/04/2024	22:34	s3D0426.D	660974003	PERM	2590892	1	26	LL2	
04/04/2024	22:55	s3D0427.D	660974004	PERM	2590892	1	27	LL2	
04/04/2024	23:16	s3D0428.D	660974005	PERM	2590892	1	28	LL2	
04/04/2024	23:38	s3D0429.D	660974006	PERM	2590892	1	29	LL2	

Metals Analysis

Case Narrative

Metals
Technical Case Narrative
Perma-Fix of Florida
SDG #: 660968

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7471B

Analytical Procedure: GL-MA-E-010 REV# 40

Analytical Batch: 2590723

Preparation Method: SW846 7471B Prep

Preparation Procedure: GL-MA-E-010 REV# 40

Preparation Batch: 2590722

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
660968001	12039.B4.Top Front.EPA
660968002	12039.B4.Middle Front.EPA
660968003	12039.B4.Bottom Front.EPA
660968004	12040.B4.Top Back.EPA
660968005	12040.B4.Middle Back.EPA
660968006	12040.B4.Bottom Back.EPA
1205692115	Method Blank (MB)CVAA
1205692116	Laboratory Control Sample (LCS)
1205692119	660950001(12038.B2.Pre-Test.EPAL) Serial Dilution (SD)
1205692117	660950001(12038.B2.Pre-Test.EPAD) Sample Duplicate (DUP)
1205692118	660950001(12038.B2.Pre-Test.EPAS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 1205692117 (12038.B2.Pre-Test.EPADUP), 1205692118 (12038.B2.Pre-Test.EPAMS) and 1205692119 (12038.B2.Pre-Test.EPASDILT) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report for

PERM001 Perma-Fix of Florida

Client SDG: 660968 GEL Work Order: 660968

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:



Name: Alan Stanley

Date: 04 APR 2024

Title: Analyst II/Team Leader

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660968

METHOD TYPE: SW846

SAMPLE ID: 660968001

CLIENT ID: 12039.B4.Top Front.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 02-APR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	278	ug/kg			AV	7.61	1	HG6	040424S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660968

METHOD TYPE: SW846

SAMPLE ID: 660968002

CLIENT ID: 12039.B4.Middle Front.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 02-APR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	221	ug/kg			AV	7.13	1	HG6	040424S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660968

METHOD TYPE: SW846

SAMPLE ID: 660968003

CLIENT ID: 12039.B4.Bottom Front.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 02-APR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	225	ug/kg			AV	6.86	1	HG6	040424S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660968

METHOD TYPE: SW846

SAMPLE ID: 660968004

CLIENT ID: 12040.B4.Top Back.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 02-APR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	208	ug/kg			AV	7.23	1	HG6	040424S1-1

*Analytical Methods:

AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660968

METHOD TYPE: SW846

SAMPLE ID: 660968005

CLIENT ID: 12040.B4.Middle Back.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 02-APR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	162	ug/kg			AV	7.88	1	HG6	040424S1-1

*Analytical Methods:
AV SW846 7471B

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 660968

METHOD TYPE: SW846

SAMPLE ID: 660968006

CLIENT ID: 12040.B4.Bottom Back.EPA

CONTRACT: PERM00224

MATRIX: Misc Solid

DATE RECEIVED: 02-APR-24

LEVEL: Low

<u>CAS No.</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7439-97-6	Mercury	225	ug/kg			AV	7.03	1	HG6	040424S1-1

*Analytical Methods:
AV SW846 7471B

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 660968

Contract: PERM00224

Lab Code: GEL

Instrument ID: HG6

<i>Sample ID</i>	<i>Analyte</i>	<i>Result</i>	<i>Units</i>	<i>True Value</i>	<i>Units</i>	<i>% Recovery</i>	<i>Acceptance Window (%R)</i>	<i>M*</i>	<i>Analysis Date/Time</i>	<i>Run Number</i>
ICV01	Mercury	5.06	ug/L	5	ug/L	101.1	90.0 - 110.0	AV	04-APR-24 09:45	040424S1-1
CCV01	Mercury	5.01	ug/L	5	ug/L	100.2	80.0 - 120.0	AV	04-APR-24 09:50	040424S1-1
CCV02	Mercury	5.03	ug/L	5	ug/L	100.7	80.0 - 120.0	AV	04-APR-24 09:56	040424S1-1
CCV03	Mercury	5.02	ug/L	5	ug/L	100.4	80.0 - 120.0	AV	04-APR-24 10:37	040424S1-1
CCV04	Mercury	5.05	ug/L	5	ug/L	101	80.0 - 120.0	AV	04-APR-24 10:57	040424S1-1
CCV05	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 - 120.0	AV	04-APR-24 11:17	040424S1-1

***Analytical Methods:**

AV SW846 7471B

METALS
-2b-
CRDL Standard for ICP & ICPMS

SDG No: 660968

Contract: PERM00224

Lab Code: GEL

Instrument ID: HG6

<i>Sample ID</i>	<i>Analyte</i>	<i>Result</i>	<i>Units</i>	<i>True Value</i>	<i>Units</i>	<i>% Recovery</i>	<i>Advisory Limits (%R)</i>	<i>M*</i>	<i>Analysis Date/Time</i>	<i>Run Number</i>
CRDL01	Mercury	.175	ug/L	.2	ug/L	87.5	70.0 - 130.0	AV	04-APR-24 09:48	040424S1-1

***Analytical Methods:**

AV

SW846 7471B

SW846

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 660968

Contract: PERM00224

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
ICB01	Mercury	0.067	+/-2	U	0.067	0.2	SOL	AV	04-APR-24 09:46	040424S1-1
CCB01	Mercury	0.067	+/-2	U	0.067	0.2	SOL	AV	04-APR-24 09:51	040424S1-1
CCB02	Mercury	0.067	+/-2	U	0.067	0.2	SOL	AV	04-APR-24 09:58	040424S1-1
CCB03	Mercury	0.067	+/-2	U	0.067	0.2	SOL	AV	04-APR-24 10:38	040424S1-1
CCB04	Mercury	0.067	+/-2	U	0.067	0.2	SOL	AV	04-APR-24 10:59	040424S1-1
CCB05	Mercury	0.067	+/-2	U	0.067	0.2	SOL	AV	04-APR-24 11:19	040424S1-1

*Analytical Methods:

AV SW846 7471B

SW846

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 660968
Contract: PERM00224
Matrix: Misc Solid

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Acceptance Window</u>	<u>Conc Qual</u>	<u>M*</u>	<u>MDL</u>	<u>RDL</u>
1205692115	Mercury	7.28	ug/kg	+/-21.7	U	AV	7.28	21.7

*Analytical Methods:
AV SW846 7471B

METALS									
-5a-									
Matrix Spike Summary									
SDG NO.	660968	Client ID:	12038.B2.Pre-Test.EPAS						
Contract:	PERM00224	Level:	Low						
Matrix:	MISC SOLID	% Solids:							
Sample ID:	660950001	Spike ID:	1205692118						

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M*</u>
Mercury	ug/kg		304000		322000		233	-7850	N/A	AV

*Analytical Methods:
AV SW846 7471B

Metals
-6-
Duplicate Sample Summary

SDG No.: 660968**Lab Code:** GEL**Contract:** PERM00224**Client ID:** 12038.B2.Pre-Test.EPAD**Matrix:** MISC SOLID**Level:** Low**Sample ID:** 660950001**Duplicate ID:** 1205692117**Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Mercury	ug/kg	+/-20%	322000		307000		4.69		AV

***Analytical Methods:**

AV SW846 7471B

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 660968
Contract: PERM00224
Aqueous LCS Source:

Solid LCS Source: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M*</u>
1205692116	Mercury	ug/kg	237	243		102	80-120	AV

*Analytical Methods:
AV SW846 7471B

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 660968 Client ID: 12038.B2.Pre-Test.EPAL

Contract: PERM00224

Matrix: SOLID Level: Low

Sample ID: 660950001 Serial Dilution ID: 1205692119

<u>Analyte</u>	<u>Initial Value ug/L</u>	<u>C</u>	<u>Serial Value ug/L</u>	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M*</u>
Mercury	1.41		1.36		3.627			AV

*Analytical Methods:

AV SW846 7471B

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 660968

Method Type: AV

Contract: PERM00224

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number	2590722						
1205692115	MB for batch 2590722	MB	m	03-APR-24	.276g	30mL	
1205692116	LCS for batch 2590722	LCS	m	03-APR-24	.253g	30mL	
1205692118	12038.B2.Pre-Test.EPAS	MS	m	03-APR-24	.258g	30mL	
1205692117	12038.B2.Pre-Test.EPAD	DUP	m	03-APR-24	.299g	30mL	
660968001	12039.B4.Top Front.EPA	SAMPLE	m	03-APR-24	.264g	30mL	
660968002	12039.B4.Middle Front.EPA	SAMPLE	m	03-APR-24	.282g	30mL	
660968003	12039.B4.Bottom Front.EPA	SAMPLE	m	03-APR-24	.293g	30mL	
660968004	12040.B4.Top Back.EPA	SAMPLE	m	03-APR-24	.278g	30mL	
660968005	12040.B4.Middle Back.EPA	SAMPLE	m	03-APR-24	.255g	30mL	
660968006	12040.B4.Bottom Back.EPA	SAMPLE	m	03-APR-24	.286g	30mL	

SW846

**Metals
-14-
Analysis Run Log**

Contract: PERM00224**Lab Code :** GEL**Inst Name:** HG6**Start Date:** 04-APR-24**End Date:** 04-APR-24**Client Sdg:** 660968**Instrument Type:**AV**Data File:** 040424S1-1

Samp ID	D/F	Run Time	Hg
S0.0	1	09:34:00	X
S0.2	1	09:36:00	X
S0.5	1	09:38:00	X
S2.0	1	09:39:00	X
S5.0	1	09:41:00	X
S10.0	1	09:43:00	X
ICV01	1	09:45:00	X
ICB01	1	09:46:00	X
CRDL01	1	09:48:00	X
CCV01	1	09:50:00	X
CCB01	1	09:51:00	X
1205692115	1	09:53:00	X
1205692116	1	09:55:00	X
CCV02	1	09:56:00	X
CCB02	1	09:58:00	X
ZZZZZ	1	10:00:00	
ZZZZZ	1	10:09:00	
ZZZZZ	1	10:11:00	
ZZZZZ	200	10:12:00	
ZZZZZ	200	10:14:00	
ZZZZZ	200	10:16:00	
ZZZZZ	1000	10:17:00	
ZZZZZ	200	10:19:00	
ZZZZZ	1	10:21:00	
ZZZZZ	1	10:22:00	
ZZZZZ	1	10:24:00	
ZZZZZ	1	10:26:00	
ZZZZZ	1	10:28:00	
ZZZZZ	1	10:29:00	
CCV03	1	10:37:00	X
CCB03	1	10:38:00	X
ZZZZZ	2000	10:40:00	
1205692117	2000	10:42:00	X
1205692118	2000	10:43:00	X
1205692119	10000	10:45:00	X
ZZZZZ	2000	10:47:00	
ZZZZZ	200	10:49:00	
ZZZZZ	200	10:50:00	
ZZZZZ	200	10:52:00	
ZZZZZ	200	10:54:00	
ZZZZZ	200	10:55:00	

Metals
-14-
Analysis Run Log

Contract: PERM00224

Lab Code : GEL

Inst Name: HG6

Start Date: 04-APR-24

Client Sdg: 660968

Instrument Type:AV

Data File: 040424S1-1

End Date: 04-APR-24

Samp ID	D/F	Run Time	Hg
CCV04	1	10:57:00	X
CCB04	1	10:59:00	X
660968001	1	11:00:00	X
660968002	1	11:02:00	X
660968003	1	11:04:00	X
660968004	1	11:06:00	X
660968005	1	11:07:00	X
660968006	1	11:09:00	X
ZZZZZ	1	11:11:00	
ZZZZZ	1	11:12:00	
ZZZZZ	1	11:14:00	
ZZZZZ	1	11:16:00	
CCV05	1	11:17:00	X
CCB05	1	11:19:00	X

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 660968

Contract: PERM00224

Lab Code: GEL

MDL

Hg Effective Date: 01-DEC-19

Instrument(s):

HG6

Verified on:

10-JAN-2024

		<i>Wavelength (nm)</i>	<i>MDL ug/L</i>	<i>RDL ug/L</i>
MERCURY	<i>Analyte</i>			
SOLID	Mercury	253.7	0.067	0.2

Raw Data

=====
Analysis BegunLogged In Analyst: hg6
Spectrometer: FIMS-100, P/N B050-9550Technique: AA FIMS-MHS
Autosampler: S10Sample Information File: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Sample Information\
040424.SIFX

Batch ID:

Results Data Set: 040424S1

Results Library: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Results\Results.mdb

=====
Method Loaded

Method Name: SOIL*

Method Last Saved: 4/3/2024 11:29:39

Method Description: 7471A - Hg6

Sequence No.: 1

Autosampler Location: 1

Sample ID: Calib Blank

Date Collected: 4/4/2024 09:33:32

Analyst: JP2

Data Type: Original

Replicate Data: Calib Blank

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1		[0.00]	0.0004	0.0008	0.0004	09:34:21	Yes
2		[0.00]	0.0005	0.0020	0.0005	09:34:52	Yes
Mean:		[0.00]	0.0004				
SD:		0.0000	0.0001				
%RSD:		0.00%	19.77%				

Auto-zero performed.

Sequence No.: 2

Autosampler Location: 2

Sample ID: S0.2

Date Collected: 4/4/2024 09:35:12

Analyst: JP2

Data Type: Original

Replicate Data: S0.2

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1		[0.2]	0.0019	0.0106	0.0023	09:36:02	Yes
2		[0.2]	0.0019	0.0105	0.0023	09:36:33	Yes
Mean:		[0.2]	0.0019				
SD:		0.000	0.0000				
%RSD:		0.00%	0.20%				

Standard number 1 applied. [0.2]

Correlation Coef.: 1.000000 Slope: 0.00948 Intercept: 0.00000

Sequence No.: 3

Autosampler Location: 3

Sample ID: S0.5

Date Collected: 4/4/2024 09:36:54

Analyst: JP2

Data Type: Original

Replicate Data: S0.5

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1		[0.5]	0.0049	0.0243	0.0053	09:37:44	Yes
2		[0.5]	0.0049	0.0241	0.0053	09:38:15	Yes
Mean:		[0.5]	0.0049				
SD:		0.000	0.0000				
%RSD:		0.00%	0.07%				

Standard number 2 applied. [0.5]

Correlation Coef.: 0.999944 Slope: 0.00972 Intercept: -0.00002

Sequence No.: 4

Autosampler Location: 4

Sample ID: S2.0

Date Collected: 4/4/2024 09:38:36

Analyst: JP2

Data Type: Original

Replicate Data: S2.0

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0202	0.0958	0.0206	09:39:27	Yes
2		[2.0]	0.0203	0.0967	0.0207	09:39:57	Yes

Mean: [2.0] 0.0202

SD: 0.000 0.0001

%RSD: 0.00% 0.44%

Standard number 3 applied. [2.0]

Correlation Coef.: 0.999948 Slope: 0.01015 Intercept: -0.00011

Sequence No.: 5

Autosampler Location: 5

Sample ID: S5.0

Date Collected: 4/4/2024 09:40:19

Analyst: JP2

Data Type: Original

Replicate Data: S5.0

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0505	0.2380	0.0510	09:41:10	Yes
2		[5.0]	0.0507	0.2391	0.0511	09:41:40	Yes

Mean: [5.0] 0.0506

SD: 0.000 0.0001

%RSD: 0.00% 0.27%

Standard number 4 applied. [5.0]

Correlation Coef.: 0.999993 Slope: 0.01014 Intercept: -0.00010

Sequence No.: 6

Autosampler Location: 6

Sample ID: S10.0

Date Collected: 4/4/2024 09:42:02

Analyst: JP2

Data Type: Original

Replicate Data: S10.0

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1000	0.4725	0.1004	09:42:51	Yes
2		[10.0]	0.0998	0.4724	0.1003	09:43:22	Yes

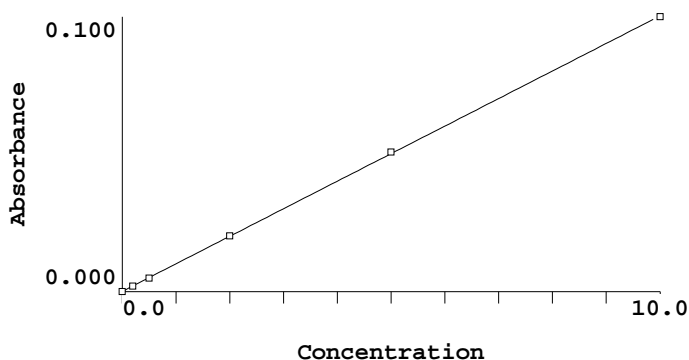
Mean: [10.0] 0.0999

SD: 0.000 0.0001

%RSD: 0.00% 0.09%

Standard number 5 applied. [10.0]

Correlation Coef.: 0.999973 Slope: 0.01001 Intercept: 0.00004



Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. µg/L	Calculated Conc. µg/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.004	0.00	19.77
S0.2	0.0019	0.2	0.185	0.00	0.20
S0.5	0.0049	0.5	0.480	0.00	0.07

SDG: 660968

S2.0	0.0202	2.0	2.016	0.00	0.44
S5.0	0.0506	5.0	5.050	0.00	0.27
S10.0	0.0999	10.0	9.973	0.00	0.09

Correlation Coef.: 0.999973 Slope: 0.01001 Intercept: 0.00004

Sequence No.: 7

Autosampler Location: 9

Sample ID: ICV

Date Collected: 4/4/2024 09:43:42

Analyst: JP2

Data Type: Original

Replicate Data: ICV

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	5.042	5.042	0.0505	0.2401	0.0510	09:44:33	Yes
2	5.068	5.068	0.0508	0.2399	0.0512	09:45:03	Yes
Mean:	5.055	5.055	0.0507				
SD:	0.0190	0.0190	0.0002				
%RSD:	0.38%	0.38%	0.38%				

QC value within limits for Hg 253.7 Recovery = 101.10%
All analyte(s) passed QC.

Sequence No.: 8

Autosampler Location: 10

Sample ID: ICB

Date Collected: 4/4/2024 09:45:24

Analyst: JP2

Data Type: Original

Replicate Data: ICB

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	-0.027	-0.027	-0.0002	0.0003	0.0002	09:46:15	Yes
2	-0.022	-0.022	-0.0002	0.0007	0.0003	09:46:45	Yes
Mean:	-0.025	-0.025	-0.0002				
SD:	0.0035	0.0035	0.0000				
%RSD:	14.15%	14.15%	17.31%				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9

Autosampler Location: 11

Sample ID: CRDL

Date Collected: 4/4/2024 09:47:06

Analyst: JP2

Data Type: Original

Replicate Data: CRDL

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.178	0.178	0.0018	0.0105	0.0023	09:47:57	Yes
2	0.172	0.172	0.0018	0.0096	0.0022	09:48:27	Yes
Mean:	0.175	0.175	0.0018				
SD:	0.0043	0.0043	0.0000				
%RSD:	2.44%	2.44%	2.38%				

QC value within limits for Hg 253.7 Recovery = 87.28%
All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 7

Sample ID: CCV

Date Collected: 4/4/2024 09:48:48

Analyst: JP2

Data Type: Original

Replicate Data: CCV

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	4.992	4.992	0.0500	0.2377	0.0505	09:49:38	Yes
2	5.033	5.033	0.0504	0.2377	0.0509	09:50:08	Yes
Mean:	5.012	5.012	0.0502				
SD:	0.0286	0.0286	0.0003				
%RSD:	0.57%	0.57%	0.57%				

QC value within limits for Hg 253.7 Recovery = 100.25%

All analyte(s) passed QC.

Sequence No.: 11

Sample ID: CCB

Analyst: JP2

Autosampler Location: 8

Date Collected: 4/4/2024 09:50:29

Data Type: Original

Replicate Data: CCB

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	-0.009	-0.009	-0.0000	0.0012	0.0004	09:51:19	Yes
2	-0.001	-0.001	0.0000	0.0021	0.0005	09:51:49	Yes
Mean:	-0.005	-0.005	-0.0000				
SD:	0.0053	0.0053	0.0001				
%RSD:	105.57%	105.57%	>999.9%				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 12

Sample ID: 1205692115|2590723|1

Analyst: JP2

Autosampler Location: 12

Date Collected: 4/4/2024 09:52:11

Data Type: Original

Replicate Data: 1205692115|2590723|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.002	0.002	0.0001	0.0020	0.0005	09:53:02	Yes
2	0.006	0.006	0.0001	0.0022	0.0005	09:53:32	Yes
Mean:	0.004	0.004	0.0001				
SD:	0.0023	0.0023	0.0000				
%RSD:	57.39%	57.39%	26.80%				

Sequence No.: 13

Sample ID: 1205692116|2590723|1

Analyst: JP2

Autosampler Location: 13

Date Collected: 4/4/2024 09:53:54

Data Type: Original

Replicate Data: 1205692116|2590723|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	2.048	2.048	0.0206	0.0981	0.0210	09:54:45	Yes
2	2.044	2.044	0.0205	0.0969	0.0210	09:55:15	Yes
Mean:	2.046	2.046	0.0205				
SD:	0.0026	0.0026	0.0000				
%RSD:	0.13%	0.13%	0.13%				

Sequence No.: 14

Sample ID: CCV

Analyst: JP2

Autosampler Location: 7

Date Collected: 4/4/2024 09:55:37

Data Type: Original

Replicate Data: CCV

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	5.016	5.016	0.0503	0.2369	0.0507	09:56:27	Yes
2	5.051	5.051	0.0506	0.2383	0.0511	09:56:57	Yes
Mean:	5.034	5.034	0.0505				
SD:	0.0249	0.0249	0.0002				
%RSD:	0.50%	0.50%	0.50%				

QC value within limits for Hg 253.7 Recovery = 100.68%

All analyte(s) passed QC.

Sequence No.: 15

Sample ID: CCB

Analyst: JP2

Autosampler Location: 8

Date Collected: 4/4/2024 09:57:17

Data Type: Original

Replicate Data: CCB

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	-0.022	-0.022	-0.0002	0.0005	0.0003	09:58:07	Yes
2	-0.017	-0.017	-0.0001	0.0008	0.0003	09:58:37	Yes
Mean:	-0.019	-0.019	-0.0001				
SD:	0.0036	0.0036	0.0000				
%RSD:	18.67%	18.67%	24.37%				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

=====

Sequence No.: 16
Sample ID: 660950001|2590723|1
Analyst: JP2

Autosampler Location: 14
Date Collected: 4/4/2024 09:58:58
Data Type: Original

Replicate Data: 660950001|2590723|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	155.1	155.1	1.5531	14.8933	1.5535	09:59:47	Yes
	Sample concentration is greater than that of the highest standard.						
2	118.8	118.8	1.1899	10.8369	1.1903	10:00:19	Yes
	Sample concentration is greater than that of the highest standard.						
Mean:	137.0	137.0	1.3715				
SD:	25.65	25.65	0.2568				
%RSD:	18.73%	18.73%	18.73%				

Sample concentration is greater than that of the highest standard.

=====

Sequence No.: 17
Sample ID: 1205692117|2590723|1
Analyst: JP2

Autosampler Location: 15
Date Collected: 4/4/2024 10:00:39
Data Type: Original

Replicate Data: 1205692117|2590723|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	139.9	139.9	1.4013	13.2407	1.4018	10:01:29	Yes
	Sample concentration is greater than that of the highest standard.						

FIMS-100: Lamp energy too low.

=====
Analysis BegunLogged In Analyst: hg6
Spectrometer: FIMS-100, P/N B050-9550Technique: AA FIMS-MHS
Autosampler: S10Sample Information File: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Sample Information\
040424.SIFX

Batch ID:

Results Data Set: 040424S1

Results Library: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Results\Results.mdb

=====
Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 4/4/2024 10:35:53

Analyst: JP2

Data Type: Original

Replicate Data: CCV

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	4.983	4.983	0.0499	0.2432	0.0504	10:36:44	Yes
2	5.052	5.052	0.0506	0.2450	0.0511	10:37:14	Yes

Mean: 5.018 5.018 0.0503

SD: 0.0486 0.0486 0.0005

%RSD: 0.97% 0.97% 0.97%

QC value within limits for Hg 253.7 Recovery = 100.35%

All analyte(s) passed QC.

=====
Sequence No.: 2

Autosampler Location: 8

Sample ID: CCB

Date Collected: 4/4/2024 10:37:34

Analyst: JP2

Data Type: Original

Replicate Data: CCB

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	-0.010	-0.010	-0.0001	-0.0002	0.0004	10:38:25	Yes
2	0.030	0.030	0.0003	0.0021	0.0008	10:38:55	Yes

Mean: 0.010 0.010 0.0001

SD: 0.0289 0.0289 0.0003

%RSD: 289.75% 289.75% 199.95%

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

=====
Sequence No.: 3

Autosampler Location: 14

Sample ID: 660950001|2590723|2000

Date Collected: 4/4/2024 10:39:15

Analyst: JP2

Data Type: Original

Replicate Data: 660950001|2590723|2000

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	1.387	1.387	0.0139	0.0682	0.0144	10:40:05	Yes
2	1.424	1.424	0.0143	0.0697	0.0147	10:40:35	Yes

Mean: 1.406 1.406 0.0141

SD: 0.0262 0.0262 0.0003

%RSD: 1.87% 1.87% 1.86%

=====
Sequence No.: 4

Autosampler Location: 15

Sample ID: 1205692117|2590723|2000

Date Collected: 4/4/2024 10:40:56

Analyst: JP2

Data Type: Original

Replicate Data: 1205692117|2590723|2000

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored

1	1.514	1.514	0.0152	0.0750	0.0156	10:41:46	Yes
2	1.549	1.549	0.0156	0.0756	0.0160	10:42:17	Yes
Mean:	1.531	1.531	0.0154				
SD:	0.0245	0.0245	0.0002				
%RSD:	1.60%	1.60%	1.59%				

Sequence No.: 5

Autosampler Location: 16

Sample ID: 1205692118|2590723|2000

Date Collected: 4/4/2024 10:42:37

Analyst: JP2

Data Type: Original

Replicate Data: 1205692118|2590723|2000

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	1.288	1.288	0.0129	0.0629	0.0134	10:43:27	Yes
2	1.324	1.324	0.0133	0.0642	0.0137	10:43:57	Yes
Mean:	1.306	1.306	0.0131				
SD:	0.0257	0.0257	0.0003				
%RSD:	1.97%	1.97%	1.96%				

Sequence No.: 6

Autosampler Location: 17

Sample ID: 1205692119|2590723|10000

Date Collected: 4/4/2024 10:44:18

Analyst: JP2

Data Type: Original

Replicate Data: 1205692119|2590723|10000

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.255	0.255	0.0026	0.0134	0.0030	10:45:08	Yes
2	0.288	0.288	0.0029	0.0152	0.0034	10:45:39	Yes
Mean:	0.271	0.271	0.0028				
SD:	0.0234	0.0234	0.0002				
%RSD:	8.61%	8.61%	8.47%				

Sequence No.: 7

Autosampler Location: 18

Sample ID: 1205692120|2590723|2000

Date Collected: 4/4/2024 10:45:59

Analyst: JP2

Data Type: Original

Replicate Data: 1205692120|2590723|2000

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	3.247	3.247	0.0326	0.1589	0.0330	10:46:49	Yes
2	3.253	3.253	0.0326	0.1573	0.0331	10:47:20	Yes
Mean:	3.250	3.250	0.0326				
SD:	0.0041	0.0041	0.0000				
%RSD:	0.13%	0.13%	0.13%				

Sequence No.: 8

Autosampler Location: 19

Sample ID: 660950002|2590723|200

Date Collected: 4/4/2024 10:47:41

Analyst: JP2

Data Type: Original

Replicate Data: 660950002|2590723|200

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	11.83	11.83	0.1185	0.5937	0.1189	10:48:31	Yes
Sample concentration is greater than that of the highest standard.							
2	11.97	11.97	0.1199	0.5972	0.1204	10:49:01	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	11.90	11.90	0.1192				
SD:	0.099	0.099	0.0010				
%RSD:	0.83%	0.83%	0.83%				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 9

Autosampler Location: 20

Sample ID: 660950003|2590723|200
Analyst: JP2

Date Collected: 4/4/2024 10:49:22
Data Type: Original

Replicate Data: 660950003|2590723|200

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	10.77	10.77	0.1079	0.5378	0.1083	10:50:12	Yes
2	10.77	10.77	0.1078	0.5358	0.1083	10:50:42	Yes
Mean:	10.77	10.77	0.1079				
SD:	0.004	0.004	0.0000				
%RSD:	0.03%	0.03%	0.03%				

=====

Sequence No.: 10

Autosampler Location: 21

Sample ID: 660950004|2590723|200

Date Collected: 4/4/2024 10:51:03

Analyst: JP2

Data Type: Original

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	13.94	13.94	0.1396	0.6972	0.1401	10:51:54	Yes
Sample concentration is greater than that of the highest standard.							
2	14.04	14.04	0.1406	0.6988	0.1410	10:52:24	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	13.99	13.99	0.1401				
SD:	0.069	0.069	0.0007				
%RSD:	0.49%	0.49%	0.49%				

Sample concentration is greater than that of the highest standard.

=====

Sequence No.: 11

Autosampler Location: 22

Sample ID: 660950005|2590723|200

Date Collected: 4/4/2024 10:52:45

Analyst: JP2

Data Type: Original

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	15.28	15.28	0.1531	0.7640	0.1535	10:53:36	Yes
Sample concentration is greater than that of the highest standard.							
2	15.35	15.35	0.1537	0.7623	0.1542	10:54:06	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	15.32	15.32	0.1534				
SD:	0.049	0.049	0.0005				
%RSD:	0.32%	0.32%	0.32%				

Sample concentration is greater than that of the highest standard.

=====

Sequence No.: 12

Autosampler Location: 23

Sample ID: 660950006|2590723|200

Date Collected: 4/4/2024 10:54:28

Analyst: JP2

Data Type: Original

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	13.06	13.06	0.1308	0.6516	0.1312	10:55:19	Yes
Sample concentration is greater than that of the highest standard.							
2	13.11	13.11	0.1313	0.6486	0.1318	10:55:49	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	13.09	13.09	0.1311				
SD:	0.037	0.037	0.0004				
%RSD:	0.28%	0.28%	0.28%				

Sample concentration is greater than that of the highest standard.

=====

Sequence No.: 13

Autosampler Location: 7

Sample ID: CCV

Date Collected: 4/4/2024 10:56:11

Analyst: JP2

Data Type: Original

Replicate Data: CCV

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	5.026	5.026	0.0504	0.2488	0.0508	10:57:01	Yes
2	5.073	5.073	0.0508	0.2500	0.0513	10:57:31	Yes
Mean:	5.049	5.049	0.0506				
SD:	0.0333	0.0333	0.0003				
%RSD:	0.66%	0.66%	0.66%				

QC value within limits for Hg 253.7 Recovery = 100.98%
All analyte(s) passed QC.

=====

Sequence No.: 14

Autosampler Location: 8

Sample ID: CCB

Date Collected: 4/4/2024 10:57:51

Analyst: JP2

Data Type: Original

Replicate Data: CCB

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.003	0.003	0.0001	0.0016	0.0005	10:58:41	Yes
2	0.021	0.021	0.0003	0.0030	0.0007	10:59:12	Yes
Mean:	0.012	0.012	0.0002				
SD:	0.0128	0.0128	0.0001				
%RSD:	103.97%	103.97%	76.16%				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

=====

Sequence No.: 15

Autosampler Location: 24

Sample ID: 660968001|2590723|1

Date Collected: 4/4/2024 10:59:32

Analyst: JP2

Data Type: Original

Replicate Data: 660968001|2590723|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	2.451	2.451	0.0246	0.1198	0.0250	11:00:24	Yes
2	2.441	2.441	0.0245	0.1186	0.0249	11:00:54	Yes
Mean:	2.446	2.446	0.0245				
SD:	0.0074	0.0074	0.0001				
%RSD:	0.30%	0.30%	0.30%				

=====

Sequence No.: 16

Autosampler Location: 25

Sample ID: 660968002|2590723|1

Date Collected: 4/4/2024 11:01:16

Analyst: JP2

Data Type: Original

Replicate Data: 660968002|2590723|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	2.079	2.079	0.0209	0.1011	0.0213	11:02:07	Yes
2	2.076	2.076	0.0208	0.1010	0.0213	11:02:38	Yes
Mean:	2.078	2.078	0.0208				
SD:	0.0023	0.0023	0.0000				
%RSD:	0.11%	0.11%	0.11%				

=====

Sequence No.: 17

Autosampler Location: 26

Sample ID: 660968003|2590723|1

Date Collected: 4/4/2024 11:03:00

Analyst: JP2

Data Type: Original

Replicate Data: 660968003|2590723|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	2.182	2.182	0.0219	0.1076	0.0223	11:03:50	Yes
2	2.208	2.208	0.0222	0.1104	0.0226	11:04:20	Yes

Mean: 2.195 2.195 0.0220
SD: 0.0189 0.0189 0.0002
%RSD: 0.86% 0.86% 0.86%

Sequence No.: 18

Sample ID: 660968004|2590723|1

Analyst: JP2

Autosampler Location: 27

Date Collected: 4/4/2024 11:04:42

Data Type: Original

Replicate Data: 660968004|2590723|1

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.918	1.918	0.0192	0.0944	0.0197	11:05:32	Yes
2	1.933	1.933	0.0194	0.0946	0.0198	11:06:03	Yes
Mean:	1.926	1.926	0.0193				
SD:	0.0108	0.0108	0.0001				
%RSD:	0.56%	0.56%	0.56%				

Sequence No.: 19

Sample ID: 660968005|2590723|1

Analyst: JP2

Autosampler Location: 28

Date Collected: 4/4/2024 11:06:23

Data Type: Original

Replicate Data: 660968005|2590723|1

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.372	1.372	0.0138	0.0670	0.0142	11:07:13	Yes
2	1.375	1.375	0.0138	0.0680	0.0142	11:07:43	Yes
Mean:	1.373	1.373	0.0138				
SD:	0.0023	0.0023	0.0000				
%RSD:	0.16%	0.16%	0.16%				

Sequence No.: 20

Sample ID: 660968006|2590723|1

Analyst: JP2

Autosampler Location: 29

Date Collected: 4/4/2024 11:08:04

Data Type: Original

Replicate Data: 660968006|2590723|1

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.102	2.102	0.0211	0.1077	0.0215	11:08:54	Yes
2	2.185	2.185	0.0219	0.1142	0.0224	11:09:25	Yes
Mean:	2.143	2.143	0.0215				
SD:	0.0587	0.0587	0.0006				
%RSD:	2.74%	2.74%	2.73%				

Sequence No.: 21

Sample ID: 660974001|2590723|1

Analyst: JP2

Autosampler Location: 30

Date Collected: 4/4/2024 11:09:46

Data Type: Original

Replicate Data: 660974001|2590723|1

Analyte: Hg 253.7

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	9.123	9.123	0.0914	0.4477	0.0918	11:10:36	Yes
2	9.130	9.130	0.0915	0.4478	0.0919	11:11:06	Yes
Mean:	9.127	9.127	0.0914				
SD:	0.0055	0.0055	0.0001				
%RSD:	0.06%	0.06%	0.06%				

Sequence No.: 22

Sample ID: 660974002|2590723|1

Analyst: JP2

Autosampler Location: 31

Date Collected: 4/4/2024 11:11:27

Data Type: Original

Replicate Data: 660974002|2590723|1

Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	7.887	7.887	0.0790	0.3937	0.0795	11:12:16	Yes
2	7.965	7.965	0.0798	0.3982	0.0802	11:12:47	Yes
Mean:	7.926	7.926	0.0794				
SD:	0.0554	0.0554	0.0006				
%RSD:	0.70%	0.70%	0.70%				

Sequence No.: 23
Sample ID: 660974003|2590723|1
Analyst: JP2

Autosampler Location: 32
Date Collected: 4/4/2024 11:13:09
Data Type: Original

Replicate Data: 660974003|2590723|1
Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.959	0.959	0.0096	0.0480	0.0101	11:13:58	Yes
2	0.969	0.969	0.0097	0.0485	0.0102	11:14:29	Yes
Mean:	0.964	0.964	0.0097				
SD:	0.0071	0.0071	0.0001				
%RSD:	0.74%	0.74%	0.73%				

Sequence No.: 24
Sample ID: 660974004|2590723|1
Analyst: JP2

Autosampler Location: 33
Date Collected: 4/4/2024 11:14:50
Data Type: Original

Replicate Data: 660974004|2590723|1
Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	3.454	3.454	0.0346	0.1717	0.0351	11:15:40	Yes
2	3.487	3.487	0.0350	0.1740	0.0354	11:16:11	Yes
Mean:	3.471	3.471	0.0348				
SD:	0.0236	0.0236	0.0002				
%RSD:	0.68%	0.68%	0.68%				

Sequence No.: 25
Sample ID: CCV
Analyst: JP2

Autosampler Location: 7
Date Collected: 4/4/2024 11:16:32
Data Type: Original

Replicate Data: CCV
Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	5.110	5.110	0.0512	0.2520	0.0517	11:17:22	Yes
2	5.167	5.167	0.0518	0.2526	0.0522	11:17:52	Yes
Mean:	5.139	5.139	0.0515				
SD:	0.0403	0.0403	0.0004				
%RSD:	0.78%	0.78%	0.78%				

QC value within limits for Hg 253.7 Recovery = 102.78%
All analyte(s) passed QC.

Sequence No.: 26
Sample ID: CCB
Analyst: JP2

Autosampler Location: 8
Date Collected: 4/4/2024 11:18:12
Data Type: Original

Replicate Data: CCB
Analyte: Hg 253.7

Repl	SampleConc	StdConc	Blncorr	Peak	Peak	Time	Peak
#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.013	0.013	0.0002	0.0022	0.0006	11:19:02	Yes
2	0.021	0.021	0.0003	0.0028	0.0007	11:19:32	Yes
Mean:	0.017	0.017	0.0002				
SD:	0.0059	0.0059	0.0001				
%RSD:	34.62%	34.62%	27.42%				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Miscellaneous

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID:	2590722	Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
Analyst:	Jeanne Myburgh	LCS	1205692116	MHGSOILMSSPIKE	WHG240403-14	.3	mL
Method:	SW846 7471B Prep	MS	1205692118	MHGSOILMSSPIKE	WHG240403-14	.3	mL
Lab SOP:	GL-MA-E-010 REV# 40						
Instrument:	BAL-835						

Sample ID	Prep Date	Matrix	Initial Weight (g)	Final Volume (mL)	Hot Block Stop Date (date)	Prep Factor (mL/g)
1205692115 MB	03-APR-2024 12:53:06	Misc Solid	0.276	30	04/03/24 15:15	108.69565
1205692116 LCS	03-APR-2024 12:53:06	Misc Solid	0.253	30	04/03/24 15:15	118.57708
660950001	03-APR-2024 12:53:06	Misc Solid	0.262	30	04/03/24 15:15	114.50382
1205692119 SDILT (660950001)	03-APR-2024 12:53:06	Misc Solid	0.262	30	04/03/24 15:15	114.50382
1205692117 DUP (660950001)	03-APR-2024 12:53:06	Misc Solid	0.299	30	04/03/24 15:15	100.33445
1205692118 MS (660950001)	03-APR-2024 12:53:06	Misc Solid	0.258	30	04/03/24 15:15	116.27907
660950002	03-APR-2024 12:53:06	Misc Solid	0.281	30	04/03/24 15:15	106.76157
660950003	03-APR-2024 12:53:06	Misc Solid	0.261	30	04/03/24 15:15	114.94253
660950004	03-APR-2024 12:53:06	Misc Solid	0.252	30	04/03/24 15:15	119.04762
660950005	03-APR-2024 12:53:06	Misc Solid	0.297	30	04/03/24 15:15	101.0101
660950006	03-APR-2024 12:53:06	Misc Solid	0.276	30	04/03/24 15:15	108.69565
660968001	03-APR-2024 12:53:06	Misc Solid	0.264	30	04/03/24 15:15	113.63636
660968002	03-APR-2024 12:53:06	Misc Solid	0.282	30	04/03/24 15:15	106.38298
660968003	03-APR-2024 12:53:06	Misc Solid	0.293	30	04/03/24 15:15	102.38908
660968004	03-APR-2024 12:53:06	Misc Solid	0.278	30	04/03/24 15:15	107.91367
660968005	03-APR-2024 12:53:06	Misc Solid	0.255	30	04/03/24 15:15	117.64706
660968006	03-APR-2024 12:53:06	Misc Solid	0.286	30	04/03/24 15:15	104.8951
660974001	03-APR-2024 12:53:06	Misc Solid	0.266	30	04/03/24 15:15	112.78195
660974002	03-APR-2024 12:53:06	Misc Solid	0.259	30	04/03/24 15:15	115.83012
660974003	03-APR-2024 12:53:06	Misc Solid	0.289	30	04/03/24 15:15	103.80623
660974004	03-APR-2024 12:53:06	Misc Solid	0.259	30	04/03/24 15:15	115.83012
660974005	03-APR-2024 12:53:06	Misc Solid	0.253	30	04/03/24 15:15	118.57708
660974006	03-APR-2024 12:53:06	Misc Solid	0.281	30	04/03/24 15:15	106.76157
661045001	03-APR-2024 12:53:06	Solid	0.254	30	04/03/24 15:15	118.11024
661046001	03-APR-2024 12:53:06	Solid	0.262	30	04/03/24 15:15	114.50382

Reagent/Solvent Lot ID	Description	Amount	Comments:
WHG240403	50% Aqua Regia	5 mL	Block Temperature (92-98C): 93 C
4324927	5% KMnO4 solution	7.5 mL	Temperature within limits (Y/N)?: y
4326654-C	Hg reducing agent	3 mL	Thermometer ID: 2126223
240319	Teflon chips for MB/LCS metals Solids	.25 g	Hot Block ID: 12
UHG4218178-01	Mercury Source Standard #1 1,000 mg/L	50 uL	Lot number: MP3971
UHG4055839-02	Mercury Source Standard #2 1,000 mg/L	50 uL	Prep Date2: 03-APR-2024 14:45 MP HOT BLOCKS Jeanne Myburgh
IHG240403-01	Mercury Intermediate 1st Source 200 ug/L	250 mL	
IHG240403-02	Mercury Intermediate 2nd Source 200 ug/L	250 mL	
WHG240403-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL	

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

Prep Logbook

Sample ID	Prep Date	Matrix	Initial Weight (g)	Final Volume (mL)	Hot Block Stop Date (date)	Prep Factor (mL/g)
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Reagent/Solvent Lot ID	Description	Amount	Comments:
WHG240403-08	Mercury Working Standard 1st Source CAL S 0.5	75 uL	
WHG240403-11	Mercury Working 1st Source CAL S 10.0	1.5 mL	
WHG240403-09	Mercury Working 1st Source CAL S 2.0	300 uL	
WHG240403-10	Mercury Working 1st Source CAL S 5.0/CCV	750 uL	
WHG240403-12	Mercury Working 2nd Source S 5.0/ICV	750 uL	

Standard Logbook

Serial ID: UHG4055839-02 **Open/Reference Date:** 08-NOV-23 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 08-NOV-23 **Catalog Number :** HP1000033-1-100
Type: Source Material **Expires:** 08-NOV-24 **Lot Number :** 2324111-100EE
Employee: Jessica Palumbo **Solvent :** 10% HNO3
Supplier: HPS
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG4218178-01 **Open/Reference Date:** 01-FEB-24 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 01-FEB-24 **Catalog Number :** G34-060080-02-01
Type: Source Material **Expires:** 01-FEB-25 **Lot Number :** U2-HG737574
Employee: Jeanne Myburgh **Solvent :** 5% HNO3
Supplier: Inorganic Venture
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: IHG240403-01 **Open/Reference Date:** 03-APR-24 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 03-APR-24 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 05-APR-24 **Solvent :** 5mL HNO3 + TypeI H2O
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG4218178-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG240403-02 **Open/Reference Date:** 03-APR-24 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 03-APR-24 **Solvent :** 2% HNO3-1734294
Type: Intermediate **Expires:** 05-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG4055839-02	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: WHG240403-07 **Open/Reference Date:** 03-APR-24 **Pipet Id :** Hg1289245
Name: MHGWORKCALSO.2CRA **Received:** 03-APR-24 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG240403-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG240403-08 **Open/Reference Date:** 03-APR-24 **Pipet Id :** Hg1289245
Name: MHGWORKCALSO.5 **Received:** 03-APR-24 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG240403-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG240403-09 **Open/Reference Date:** 03-APR-24 **Pipet Id :** Hg1289245
Name: MHGWORKCALSO.2 **Received:** 03-APR-24 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG240403-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG240403-10 **Open/Reference Date:** 03-APR-24 **Pipet Id :** Hg1289245
Name: MHGWORKCALSO.5CCV **Received:** 03-APR-24 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG240403-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Standard Logbook

Serial ID: WHG240403-11 **Open/Reference Date:** 03-APR-24 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 03-APR-24 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG240403-01	Mercury	200 ug/L	1500 uL	30 mL	10 ug/L

Serial ID: WHG240403-12 **Open/Reference Date:** 03-APR-24 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 03-APR-24 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG240403-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG240403-14 **Open/Reference Date:** 03-APR-24 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 03-APR-24 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-APR-24
Employee: Jeanne Myburgh
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG4218178-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WIC050802-02CCV **Open/Reference Date:** 02-AUG-05
Name: IC-LCS/CCV **Received:** 02-AUG-05
Type: Working **Expires:** 04-AUG-05
Employee: Mary Sherwood
Supplier: GEL
Description: LCS Total Anion Working Standard - FIRST SOURCE
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UIC050725-2	Bromide	500 mg/L	.5 mL	100 mL	2.5 mg/L
UIC050725-1	Nitrite-N	1000 mg/L	.5 mL	100 mL	5 mg/L
UIC050725-1	Sulfate	4000 mg/L	.5 mL	100 mL	20 mg/L
UIC050725-1	Chloride	2000 mg/L	.5 mL	100 mL	10 mg/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UIC050725-2	O-Phosphate-P	500 mg/L	.5 mL	100 mL	2.5 mg/L
UIC050725-1	Nitrate-N	1000 mg/L	.5 mL	100 mL	5 mg/L
UIC050725-1	Fluoride	1000 mg/L	.5 mL	100 mL	5 mg/L

Serial ID: 240319 **Open/Reference Date:** 19-MAR-24 **Lot Number :** 31452228
Name: I-Boiling chips **Received:** 19-MAR-24
Type: Reagent/Solvent **Expires:** 19-MAR-26
Employee: Savanna Deppish
Supplier: Chemware
Description: Teflon chips for MB/LCS metals Solids
Comments: None

Serial ID: 3867945-A **Open/Reference Date:** 17-FEB-23 **Lot Number :** 224778
Name: B-NaCl-MER **Received:** 17-FEB-23
Type: Reagent/Solvent **Expires:** 17-FEB-25
Employee: Jessica Palumbo
Supplier: Fisher Scientific
Description: Sodium Chloride
Comments: None

Serial ID: 4047155-A **Open/Reference Date:** 23-OCT-23 **Lot Number :** 23H0456968
Name: B-NH2OH.HCl-MER **Received:** 23-OCT-23
Type: Reagent/Solvent **Expires:** 16-JUL-24
Employee: Jessica Palumbo
Supplier: VWR
Description: Hydroxylamine Hydrochloride
Comments: None

Serial ID: 4324468-A **Open/Reference Date:** 27-MAR-24 **Lot Number :** 2023101263
Name: B-HCl-MER **Received:** 27-MAR-24
Type: Reagent/Solvent **Expires:** 27-MAR-25
Employee: Jeanne Myburgh
Supplier: VWR
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 4324927 **Open/Reference Date:** 28-MAR-24 **Balance Id :** BAL-835
Name: B-KMnO4-MER **Received:** 28-MAR-24
Type: Reagent/Solvent **Expires:** 28-MAR-25
Employee: Jeanne Myburgh
Supplier: GEL

Standard Logbook

Description: 5% KMnO4 solution

Comments: None

Serial ID: 4326654-C **Open/Reference Date:** 01-APR-24 **Balance Id :** BAL-423
Name: B-NaCl.NH2OH.HCl-MER **Received:** 01-APR-24
Type: Reagent/Solvent **Expires:** 16-JUL-24
Employee: Jessica Palumbo
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
3867945-A	B-NaCl-MER	NA	420 g	3500 mL	12 PERCENT
4047155-A	B-NH2OH.HCl-MER	N/A	420 g	3500 mL	12 PERCENT
