



12310 Vera Avenue
Tampa, Florida 33618

October 5, 2016

Mr. F. Thomas Lubozynski, P.E.
Waste & Air Resource Programs Administrator
Florida Department of Environmental Protection, Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Subject: J.E.D. Solid Waste Management Facility
Abandonment and Installation Water Quality Monitoring Wells MW-26 A/B, and MW-31 A/B
Omni Waste of Osceola County, LLC.
1501 Omni Way
St. Cloud, Florida
WACS Facility ID 89544

Dear Mr. Lubozynski:

Weibu, LLC (Weibu) was retained by Omni Waste of Osceola County, LLC (Omni) to prepare a summary report to document well plugging, abandonment and installation activities at the above referenced site. Omni is currently constructing an additional disposal area within the Phase V and Cell 13 disposal areas. Abandonment of the MW-26 well cluster was necessary to facilitate the construction of Cell 13 and installation of MW-31 A/B was necessary to accommodate development of the Phase V area.

Abandonment and subsequent construction of replacement wells including, monitor wells noted in the Monitoring Plan Implementation Schedule (MPIS) was overseen by Weibu, LLC. All construction and abandonment tasks were completed by National Environmental Technology, Inc. (NET) a Florida licensed drilling contractor.

I certify that the information contained in the accompanying Plugging/Abandonment Well Construction Report is accurate and provide pertinent information as it relates to activities completed at the facility. Furthermore, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Should you have any questions or comments regarding activities completed as part of the plugging, abandonment and installation of select monitor well clusters, please contact Mr. Kirk Wills at (813) 388-1026, kirk.wills@wasteconnections.com or me at (813) 468-7553.

Sincerely,

A handwritten signature in blue ink, appearing to read "Donald Thompson".

Weibu, LLC
Donald Thompson, PG (1946)

Attachment
cc: Kirk Wills, South Region Engineer Waste Connections

Prepared for:



WASTE CONNECTIONS, INC.
Connect with the Future

5135 Madison Avenue
Tampa, Florida 33619

Well Abandonment and Installation Baseline Water Quality Sampling

**Monitor Well Clusters MW-26 A/B (abandonment)
Monitor Well Clusters MW-31 A/B (installation)**

**J.E.D. Solid Waste Management Facility
1501 Omni Way
Osceola County, Florida**

Prepared by:



12310 Vera Avenue
Tampa, Florida, 33618

October 2016



TABLE OF CONTENTS

1.	INTRODUCTION	1
1.1	Background.....	1
2.	PLUGGING AND ABANDONMENT.....	2
2.1	Well Plugging Cluster MW-26 A/B	3
2.2	Wellhead/Casing Removal	3
3.	MW-31 A/B WELL CLUSTER DRILLING	4
3.1	MW-31 A/B Well Construction Specifications and Details.....	4
3.2	MW-31 A/B Surface Completions	5
4.	MW-31 A/B (CLUSTER), WELL DEVELOPMENT.....	6
5.	MW-31 A/B (CLUSTER), WELL SAMPLING	7
5.1	MW-31 A/B Water Quality Sampling.....	7
5.2	MW-31 A/B Well Turbidity	7
5.3	Summary of Analytical Results MW-31 A/B.....	8
6.	CONCLUSIONS/SUMMARY.....	10
7.	REFERENCES	11



LIST OF TABLES

- 1 Type I/II Portland Cement Calcualtion Results.
- 2 Survey Elevation Data MW-31 Cluster
- 3 Groundwater Monitoring Detections

LIST OF FIGURES

- 1 Site Map

LIST OF APPENDICES

- Appendix A. Permits Supporting Documentation
- Appendix B. Soil Boring Logs MW-31 (A, B)
- Appendix C. Well Completion Forms/Details
- Appendix D. Specific Purpose Survey
- Appendix E. Well Construction and Development Logs
- Appendix F. Field Water Quality Sampling Logs
- Appendix G. Field Instrument Calibration Record
- Appendix H. Analytical Laboratory Data

1. INTRODUCTION

Weibu, LLC (Weibu) has prepared this Abandonment and Installation Report on behalf of Omni Waste of Osceola County, LLC (Omni) to provide a summary of recent work to support planned construction activities as part of the planned Phase V and Cell 13 disposal area of the facility. Plugging, abandonment and installation of select monitor well clusters site(s) were completed in general conformance with a permit modification issued by Florida Department of Environmental Protection (FDEP) Central District-Solid Waste Permitting (Department) January 30, 2015. Locations, designations and the proposed monitoring schedule is included in the revised Monitoring Plan Implementation Schedule (MPIS) dated January 30, 2015.

Section 1.0 of this report presents background information relative to the facility and objectives of the well plugging, abandonment and installation program. Section 2.0 provides a description of the plugging and abandonment methodology and regulatory requirements. Section 3.0 presents a summary of all well drilling and installation activities. Section 4.0 provides an overall description of initial well development and Section 5.0 provides a description of well sampling activities. Section 6.0 provides a brief summary of site activities and conclusions and Section 7.0 provides a listing of select references.

1.1 Background

Omni has initiated construction as part of the permitted development activities for the Phase V & Cell 13 areas of the landfill as noted in the modified permit. As with previous construction efforts within site disposal areas, well site abandonment and eventual replacement wells were installed in temporary locations along the general alignment of the Phase IV storm water berm. Planned activities for the Phase V and Cell 13 development included removal of the previous Phase IV storm water berm followed by the construction of a new Phase V berm to control storm water along the southern edge of the expansion area. The monitor well cluster (MW-26 A/B) was abandoned and replaced as part of the construction/installation activities for the Phase V area. The replacement well cluster was constructed to be consistent with previous efforts and as such, the wells were placed at the mandated horizontal spacing. Similar to previous site well construction efforts, monitoring intervals A/B were completed as authorized by current permit conditions.

This report summarizes field activities associated with plugging, abandonment (i.e., MW-26 A/B wells) and installation for monitor well clusters MW-31 A/B. **Figure 1** presents a site map showing the locations and designations of site monitor well clusters.

2. PLUGGING AND ABANDONMENT

Monitoring well clusters MW-26 (Zones A, and B) were plugged and abandoned on June 15, 2016. All plugging and abandonment (PA) work activities conformed to specific permitting and well construction guidelines noted in Chapter 62-532 and 40E-3.512 Florida Administrative Codes (FAC). Specific guidelines include;

40D-3.531 Abandoned Well Plugging.

- (1) The form entitled "State of Florida Permit Application to Construct, Repair, Modify or Abandon a Well," adopted by reference in Rule 40D-3.101, F.A.C., shall be submitted to the District and a Well Construction Permit shall be issued prior to the abandonment of any well, including an incomplete well.
- (2) All abandoned wells as defined by subsection 373.303(1), F.S., and subsection 40D-3.021(1), F.A.C., abandoned artesian wells as defined by subsection 373.203(1), F.S., and incomplete wells as defined by subsection 40D-3.021(17), F.A.C., shall be plugged in accordance with subsection (3) of this rule and Rule 40D-3.517, F.A.C., unless they can be repaired in accordance with this chapter.
- (3) All abandoned and incomplete wells shall be plugged by filling them from bottom to top with grout. The work shall be performed by a licensed water well contractor except for wells exempted under subsection 40D-3.051(1) and wells permitted to be constructed or abandoned pursuant to paragraph 40D-3.301(1)(a), F.A.C.
 - (a) Use of clean aggregate to bridge cavernous or lost circulation zones shall be allowed if measurements indicate loss of grout and the borehole or screened portion does not connect two (2) or more aquifers of differing water quality. Prior approval to use aggregate or other material must be obtained from the District.
 - (b) Obstructions shall be cleared from all wells prior to plugging.
- (4) The contractor must notify the District at least 24 hours in advance of a well abandonment. A District representative must be on site to observe the abandonment procedure unless the following criteria are met and the District authorizes the contractor to proceed without a District representative on site:
 - (a) The contractor is currently in compliance with all other District rules;
 - (b) The contractor has not violated any conditions of his license or any District rule within the past two years;
 - (c) The District has observed the abandonment of at least ten prior wells by the requesting contractor; and
 - (d) A District representative cannot be at the well site at the time of abandonment.
- (5) The "Well Grouting/Abandonment Form," Form No. LEG-R.041.00 (4/09) incorporated herein by reference, will be used to document the well abandonment. Copies of this form can be obtained at the District's website at www.watermatters.org or from District offices.

Permits and supporting documentation are presented in **Appendix A**.

Monitoring wells, cluster MW-26 A/B were abandoned to accommodate construction activities within the vicinity of the Cell 13 disposal area and along the interim Phase IV



storm water berm. The overall physical location of the well clusters (installed during prior construction and landfill phasing activities) conflicted with either planned expansion of storm water management systems or encroached within the perimeter service road.

2.1 Well Plugging Cluster MW-26 A/B

Initial well plugging activities at the facility included the removal of the above ground protective covers and individual concrete well pads. Once the polyvinyl-chloride (PVC) casing was exposed, the well casing was cut-off to extend approximately 1.5-feet above land surface (als). NET was then directed to prepare for cementing operations to seal the well, screen and filter pack using neat Type I/II portland cement. No additives or cement modifiers were utilized during any of the plugging operations.

Theoretical cement volumes were calculated based on the total internal volume of the PVC well and screen. In addition, a theoretical fill-volume was estimated based on the filter pack/well screen interval. Cement volumes were estimated based on;

$$C_{vol} = (W_c * W_{Total}) + (n_{Filt} * L_{Filt} * B_c)$$

where;

C_{vol} = cement volume required to backplug the well including the well-screen filter pack;

W_c = well capacity gallons-per-ft (gal/ft) (0.1632 gal/ft [2" PVC casing]);

W_{Total} = well length total includes casing and screen (ft);

n_{Filt} = porosity of the filter pack (0.20);

L_{Filt} = length of the well filter pack (ft);

B_c = borehole capacity gallons-per-ft (gal/ft) (1.02 gal/ft [5" borehole]);

A summary of theoretical cement volumes required to backplug the wells is shown on **Table 1**.

2.2 Wellhead/Casing Removal

Subsequent to the completion of all cementing and back-plugging operations, site personnel excavated and removed approximately 6-ft of the cemented well casing. The final step of the abandonment program was implemented to ensure that any potential obstructions (i.e., the abandoned well casing) would not interfere with remaining grading and liner operations. Excavation of the upper section of the abandoned well casing was completed as part of the removal of the temporary Phase IV storm water berm. The excavation and surrounding area was restored as part of ongoing construction operations.

3. MW-31 A/B WELL CLUSTER DRILLING

Several drilling methods are available for use in creating a borehole for well installation. These methods include hollow stem, air rotary, mud rotary, and cable tool, among others. The drilling method selected will be based on the physical properties of the subsurface materials and as a result, it is not uncommon to adapt a hybridized approach to constructing wells. Based on previous drilling operations and experience, water was introduced into the borehole while advancing auger flights to the targeted monitoring zone depths.

Both monitor well zones A & B were constructed using hollow-stem-auger (HSA). HSA uses continuous flight hollow stem auger with a bit on the bottom to drill and maintain an open borehole. The continuous flight auger drives the drill cuttings to the surface as drilling progresses. The walls of the auger minimize the amount of unconsolidated materials entering into the space inside the casing. Intact soil samples are collected by pounding a sampler ahead of the auger. The well casing, filter pack and seal are installed inside the auger. The auger is removed slightly ahead of backfilling as filter pack and grout are added.

Initial well construction activities for the MW-31 cluster was completed using standard HSA drilling techniques. A slight deviation in standard HSA drilling methods was adopted and utilized a hybridized approach to complete well construction. Water was added to the HSA flights while advancing drill tooling within the borehole. The intent of hydraulically loading the HSA flights was to increase the hydrostatic pressure within the annulus to exclude silty fine materials from sloughing into the annulus and borehole. A continuous drilling log describing lithologic materials encountered during drilling for the A&B zone wells are presented in **Appendix B**.

3.1 MW-31 A/B Well Construction Specifications and Details

All drilling and well completion activities were completed to ensure as well as maintain conformance with the existing disposal cell monitoring network. The wells were constructed to monitor zones that are consistent with the distribution of monitoring intervals both horizontally and vertically. MW-31 A/B monitoring intervals included:

- A-Zone – the discrete interval for the surficial-aquifer-system (SAS) at a depth of approximately 10 to 20-ft below land surface; and,
- B-Zone – SAS water column depth of approximately 34 to 44-ft bsl.

Well completion forms and specific construction details are presented in **Appendix C**.

A specific purpose survey was completed July 28, 2016. Replacement well information is summarized on **Table 2** and the survey is provided in **Appendix D**.

Monitor well components consisted of factory-sealed commercially available PVC. Well riser and casing connections consisted of flush-threaded joints with a secondary rubberized o-ring seal. PVC materials (packing) were clearly marked with American Society for



Testing Materials (ASTM) Standard F-480-94 standards and National Science Foundation (NSF) International Standard Number 14-1990.

3.2 MW-31 A/B Surface Completions

Surface completions for the replacement cluster were constructed to be consistent with the current monitoring network. Individual wellheads received a 6-in anodized aluminum cover with a vented and locking protective cap. In addition a common monolithic concrete pad was placed around all well locations and then a concrete bulkhead was placed adjacent to the edge of the perimeter berm and elevated roadway. Typical construction details for the protective headwall/bulkhead assemblies have been provided in previous submittals.

4. MW-31 A/B (CLUSTER), WELL DEVELOPMENT

Well development of the MW-31 clusters was initially completed immediately after well construction June 6, 2016. As with previous well development activities, an initial over-pumping effort was completed as a means of pre-conditioning individual well filter packs. Over-pumping mechanical surging and multiple development events will likely be required due to the presence of a significant percentage of silt sized particles within formation materials.

Development activities began with slowly advancing a submersible electric pump into the screen interval. The pump was advanced downhole to the sediment trap/sump to remove any sand particles introduced during initial well construction. Mechanical surging of the screen interval was repeated within all of the well screens; however, the results of the development program vary considerably with final turbidity readings ranging from 20 Nephelometric Turbidity Units (NTU) to beyond the instrument resolution. The variability in turbidity is consistent with previous monitoring well installation activities and as such, turbidity levels will likely decrease during subsequent well sampling and monitoring events. **Appendix E** contains well development records subsequent to construction activities.

5. MW-31 A/B (CLUSTER), WELL SAMPLING

Baseline water quality sampling was completed June 23, 2016. All field activities were completed in conformance with current (applicable) FDEP Standard Operating Procedures (DEP-SOP-001/01, 2014) for groundwater sampling.

5.1 MW-31 A/B Water Quality Sampling

Low flow techniques were utilized to acquire analytical laboratory samples. During the purging process, a YSI 556 water quality meter equipped with a flow-through cell was utilized to monitor standard field parameters which included; pH, temperature, field conductivity, oxidation reduction potential (ORP), and dissolved oxygen. Turbidity levels were also measured using a LaMotte 2020e turbidimeter. Field parameters were recorded and archived on sample collection forms and are included in **Appendix F**. In addition, field observations including the color and/or odor of the samples during the purge process were noted as well. Well purging continued until requisite stability (as identified in the DEP field sampling protocols) then, samples were collected. All samples were submitted for analyses to a certified analytical laboratory.

5.2 MW-31 A/B Well Turbidity

As with previous well purging and sampling activities, including sampling of monitoring wells as part of the initial site development, formation materials encountered were generally described as fine to silty-fine in texture. These formation materials consist primarily of a brown to dark brown, fine, silty-sand that generally fine downward. As a result, fine-grained and colloidal material are able to pass through the sand filter pack as well as, the well screens that are constructed using the smallest commercially available screen slot size (0.006 in.).

It is typical on this site for newly installed wells, particularly in the B-zone and C-zone (ie., deeper screen interval zones) to have turbidity values in excess of the 20 nephelometric turbidity unit (NTU) criterion even after extended well development and removal of multiple well volumes. This issue has been reported and noted in all of the previous water quality monitoring reports and will likely continue as the monitoring network is expanded in accordance with the MPIS.

During the initial well development of the newly installed site monitor wells cumulative purge volumes varied from 60 to approximately 100-gallons. The lowest cumulative well development and purge volumes were noted in the shallow, A-Zone well. This was not unexpected since, formation materials encountered during drilling were described as fining downward. Therefore, the potential for extremely fine grained and colloidal materials entering the well screen are increased with depth of well completion. An extreme example of this phenomenon was noted in MW-31 B which had nearly 100-gallons of water initially

developed from the well prior to sampling. The final measured turbidity during development was above the measurable high range of the turbidimeter. Furthermore, an additional 100-gallons of water was purged from the well location during water-quality sampling which yielded a similar result. This behavior was noted in all of the newly installed monitoring wells. The least problematic well as it relates to turbidity issues was MW-31 A. As with previous sampling events, turbidity levels will likely decrease in the remaining wells as additional volumes are pumped to acquire samples. It is likely that multiple sampling and purging events will be needed to fully develop the screen and filter pack within the deeper zone wells.

Monitor wells were sampled using two primary pumping methods and pump types which included; a stainless steel bodied submersible pump and a standard peristaltic pump. The submersible pump was decontaminated between well locations using a series of cleaning agents and steps to ensure sample integrity. In addition, down-hole tubing was changed after the collection of water samples in individual wells to ensure sample and data integrity. Monitor well cluster MW-31 B was purged and sampled using a stainless steel submersible pump, all sample aliquots were filled directly from the down-well tubing. The remaining well (i.e., MW-31 A) was purged and sampled using a peristaltic pump, with sample aliquots filled consistent with DEP-SOP-001/01.

The calibration of the water quality monitoring instruments was checked prior to commencing monitoring activities and at the completion of the sampling event. Water quality instrument calibration forms are presented in **Appendix G**. Samples were placed in coolers and packed with bagged ice for transport to the analytical laboratory. Chain-of-Custody (COC) forms were completed and accompanied the samples to the analytical laboratory. All COC forms are included in **Appendix H**. Trip blank samples accompanied all sample coolers with VOC samples.

5.3 Summary of Analytical Results MW-31 A/B

All analytical results collected as part of this initial water-quality sampling event are presented in **Appendix H**. Table 3 summarizes the parameters with detections above the method reporting limits. Any parameters exceeding the groundwater cleanup target levels (GCTL) or secondary drinking water standards (SDWS) are highlighted **green** (in Table 3) and are discussed below;

- pH - The groundwater pH was below the SDWS of 6.5 to 8.5 (standard units) in eight of the monitoring wells. The reported values ranged from 4.99 to 5.30. The groundwater pH values measured at the site have historically been below the SDWS lower limit of 6.5 standard units. Interestingly enough, reported values of the chemical composition of precipitation from a statewide network yielded an average value of pH of 4.77 (Table 3-Florida Geological Survey-Special Publication No.

34, 1992). These data clearly suggest that the pH excursions are likely a reflection of precipitation and indicate no impacts from landfill operations.

- Iron – The GCTL for iron (300 µg/L) was exceeded in both samples collected from the newly installed wells. The highest concentration was reported in MW-31 B and was noted at 9,490 ug/L with the lowest concentration noted in MW-31 A at 4,360 ug/L. The cause of elevated iron concentrations is most likely a consequence of the oxidation-reduction conditions in the aquifer that results in an increase in the more soluble (ferrous) iron concentrations. The source of the iron is likely naturally occurring and is a common occurrence throughout much of the State of Florida and has been reported as part of efforts to characterize background water quality for the surficial aquifer system (SAS). Statewide, 75% of the wells sampled as part of the background water quality monitoring efforts indicated exceedances in the iron above the GCTL. Furthermore, the median of reported value of total iron concentration as noted in 376 samples collected as part of the background monitoring program for the SAS was 880 ug/L (Table 14- Florida Geological Survey-Special Publication No. 34, 1992).

Groundwater excursions identified as part of this initial water quality sampling event do not indicate any impact from landfill operations. The results correspond well with previous sampling events as required by the current Permit and MPIS. Noting that turbidity issues have been identified and discussed in detail as to their cause and eventual mitigation and exceedances of select analytes which have been noted throughout the period-of-record for groundwater quality.

Specific discussions in regards to remaining analytes as contained in the 40 CFR Part 258 Appendix I and Appendix II lists were not completed since, there were no reported detections above applicable GCTL or significant detections above the individual method reporting limits. A comprehensive list of analytical laboratory results are included in **Appendix H** which included:

- Volatile Organic Compounds by EPA Method 8260B;
- Semivolatile Organic Compounds by EPA Method 8270C;
- Base Neutral Semivolatile Organic Compounds by EPA Method 8270C SIM;
- Select Pesticides and Halomethanes by EPA Method 8011;
- Organochlorine Pesticides by EPA Method 8081A;
- Polychlorinated Biphenyls (PCBs) by EPA Method 8082;
- Inorganics by EPA Methods 6010B/6020 and 7470A; and,
- General Chemistry parameters EPA Methods 300/335.4/350.1, SM 2540C, and SM 4500-S2-F.

6. CONCLUSIONS/SUMMARY

Baseline water quality sampling was completed June 23, 2016. All field activities were completed in conformance with current (applicable) FDEP Standard Operating Procedures (DEP-SOP-001/01, 2014) for groundwater sampling.

Results of the baseline sampling event compare favorably with prior sampling efforts. These data indicate elevated turbidity during the initial commissioning of the monitoring wells with reductions noted throughout the period-of record. Additionally, analytical laboratory results also indicate excursions in a limited number of secondary standards which included; pH, and iron. These results also correspond with results of previous sampling events. Additionally, elevated concentrations of select parameters noted on Table 3 are likely related to sample integrity. These data compare favorably with period-of-record observations since the samples (at the time of acquisition) are influenced by entrained sediments.



7. REFERENCES

ASTM F480-12 Standard Specification for Thermoplastic Well Casing Pipe and Couplings Made in Standard Dimension Ratios (SDR), SCH 40 and SCH 80

Florida Department of Environmental Protection (FDEP) Standard Operating Procedures FS 2200 Ground Water Sampling (2008)

National Sanitation Foundation NSF Standard 14 (1990)

St. Johns River Water Management District (SJRWMD) Chapter 40C-3

TABLES

Table 1. Type I/II Portland Cement Calculation Results.

Location	Well Length ^{/a} (feet)	Filter Pack Length ^{/b} (feet)	Theoretical Volume ^{/c} (gallons)	Type I/II Portland Cement ^{/d} (94 pounds-per-sack)
MW-26 A	20	10	5.30	1.06
MW-26 B	40	10	8.57	1.71

notes:

a. Total casing and screen length.

b. Approximate assume a nominal Length of the screen interval.

c. Portland cement volume required to backplug/abandon the well casing, screen interval, and filter pack.

d. Total number sacks required Type I/II Portland Cement. Assume an ideal mix ratio of 6:1 to yield 10 gallons cement slurry.

Cement Volume = (0.1632 gallons/ft * Well Length) + (0.3 * Filter Pack Length * 1.47 gallons/ft)

assumptions:

0.1632 capacity of 2" pipe

1.02 capacity of 5-in borehole

0.2 porosity of filter pack

Table 2. Survey Elevation Data MW-31 A/B Cluster.

Designation	Latitude	Longitude	Northing	Easting	Protective Casing	TOC (PVC)	PK ELEVATION
					Elevation		
					NGVD1929		
MW-31 A	28° 03'28.260"	-81° 05'25.013"	1353746.80	627049.40	94.53	93.19	
X-Mark (MW-31)	28° 03'28.287"	-81° 05'25.009"	1353746.80	627048.40			91.74
MW-31 B	28° 03'28.304"	-81° 05'25.029"	1353751.30	627047.90	94.01	94.03	

TABLE 3
GROUNDWATER MONITORING DETECTIONS
INITIAL WATER QUALITY MONITORING EVENT FOR WELL CLUSTER MW-31
J.E.D. SOLID WASTE MANAGEMENT FACILITY
ST CLOUD, OSCEOLA COUNTY, FLORIDA

Parameter Monitored	GCTL / SDWS	Detection Limit	Units	Monitoring Results	
				MW-31 A	MW-31 B*
Field Parameters					
Dissolved Oxygen			mg/L	2.07	0.66
pH	6.5-8.5		SU	4.99	5.30
Conductivity			US/cm	128	78
Temperature at Sampling Time			°C	20.00	19.00
Turbidity			NTU	2.0	OR
Laboratory Parameters					
Arsenic	10	0.5	µg/L	1.8	15.5
Barium	2,000	0.5	µg/L	19.1	1080.0
Beryllium	4	0.04	µg/L	0.5 U	6.1
Cadmium	5	0.10	µg/L	0.5 U	3.2
Chromium	100	0.2	µg/L	2.5 U	131.0
Cobalt	420	0.03	µg/L	5.0 U	6.2 i
Copper	1,000	0.3	µg/L	2.5 U	22.3
Iron	300	3	µg/L	4,360	9,490
Lead	15	0.12	µg/L	5.0 U	130.0
Mercury	2	0.02	µg/L	0.10 U	1.4
Nickel	100	0.5	µg/L	2.5 U	17.6
Selenium	50	1.1	µg/L	7.7 U	43.7
Sodium	160	0.03	mg/L	16.60	10.4
Vanadium	49	0.3	µg/L	5.0 U	211.0
Zinc	5,000	1.6	µg/L	10.0 U	17.9
Chloride	250	0.11	mg/L	31.3	17.2
Total Dissolved Solids	500	10	mg/L	81	2,710
Total Ammonia (Ammonia-N)	2.8	0.007	mg/L	0.85	0.35

Notes:

GCTL = Groundwater Cleanup Target Level
SDWS = Secondary Drinking Water Standard

* = The sample collected from the well was extremely turbid (cloudy) detections in analytes is likely influenced by entrained sediments.

Concentrations in shaded cells did not meet the GCTL or SDWS Standard Criteria.

OR = Out of range of the turbidimeter.

Only parameters with detections above the Method Reporting Limit are shown.

i = The reported value is between the laboratory Method Detection Limit and the laboratory Practical Quantitation Limit

U = indicates that the compound was analyzed for but not detected at or above the value shown

FIGURES

**Legend**

- Plugged and Abandoned Monitor Well Clusters (A,B,C Zones)
- Monitor Well Cluster Locations/Phase IV Construction
- Monitor Well Cluster Locations

250 125 0 250 500 750 1,000
1 in = 500 ft

Site Well Locations and Designations

WASTE CONNECTIONS, INC.
J.E.D. SOLID WASTE DISPOSAL FACILITY
1501 OMNI WAY
ST. CLOUD, FLORIDA



Figure
1

Tampa, Florida

Notes:

Aerial Images Acquired from LABINS (2014)

WACS FACILITY ID 89544

Monitoring well cluster MW-26 abandoned.

MW-31 cluster installed as part of the Phase V Expansion.

Appendix A. Permits Supporting Documentation



STATE OF FLORIDA WELL COMPLETION REPORT

Date Stamp

- Southwest
- Northwest
- St. Johns River
- South Florida
- Suwannee River
- DEP
- Delegated Authority (If Applicable) MW-26 R

PLEASE, FILL OUT ALL APPLICABLE FIELDS
(*Denotes Required Fields Where Applicable)

Official Use Only

49 WRP		*CUP/WUP Number <u>1688627</u>	*DID Number	62-524 Delineation No.
1. Permit Number		1. Number of permitted wells constructed, repaired, or abandoned <u>1</u>		
		*Number of permitted wells not constructed, repaired, or abandoned <u>0</u>		
2. Owner's Name		3. *Completion Date <u>6-15-2016</u> Florida Unique ID		
3. Owner's Name		4. Well Location - Address, Road Name or Number, City, ZIP		
6. *County <u>Osceola</u>		*Section <u>11</u>	Land Grant	*Township <u>28 S</u> *Range <u>32 E</u>
8. Latitude _____		Longitude _____		
9. Data Obtained From: GPS <input checked="" type="checkbox"/> Map <input type="checkbox"/> Survey		Datum:	NAD 27	NAD 83
10. *Type of Work: Construction <input type="checkbox"/> Repair <input type="checkbox"/> Modification <input checked="" type="checkbox"/> Abandonment		Agricultural Irrigation <input type="checkbox"/> Site Investigation Landscape Irrigation <input type="checkbox"/> Monitoring Livestock <input type="checkbox"/> Recreation Area Irrigation <input type="checkbox"/> Test Public Water Supply (Limited Use/DOH) <input type="checkbox"/> Earth-Coupled Geothermal Public Water Supply (Community or Non-Community/DEP) <input type="checkbox"/> HVAC Supply <input type="checkbox"/> HVAC Return		
11. *Specify Intended Use(s) of Well(s): Domestic <input type="checkbox"/> Bottled Water Supply <input type="checkbox"/> Public Water Supply (Limited Use/DOH) <input type="checkbox"/> Public Water Supply (Community or Non-Community/DEP) <input type="checkbox"/>		Class I Injection Class V Injection: <input type="checkbox"/> Recharge <input type="checkbox"/> Commercial/Industrial Disposal <input type="checkbox"/> Aquifer Storage and Recovery <input type="checkbox"/> Drainage		
12. Drill Method: Auger <input type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary <input type="checkbox"/> Combination (Two or More Methods) <input type="checkbox"/> Jetted <input type="checkbox"/> Sonic Horizontal Drilling <input type="checkbox"/> Hydraulic Point (Direct Push) <input type="checkbox"/> Other <u>Abandonment</u>		13. Measured Static Water Level <u>16</u> ft. Measured Pumping Water Level _____ ft. After _____ Hours at _____ GPM		
14. Measuring Point (Describe) <u>Ground Surface</u> Which is <u>0</u> ft. Above <input checked="" type="checkbox"/> Below Land Surface Flowing: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		15. Casing Material: Black Steel <input type="checkbox"/> Galvanized <input checked="" type="checkbox"/> PVC <input type="checkbox"/> Stainless Steel <input type="checkbox"/> Not Cased <input type="checkbox"/> Other		
16. Total Well Depth <u>44'</u> ft. Cased Depth <u>34'</u> ft. Open Hole: From <u>34</u> To <u>44</u> ft. Screen: From <u>34</u> To <u>44</u> ft. Slot Size		17. Abandonment: <input checked="" type="checkbox"/> Other (Explain) <u>No longer needed</u>		
From <u>0</u> ft. To <u>44</u> ft. No. of Bags <u>2</u>		Seal Material (Check One): <input checked="" type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other		
From _____ ft. To _____ ft. No. of Bags _____		Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other		
From _____ ft. To _____ ft. No. of Bags _____		Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other		
From _____ ft. To _____ ft. No. of Bags _____		Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other		
18. Surface Casing Diameter and Depth: Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____		Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other		
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____		Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other		
19. Primary Casing Diameter and Depth: Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____		Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other		
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____		Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other		
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____		Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other		
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____		Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other		
20. Liner Casing Diameter and Depth: Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____		Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other		
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____		Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other		
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____		Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other		
21. Telescope Casing Diameter and Depth: Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____		Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other		
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____		Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other		
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____		Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other		
22. Pump Type (If Known): <u>NONE</u>		23. Chemical Analysis (When Required): <u>N/A</u>		
Centrifugal <input type="checkbox"/> Jet <input type="checkbox"/> Submersible <input type="checkbox"/> Turbine		Iron _____ ppm	Sulfate _____ ppm	Chloride _____ ppm
Horsepower _____ Pump Capacity (GPM) _____		Laboratory Test <input type="checkbox"/> Field Test Kit		
Pump Depth _____ ft. Intake Depth _____ ft.				
24. Water Well Contractor:				
*Contractor Name <u>Ross Chivandier</u>		*License Number <u>11093</u> E-mail Address <u>netro55@tampabay.rr.com</u>		
*Contractor's Signature <u>Ross Chivandier</u>		*Driller's Name (Print or Type) <u>Alexander Stackpole</u>		
I certify that the information provided in this report is accurate and true.				

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
2379 BROAD STREET, BROOKSVILLE, FL 34604-6899
PHONE: (352) 796-7211 or (800) 423-1476
WWW.SFWMD.STATE.FL.US

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
4049 REID STREET, PALATKA, FL 32178-1429
PHONE: (386) 329-4500
WWW.SJRWMD.COM

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
152 WATER MANAGEMENT DR., HAVANA, FL 32333-4712
(U.S. Highway 90, 10 miles west of Tallahassee)
PHONE: (850) 539-5999
WWW.NWFWMD.STATE.FL.US

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FL 33416-4680
PHONE: (561) 686-8800
WWW.SFWMD.GOV

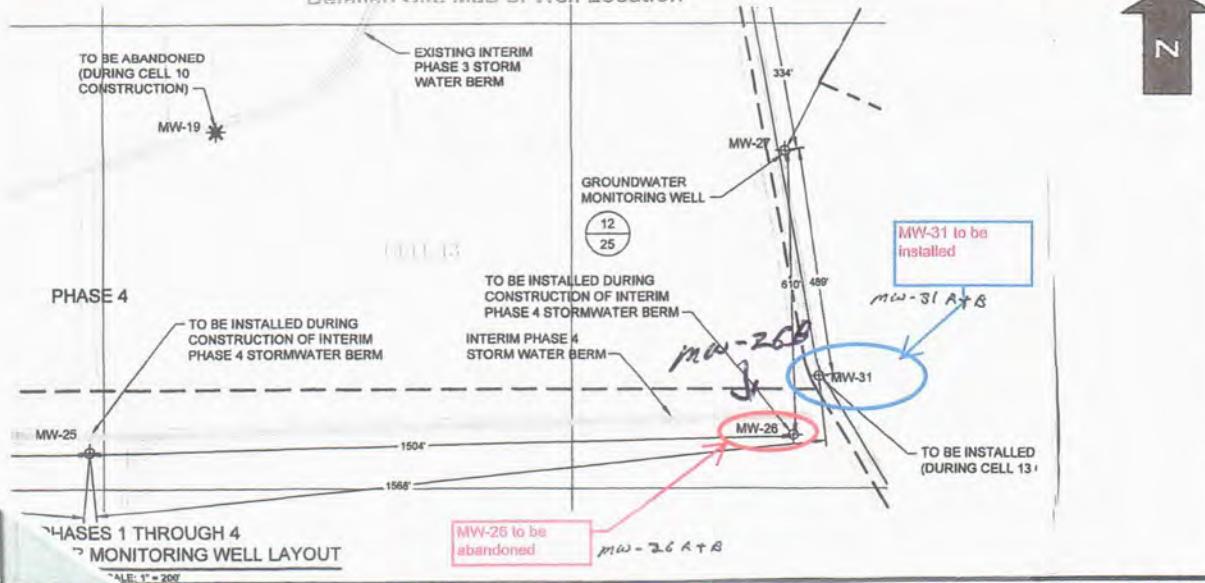
SUWANNEE RIVER WATER MANAGEMENT DISTRICT
9225 CR 49
LIVE OAK, FL 32060
PHONE: (386) 362-1001 or (800) 226-1066 (Florida only)
WWW.MYSUWANNEERIVER.COM

DRILL CUTTINGS LOG (Examine cuttings every 20 ft. or at formation changes. Note cavities and depth to producing zone. Grain Size: F=Fine.

M=Medium, and C=Coarse)

Comments: Abandonment of 1-2" Dia monitoring well To 44' in Depth. MW-26B

Detailed Site Map of Well Location





**STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT,
REPAIR, MODIFY, OR ABANDON A WELL**

- Southwest
- Northwest
- St. Johns River
- South Florida
- Suwannee River
- DEP
- Delegated Authority (If Applicable)

PLEASE FILL OUT ALL APPLICABLE FIELDS
(Denotes Required Fields Where Applicable)

The water well contractor is responsible for completing
this form and forwarding the permit application to the
appropriate delegated authority where applicable.

Permit No.	
Florida Unique ID	
Permit Stipulations Required (See Attached)	
62-524 Quad No. _____ Delineation No. _____	
CUP/WUP Application No. _____	

REVIEWED AND APPROVED BY DELEGATED AUTHORITY

3963 Bellaire Blvd

1. Owner, Legal Name if Corporation Omni Waste of Osceola City LLC Address Houston Tx City Houston State TX ZIP 77025 Telephone Number (813)468-7551

2. Well Location - Address, Road Name or Number, City JED Solid waste Management Facility, 1501 Omni way, St. Cloud, FL

3. Parcel ID No. (PIN) or Alternate Key (Circle One) 11-28-32 000 000 100 000

Lot _____ Block _____ Unit _____

4. Section or Land Grant II Township 28S Range 32E County Osceola Subdivision _____ Check if 62-524: Yes No

5. Water Well Contractor Ross Chavarro License Number i1893 Telephone Number (813)655-3612 E-mail Address netross@tampabay.rr.com

6. Water Well Contractor's Address 13935 Jess Warden road City Dover State FL ZIP 33557

7. Type of Work: Construction Repair Modification Abandonment Reason for Repair, Modification, or Abandonment No longer needed

8. Number of Proposed Wells 1 Date Stamp _____

9. Specify Intended Use(s) of Well(s):

- | | | | |
|---|---|--|---|
| <input type="checkbox"/> Domestic | <input type="checkbox"/> Landscape Irrigation | <input type="checkbox"/> Agricultural Irrigation | <input type="checkbox"/> Site Investigation |
| <input type="checkbox"/> Bottled Water Supply | <input type="checkbox"/> Recreation Area Irrigation | <input type="checkbox"/> Livestock | <input checked="" type="checkbox"/> Monitoring |
| <input type="checkbox"/> Public Water Supply (Limited Use/DOH) | <input type="checkbox"/> Nursery Irrigation | <input type="checkbox"/> Test | <input type="checkbox"/> Earth-Coupled Geothermal |
| <input type="checkbox"/> Public Water Supply (Community or Non-Community/DEP) | <input type="checkbox"/> Commercial/Industrial | <input type="checkbox"/> HVAC Supply | <input type="checkbox"/> HVAC Return |
| <input type="checkbox"/> Class I Injection | <input type="checkbox"/> Golf Course Irrigation | | |

Class V Injection: Recharge Commercial/Industrial Disposal Aquifer Storage and Recovery Drainage

Remediation: Recovery Air Sparge Other (Describe) _____

Other (Describe) _____ (Note: Not all types of wells are permitted by a given permitting authority)

10. Distance from Septic System If < 200 ft. N/A 11. Facility Description landfill 12. Estimated Start Date 6-15-2016

13. Estimated Well Depth 44 ft. Estimated Casing Depth 34 ft. Primary Casing Diameter 3 in. Open Hole: From N/A To ft.

14. Estimated Screen Interval: From 34 To 44 ft.

15. Primary Casing Material: Black Steel Galvanized PVC Stainless Steel
 Not Cased Other: _____

16. Secondary Casing: Telescope Casing Liner Surface Casing Diameter _____ in.

17. Secondary Casing Material: Black Steel Galvanized PVC Stainless Steel Other

18. Method of Construction, Repair, or Abandonment: Auger Cable Tool Jetted Rotary Sonic
Combination (Two or More Methods) Hand Driven (Well Point, Sand Point) Hydraulic Point (Direct Push)
 Horizontal Drilling Plugged by Approved Method Other (Describe) _____

19. Proposed Grouting Interval for the Primary, Secondary, and Additional Casing:

From 0 To 44 Seal Material Bentonite Neat Cement Other

From 0 To 44 Seal Material Bentonite Neat Cement Other

From 0 To 44 Seal Material Bentonite Neat Cement Other

From 0 To 44 Seal Material Bentonite Neat Cement Other

20. Indicate total number of existing wells on site 100 List number of existing unused wells on site 0

21. Is this well or any existing well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? Yes No If yes, complete the following: CUP/WUP No. _____ District Well ID No. _____

22. Latitude _____ Longitude _____

23. Data Obtained From: GPS Map Survey Datum: NAD 27 NAD 83 WGS 84

I hereby certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my obligations under Chapter 373, Florida Statutes, to monitor or properly abandon this well or, if I am no longer the owner, to notify the owner that the information provided is accurate, and that I have obtained the owner of this property, if so stated above. Owner consent to changing permittees at the WWD or Delegated Authority, access to the site during the construction, repair, modification, or abandonment authorized by this permit.

Signature of Contractor John A. Clark License No. 11093 Signature of Owner or Agent For IEST Date 6-11-2016

Approval Granted By John A. Clark Issue Date 6/13/16 Expiration Date _____ Hydrologist Approval _____
Fee Received \$ 50 Receipt No. _____ Check No. _____

THIS PERMIT IS NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WWD OR DELEGATED AUTHORITY. THE PERMIT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL CONSTRUCTION, REPAIR, MODIFICATION, OR ABANDONMENT ACTIVITIES.

DEP Form: 62-532.900(1) Incorporated in 62-532.400(1), F.A.C. Effective Date: October 7, 2010

Page 1 of 2

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
2379 BROAD STREET, BROOKSVILLE, FL 34604-6899
PHONE: (352) 796-7211 or (800) 423-1476
WWW.SFWMD.STATE.FL.US

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
4049 REID STREET, PALATKA, FL 32178-1429
PHONE: (386) 329-4500
WWW.SJRWM.D.COM

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
152 WATER MANAGEMENT DR., HAVANA, FL 32333-4712
(U.S. Highway 90, 10 miles west of Tallahassee)
PHONE: (850) 539-5999
WWW.NFWFMD.STATE.FL.US

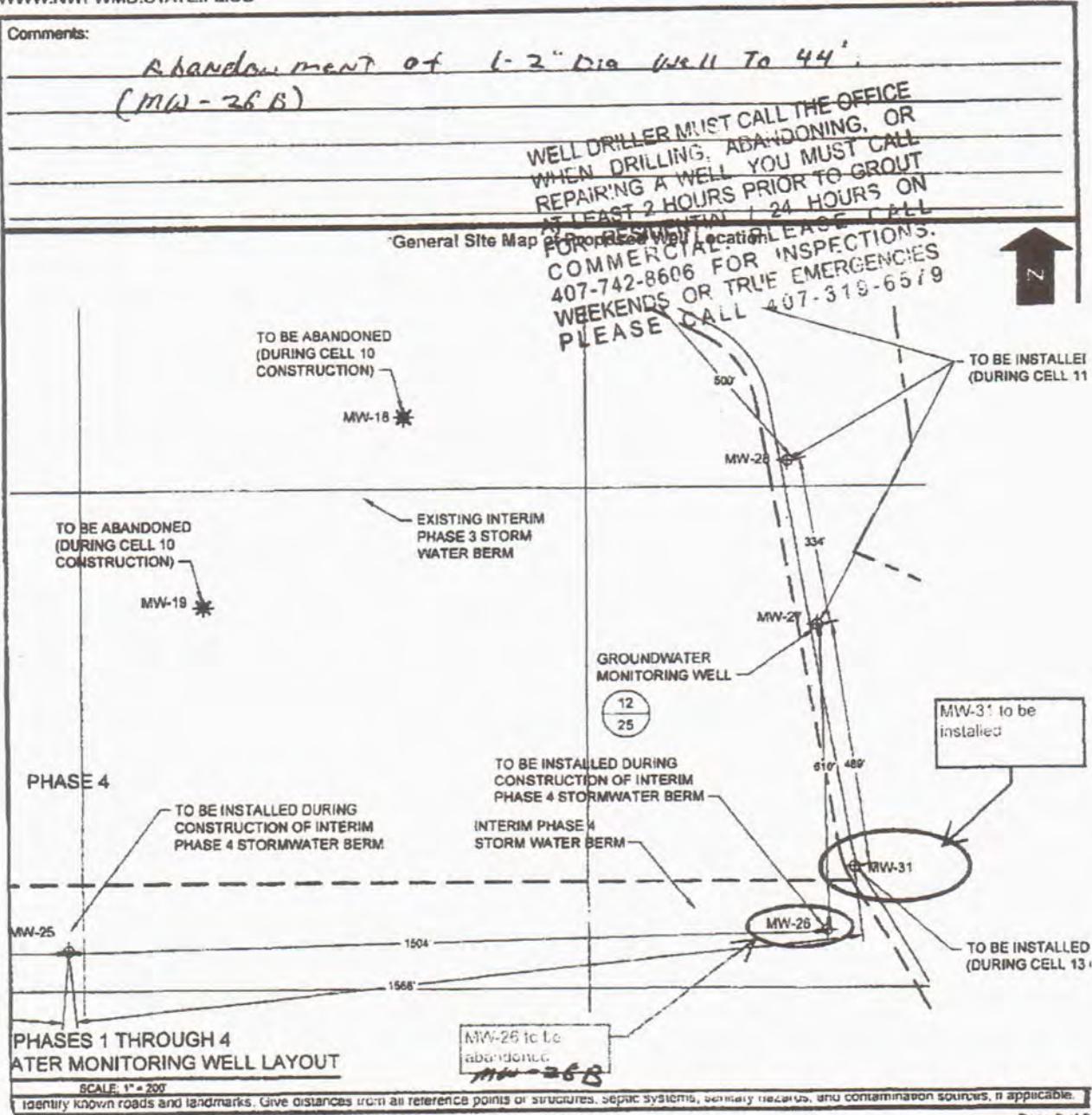
SOUTH FLORIDA WATER MANAGEMENT DISTRICT
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FL 33416-4680
PHONE: (561) 686-8800
WWW.SFWMD.GOV

SUWANNEE RIVER WATER MANAGEMENT DISTRICT
9225 CR 49
LIVE OAK, FL 32060
PHONE: (386) 362-1001 or (800) 226-1066 (Florida only)
WWW.MYSUWANNEERIVER.COM

Comments:

Abandonment of 1-2" dia well To 44".
(MW - 26 B)

WELL DRILLER MUST CALL THE OFFICE
WHEN DRILLING, ABANDONING, OR
REPAIRING A WELL YOU MUST CALL
AT LEAST 2 HOURS PRIOR TO GROUT
WITHIN 24 HOURS ON
COMMERCIAL: PLEASE CALL
407-742-8606 FOR INSPECTIONS.
WEEKENDS OR TRUE EMERGENCIES
PLEASE CALL 407-319-6519





STATE OF FLORIDA WELL COMPLETION REPORT

Date Stamp

- Southwest
 Northwest
 St. Johns River
 South Florida
 Suwannee River
 DEP
 Delegated Authority (If Applicable)

PLEASE, FILL OUT ALL APPLICABLE FIELDS
 (*Denotes Required Fields Where Applicable)

Official Use Only

MW-26A

1.	Permit Number <u>49WP 1688626</u>	CUP/WUP Number _____	DID Number _____	62-524 Delineation No. _____
2.	Number of permitted wells constructed, repaired, or abandoned <u>1</u> Number of permitted wells not constructed, repaired, or abandoned <u>0</u>			
3.	Owner's Name <u>One waste of Osceola COUNTY, LLC</u>			
4.	Completion Date <u>6-15-2016</u> Florida Unique ID _____			
6.	JEO Solid Waste Disposal Facility 1501 Bonniway, St. Cloud FL			
Well Location - Address, Road Name or Number, City, ZIP				
7.	County <u>Osceola</u>	Section <u>11</u>	Land Grant _____	Township <u>28S</u> Range <u>32E</u>
8.	Latitude _____	Longitude _____		
9.	Data Obtained From: <input checked="" type="checkbox"/> GPS <input checked="" type="checkbox"/> Map <input type="checkbox"/> Survey	Datum: <input type="checkbox"/> NAD 27 <input checked="" type="checkbox"/> NAD 83 <input type="checkbox"/> WGS 84		
10.	Type of Work: <input type="checkbox"/> Construction <input type="checkbox"/> Repair <input type="checkbox"/> Modification <input checked="" type="checkbox"/> Abandonment			
11.	Specify Intended Use(s) of Well(s):	<input type="checkbox"/> Domestic <input type="checkbox"/> Landscape Irrigation <input type="checkbox"/> Agricultural Irrigation <input checked="" type="checkbox"/> Site Investigation <input type="checkbox"/> Bottled Water Supply <input type="checkbox"/> Recreation Area Irrigation <input type="checkbox"/> Livestock <input checked="" type="checkbox"/> Monitoring <input type="checkbox"/> Public Water Supply (Limited Use/DOH) <input type="checkbox"/> Nursery Irrigation <input type="checkbox"/> Test <input type="checkbox"/> Public Water Supply (Community or Non-Community/DEP) <input type="checkbox"/> Commercial/Industrial <input type="checkbox"/> Earth-Coupled Geothermal <input type="checkbox"/> <input type="checkbox"/> Golf Course Irrigation <input type="checkbox"/> HVAC Supply <input type="checkbox"/> Class I Injection <input type="checkbox"/> HVAC Return		
Class V Injection: <input type="checkbox"/> Recharge <input type="checkbox"/> Commercial/Industrial Disposal <input type="checkbox"/> Aquifer Storage and Recovery <input type="checkbox"/> Drainage				
Remediation: <input type="checkbox"/> Recovery <input type="checkbox"/> Air Sparge <input type="checkbox"/> Other (Describe) _____ Other (Describe) _____				
12.	Drill Method: <input type="checkbox"/> Auger <input type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary <input type="checkbox"/> Combination (Two or More Methods) <input type="checkbox"/> Jetted <input type="checkbox"/> Sonic <input type="checkbox"/> Horizontal Drilling <input type="checkbox"/> Hydraulic Point (Direct Push) <input type="checkbox"/> Other <u>Abandonment</u>			
13.	Measured Static Water Level <u>16</u> ft. Measured Pumping Water Level <u>N/A</u> ft. After _____ Hours at _____ GPM			
14.	Measuring Point (Describe) <u>Ground Surface</u> Which is <u>0</u> ft. <u>0</u> Above _____ Below Land Surface Flowing: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
15.	Casing Material: <input type="checkbox"/> Black Steel <input type="checkbox"/> Galvanized <input checked="" type="checkbox"/> PVC <input type="checkbox"/> Stainless Steel <input type="checkbox"/> Not Cased <input type="checkbox"/> Other			
16.	Total Well Depth <u>20</u> ft. Cased Depth <u>10</u> ft. Open Hole: From <u>n/a</u> To _____ ft. Screen: From <u>10</u> To <u>20</u> ft. Slot Size _____			
17.	Abandonment: <input checked="" type="checkbox"/> Other (Explain) <u>no longer needed</u>			
	From <u>0</u> ft. To <u>20</u> ft. No. of Bags <u>0.5</u> Seal Material (Check One): <input checked="" type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other			
	From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other			
	From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other			
	From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other			
18.	Surface Casing Diameter and Depth:			
	Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other			
	Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other			
19.	Primary Casing Diameter and Depth:			
	Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other			
	Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other			
	Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other			
	Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other			
20.	Liner Casing Diameter and Depth:			
	Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other			
	Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other			
	Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other			
21.	Telescope Casing Diameter and Depth:			
	Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other			
	Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other			
	Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other			
22.	Pump Type (If Known): <u>NONE</u>	Chemical Analysis (When Required): <u>N/A</u>		
	<input type="checkbox"/> Centrifugal <input type="checkbox"/> Jet <input type="checkbox"/> Submersible <input type="checkbox"/> Turbine	Iron _____ ppm	Sulfate _____ ppm	Chloride _____ ppm
	Horsepower _____ Pump Capacity (GPM) _____	Laboratory Test <input type="checkbox"/> Field Test Kit		
24.	Water Well Contractor:			
*	Contractor Name <u>Ross Chinander</u>	License Number <u>11093</u>	E-mail Address <u>netrose@tampabay.rr.com</u>	
*	Contractor's Signature <u>Ross Chinander</u>	Driller's Name (Print or Type) <u>Alexander Stockdale</u>		
I certify that the information provided in this report is accurate and true.				

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
 2379 BROAD STREET, BROOKSVILLE, FL 34604-6899
 PHONE: (352) 796-7211 or (800) 423-1476
 WWW.SFWFMD.STATE.FL.US

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
 4049 REID STREET, PALATKA, FL 32178-1429
 PHONE: (386) 329-4500
 WWW.SJRWM.D.COM

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
 152 WATER MANAGEMENT DR., HAVANA, FL 32333-4712
 (U.S. Highway 90, 10 miles west of Tallahassee)
 PHONE: (850) 539-5999
 WWW.NWFWM.D.STATE.FL.US

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
 P.O. BOX 24680
 3301 GUN CLUB ROAD
 WEST PALM BEACH, FL 33416-4680
 PHONE: (561) 686-8800
 WWW.SFWM.D.GOV

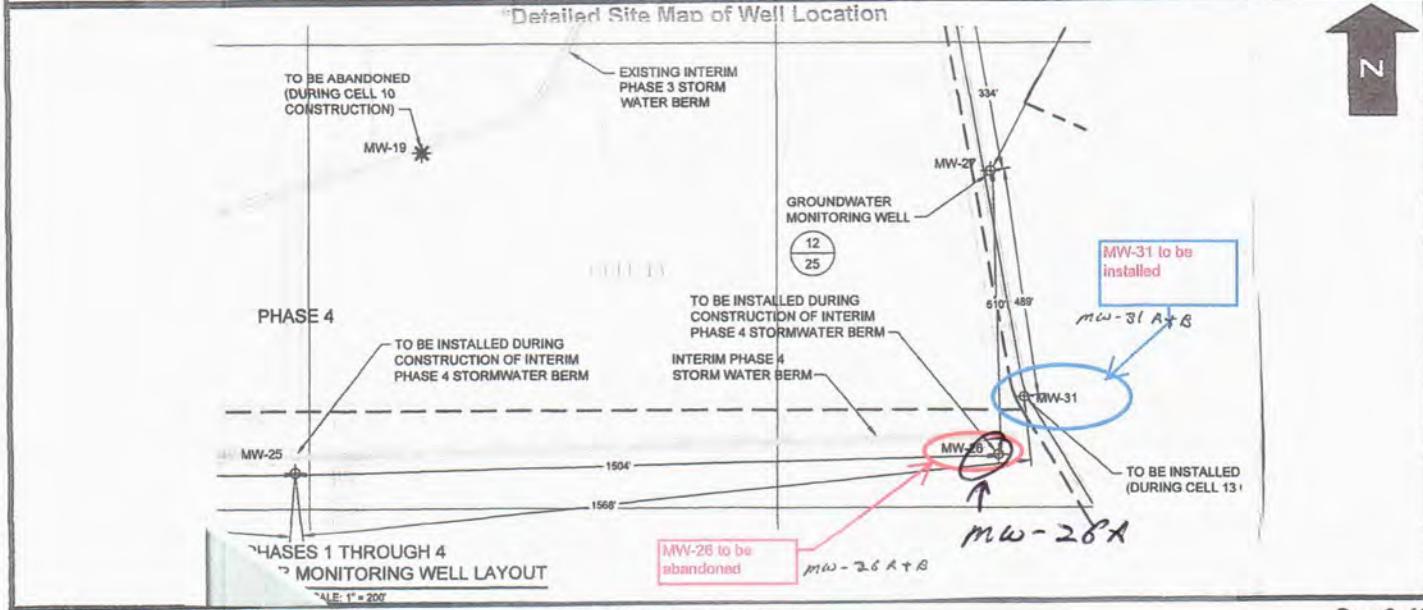
SUWANNEE RIVER WATER MANAGEMENT DISTRICT
 9225 CR 49
 LIVE OAK, FL 32060
 PHONE: (386) 362-1001 or (800) 226-1066 (Florida only)
 WWW.MYSUWANNEERIVER.COM

DRILL CUTTINGS LOG (Examine cuttings every 20 ft. or at formation changes. Note cavities and depth to producing zone. Grain Size: F=Fine, M=Medium, and C=Coarse)

From <u>0</u> ft.	To <u>20</u> ft.	Color _____	Grain Size (F, M, C) _____	Material _____	<u>Abandonment</u>
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	
From _____ ft.	To _____ ft.	Color _____	Grain Size (F, M, C) _____	Material _____	

Comments: Abandonment of 1-2' dia well to 20' in depth
Mar 26A

Detailed Site Map of Well Location




**STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT,
REPAIR, MODIFY, OR ABANDON A WELL**

- Southwest
 Northwest
 St. Johns River
 South Florida
 Suwannee River
 DEP
 Delegated Authority (If Applicable)

PLEASE FILL OUT ALL APPLICABLE FIELDS
 (Denotes Required Fields Where Applicable)

The water well contractor is responsible for completing this form and forwarding the permit application to the appropriate delegated authority where applicable.

49WP 1688626

Permit No. _____
Florida Unique ID _____
Permit Stipulations Required (See Attached)
62-524 Quad No. _____ Delineation No. _____
CUP/WUP Application No. _____

3963 Bellaire Blvd

1. Owner, Legal Name if Corporation Omni Waste of Osceola City LLC Address Houston Tx State 77025 Telephone Number (813)468-7553

2. Well Location - Address, Road Name or Number, City JED Solid Waste Management Facility, 1501 Omni Way, St Cloud, FL

3. Parcel ID No. (PIN) or Alternate Key (Circle One) 1128 32 000 000 100 000 Lot _____ Block _____ Unit _____

4. Section or Land Grant 11 Township 28S Range 32E County Osceola Subdivision _____ Check if 62-524: Yes No

5. Water Well Contractor Ross Chivender License Number 11093 Telephone Number (813)655-3612 E-mail Address waterross@tampabay.rr.com

6. Water Well Contractor's Address 12435 Jess Golden Road City Davie State FL ZIP 33327

7. Type of Work: Construction Repair Modification Abandonment No longer needed Reason for Repair, Modification, or Abandonment _____

8. Number of Proposed Wells 1 _____

9. Specify Intended Use(s) of Well(s):

- | | | | |
|---|---|--|---|
| <input type="checkbox"/> Domestic | <input type="checkbox"/> Landscape Irrigation | <input type="checkbox"/> Agricultural Irrigation | <input type="checkbox"/> Site Investigation |
| <input type="checkbox"/> Bottled Water Supply | <input type="checkbox"/> Recreation Area Irrigation | <input type="checkbox"/> Livestock | <input checked="" type="checkbox"/> Monitoring |
| <input type="checkbox"/> Public Water Supply (Limited Use/DOH) | <input type="checkbox"/> Nursery Irrigation | <input type="checkbox"/> Test | <input type="checkbox"/> Earth-Coupled Geothermal |
| <input type="checkbox"/> Public Water Supply (Community or Non-Community/DEP) | <input type="checkbox"/> Commercial/Industrial | <input type="checkbox"/> HVAC Supply | <input type="checkbox"/> HVAC Return |
| <input type="checkbox"/> Class I Injection | | | |

Date Stamp

Class V Injection: Recharge Commercial/Industrial Disposal Aquifer Storage and Recovery Drainage

Remediation: Recovery Air Sparge Other (Describe) _____

Other (Describe) _____

(Note: Not all types of wells are permitted by a given permitting authority)

10. Distance from Septic System if > 200 ft. 4/4 11. Facility Description Land fill 12. Estimated Start Date 6-15-2016

13. Estimated Well Depth 20 ft. Estimated Casing Depth 10 ft. Primary Casing Diameter 2 in. Open Hole: From 4 To 20 ft.

14. Estimated Screen Interval: From 10 To 20 ft.

15. Primary Casing Material: Black Steel Galvanized PVC Stainless Steel
 Not Cased Other: _____

16. Secondary Casing: Telescope Casing Liner Surface Casing Diameter _____ in.

17. Secondary Casing Material: Black Steel Galvanized PVC Stainless Steel Other

18. Method of Construction, Repair, or Abandonment: Auger Cable Tool Jetted Rotary Sonic

Combination (Two or More Methods) Hand Driven (Well Point, Sand Point) Hydraulic Point (Direct Push)
 Horizontal Drilling Plugged by Approved Method Other (Describe) _____

19. Proposed Grouting Interval for the Primary, Secondary, and Additional Casing:

From 0 To 20 Seal Material (Bentonite Neat Cement Other _____)

From 0 To 20 Seal Material (Bentonite Neat Cement Other _____)

From 0 To 20 Seal Material (Bentonite Neat Cement Other _____)

20. Indicate total number of existing wells on site 100 List number of existing unused wells on site 0

21. Is this well or any existing well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? Yes No If yes, complete the following: CUP/WUP No. _____ District Well ID No. _____

22. Latitude _____ Longitude _____

23. Data Obtained From: GPS Map Survey Datum: NAD 27 NAD 83 WGS 84

I hereby certify that I am the owner of the property that the information provided is accurate, and that I am aware of my responsibilities under Chapter 375. I further certify that no action or property attachment is in effect, and that I am not in default of any environmental or other federal, state, or local government, if applicable. I agree to store the construction report in the District within 20 days after completion of the construction, repair, modification, or abandonment authorized by this permit, or the permit expires, whichever occurs first.

Signature of Contractor 11093 License No. _____ Signature of Owner or Agent For TEST Date 6-11-2016

Approval Granted By Bry A. Davis Issue Date 6/14/16 Expiration Date _____ Hydrologist Approval _____
 Fee Received \$ 50 Receipt No. _____ Check No. _____

THIS PERMIT IS NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD OR DELEGATED AUTHORITY. THE PERMIT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL CONSTRUCTION, REPAIR, MODIFICATION, OR ABANDONMENT ACTIVITIES.

DEP Form: 62-532.900(1) Incorporated In 62-532.400(1), F.A.C. Effective Date: October 7, 2010

Page 1 of 2

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
 2379 BROAD STREET, BROOKSVILLE, FL 34604-6899
 PHONE: (352) 796-7211 or (800) 423-1476
WWW.SFWMD.STATE.FL.US

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
 4049 REID STREET, PALATKA, FL 32178-1429
 PHONE: (386) 329-4500
WWW.SJRWMD.COM

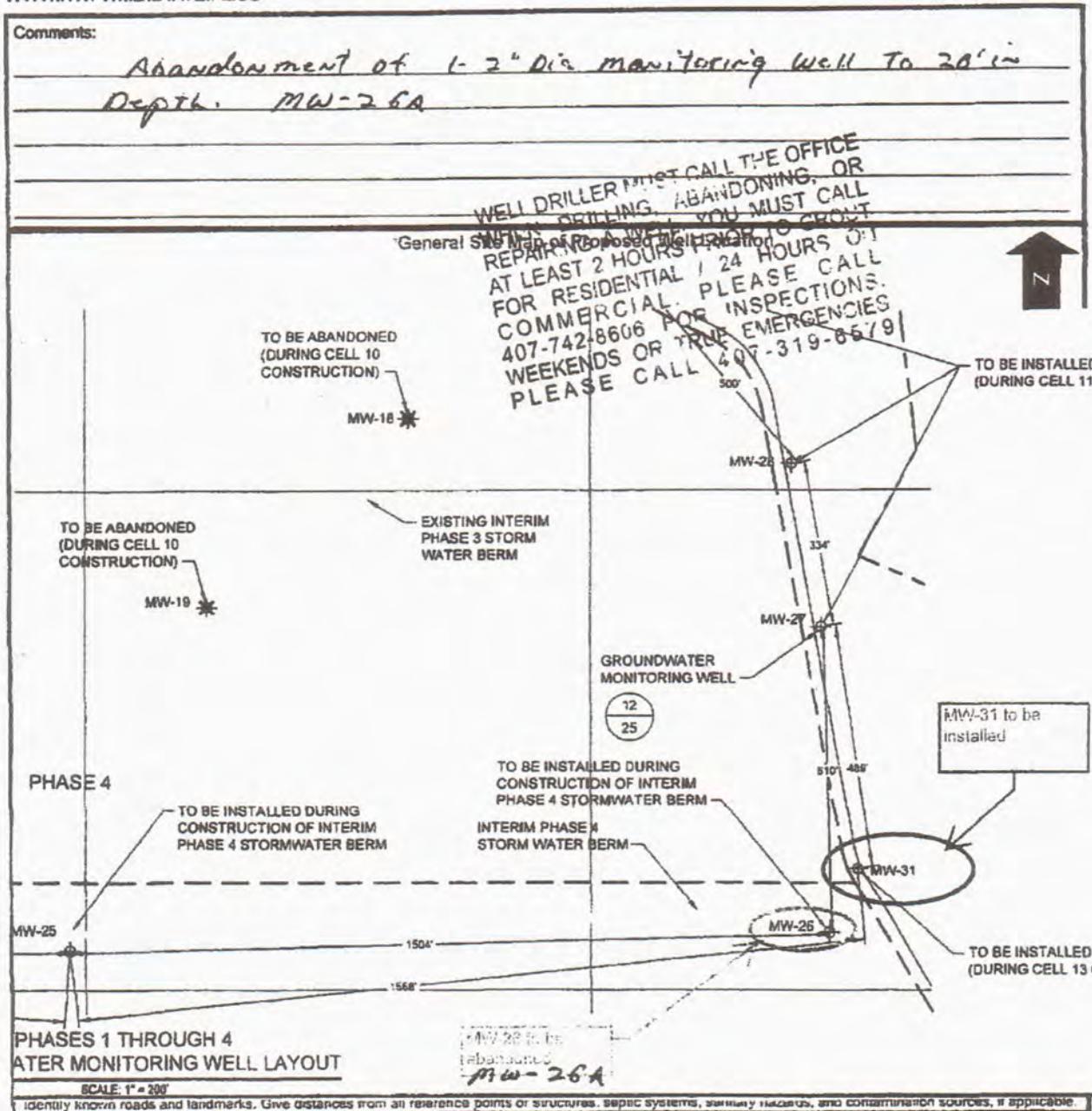
NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
 152 WATER MANAGEMENT DR., HAVANA, FL 32333-4712
 (U.S. Highway 90, 10 miles west of Tallahassee)
 PHONE: (850) 539-5999
WWW.NFWMD.STATE.FL.US

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
 P.O. BOX 24680
 3301 GUN CLUB ROAD
 WEST PALM BEACH, FL 33416-4680
 PHONE: (561) 686-8800
WWW.SFWMD.GOV

SUWANNEE RIVER WATER MANAGEMENT DISTRICT
 9225 CR 49
 LIVE OAK, FL 32060
 PHONE: (386) 362-1001 or (800) 226-1066 (Florida only)
WWW.MYSUWANNEERIVER.COM

Comments:

Abandonment of 1-2" dia monitoring well to 30' in depth. MW-26A



Identify known roads and landmarks. Give distances from all reference points or structures, septic systems, sanitary fixtures, and contamination sources, if applicable.

DEP Form 62-532.900(1) Incorporated in 62-532.400(1), F.A.C. Effective Date: October 7, 2010

Page 2 of 2



STATE OF FLORIDA WELL COMPLETION REPORT

Date Stamp

- Southwest
 Northwest
 St. Johns River
 South Florida
 Suwannee River
 DEP
 Delegated Authority (If Applicable)

PLEASE, FILL OUT ALL APPLICABLE FIELDS
 (*Denotes Required Fields Where Applicable)

Official Use Only

49WP
 1. Permit Number 1688622 *CUP/WUP Number _____ DID Number _____ 62-524 Delineation No. _____

2. Number of permitted wells constructed, repaired, or abandoned 1 Number of permitted wells not constructed, repaired, or abandoned 0

3. Owner's Name Onwi Waste of Oceania County, LLC 4. Completion Date 6-15-2016 Florida Unique ID _____

6. JEO Solid Waste Disposal Facility 1501 Onwi Way, St. Cloud FL

*Well Location - Address, Road Name or Number, City, ZIP

7. County Oceania *Section 11 Land Grant _____ Township 28 S Range 32 E

8. Latitude _____ Longitude _____

9. Data Obtained From: GPS Map Survey Datum: NAD 27 NAD 83 WGS 84

10. Type of Work: Construction Repair Modification Abandonment

11. Specify Intended Use(s) of Well(s):

Domestic	Landscape Irrigation	Agricultural Irrigation	Site Investigation
Bottled Water Supply	Recreation Area Irrigation	Livestock	Monitoring
Public Water Supply (Limited Use/DOH)		Nursery Irrigation	Test
Public Water Supply (Community or Non-Community/DEP)		Commercial/Industrial	Earth-Coupled Geothermal
Class I Injection		Golf Course Irrigation	HVAC Supply
Class V Injection: Recharge	Commercial/Industrial Disposal		HVAC Return

Remediation: Recovery Air Sparge Other (Describe) _____

Other (Describe) _____

12. Drill Method: Auger Cable Tool Rotary Combination (Two or More Methods) Jetted Sonic

Horizontal Drilling Hydraulic Point (Direct Push) Other

13. Measured Static Water Level 16 ft. measured Pumping Water Level 20 ft. After 0.5 Hours at 2 GPM

14. Measuring Point (Describe) Ground Surface Which is 0 ft. Above 0 ft. Below Land Surface Flowing: Yes No

15. Casing Material: Black Steel Galvanized PVC Stainless Steel Not Cased Other

16. Total Well Depth 44 ft. Cased Depth 34 ft. Open Hole: From NH To ft. Screen: From 34 To 44 ft. Slot Size .006

17. Abandonment: Other (Explain) _____

From <u> </u> ft. To <u> </u> ft. No. of Bags _____	Seal Material (Check One): Neat Cement Bentonite Other
From <u> </u> ft. To <u> </u> ft. No. of Bags _____	Seal Material (Check One): Neat Cement Bentonite Other
From <u> </u> ft. To <u> </u> ft. No. of Bags _____	Seal Material (Check One): Neat Cement Bentonite Other
From <u> </u> ft. To <u> </u> ft. No. of Bags _____	Seal Material (Check One): Neat Cement Bentonite Other

18. Surface Casing Diameter and Depth:

Dia <u> </u> in. From <u> </u> ft. To <u> </u> ft. No. of Bags _____	Seal Material (Check One): Neat Cement Bentonite Other
Dia <u> </u> in. From <u> </u> ft. To <u> </u> ft. No. of Bags _____	Seal Material (Check One): Neat Cement Bentonite Other

19. Primary Casing Diameter and Depth:

Dia <u> </u> in. From <u> </u> ft. To <u> </u> ft. No. of Bags <u>9</u>	Seal Material (Check One): Neat Cement Bentonite Other
Dia <u> </u> in. From <u> </u> ft. To <u> </u> ft. No. of Bags _____	Seal Material (Check One): Neat Cement Bentonite Other
Dia <u> </u> in. From <u> </u> ft. To <u> </u> ft. No. of Bags _____	Seal Material (Check One): Neat Cement Bentonite Other
Dia <u> </u> in. From <u> </u> ft. To <u> </u> ft. No. of Bags _____	Seal Material (Check One): Neat Cement Bentonite Other
Dia <u> </u> in. From <u> </u> ft. To <u> </u> ft. No. of Bags _____	Seal Material (Check One): Neat Cement Bentonite Other

20. Liner Casing Diameter and Depth:

Dia <u> </u> in. From <u> </u> ft. To <u> </u> ft. No. of Bags _____	Seal Material (Check One): Neat Cement Bentonite Other
Dia <u> </u> in. From <u> </u> ft. To <u> </u> ft. No. of Bags _____	Seal Material (Check One): Neat Cement Bentonite Other
Dia <u> </u> in. From <u> </u> ft. To <u> </u> ft. No. of Bags _____	Seal Material (Check One): Neat Cement Bentonite Other

21. Telescope Casing Diameter and Depth:

Dia <u> </u> in. From <u> </u> ft. To <u> </u> ft. No. of Bags <u>8</u>	Seal Material (Check One): Neat Cement Bentonite Other <u>Sand</u>
Dia <u> </u> in. From <u> </u> ft. To <u> </u> ft. No. of Bags _____	Seal Material (Check One): Neat Cement Bentonite Other
Dia <u> </u> in. From <u> </u> ft. To <u> </u> ft. No. of Bags _____	Seal Material (Check One): Neat Cement Bentonite Other

22. Pump Type (If Known): NONE

23. Chemical Analysis (When Required): N/A

Centrifugal <input type="checkbox"/> Jet <input type="checkbox"/> Submersible <input type="checkbox"/> Turbine	Iron _____ ppm Sulfate _____ ppm Chloride _____ ppm
--	---

Horsepower _____ Pump Capacity (GPM) _____

Pump Depth _____ ft. Intake Depth _____ ft. Laboratory Test Field Test Kit

24. Water Well Contractor:

Contractor Name Ross Chandler License Number 11093 E-mail Address netrose@tampabay.rr.com

Contractor's Signature Ross Chandler Driller's Name (Print or Type) Alexander Stackpole

I certify that the information provided in this report is accurate and true.

Permit No. 49 WP 1688622

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
2379 BROAD STREET, BROOKSVILLE, FL 34604-6899
PHONE: (352) 796-7211 or (800) 423-1476
WWW.SFWMD.STATE.FL.US

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
4049 REID STREET, PALATKA, FL 32178-1429
PHONE: (386) 329-4500
WWW.SJRWMD.COM

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
152 WATER MANAGEMENT DR., HAVANA, FL 32333-4712
(U.S. Highway 90, 10 miles west of Tallahassee)
PHONE: (850) 539-5999
WWW.NWWFWM.DIST.STATE.FL.US

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FL 33416-4680
PHONE: (561) 686-8800
WWW.SFWMD.GOV

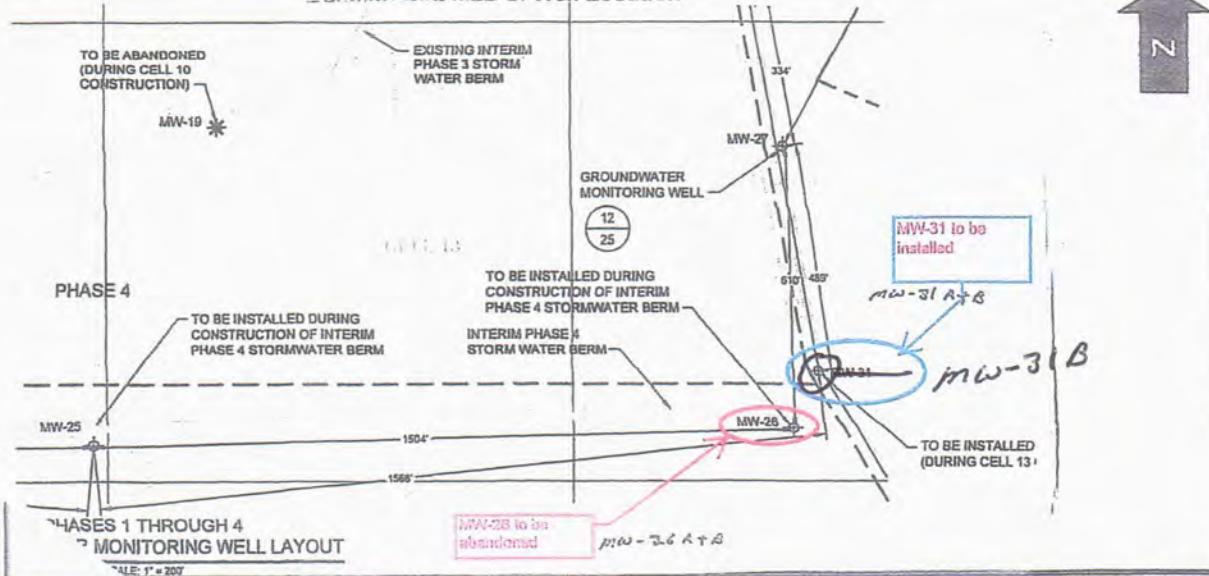
SUWANNEE RIVER WATER MANAGEMENT DISTRICT
9225 CR 49
LIVE OAK, FL 32060
PHONE: (386) 362-1001 or (800) 226-1066 (Florida only)
WWW.MYSUWANNEERIVER.COM

DRILL CUTTINGS LOG (Examine cuttings every 20 ft. or at formation changes. Note cavities and depth to producing zone. Grain Size: F=Fine, S=Sand, M=Mud, L=Lignite, C=Calcareous, H=Heavy, G=Grainy, B=Black, P=Plastic, R=Rocky, D=Dry, S=Shaly, I=Inertial, O=Organic, N=Natural Gas, L=Liquid, G=Gaseous, V=Volatile, H=High, M=Medium, L=Low, N=Non-existent)

**DRILL SET FIGURES 200 (E)
Medium and Coarse**

Comments: Installation of 1-2" Dia Well To 44' w/ 10' of .006
Sintered Screen, (MN-31 B)

Detailed Site Map of Well Location




**STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT,
REPAIR, MODIFY, OR ABANDON A WELL**

- Southwest
 Northwest
 St. Johns River
 South Florida
 Suwannee River
 DEP
 Delegated Authority (If Applicable)

PLEASE FILL OUT ALL APPLICABLE FIELDS
 (Denotes Required Fields Where Applicable)

The water well contractor is responsible for completing
 this form and forwarding the permit application to the
 appropriate delegated authority where applicable.

Permit No.	
Florida Unique ID	
Permit Stipulations Required (See Attached)	
62-524 Quad No. _____ Delineation No. _____	
CUP/WUP Application No. _____	

3963 Bellaire Blvd

1. Owner, Legal Name if Corporation Omnii Waste of Osceola Cnty LLC Address Houston City TX ZIP 77025 Telephone Number (813) 468-7553

2. Well Location - Address, Road Name or Number, City JED Solid waste management Fac. 17, 1501 Omni way, St. Cloud, FL

3. Parcel ID No. (PIN) or Alternate Key (Circle One) 112832 000 000 100 000

Lot _____ Block _____ Unit _____

4. Section or Land Grant 11 Township 28S Range 32E County Osceola Subdivision _____ Check if 62-524: Yes No

5. Water Well Contractor Ross Commander License Number 11893 Telephone Number (513) 655-3612 E-mail Address wateros@traphay.cc.eon

6. Water Well Contractor's Address 12435 Jess Golden road City Douglas State FL ZIP 33527

7. Type of Work: Construction Repair Modification Abandonment

Reason for Repair, Modification, or Abandonment

Date Stamp

8. Number of Proposed Wells 1

9. Specify Intended Use(s) of Well(s):

- | | | | |
|---|---|---|--|
| <input type="checkbox"/> Domestic | <input type="checkbox"/> Landscape Irrigation | <input type="checkbox"/> Agricultural Irrigation | <input type="checkbox"/> Site Investigation |
| <input type="checkbox"/> Bottled Water Supply | <input type="checkbox"/> Recreation Area Irrigation | <input type="checkbox"/> Livestock | <input type="checkbox"/> Monitoring |
| <input type="checkbox"/> Public Water Supply (Limited Use/DOH) | <input type="checkbox"/> Nursery Irrigation | <input type="checkbox"/> Test | <input type="checkbox"/> Commercial/Industrial |
| <input type="checkbox"/> Public Water Supply (Community or Non-Community/DEP) | <input type="checkbox"/> Golf Course Irrigation | <input type="checkbox"/> Earth-Coupled Geothermal | <input type="checkbox"/> HVAC Supply |
| <input type="checkbox"/> Class I Injection | | <input type="checkbox"/> HVAC Return | |

Class V Injection: Recharge Commercial/Industrial Disposal Aquifer Storage and Recovery Drainage

Remediation: Recovery Air Sparge Other (Describe) _____

Other (Describe) _____

(Note: Not all types of wells are permitted by a given permitting authority)

Official Use Only

10. Distance from Septic System if > 200 ft. N/A 11. Facility Description Garage, 11 12. Estimated Start Date 6-15-2016

13. Estimated Well Depth 44 ft. Estimated Casing Depth 34 ft. Primary Casing Diameter 7 in. Open Hole: From _____ To _____ ft.

14. Estimated Screen Interval: From 24 To 44 ft.

15. Primary Casing Material: Black Steel Galvanized PVC Stainless Steel
 Not Cased Other: _____

16. Secondary Casing: Telescope Casing Liner Surface Casing Diameter _____ in.

17. Secondary Casing Material: Black Steel Galvanized PVC Stainless Steel Other

18. Method of Construction, Repair, or Abandonment: Auger Cable Tool Jetted Rotary Sonic
 Combination (Two or More Methods) Hand Driven (Well Point, Sand Point) Hydraulic Point (Direct Push)
 Horizontal Drilling Plugged by Approved Method Other (Describe) _____

19. Proposed Grouting Interval for the Primary, Secondary, and Additional Casing:

From <u>0</u> To <u>25</u> Seal Material <input type="checkbox"/> Bentonite <input checked="" type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____
From <u>0</u> To <u>25</u> Seal Material <input type="checkbox"/> Bentonite <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____
From <u>0</u> To <u>25</u> Seal Material <input type="checkbox"/> Bentonite <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____
From <u>0</u> To <u>25</u> Seal Material <input type="checkbox"/> Bentonite <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____

20. Indicate total number of existing wells on site 100

List number of existing unused wells on site 0

21. Is this well or any existing well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? Yes No If yes, complete the following: CUP/WUP No. _____ District Well ID No. _____

22. Latitude _____ Longitude _____

23. Data Obtained From: GPS Map Survey

Datum: NAD 27 NAD 83 WGS 84

I hereby certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 273, Florida Statutes. In certain property transfers in a well or I certify that I am the agent for the owner, that the information provided is accurate, and that I have obtained the owner's written consent to this statement as stated above. Owner consents to closing personnel of the WMD or Delegated Authority access to the well site during the construction, repair, modification, or abandonment as authorized by this permit.

Signature of Contractor

11093

License No.

Signature of Owner or Agent

6-11-2016

Date

Approval Granted By Brian A. Jones

Issue Date 6/11/16 Expiration Date _____ Hydrologist Approval _____

Fee Received \$ 50

Receipt No. _____ Check No. _____

THIS PERMIT IS NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD OR DELEGATED AUTHORITY. THE PERMIT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL CONSTRUCTION, REPAIR, MODIFICATION, OR ABANDONMENT ACTIVITIES.

Permit No. _____

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
 2379 BROAD STREET, BROOKSVILLE, FL 34604-6899
 PHONE: (352) 796-7211 or (800) 423-1476
 WWW.SFWMD.STATE.FL.US

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
 4049 REID STREET, PALATKA, FL 32178-1429
 PHONE: (386) 329-4500
 WWW.SJRWMD.COM

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
 152 WATER MANAGEMENT DR., HAVANA, FL 32333-4712
 (U.S. Highway 90, 10 miles west of Tallahassee)
 PHONE: (850) 539-5999
 WWW.NFWFMD.STATE.FL.US

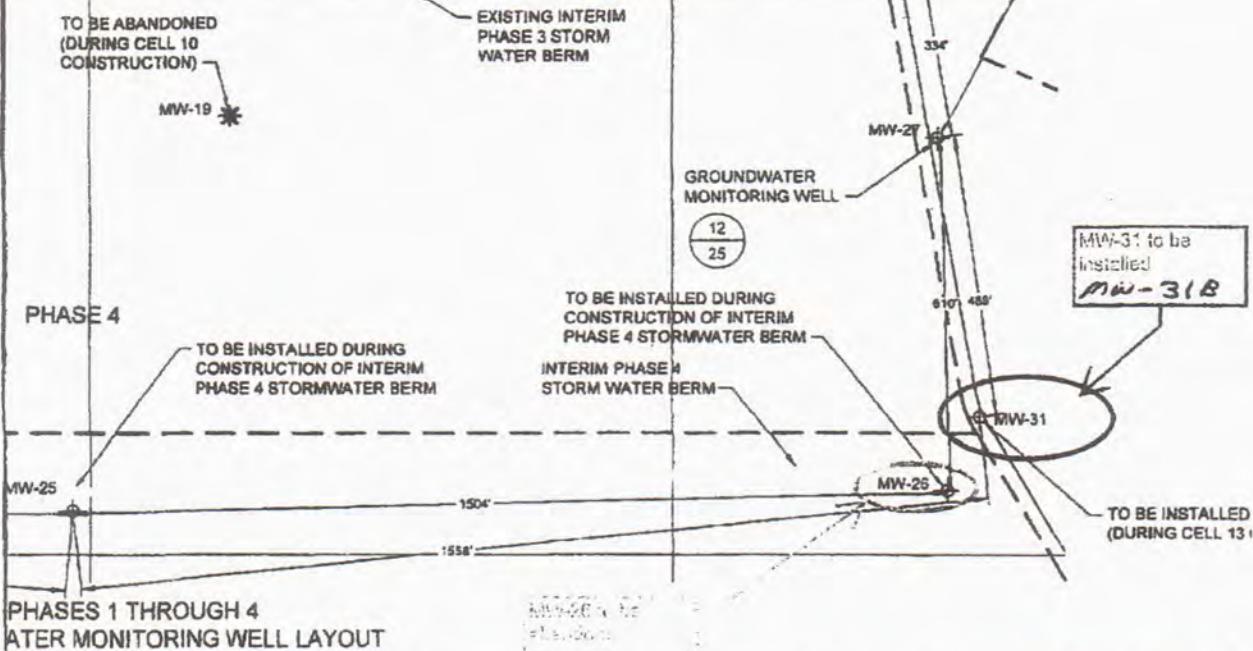
SOUTH FLORIDA WATER MANAGEMENT DISTRICT
 P.O. BOX 24680
 3301 GUN CLUB ROAD
 WEST PALM BEACH, FL 33416-4680
 PHONE: (561) 686-8800
 WWW.SFWMD.GOV

SUWANNEE RIVER WATER MANAGEMENT DISTRICT
 9225 CR 49
 LIVE OAK, FL 32080
 PHONE: (386) 362-1001 or (800) 226-1066 (Florida only)
 WWW.MYSUWANNEERIVER.COM

Comments:

Installation at 1-2" dia. well to 44' w/ 10' of
 006 slotted PVC screen. (MW-31-B)

WELL DRILLER MUST CALL THE OFFICE
 WHEN DRILLING, ABANDONING, OR
 REPAIRING A WELL. YOU MUST CALL
 AT LEAST 2 HOURS PRIOR TO GROUT
 FOR RESIDENTIAL / 24 HOURS ON
 COMMERCIAL. PLEASE CALL
 407-742-8606 FOR INSPECTIONS.
 WEEKENDS OR TRUED EMERGENCIES
 PLEASE CALL (DURING CELL 10
 CONSTRUCTION)



Identify known roads and landmarks. Give distances from all reference points or structures, septic systems, sanitary hazards, and contamination sources, if applicable.

DEP Form 62-532.900(1) Incorporated in 62-532.400(1) F.A.C. Effective Date: October 7, 2010

Page 2 of 2



STATE OF FLORIDA WELL COMPLETION REPORT

Date Stamp

- Southwest
 Northwest
 St. Johns River
 South Florida
 Suwannee River
 DEP
 Delegated Authority (If Applicable) MW-31A

PLEASE, FILL OUT ALL APPLICABLE FIELDS
 (*Denotes Required Fields Where Applicable)

Official Use Only

1. Permit Number 1688620 *CUP/WUP Number _____ *DID Number _____ 62-524 Delineation No. _____

2. Number of permitted wells constructed, repaired, or abandoned 1 *Number of permitted wells not constructed, repaired, or abandoned 0

3. Owner's Name One West of Osceola County, LLC 4. Completion Date 6-15-2016 Florida Unique ID _____

6. JED Solid Waste Disposal Facility 1501 One West, St. Cloud FL
 Well Location - Address, Road Name or Number, City, ZIP

7. County Osceola *Section 11 Land Grant _____ Township 28 S *Range 32 E

8. Latitude _____ Longitude _____

9. Data Obtained From: GPS Map Survey Datum: NAD 27 NAD 83 WGS 84

10. Type of Work: Construction Repair Modification Abandonment

11. Specify Intended Use(s) of Well(s):
 Domestic Landscape Irrigation Agricultural Irrigation Site Investigation
 Bottled Water Supply Recreation Area Irrigation Livestock Monitoring
 Public Water Supply (Limited Use/DOH) Nursery Irrigation Test
 Public Water Supply (Community or Non-Community/DEP) Commercial/Industrial Earth-Coupled Geothermal
 Class I Injection Golf Course Irrigation HVAC Supply
 Class V Injection Recharge Commercial/Industrial Disposal Aquifer Storage and Recovery Drainage
 Remediation: Recovery Air Sparge Other (Describe) _____
 Other (Describe) _____

12. Drill Method: Auger Cable Tool Rotary Combination (Two or More Methods) Jetted Sonic
 Horizontal Drilling Hydraulic Point (Direct Push) Other

13. Measured Static Water Level 16 ft. Measured Pumping Water Level 20 ft. After 0.5 Hours at 2 GPM

14. Measuring Point (Describe) Ground Surface Which is 0 ft. Above 0 ft. Below Land Surface *Flowing: Yes No

15. Casing Material: Black Steel Galvanized PVC Stainless Steel Not Cased Other

16. Total Well Depth 20 ft. Cased Depth 10 ft. Open Hole: From N/A To _____ ft. Screen: From 10 To 20 ft. Slot Size .006

17. Abandonment: Other (Explain) _____
 From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): Neat Cement Bentonite Other
 From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): Neat Cement Bentonite Other
 From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): Neat Cement Bentonite Other
 From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): Neat Cement Bentonite Other

18. Surface Casing Diameter and Depth:
 Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): Neat Cement Bentonite Other
 Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): Neat Cement Bentonite Other

19. Primary Casing Diameter and Depth:
 Dia 2 in. From 0 ft. To 10 ft. No. of Bags 4 Seal Material (Check One): Neat Cement Bentonite Other
 Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): Neat Cement Bentonite Other
 Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): Neat Cement Bentonite Other
 Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): Neat Cement Bentonite Other
 Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): Neat Cement Bentonite Other

20. Liner Casing Diameter and Depth:
 Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): Neat Cement Bentonite Other
 Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): Neat Cement Bentonite Other
 Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): Neat Cement Bentonite Other
Screen
 21. Telescopic Casing Diameter and Depth:
 Dia 2 in. From 10 ft. To 20 ft. No. of Bags 6 Seal Material (Check One): Neat Cement Bentonite Other Sand
 Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): Neat Cement Bentonite Other
 Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): Neat Cement Bentonite Other

22. Pump Type (If Known): NONE 23. Chemical Analysis (When Required): N/A
 Centrifugal Jet Submersible Turbine Iron _____ ppm Sulfate _____ ppm Chloride _____ ppm
 Horsepower _____ Pump Capacity (GPM) _____
 Pump Depth _____ ft. Intake Depth _____ ft. Laboratory Test Field Test Kit

24. Water Well Contractor:
 Contractor Name Ross Chinanor License Number 11093 E-mail Address netrose@tampabay.rr.com
 Contractor's Signature Ross Chinanor Driller's Name (Print or Type) Rick Alexander Stockdale
 I certify that the information provided in this report is accurate and true.

Permit No. 49 WP 168862D

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
2379 BROAD STREET, BROOKSVILLE, FL 34604-6899
PHONE: (352) 796-7211 or (800) 423-1476
WWW.SFWMD.STATE.FL.US

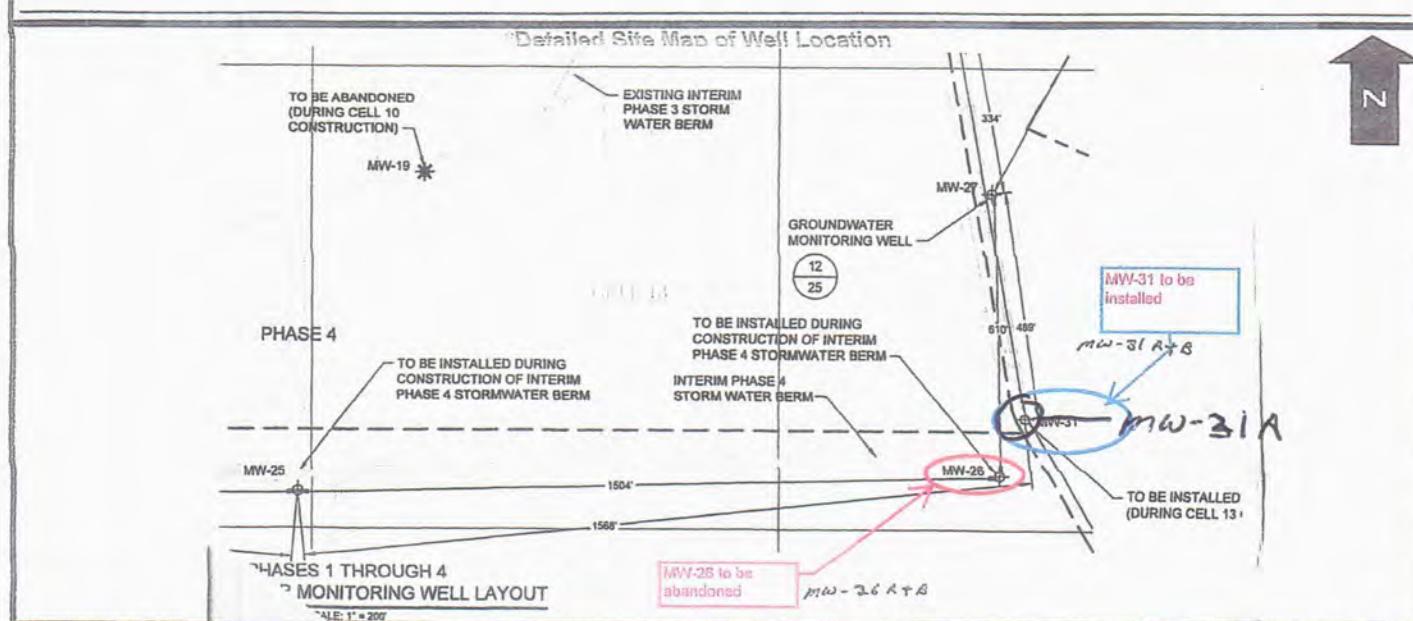
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
4049 REID STREET, PALATKA, FL 32178-1429
PHONE: (386) 329-4500
WWW.SJRWMWD.COM

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
152 WATER MANAGEMENT DR., HAVANA, FL 32333-4712
(U.S. Highway 90, 10 miles west of Tallahassee)
PHONE: (850) 539-5999
WWW.NWFWM.DIST.STATE.FL.US

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FL 33416-4680
PHONE: (561) 686-8800
WWW.SFWMD.GOV

SUWANNEE RIVER WATER MANAGEMENT DISTRICT
9225 CR 49
LIVE OAK, FL 32060
PHONE: (386) 362-1001 or (800) 226-1066 (Florida only)
WWW.MYSUWANNEERIVER.COM

Comments: Installation of 1-2" x 20' deep well w/ 10' of .006
Screen. MW-31 A




**STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT,
REPAIR, MODIFY, OR ABANDON A WELL**

- Southwest
 Northwest
 St. Johns River
 South Florida
 Suwannee River
 DEP
 Delegated Authority (If Applicable)

PLEASE FILL OUT ALL APPLICABLE FIELDS
 (*) Denotes Required Fields Where Applicable

The water well contractor is responsible for completing this form and forwarding the permit application to the appropriate delegated authority where applicable.

Permit No.	Florida Unique ID
Permit Stipulations Required (See Attached)	
62-524 Quad No.	Delineation No.
CUP/WUP Application No.	

DELEGATED AUTHORITY (IF APPLICABLE) - ALL USE ONLY

3903 Bellaire Blvd

1. Omni Waste of Osceola City Lbs, Houston Tx 77025 (813)468-7553
 Owner, Legal Name if Corporation Address City State ZIP Telephone Number

2. JED Solid Waste Management Facility, 1501 Omni Way, St. Cloud, FL
 Well Location - Address, Road Name or Number, City

3. 112832 000 000 100 000
 Parcel ID No. (PIN) or Alternate Key (Circle One)

4. 11 285 32E Osceola
 Section or Land Grant Township Range County Subdivision Check if 62-524: Yes No

5. Ross Chambers 11093 (813)655-3612 metroct@shaw.ca.eon
 Water Well Contractor License Number Telephone Number E-mail Address

6. 12435 Jess Warden Road Dover FL 33527
 Water Well Contractor's Address City State ZIP

7. Type of Work: Construction Repair Modification Abandonment

8. Number of Proposed Wells 1 Reason for Repair, Modification, or Abandonment

9. Specify Intended Use(s) of Well(s):

- | | | | |
|--|----------------------------|-------------------------|--------------------------|
| Domestic | Landscape Irrigation | Agricultural Irrigation | Site Investigation |
| Bottled Water Supply | Recreation Area Irrigation | Livestock | Monitoring |
| Public Water Supply (Limited Use/DOH) | Nursery Irrigation | Commercial/Industrial | Test |
| Public Water Supply (Community or Non-Community/DEP) | Golf Course Irrigation | HVAC Supply | Earth-Coupled Geothermal |
| Class I Injection | | HVAC Return | |

Class V Injection: Recharge Commercial/Industrial Disposal Aquifer Storage and Recovery Drainage

Remediation: Recovery Air Sparge Other (Describe)

Other (Describe) (Note: Not all types of wells are permitted by a given permitting authority)

10. Distance from Septic System if < 200 ft. 11. Facility Description Landfill 12. Estimated Start Date 6-15-2016

13. Estimated Well Depth 20 ft. Estimated Casing Depth 10 ft. Primary Casing Diameter 2 in. Open Hole: From 4/8 To ft

14. Estimated Screen Interval: From 10 To 20 ft.

15. Primary Casing Material: Black Steel Galvanized PVC Stainless Steel
 Not Cased Other:

16. Secondary Casing: Telescope Casing Liner Surface Casing Diameter in.

17. Secondary Casing Material: Black Steel Galvanized PVC Stainless Steel Other

18. Method of Construction, Repair, or Abandonment: Auger Cable Tool Jetted Rotary Sonic
 Combination (Two or More Methods) Hand Driven (Well Point, Sand Point) Hydraulic Point (Direct Push)
 Horizontal Drilling Plugged by Approved Method Other (Describe)

19. Proposed Grouting Interval for the Primary, Secondary, and Additional Casing.

From 0 To 5 Seal Material Bentonite Neat Cement Other
 From To Seal Material Bentonite Neat Cement Other
 From To Seal Material Bentonite Neat Cement Other
 From To Seal Material Bentonite Neat Cement Other

20. Indicate total number of existing wells on site 100 ± List number of existing unused wells on site 0

21. Is this well or any existing well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? Yes No If yes, complete the following: CUP/WUP No. District Well ID No.

22. Latitude _____ Longitude _____

23. Data Obtained From: GPS Map Survey Datum: NAD 27 NAD 83 WGS 84

I hereby certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my rights and obligations under Chapter 375 Florida Statutes, to maintain or properly abandon this well, or I certify that I am the agent and/or attorney for the owner, and the information provided is accurate, and that I have informed the owner of the responsibilities as stated above. I further agree to obtain permission of the WMD or Delegated Authority, access to the well site during the construction, repair, modification, or abandonment authorized by this permit.

Signature of Contractor License No. 11093 Signature of Owner or Agent Date 6-11-2016

Approval Granted By Issue Date 6/13/16 Expiration Date Hydrologist Approval _____

Fee Received \$ 75 Receipt No. Check No. CC

THIS PERMIT IS NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD OR DELEGATED AUTHORITY. THE PERMIT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL CONSTRUCTION, REPAIR, MODIFICATION, OR ABANDONMENT ACTIVITIES.

DEP Form: 62-532 900(1) Incorporated in 62-532.400(1), F.A.C. Effective Date: October 7, 2010

Page 1 of 2

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
 2379 BROAD STREET, BROOKSVILLE, FL 34604-6899
 PHONE: (352) 796-7211 or (800) 423-1476
 WWW.SFWMD.STATE.FL.US

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
 4049 REID STREET, PALATKA, FL 32178-1429
 PHONE: (386) 329-4500
 WWW.SJRWMD.COM

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
 152 WATER MANAGEMENT DR., HAVANA, FL 32333-4712
 (U.S. Highway 90, 10 miles west of Tallahassee)
 PHONE: (850) 539-5999
 WWW.NFWMD.STATE.FL.US

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
 P.O. BOX 24880
 3301 GUN CLUB ROAD
 WEST PALM BEACH, FL 33416-4680
 PHONE: (561) 686-8800
 WWW.SFWMD.GOV

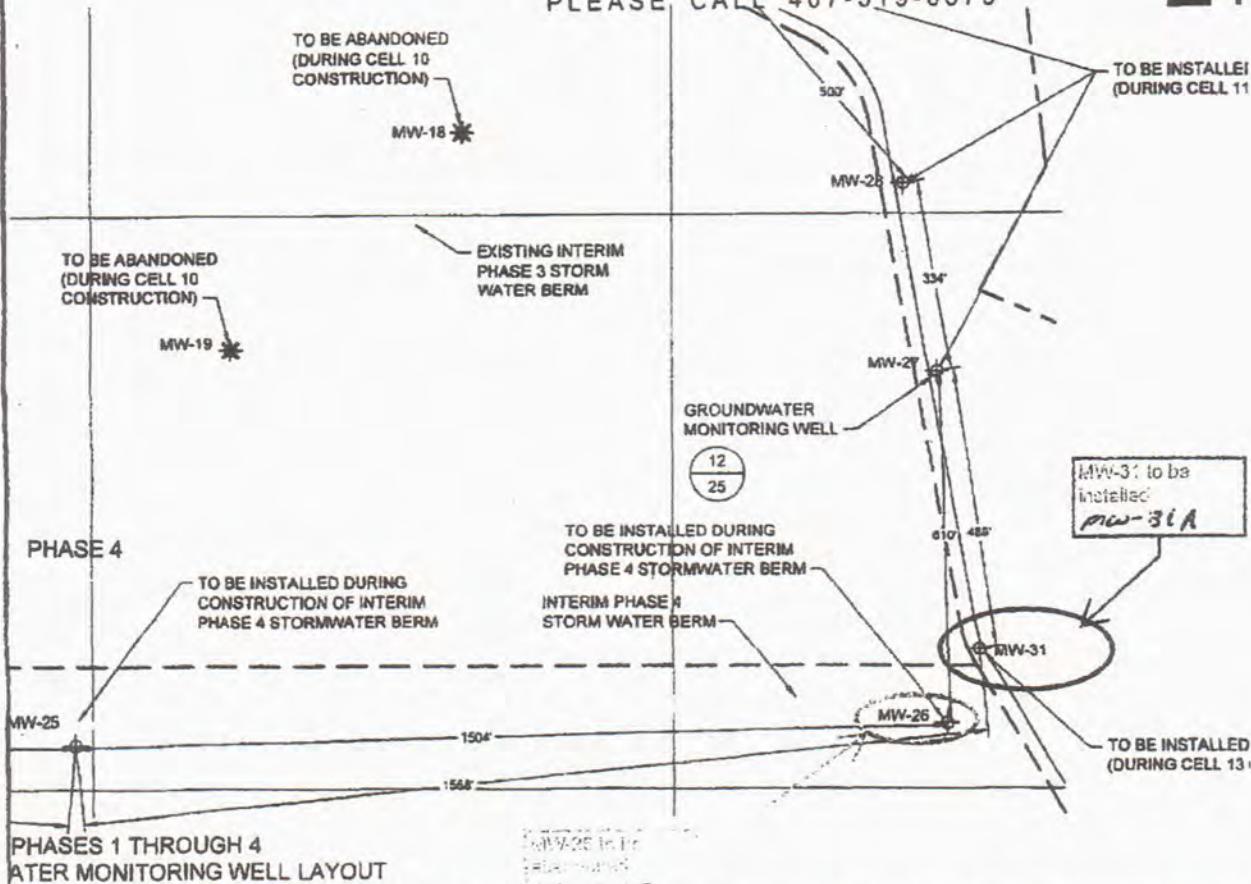
SUWANNEE RIVER WATER MANAGEMENT DISTRICT
 9225 CR 49
 LIVE OAK, FL 32060
 PHONE: (386) 362-1001 or (800) 226-1066 (Florida only)
 WWW.MYSUWANNEERIVER.COM

Comments:

Installation of 1 - 2" x 20' well w/ 10' of .006 slotted screen (MW-31A)

WELL DRILLER MUST CALL THE OFFICE
 WHEN DRILLING, ABANDONING, OR
 REPAIRING A WELL. YOU MUST CALL
 AT LEAST 2 HOURS PRIOR TO GROUT
 FOR RESIDENTIAL / 24 HOURS ON

General Site Map of Proposed Well Locations
 407-742-8606 FOR INSPECTIONS.
 WEEKENDS OR TRUE EMERGENCIES
 PLEASE CALL 407-319-6579



Identify known roads and landmarks. Give distances from all reference points or structures, septic systems, sanitary hazards, and contamination sources, if applicable.

DEP Form 62-532.900(1) Incorporated in 62-532.400(1), F.A.C. Effective Date: October 7, 2010

Page 2 of 2



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

DEP Form #: 62-701 900(31), F A C
Form Title: Water Quality Monitoring Certification
Effective Date: January 6, 2010
Incorporated in Rule 62-701.510(9), F A C

WATER QUALITY MONITORING CERTIFICATION

PART I GENERAL INFORMATION

(1) Facility Name J.E.D. Solid Waste Management Facility

Address 1501 Omni Way

City Saint Cloud Zip 34773 County Osceola

Telephone Number (407) 891-3720

(2) WACS Facility ID 89544

(3) DEP Permit Number SC49-0199726-017 & SO49-0199726-022

(4) Authorized Representative's Name Kirk Wills Title South Region Engineer

Address 5135 Madison Avenue

City Tampa Zip 33619 County Hillsborough

Telephone Number (813) 388-1026

Email address (if available) kirk.wills@wasteconnections.com

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submission of false information including the possibility of fine and imprisonment.

9-13-2016

(Date)

(Owner or Authorized Representative's Signature)

PART II QUALITY ASSURANCE REQUIREMENTS

Sampling Organization Weibu, LLC

Analytical Lab NELAC / HRS Certification # E83079

Lab Name Pace Analytical Services, Inc.

Address 5460 Beaumont Center Blvd - Suite 520

Phone Number (813) 881-9401

Email address (if available) mike.valder@pacelabs.com

**WRITTEN CONSENT OF
THE SOLE MEMBER AND SOLE MANAGER OF
OMNI WASTE OF OSCEOLA COUNTY LLC**

The undersigned, being the sole member and the sole manager of the Board of Managers of OMNI WASTE OF OSCEOLA COUNTY LLC, a Florida limited liability company (the "Company"), consent to the following actions and adopt the following resolutions:

RESOLVED, that Kirk Wills, Southern Region Engineer of the Company, is hereby authorized to execute by and on behalf of the Company any and all documents required in connection with the permit and regulatory applications, reports, filings, and other documentation relating to and necessary for the day-to-day operations of the J.E.D. Landfill by the Company, including, without limitation, Title V and other permit renewal applications and reports, Florida Department of Environmental Protection reports, forms, and filings, discharge monitoring reports, and emissions and compliance reports for air quality, and all other documentation related thereto.

IN WITNESS WHEREOF, the undersigned sole member of the Company and sole manager of the Board of Managers of the Company, have duly executed this Written Consent in The Woodlands, Texas on the date set forth below.

Dated: July 21, 2016

SOLE MEMBER:

WASTE SERVICES, INC.,
a Delaware corporation

By: _____
Name: Ronald J. Mittelstaedt
Its: Chief Executive Officer

**SOLE MANAGER OF THE BOARD OF
MANAGERS:**

Ronald J. Mittelstaedt, Manager

Appendix B. Soil Boring Logs MW-31 A/B

J.E.D Solid Waste Disposal Facility
Well Abandonment/Replacement

BORING LOG

Page 1 of 2

Boring/Well Number: MW-31 A		Permit Number: 49WP1688626				FDEP Facility Identification Number: 89544					
Site Name: J.E.D. Solid Waste Disposal Facility		Borehole Start Date: 06/16/16		Borehole Start Time: 1639		<input type="checkbox"/> AM <input checked="" type="checkbox"/> PM <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM					
Environmental Contractor: WEIBU, LLC		Geologist/Engineer Name: Thompson				Environmental Technician's Name: NA					
Drilling Company: National Environmental Technologies		Pavement Thickness (inches): NA		Borehole Diameter (inches): 6		Borehole Depth (feet): 20					
Drilling Method(s): Hollow Stem Auger		Apparent Borehole DTW (in feet from soil moisture content): 12.5		Measured Well DTW (in feet after water recharges in well): NA		OVA (list model and check type): <input type="checkbox"/> FID <input type="checkbox"/> PID					
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input checked="" type="checkbox"/> Spread <input type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other (describe if other or multiple items are checked):											
Borehole Completion (check one): <input checked="" type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite <input type="checkbox"/> Backfill <input type="checkbox"/> Other (describe)											
Sample Type	Sample Depth Interval (feet)	Lithologic Symbol	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DC							1	Drilling on perimeter berm, roadway soil materials to ~12-ft below land surface were placed as backfill.	SM	D	
DC							2		SM	D	
DC							3	Sand; fine to medium, dark brown to tan, silty non-plastic some iron staining (backfill material to 12 ft)	SM	D	
DC							4	as-above	SM	D	
DC							5	as-above	SM	D	
DC							6	as-above	SM	D	
DC							7	as-above	SM	D	
DC							8	as-above	SM	D	
DC							9	as-above	SM	D	
DC							10	as-above	SM	D	
DC							11	as-above	SM	D	
DC							12		SM	M	

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

J.E.D. Solid Waste Disposal Facility

Well Abandonment/Replacement

BORING LOG

Page 2 of

2

Boring/Well Number:		FDEP Facility Identification Number:			Site Name:		Borehole Start Date:				
MW-31 A		89544			J.E.D. Solid Waste Disposal Facility		End Date:		06/16/16		
Sample Type	Sample Depth Interval (feet)	Lithologic Symbol	SPF Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DC							13	Sand; brown, fine to medium grained, silty	SM	M	
DC							14	trace organics noted within cuttings samples	SM	W	
DC							15	silt increasing with depth.	SM	W	
DC							16	as-above	SM	W	
DC							17	as-above, silty fine	SM SL	W	
DC							18	as-above, silty fine	SM SL	W	
DC							19	as-above, silty fine	SM SL	W	
DC							20		SM SL	W	
							21				
							22				
							23				
							24				
							25				
							26				
							27				
							28				
							29				
							30				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill CuttingsMoisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

J.E.D Solid Waste Disposal Facility
Well Abandonment/Replacement

BORING LOG

Page 1 of

3

Boring/Well Number: MW-31 B		Permit Number: 49WP1688626			FDEP Facility Identification Number: 89544						
Site Name: J.E.D. Solid Waste Disposal Facility		Borehole Start Date: 06/16/16	Borehole Start Time: 1430	<input type="checkbox"/> AM	<input checked="" type="checkbox"/> PM						
		End Date: 06/16/16	End Time: 1620	<input type="checkbox"/> AM	<input checked="" type="checkbox"/> PM						
Environmental Contractor: WEIBU, LLC		Geologist/Engineer Name: Thompson			Environmental Technician's Name: NA						
Drilling Company: National Environmental Technologies		Pavement Thickness (inches): NA	Borehole Diameter (inches): 6	Borehole Depth (feet): 40							
Drilling Method(s): Hollow Stem Auger		Apparent Borehole DTW (in feet) from soil moisture content): 12.5	Measured Well DTW (in feet after water recharges in well): NA	OVA (list model and check type): <input type="checkbox"/> FID <input type="checkbox"/> PID							
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input checked="" type="checkbox"/> Spread <input type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other											
(describe if other or multiple items are checked): Borehole Completion (check one): <input checked="" type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite <input type="checkbox"/> Backfill <input type="checkbox"/> Other (describe)											
Sample Type	Sample Depth Interval (feet)	Lithologic Symbol	SPN Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DC							1	Drilling on perimeter berm, roadway soil materials to ~12-ft below land surface were placed as backfill.	SM	D	
DC							2	Sand; fine to medium, dark brown to tan, silty non-plastic	SM	D	
DC							3	some iron staining (backfill material to 12 ft)	SM	D	
DC							4	as-above	SM	D	
DC							5	as-above	SM	D	
DC							6	as-above	SM	D	
DC							7	as-above	SM	D	
DC							8	as-above	SM	D	
DC							9	as-above	SM	D	
DC							10	as-above	SM	D	
DC							11	as-above	SM	D	
DC							12		SM	M	

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

J.E.D. Solid Waste Disposal Facility
Well Abandonment/Replacement

BORING LOG

Page 2 of 3

Boring/Well Number:		FDEP Facility Identification Number:		Site Name:		Borehole Start Date:		06/16/16			
MW-31 B		89544		J.E.D. Solid Waste Disposal Facility		End Date:		06/16/16			
Sample Type	Sample Depth Interval (feet)	Lithologic Symbol	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DC							13	Sand; brown, fine to medium grained, silty trace organics noted within cuttings samples	SM	M	
DC							14	silt increasing with depth.	SM	W	
DC							15	as-above	SM	W	
DC							16	as-above, silty fine	SM	W	
DC							17	as-above, silty fine	SM SL	W	
DC							18	as-above, silty fine	SM SL	W	
DC							19	as-above, silty fine	SM SL	W	
DC							20	Sand; fine to medium, dk. Brown, silty	SM SL	W	
DC							21	as-above, silty fine	SM SL	W	
DC							22	as-above, silty fine	SM SL	W	
DC							23	as-above, silty fine	SM SL	W	
DC							24	as-above, silty fine	SM SL	W	
DC							25	as-above, silty fine	SM SL	W	
DC							26	as-above, silty fine	SM SL	W	
DC							27	as-above, silty fine	SM SL	W	
DC							28	as-above, silty fine	SM SL	W	
DC							29	as-above, silty fine	SM SL	W	
DC							30	as-above, silty fine	SM SL	W	

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

J.E.D. Solid Waste Disposal Facility
Well Abandonment/Replacement

BORING LOG

Page 3 of

3

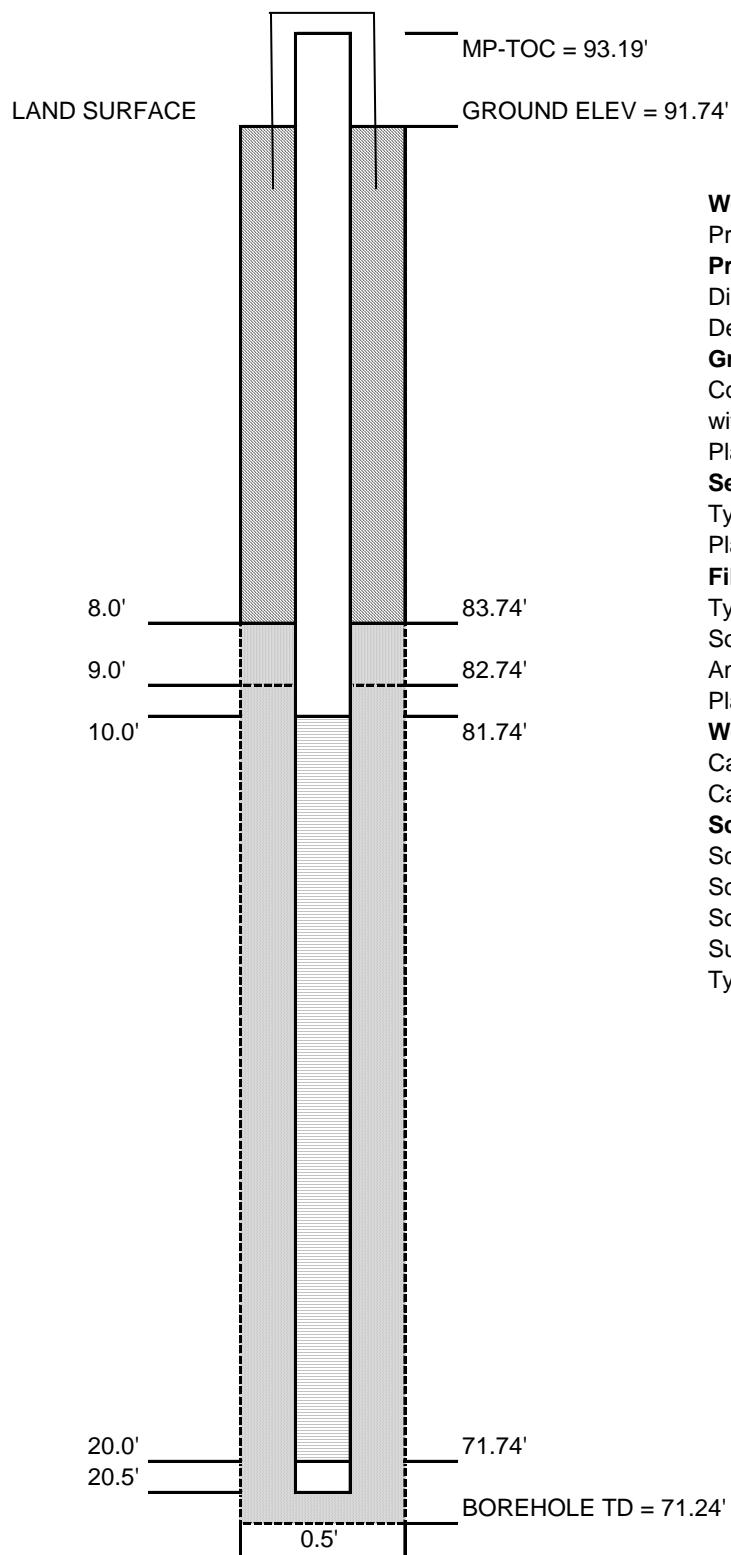
Boring/Well Number:		FDEP Facility Identification Number:			Site Name:		Borehole Start Date:	
MW-31 B		89544			J.E.D. Soild Waste Disposal Facility		06/16/16	
							End Date:	
Sample Type	Sample Depth Interval (feet)	Lithologic Symbol	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (Include grain size based on USCS, odors, staining, and other remarks)
								as-above, silty-fine
							31	SM SL
							32	W
							33	SM SL
							34	W
							35	SM SL
							36	W
							37	SM SL
							38	W
							39	SM SL
							40	W
							41	SM SL
							42	W
							43	SM SL
							44	W
							45	SM SL
							46	W
							47	SM SL
							48	W

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moisit; **W** = Wet; **S** = Saturated

Appendix C. Well Completion Forms/Details

Boring/Well Number: MW-31 A	Permit Number: 49WP1688620	FDEP Facility Identification Number: 89544	
Site Name: J.E.D. Solid Waste Disposal Facility	Borehole Start Date: 06/15/16 End Date: 06/15/16	Borehole Start Time: 1639 End Time: 1740 <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM	
Environmental Contractor: WEIBU, LLC	Geologist/Engineer Name: Thompson	Environmental Technician's Name: NA	
Drilling Company: National Environmental Technologies	Drilling Method Hollow Stem Auger	Borehole Diameter (inches): 6	Borehole Depth (feet): 20



Well Completion

Protective Structure, Typical

Protective Casing or Cover

Diameter/Type - 6" Anodized Aluminum

Depth BGS: ~2.0 ft

Grout

Composition/Proportion: Portland Type I/II
with 3% bentonite by dry weight

Placement Method: poured from land surface

Seal

Type: fine sand 30/65

Placement Method: poured from land surface

Filter Pack

Type: 30/45 Silica Sand

Source: 50# bag

Amount Used: 4.5 bags

Placement Method: Poured into augers.

Well Riser Pipe

Casing Material: SCH 40 PVC flush threaded

Casing Diameter (inside): 2-in

Screen

Screen Material: SCH 40 PVC

Screen Inside Diameter: 2-in

Screen Slot Size: 0.006 in

Sump/Bottom Cap

Type/Length: 0.5 ft

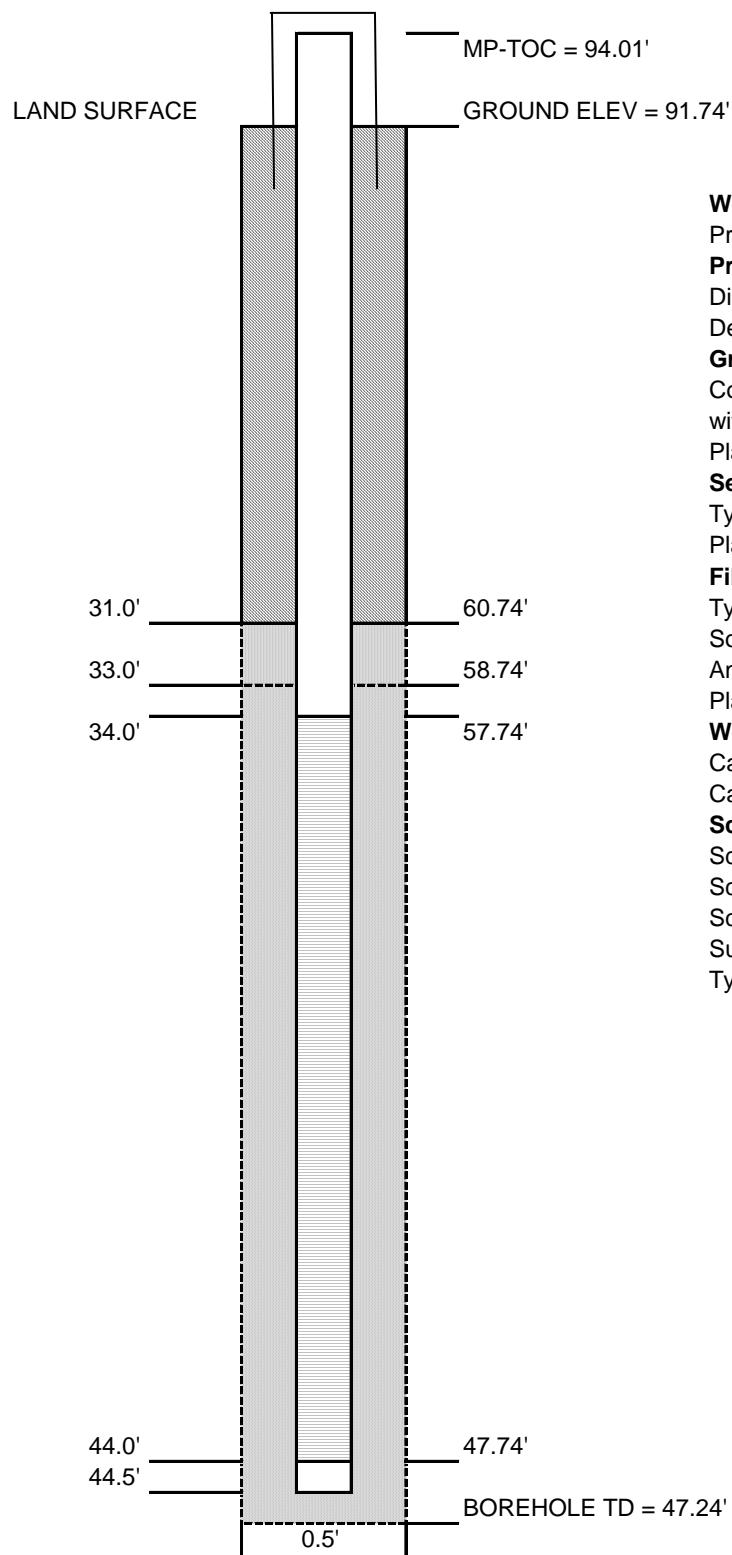
Notes:

Not to scale.

Dimensions as noted.



Boring/Well Number: MW-31 B	Permit Number: 49WP1688622	FDEP Facility Identification Number: 89544	
Site Name: J.E.D. Solid Waste Disposal Facility	Borehole Start Date: 06/16/16 End Date: 06/16/16	Borehole Start Time: 1430 End Time: 1620 <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM	
Environmental Contractor: WEIBU, LLC	Geologist/Engineer Name: Thompson	Environmental Technician's Name: NA	
Drilling Company: National Environmental Technologies	Drilling Method Hollow Stem Auger	Borehole Diameter (inches): 6	Borehole Depth (feet): 44



Well Completion

Protective Structure, Typical

Protective Casing or Cover

Diameter/Type - 6" Anodized Aluminum

Depth BGS: ~2.0 ft

Grout

Composition/Proportion: Portland Type I/II
with 3% bentonite by dry weight

Placement Method: poured from land surface

Seal

Type: fine sand 30/65

Placement Method: poured from land surface

Filter Pack

Type: 30/45 Silica Sand

Source: 50# bag

Amount Used: 5 bags

Placement Method: Poured into augers.

Well Riser Pipe

Casing Material: SCH 40 PVC flush threaded
Casing Diameter (inside): 2-in

Screen

Screen Material: SCH 40 PVC

Screen Inside Diameter: 2-in

Screen Slot Size: 0.006 in

Sump/Bottom Cap

Type/Length: 0.5 ft

Notes:

Not to scale.

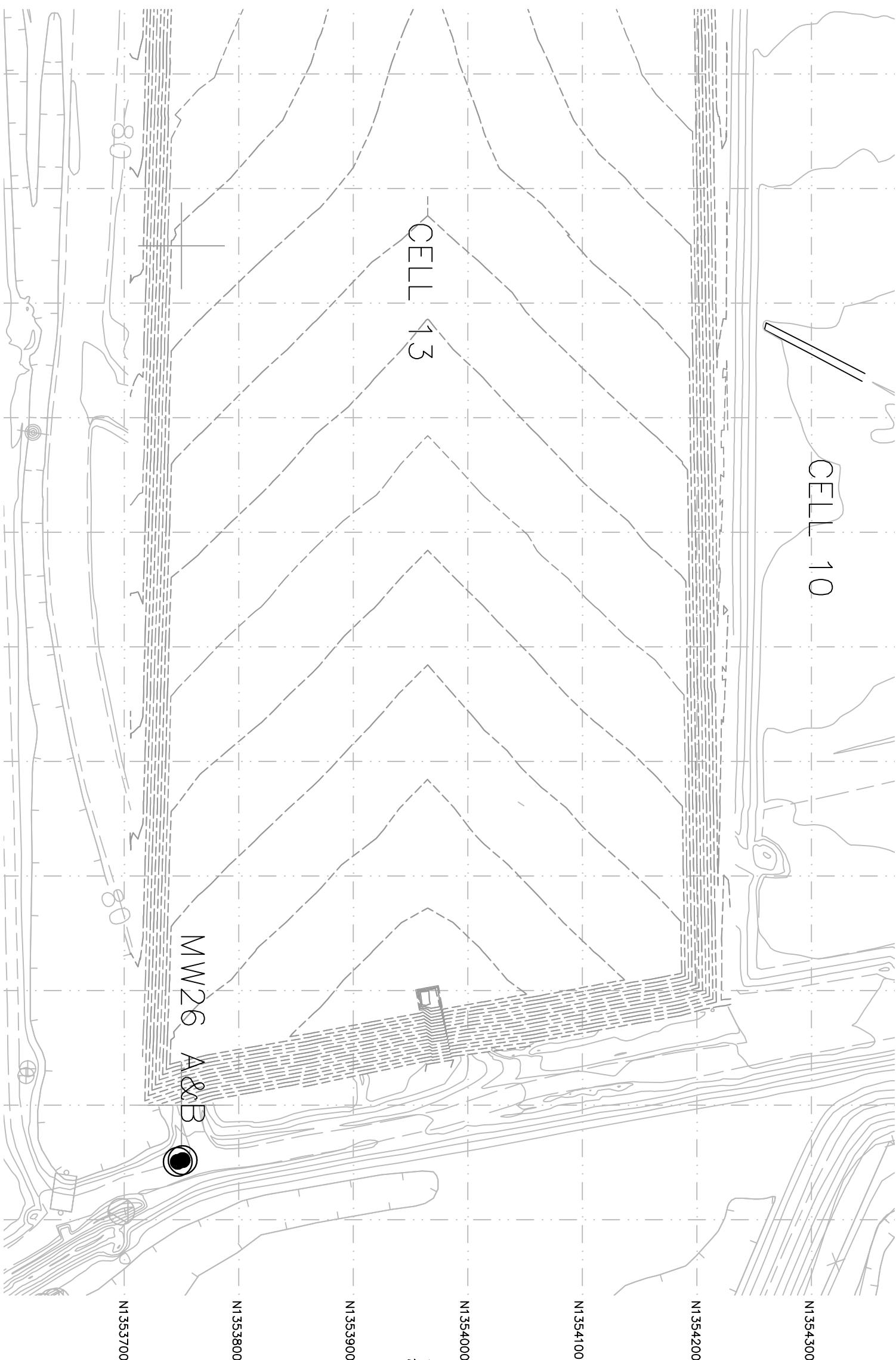
Dimensions as noted.



Appendix D. Specific Purpose Survey

MONITOR WELL NUMBER	MONITOR WELL POINT NUMBER	MONITOR WELL LATITUDE	MONITOR WELL LONGITUDE	MONITOR WELL NORTHING	MONITOR WELL EASTING	LID ELEVATION NGVD29	LID ELEVATION NAVD88	CASING ELEVATION NGVD29	CASING ELEVATION NAVD88	PVC ELEVATION NGVD29	PVC ELEVATION NAVD88	SET PK POINT NUMBER	PK LATITUDE	PK LONGITUDE	PK NORTHING	PK EASTING	PK ELEVATION NGVD29	PK ELEVATION NAVD88
MW26A	776	28°03'28.260"	-81°05'25.013"	1353746.8	627049.4	94.53	93.42	94.30	93.19	94.15	93.04	7767	28°03'28.287"	-81°05'25.009"	1353749.51	627049.73	91.74	90.63
MW26B	775	28°03'28.304"	-81°05'25.029"	1353751.3	627047.9	94.01	92.90	94.03	92.92	93.88	92.77							

NO.	DATE	REVISION
		NOT VALID WITHOUT SIGNATURE & SEAL
		DEBORAH L. PEAVEY, P.S.M.
		No. 6345 STATE OF FLORIDA SURVEYOR MAPPER PROFESSIONAL LICENSE NO. A2333
		Peavey & Associates SURVEYING & MAPPING PA
		690 Alice Place BARTOW, FL 33830 PHONE: 863-738-4960 FLORIDA BUSINESS NO. 7779
		asb jed MONITOR WELLS 2016



N1354000

N1354100

N1354200

N1353900

N1353800

N1353700

SURVEYOR'S NOTES:

- 1.) North and coordinate basis is the East Zone of the Florida State Plane Coordinate System, and are based on NGS Control Station Numbers AJ7660(J496) and verified Pickett & Associates Targets 1 and 2 from Topographic Survey dated 12/13/01 as provided. The published values used for this survey are NAD 83 2007 adjustment. The Mapping data shown hereon is based on Pickett & Associates Survey as provided by client.
- 2.) Vertical information depicted on this report are GPS derived elevations based on the National Geodetic Vertical Datum of 1929 (NGVD29) utilizing site control as provided PK13 with an elevation of 92.92 and OCI406 with an elevation of 80.91.

LEGEND:
NO.
ELEV.
MW
MONITOR WELL
MONITOR WELL



**ASBUILT SURVEY MONITOR WELLS
26A&B LOCATED AT JED
SOLID WASTE MANAGEMENT FACILITY
1501 OMNI WAY ST. CLOUD, FLORIDA**

CLIENT:
Omni Waste of Osceola
County, LLC
Waste Services, Inc.
1501 Omni Way
St. Cloud, Fl 34773

Peavey & Associates
SURVEYING & MAPPING PA

690 Alice Place
BARTOW, FL 33830
PHONE: 863-738-4960
FLORIDA BUSINESS NO. 7779



Appendix E. Well Construction and Development Logs

J.E.D. Solid Waste Disposal Facility
Osceola County, Florida

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA				
Well Number: MW-31 A	Site Name: J.E.D. Solid Waste Disposal Facility	FDEP Facility I.D. Number: 89544	Well Install Date(s): 06/15/16	
Well Location and Type (check appropriate boxes): <input checked="" type="checkbox"/> On-Site <input type="checkbox"/> Right-of-Way <input type="checkbox"/> Off-Site Private Property <input type="checkbox"/> Above Grade (AG) <input type="checkbox"/> Flush-to-Grade		Well Purpose: <input type="checkbox"/> Perched Monitoring <input checked="" type="checkbox"/> Shallow (Water-Table) Monitoring <input type="checkbox"/> Intermediate or Deep Monitoring <input type="checkbox"/> Remediation or Other (describe)	Well Install Method: Hollow Stem Auger	Surface Casing Install Method: NA
If AG, list feet of riser above land surface:				
Borehole Depth (feet): 21	Well Depth (feet): 20	Borehole Diameter (inches): 4.25	Manhole Diameter (inches): NA	Well Pad Size: _____ feet by _____ feet
Riser Diameter and Material: 2-in PVC	Riser/Screen Connections: <input checked="" type="checkbox"/> Flush-Threaded <input type="checkbox"/> Other (describe)	Riser Length: 3 feet from LS feet to 10 feet		
Screen Diameter and Material: 2-in PVC	Screen Slot Size: 0.006	Screen Length: 10 feet from 10 feet to 20 feet		
1 st Surface Casing Material: NA also check: <input type="checkbox"/> Permanent <input checked="" type="checkbox"/> Temporary	1 st Surface Casing I.D. (inches):	1 st Surface Casing Length: _____ feet from 0 feet to _____ feet		
2 nd Surface Casing Material: NA also check: <input type="checkbox"/> Permanent <input checked="" type="checkbox"/> Temporary	2 nd Surface Casing I.D. (inches):	2 nd Surface Casing Length: _____ feet from 0 feet to _____ feet		
3 rd Surface Casing Material: NA also check: <input type="checkbox"/> Permanent <input checked="" type="checkbox"/> Temporary	3 rd Surface Casing I.D. (inches):	3 rd Surface Casing Length: _____ feet from 0 feet to _____ feet		
Filter Pack Material and Size: 30/45 Silica Sand	Prepacked Filter Around Screen (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Filter Pack Length: 11 feet from 9 feet to 21 feet		
Filter Pack Seal Material and Size:	30/65 Silca Sand	Filter Pack Seal Length: 1 feet from 8 feet to 9 feet		
Surface Seal Material:	Type I/II Portland Cement	Surface Seal Length: 8 feet from LS feet to 8 feet		

WELL DEVELOPMENT DATA				
Well Development Date: 06/16/16	Well Development Method (check one): <input checked="" type="checkbox"/> Surge/Pump <input type="checkbox"/> Pump <input type="checkbox"/> Compressed Air <input type="checkbox"/> Other (describe)			
Development Pump Type (check): <input type="checkbox"/> Centrifugal <input type="checkbox"/> Peristaltic <input checked="" type="checkbox"/> Submersible <input type="checkbox"/> Other (describe)	Depth to Groundwater (before developing in feet): 14.70' btoc			
Pumping Rate (gallons per minute): 1.2	Maximum Drawdown of Groundwater During Development (feet): 18.00' btoc	Well Purged Dry (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Pumping Condition (check one): <input checked="" type="checkbox"/> Continuous <input checked="" type="checkbox"/> Intermittent	Total Development Water Removed (gallons): 70	Development Duration (minutes): 90	Development Water Drummed (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Water Appearance (color and odor) At Start of Development: Turbid brown, no-odor		Water Appearance (color and odor) At End of Development: Turbid, no-odor		

WELL CONSTRUCTION OR DEVELOPMENT REMARKS	
Combination of purge/development techniques, continuous and surge. Attempted to surge/block with pump. Still turbid after development phase and is consistent with previous well construction and purging activities noted at the site.	

J.E.D. Solid Waste Disposal Facility
Osceola County, Florida

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA

Well Number: MW-31 B	Site Name: J.E.D. Solid Waste Disposal Facility	FDEP Facility I.D. Number: 89544	Well Install Date(s): 06/15/16
Well Location and Type (check appropriate boxes): <input checked="" type="checkbox"/> On-Site <input type="checkbox"/> Right-of-Way <input type="checkbox"/> Off-Site Private Property <input type="checkbox"/> <input type="checkbox"/> Above Grade (AG) <input type="checkbox"/> Flush-to-Grade		Well Purpose: <input type="checkbox"/> Perched Monitoring <input checked="" type="checkbox"/> Shallow (Water-Table) Monitoring <input type="checkbox"/> Intermediate or Deep Monitoring <input type="checkbox"/> Remediation or Other (describe)	Well Install Method: Hollow Stem Auger Surface Casing Install Method: NA
If AG, list feet of riser above land surface:			
Borehole Depth (feet): 41	Well Depth (feet): 40	Borehole Diameter (inches): 4.25	Manhole Diameter (inches): NA
		Well Pad Size: feet by feet	
Riser Diameter and Material: 2-in PVC	Riser/Screen Connections: <input checked="" type="checkbox"/> Flush-Threaded <input type="checkbox"/> Other (describe)	Riser Length: feet from LS feet to 34 feet	
Screen Diameter and Material: 2-in PVC	Screen Slot Size: 0.006	Screen Length: feet from 34 feet to 44 feet	
1 st Surface Casing Material: NA also check: <input type="checkbox"/> Permanent <input checked="" type="checkbox"/> Temporary	1 st Surface Casing I.D. (inches):	1 st Surface Casing Length: feet from 0 feet to feet	
2 nd Surface Casing Material: NA also check: <input type="checkbox"/> Permanent <input checked="" type="checkbox"/> Temporary	2 nd Surface Casing I.D. (inches):	2 nd Surface Casing Length: feet from 0 feet to feet	
3 rd Surface Casing Material: NA also check: <input type="checkbox"/> Permanent <input checked="" type="checkbox"/> Temporary	3 rd Surface Casing I.D. (inches):	3 rd Surface Casing Length: feet from 0 feet to feet	
Filter Pack Material and Size: 30/45 Silica Sand	Prepacked Filter Around Screen (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Filter Pack Length: feet from 33 feet to 45 feet	
Filter Pack Seal Material and Size:	30/65 Silica Sand	Filter Pack Seal Length: feet from 31 feet to 33 feet	
Surface Seal Material:	Type I/II Portland Cement	Surface Seal Length: feet from LS feet to 31 feet	

WELL DEVELOPMENT DATA

Well Development Date: 06/16/16	Well Development Method (check one): <input checked="" type="checkbox"/> Surge/Pump <input type="checkbox"/> Pump <input type="checkbox"/> Compressed Air <input type="checkbox"/> Other (describe)		
Development Pump Type (check): <input type="checkbox"/> Centrifugal <input type="checkbox"/> Peristaltic <input checked="" type="checkbox"/> Submersible <input type="checkbox"/> Other (describe)	Depth to Groundwater (before developing in feet): 13.90' btoc		
Pumping Rate (gallons per minute): 1.2	Maximum Drawdown of Groundwater During Development (feet): 30.20' btoc	Well Purged Dry (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Pumping Condition (check one): <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent	Total Development Water Removed (gallons): 138	Development Duration (minutes): 115	Development Water Drummed (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Water Appearance (color and odor) At Start of Development: Turbid brown, no-odor		Water Appearance (color and odor) At End of Development: Turbid, no-odor	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

Initial turbidity as measured with Lamotte >3,000 ntu. Attempted to develop with a combination of techniques, continuous pumping as well as surging/block with submersible pump. Final turbidity noted was 200 ntu after 115 minutes of development.

Appendix F. Field Water Quality Sampling Logs

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

NAME: J.E.D. SWMF (WACs Facility ID: 89544)	SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773
WELL NO: NW-31A	SAMPLE ID: NW-31A
	DATE: June 2016

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.375	WELL SCREEN INTERVAL DEPTH: 14 feet to 24 feet	STATIC DEPTH TO WATER (feet): 14.40	PURGE PUMP TYPE OR BAILER: ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (24 feet - 14.40 feet) X 0.16 gallons/foot = 1.5 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = 0 gallons + (0.006 gallons/foot X feet) + 0.12 gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):		FINAL PUMP OR TUBING DEPTH IN WELL (feet):		PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):					
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (μS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1020	40	40	0.1	14.20							
1039	7.5	47.5	0.1	11	6.05	20.0	122.9	2.28	140	clear	-100.3
1042	0.3	48.8	0.1	11	6.98	20.0	122.6	2.09	15	"	-100.1
1044	0.3	49.1	0.1	11	6.98	20.0	122.4	2.08	2.0	"	-107.1
1045	0.3	51.4	0.1	11	6.99	20.0	120.0	2.07	2.0	"	-100.5

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Two women (wife & son)	SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>	SAMPLING INITIATED AT: 1050	SAMPLING ENDED AT: 1110						
PUMP OR TUBING DEPTH IN WELL (feet): 12	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y <input checked="" type="checkbox"/>	FILTER SIZE: <u>10</u> μm Filtration Equipment Type:						
FIELD DECONTAMINATION: PUMP Yes	TUBING Y N (replaced)	DUPLICATE: Y <input checked="" type="checkbox"/>							
SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)		
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED				TOTAL VOL ADDED IN FIELD (mL)	FINAL pH
	3	CG	40 ml	HCL	Prefilled by lab		8260	ESP	125
	2	CG	40 ml	None	None		8011	ESP	"
	1	PE	250 ml	HNO3	Prefilled by lab		Metals	ESP	300
	1	PE	250 ml	H2SO4	Prefilled by lab		NH3	ESP	"
	1	PE	250 ml	None	None		Cl, NO ₃	ESP	"
	1	PE	500 ml	None	None		TDS	ESP	"
REMARKS: Weather: 14.50° C SW 0029, cloudy sky, HOT GRASS WIND 80°F Odor: Propane company APP. I/I 0900 start development Laurel									
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)									
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)									

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

PURGE RATE 0.5 gpm
PURGED @ 1013 = 12.4 NTU
PURGED ~ 34.5 gallons

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: J.E.D. SWMF (WACs Facility ID: 89544)		SITE LOCATION: 1501 Omni Way, St. Cloud, Osceola County, Florida, 34773	
WELL NO: MW-31B	SAMPLE ID: MW-31B	DATE: June 2016	

PURGING DATA

WELL DIAMETER (inches): 2		TUBING DIAMETER (inches): 0.375	WELL SCREEN INTERVAL DEPTH: 41 feet to 44 feet	STATIC DEPTH TO WATER (feet): 13.90	PURGE PUMP TYPE OR BAILER: ESP					
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (44 feet - 13.90 feet) X 0.16 gallons/foot = 4.00 gallons										
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = 0 gallons + (0.006 gallons/foot X 44 feet) + 0.12 gallons = 0.42 gallons										
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 41	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 40	PURGING INITIATED AT: 0900	PURGING ENDED AT: 1240	TOTAL VOLUME PURGED (gallons): 275						

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: THOMSON (west (west))	SAMPLER(S) SIGNATURE(S):			SAMPLING INITIATED AT: 1230	SAMPLING ENDED AT: 1250					
PUMP OR TUBING DEPTH IN WELL (feet): 40	TUBING MATERIAL CODE: HDPE			FIELD-FILTERED: <input checked="" type="checkbox"/> N Filtration Equipment Type:	FILTER SIZE: 45 μm					
FIELD DECONTAMINATION: PUMP Yes	TUBING Y N (replaced)			DUPLICATE: <input checked="" type="checkbox"/> N						
SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)			
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED				TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	
3	CG	40 ml	HCL	Prefilled by lab					8260	125
2	CG	40 ml	None	None					8011	16
1	PE	250 ml	HNO3	Prefilled by lab					Metals	400
1	PE	250 ml	H2SO4	Prefilled by lab					NH3	400
1	PE	250 ml	None	None					Cl, NO ₃	400
1	PE	500 ml	None	None		TDS	400			
REMARKS: Weather: 14.00° OTW 80°F , warm, naked Odor: faint earthy 80°F Wind Slight 800 ft Development larvae										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)										

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

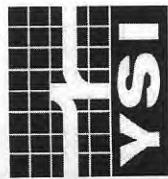
Purge rate 0.6 gpm

Appendix G. Field Instrument Calibration Record



(888) 550-8100

www.usenvironmental.com



Company: 1/0/1900
 Contact: Don Thompson
 Phone #: -

Packing List

Item	Serial Number	Tech	QC
Pro Series	15J100390	✓	✓
Handheld Display	10D101382	✓	✓
Item	Item	Tech	QC
Cable	4M	✓	AC Adaptor
Flow Cell		✓	Stand
Barb Kit		✓	D.O Kit
Storage / Cal Cup		✓	Calibration Kit
Sensor Guard		✓	
Manual		✓	
Sonde Cap		✓	
Software		✓	
Extra Batteries		✓	
Display Comm. Cable		✓	
Sonde Comm. Cable		✓	

Lab Conditions during calibration

Calibration Report

Parameter	Pro Series	Accuracy	Before	After	Lot #
Conductivity 1000 μ s/cm	(+/- .5%)	1100	1000	1000	151218A
pH 7 Buffer	(+/- .2)	7.37	7.00	7.00	160212A
pH mV for 7 Buffer	(0 +/- 50)			-21.2	
pH 4 Buffer	(+/- .2)		4.43	4.00	160212B
pH mV for 4 Buffer	(180 +/- 50)			178.8	
pH 10 Buffer	(+/- .2)		9.60	10.01	#REF!
pH mV for 10 Buffer	(-180 +/- 50)			-181.3	
ORP mV, 237.5	(+/- 20 mV)		191.0	200.00	160212C
DO 100% Sat	(+/- 2%)		103.1%	100.1%	
0% DO Check	(+/- 2%)			1.20	
Turbidity 0 NTU	(+/- 5%)				
Turbidity 126 NTU	(+/- 5%)				

All calibration standards are NIST traceable. Calibration must be performed according to manufacturer's specifications.

This document certifies that US Environmental Rental Corporation has provided this rental equipment and all accessories in good working order. It is the renter's responsibility to: a) review all included items upon receipt, b) verify that all items are in acceptable condition and function properly, and c) contact a US Environmental associate immediately if any item is missing, damaged, and/or not functioning properly. Any delay in notifying US Environmental will be considered as the Renter taking responsibility for such missing, damaged, and/or malfunctioning item.

Missing, damaged, and/or malfunctioning equipment and accessories will result in additional fees.

Appendix H. Analytical Laboratory Data

July 19, 2016

Kirk Wills
Progressive Waste Solutions, Inc.
11457 C. R. 6782
Riverview, FL 33579

RE: Project: JED
Pace Project No.: 35251015

Dear Kirk Wills:

Enclosed are the analytical results for sample(s) received by the laboratory on June 23, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Report revised 7/19/16 to correct analyte list per Mike Valder.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mike Valder
mike.valder@pacelabs.com
Project Manager

Enclosures

cc: Ron Kinney, Progressive Waste Solutions of Florida
Kirk Wills, Progressive Waste Solutions of Florida (CC))



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CERTIFICATIONS

Project: JED
Pace Project No.: 35251015

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074

Nebraska Certification: NE-OS-28-14
Nevada Certification: FL NELAC Reciprocity
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
Wyoming Certification: FL NELAC Reciprocity
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

SAMPLE SUMMARY

Project: JED
Pace Project No.: 35251015

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35251015001	MW-31A	Water	06/23/16 11:10	06/23/16 16:25
35251015002	MW-31B	Water	06/23/16 12:50	06/23/16 16:25
35251015003	Trip Blank 1	Water	06/23/16 11:10	06/23/16 16:25
35251015004	Trip Blank 2	Water	06/23/16 11:10	06/23/16 16:25

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

SAMPLE ANALYTE COUNT

Project: JED
Pace Project No.: 35251015

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35251015001	MW-31A	EPA 8011	SMH	2	PASI-O
		EPA 8081	JLG	23	PASI-O
		EPA 8082	JLG	9	PASI-O
		EPA 8141	WFH	6	PASI-O
		EPA 8151	LJM	6	PASI-O
		EPA 6010	CKJ	15	PASI-O
		EPA 6020	DRS	3	PASI-O
		EPA 7470	RVK	1	PASI-O
		EPA 8270 by SIM	IRL	19	PASI-O
		EPA 8270	BPJ	93	PASI-C
		EPA 8260	SK1	61	PASI-O
		SM 2540C	ALD	1	PASI-O
		EPA 9034	JDW	1	PASI-O
		EPA 300.0	KEK	1	PASI-O
		EPA 350.1	CMD	1	PASI-O
		EPA 353.2	RT1	1	PASI-O
		EPA 9012	CMD	1	PASI-O
35251015002	MW-31B	EPA 8011	SMH	2	PASI-O
		EPA 8081	JLG	23	PASI-O
		EPA 8082	JLG	9	PASI-O
		EPA 8141	WFH	6	PASI-O
		EPA 8151	LJM	6	PASI-O
		EPA 6010	CKJ	15	PASI-O
		EPA 6020	CKJ	3	PASI-O
		EPA 7470	RVK	1	PASI-O
		EPA 8270 by SIM	EAO	19	PASI-O
		EPA 8270	BPJ	93	PASI-C
		EPA 8260	SK1	61	PASI-O
		SM 2540C	ALD	1	PASI-O
		EPA 9034	JDW	1	PASI-O
		EPA 300.0	KEK	1	PASI-O
		EPA 350.1	CMD	1	PASI-O
		EPA 353.2	RT1	1	PASI-O
		EPA 9012	CMD	1	PASI-O
35251015003	Trip Blank 1	EPA 8260	SK1	61	PASI-O
35251015004	Trip Blank 2	EPA 8260	SK1	61	PASI-O

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: JED
Pace Project No.: 35251015

Sample: MW-31A	Lab ID: 35251015001	Collected: 06/23/16 11:10	Received: 06/23/16 16:25	Matrix: Water					
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromo-3-chloropropane	0.0048 U	ug/L	0.019	0.0048	1	06/24/16 20:50	06/25/16 12:44	96-12-8	
1,2-Dibromoethane (EDB)	0.0073 U	ug/L	0.0097	0.0073	1	06/24/16 20:50	06/25/16 12:44	106-93-4	
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	0.0016 U	ug/L	0.011	0.0016	1	06/23/16 23:30	06/24/16 10:09	309-00-2	
alpha-BHC	0.0023 U	ug/L	0.011	0.0023	1	06/23/16 23:30	06/24/16 10:09	319-84-6	
beta-BHC	0.0087 U	ug/L	0.011	0.0087	1	06/23/16 23:30	06/24/16 10:09	319-85-7	
delta-BHC	0.0052 U	ug/L	0.011	0.0052	1	06/23/16 23:30	06/24/16 10:09	319-86-8	
gamma-BHC (Lindane)	0.0024 U	ug/L	0.011	0.0024	1	06/23/16 23:30	06/24/16 10:09	58-89-9	
Chlordane (Technical)	0.19 U	ug/L	0.54	0.19	1	06/23/16 23:30	06/24/16 10:09	57-74-9	
Chlorobenzilate	0.042 U	ug/L	0.11	0.042	1	06/23/16 23:30	06/24/16 10:09	510-15-6	
4,4'-DDD	0.0096 U	ug/L	0.011	0.0096	1	06/23/16 23:30	06/24/16 10:09	72-54-8	
4,4'-DDE	0.0054 U	ug/L	0.011	0.0054	1	06/23/16 23:30	06/24/16 10:09	72-55-9	
4,4'-DDT	0.0054 U	ug/L	0.011	0.0054	1	06/23/16 23:30	06/24/16 10:09	50-29-3	
Dieldrin	0.0022 U	ug/L	0.011	0.0022	1	06/23/16 23:30	06/24/16 10:09	60-57-1	
Endosulfan I	0.0055 U	ug/L	0.011	0.0055	1	06/23/16 23:30	06/24/16 10:09	959-98-8	
Endosulfan II	0.0043 U	ug/L	0.011	0.0043	1	06/23/16 23:30	06/24/16 10:09	33213-65-9	
Endosulfan sulfate	0.0067 U	ug/L	0.11	0.0067	1	06/23/16 23:30	06/24/16 10:09	1031-07-8	
Endrin	0.0047 U	ug/L	0.011	0.0047	1	06/23/16 23:30	06/24/16 10:09	72-20-8	
Endrin aldehyde	0.0039 U	ug/L	0.11	0.0039	1	06/23/16 23:30	06/24/16 10:09	7421-93-4	
Heptachlor	0.0067 U	ug/L	0.011	0.0067	1	06/23/16 23:30	06/24/16 10:09	76-44-8	
Heptachlor epoxide	0.0056 U	ug/L	0.011	0.0056	1	06/23/16 23:30	06/24/16 10:09	1024-57-3	
Methoxychlor	0.010 U	ug/L	0.011	0.010	1	06/23/16 23:30	06/24/16 10:09	72-43-5	
Pentachloronitrobenzene	0.036 U	ug/L	0.11	0.036	1	06/23/16 23:30	06/24/16 10:09	82-68-8	
Toxaphene	0.27 U	ug/L	0.54	0.27	1	06/23/16 23:30	06/24/16 10:09	8001-35-2	
Surrogates									
Tetrachloro-m-xylene (S)	63	%	27-124		1	06/23/16 23:30	06/24/16 10:09	877-09-8	
Decachlorobiphenyl (S)	44	%	10-132		1	06/23/16 23:30	06/24/16 10:09	2051-24-3	
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	0.087 U	ug/L	0.54	0.087	1	06/23/16 23:30	06/24/16 12:19	12674-11-2	
PCB-1221 (Aroclor 1221)	0.088 U	ug/L	0.54	0.088	1	06/23/16 23:30	06/24/16 12:19	11104-28-2	
PCB-1232 (Aroclor 1232)	0.13 U	ug/L	0.54	0.13	1	06/23/16 23:30	06/24/16 12:19	11141-16-5	
PCB-1242 (Aroclor 1242)	0.14 U	ug/L	0.54	0.14	1	06/23/16 23:30	06/24/16 12:19	53469-21-9	
PCB-1248 (Aroclor 1248)	0.30 U	ug/L	0.54	0.30	1	06/23/16 23:30	06/24/16 12:19	12672-29-6	
PCB-1254 (Aroclor 1254)	0.16 U	ug/L	0.54	0.16	1	06/23/16 23:30	06/24/16 12:19	11097-69-1	
PCB-1260 (Aroclor 1260)	0.12 U	ug/L	0.54	0.12	1	06/23/16 23:30	06/24/16 12:19	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	71	%	21-126		1	06/23/16 23:30	06/24/16 12:19	877-09-8	
Decachlorobiphenyl (S)	56	%	10-140		1	06/23/16 23:30	06/24/16 12:19	2051-24-3	
8141 GCS O/P Pesticides	Analytical Method: EPA 8141 Preparation Method: EPA 3510								
Dimethoate	0.25 U	ug/L	0.53	0.25	1	06/30/16 15:40	07/01/16 16:08	60-51-5	
Disulfoton	0.27 U	ug/L	0.53	0.27	1	06/30/16 15:40	07/01/16 16:08	298-04-4	
Methyl parathion	0.28 U	ug/L	0.53	0.28	1	06/30/16 15:40	07/01/16 16:08	298-00-0	
Parathion (Ethyl parathion)	0.50 U	ug/L	1.1	0.50	1	06/30/16 15:40	07/01/16 16:08	56-38-2	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: JED
Pace Project No.: 35251015

Sample: MW-31A	Lab ID: 35251015001	Collected: 06/23/16 11:10	Received: 06/23/16 16:25	Matrix: Water					
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8141 GCS O/P Pesticides	Analytical Method: EPA 8141 Preparation Method: EPA 3510								
Phorate	0.44 U	ug/L		1.1	0.44	1	06/30/16 15:40	07/01/16 16:08	298-02-2
Surrogates									
4-Chloro3nitrobenzotrifluoride	25	%		12-127		1	06/30/16 15:40	07/01/16 16:08	
8151 Chlorinated Herbicides	Analytical Method: EPA 8151 Preparation Method: EPA 8151								
2,4-D	0.24 U	ug/L		0.99	0.24	1	06/27/16 17:15	06/29/16 11:39	94-75-7
Dinoseb	0.060 U	ug/L		0.20	0.060	1	06/27/16 17:15	06/29/16 11:39	88-85-7
Pentachlorophenol	0.018 U	ug/L		0.030	0.018	1	06/27/16 17:15	06/29/16 11:39	87-86-5
2,4,5-T	0.044 U	ug/L		0.20	0.044	1	06/27/16 17:15	06/29/16 11:39	93-76-5
2,4,5-TP (Silvex)	0.052 U	ug/L		0.20	0.052	1	06/27/16 17:15	06/29/16 11:39	93-72-1
Surrogates									
2,4-DCAA (S)	94	%		39-139		1	06/27/16 17:15	06/29/16 11:39	19719-28-9
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Barium	19.1	ug/L		10.0	5.0	1	06/24/16 06:45	06/25/16 11:25	7440-39-3
Beryllium	0.50 U	ug/L		1.0	0.50	1	06/24/16 06:45	06/25/16 11:25	7440-41-7
Cadmium	0.50 U	ug/L		1.0	0.50	1	06/24/16 06:45	06/25/16 11:25	7440-43-9
Chromium	2.5 U	ug/L		5.0	2.5	1	06/24/16 06:45	06/25/16 11:25	7440-47-3
Cobalt	5.0 U	ug/L		10.0	5.0	1	06/24/16 06:45	06/25/16 11:25	7440-48-4
Copper	2.5 U	ug/L		5.0	2.5	1	06/24/16 06:45	06/25/16 11:25	7440-50-8
Iron	4360	ug/L		40.0	20.0	1	06/24/16 06:45	06/25/16 11:25	7439-89-6
Lead	5.0 U	ug/L		10.0	5.0	1	06/24/16 06:45	06/25/16 11:25	7439-92-1
Nickel	2.5 U	ug/L		5.0	2.5	1	06/24/16 06:45	06/25/16 11:25	7440-02-0
Selenium	7.5 U	ug/L		15.0	7.5	1	06/24/16 06:45	06/25/16 11:25	7782-49-2
Silver	2.5 U	ug/L		5.0	2.5	1	06/24/16 06:45	06/25/16 11:25	7440-22-4
Sodium	16600	ug/L		1000	500	1	06/24/16 06:45	06/25/16 11:25	7440-23-5
Tin	25.0 U	ug/L		50.0	25.0	1	06/24/16 06:45	06/25/16 11:25	7440-31-5
Vanadium	5.0 U	ug/L		10.0	5.0	1	06/24/16 06:45	06/25/16 11:25	7440-62-2
Zinc	10.0 U	ug/L		20.0	10.0	1	06/24/16 06:45	06/25/16 11:25	7440-66-6
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	0.50 U	ug/L		1.0	0.50	1	06/24/16 06:45	06/24/16 20:32	7440-36-0
Arsenic	1.8	ug/L		1.0	0.50	1	06/24/16 06:45	06/24/16 20:32	7440-38-2
Thallium	0.50 U	ug/L		1.0	0.50	1	06/24/16 06:45	06/24/16 20:32	7440-28-0
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	0.10 U	ug/L		0.20	0.10	1	07/02/16 10:27	07/05/16 16:07	7439-97-6
8270 MSSV PAHLV by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	0.025 U	ug/L		0.50	0.025	1	06/30/16 11:10	07/01/16 17:02	83-32-9
Acenaphthylene	0.025 U	ug/L		0.50	0.025	1	06/30/16 11:10	07/01/16 17:02	208-96-8
Anthracene	0.025 U	ug/L		0.50	0.025	1	06/30/16 11:10	07/01/16 17:02	120-12-7
Benzo(a)anthracene	0.025 U	ug/L		0.10	0.025	1	06/30/16 11:10	07/01/16 17:02	56-55-3
Benzo(a)pyrene	0.025 U	ug/L		0.10	0.025	1	06/30/16 11:10	07/01/16 17:02	50-32-8
Benzo(b)fluoranthene	0.025 U	ug/L		0.10	0.025	1	06/30/16 11:10	07/01/16 17:02	205-99-2

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: JED
Pace Project No.: 35251015

Sample: MW-31A	Lab ID: 35251015001	Collected: 06/23/16 11:10	Received: 06/23/16 16:25	Matrix: Water					
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH/LV by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Benzo(g,h,i)perylene	0.028 U	ug/L	0.50	0.028	1	06/30/16 11:10	07/01/16 17:02	191-24-2	
Benzo(k)fluoranthene	0.025 U	ug/L	0.50	0.025	1	06/30/16 11:10	07/01/16 17:02	207-08-9	
Chrysene	0.025 U	ug/L	0.50	0.025	1	06/30/16 11:10	07/01/16 17:02	218-01-9	
Dibenz(a,h)anthracene	0.025 U	ug/L	0.10	0.025	1	06/30/16 11:10	07/01/16 17:02	53-70-3	
Fluoranthene	0.025 U	ug/L	0.50	0.025	1	06/30/16 11:10	07/01/16 17:02	206-44-0	
Fluorene	0.025 U	ug/L	0.50	0.025	1	06/30/16 11:10	07/01/16 17:02	86-73-7	
Indeno(1,2,3-cd)pyrene	0.025 U	ug/L	0.10	0.025	1	06/30/16 11:10	07/01/16 17:02	193-39-5	
2-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	06/30/16 11:10	07/01/16 17:02	91-57-6	
Naphthalene	1.0 U	ug/L	2.0	1.0	1	06/30/16 11:10	07/01/16 17:02	91-20-3	
Phenanthrene	0.050 U	ug/L	0.50	0.050	1	06/30/16 11:10	07/01/16 17:02	85-01-8	
Pyrene	0.025 U	ug/L	0.50	0.025	1	06/30/16 11:10	07/01/16 17:02	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	58	%	33-101		1	06/30/16 11:10	07/01/16 17:02	321-60-8	
Terphenyl-d14 (S)	62	%	38-115		1	06/30/16 11:10	07/01/16 17:02	1718-51-0	
8270 MSSV Semivolatile Organic	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Acetophenone	2.0 U	ug/L	10.0	2.0	1	06/30/16 09:01	07/01/16 18:34	98-86-2	
2-Acetylaminofluorene	1.1 I	ug/L	20.0	0.84	1	06/30/16 09:01	07/01/16 18:34	53-96-3	
4-Aminobiphenyl	0.92 U	ug/L	10.0	0.92	1	06/30/16 09:01	07/01/16 18:34	92-67-1	
Benzyl alcohol	3.4 U	ug/L	20.0	3.4	1	06/30/16 09:01	07/01/16 18:34	100-51-6	
4-Bromophenylphenyl ether	1.3 U	ug/L	10.0	1.3	1	06/30/16 09:01	07/01/16 18:34	101-55-3	
Butylbenzylphthalate	0.84 I	ug/L	10.0	0.75	1	06/30/16 09:01	07/01/16 18:34	85-68-7	
4-Chloro-3-methylphenol	4.2 U	ug/L	20.0	4.2	1	06/30/16 09:01	07/01/16 18:34	59-50-7	
4-Chloroaniline	3.4 U	ug/L	20.0	3.4	1	06/30/16 09:01	07/01/16 18:34	106-47-8	
bis(2-Chloroethoxy)methane	1.7 U	ug/L	10.0	1.7	1	06/30/16 09:01	07/01/16 18:34	111-91-1	
bis(2-Chloroethyl) ether	1.5 U	ug/L	10.0	1.5	1	06/30/16 09:01	07/01/16 18:34	111-44-4	
2-Chloronaphthalene	2.2 U	ug/L	10.0	2.2	1	06/30/16 09:01	07/01/16 18:34	91-58-7	
2-Chlorophenol	1.5 U	ug/L	10.0	1.5	1	06/30/16 09:01	07/01/16 18:34	95-57-8	
4-Chlorophenylphenyl ether	2.1 U	ug/L	10.0	2.1	1	06/30/16 09:01	07/01/16 18:34	7005-72-3	
Diallate	1.3 U	ug/L	10.0	1.3	1	06/30/16 09:01	07/01/16 18:34	2303-16-4	
Dibenzofuran	1.8 U	ug/L	10.0	1.8	1	06/30/16 09:01	07/01/16 18:34	132-64-9	
1,2-Dichlorobenzene	1.2 U	ug/L	10.0	1.2	1	06/30/16 09:01	07/01/16 18:34	95-50-1	
1,3-Dichlorobenzene	1.1 U	ug/L	10.0	1.1	1	06/30/16 09:01	07/01/16 18:34	541-73-1	
1,4-Dichlorobenzene	1.2 U	ug/L	10.0	1.2	1	06/30/16 09:01	07/01/16 18:34	106-46-7	
3,3'-Dichlorobenzidine	1.4 U	ug/L	20.0	1.4	1	06/30/16 09:01	07/01/16 18:34	91-94-1	
2,4-Dichlorophenol	1.7 U	ug/L	10.0	1.7	1	06/30/16 09:01	07/01/16 18:34	120-83-2	
2,6-Dichlorophenol	1.8 U	ug/L	10.0	1.8	1	06/30/16 09:01	07/01/16 18:34	87-65-0	
Diethylphthalate	1.3 U	ug/L	10.0	1.3	1	06/30/16 09:01	07/01/16 18:34	84-66-2	
P-Dimethylaminoazobenzene	0.35 U	ug/L	5.0	0.35	1	06/30/16 09:01	07/01/16 18:34	60-11-7	
7,12-Dimethylbenz(a)anthracene	0.98 I	ug/L	10.0	0.77	1	06/30/16 09:01	07/01/16 18:34	57-97-6	
3,3'-Dimethylbenzidine	2.1 U	ug/L	10.0	2.1	1	06/30/16 09:01	07/01/16 18:34	119-93-7	
2,4-Dimethylphenol	2.2 U	ug/L	10.0	2.2	1	06/30/16 09:01	07/01/16 18:34	105-67-9	
a,a-Dimethylphenylethylamine	1.4 U	ug/L	50.0	1.4	1	06/30/16 09:01	07/01/16 18:34	122-09-8	J(L2)
Dimethylphthalate	1.5 U	ug/L	10.0	1.5	1	06/30/16 09:01	07/01/16 18:34	131-11-3	
Di-n-butylphthalate	1.1 U	ug/L	10.0	1.1	1	06/30/16 09:01	07/01/16 18:34	84-74-2	
4,6-Dinitro-2-methylphenol	1.7 U	ug/L	20.0	1.7	1	06/30/16 09:01	07/01/16 18:34	534-52-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: JED
Pace Project No.: 35251015

Sample: MW-31A Lab ID: 35251015001 Collected: 06/23/16 11:10 Received: 06/23/16 16:25 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatile Organic Analytical Method: EPA 8270 Preparation Method: EPA 3510									
1,3-Dinitrobenzene	1.5 U	ug/L	20.0	1.5	1	06/30/16 09:01	07/01/16 18:34	99-65-0	
2,4-Dinitrophenol	6.5 U	ug/L	50.0	6.5	1	06/30/16 09:01	07/01/16 18:34	51-28-5	
2,4-Dinitrotoluene	1.2 U	ug/L	10.0	1.2	1	06/30/16 09:01	07/01/16 18:34	121-14-2	
2,6-Dinitrotoluene	1.7 U	ug/L	10.0	1.7	1	06/30/16 09:01	07/01/16 18:34	606-20-2	
Di-n-octylphthalate	1.0 I	ug/L	10.0	0.86	1	06/30/16 09:01	07/01/16 18:34	117-84-0	
Diphenylamine	1.3 U	ug/L	10.0	1.3	1	06/30/16 09:01	07/01/16 18:34	122-39-4	
bis(2-Ethylhexyl)phthalate	1.4 I	ug/L	6.0	0.85	1	06/30/16 09:01	07/01/16 18:34	117-81-7	
Ethyl methanesulfonate	1.8 U	ug/L	20.0	1.8	1	06/30/16 09:01	07/01/16 18:34	62-50-0	
Famphur	1.7 U	ug/L	10.0	1.7	1	06/30/16 09:01	07/01/16 18:34	52-85-7	
Hexachlorobenzene	1.1 U	ug/L	10.0	1.1	1	06/30/16 09:01	07/01/16 18:34	118-74-1	
Hexachlorocyclopentadiene	1.8 U	ug/L	10.0	1.8	1	06/30/16 09:01	07/01/16 18:34	77-47-4	
Hexachloroethane	1.5 U	ug/L	10.0	1.5	1	06/30/16 09:01	07/01/16 18:34	67-72-1	
Hexachlorophene	11.5 U	ug/L	100	11.5	1	06/30/16 09:01	07/01/16 18:34	70-30-4	
Hexachloropropene	1.6 U	ug/L	10.0	1.6	1	06/30/16 09:01	07/01/16 18:34	1888-71-7	
Isodrin	2.0 U	ug/L	20.0	2.0	1	06/30/16 09:01	07/01/16 18:34	465-73-6	
Isophorone	1.8 U	ug/L	10.0	1.8	1	06/30/16 09:01	07/01/16 18:34	78-59-1	
Isosafrole	1.8 U	ug/L	10.0	1.8	1	06/30/16 09:01	07/01/16 18:34	120-58-1	
Kepone	3.1 U	ug/L	10.0	3.1	1	06/30/16 09:01	07/01/16 18:34	143-50-0	
Methapyrilene	2.7 U	ug/L	50.0	2.7	1	06/30/16 09:01	07/01/16 18:34	91-80-5	
3-Methylcholanthrene	0.90 I	ug/L	10.0	0.82	1	06/30/16 09:01	07/01/16 18:34	56-49-5	
Methyl methanesulfonate	1.3 U	ug/L	5.0	1.3	1	06/30/16 09:01	07/01/16 18:34	66-27-3	
2-Methylphenol(o-Cresol)	1.7 U	ug/L	10.0	1.7	1	06/30/16 09:01	07/01/16 18:34	95-48-7	
3&4-Methylphenol(m&p Cresol)	1.7 U	ug/L	10.0	1.7	1	06/30/16 09:01	07/01/16 18:34		
1-Naphthalenamine	0.96 U	ug/L	5.0	0.96	1	06/30/16 09:01	07/01/16 18:34	134-32-7	
2-Naphthalenamine	0.98 U	ug/L	5.0	0.98	1	06/30/16 09:01	07/01/16 18:34	91-59-8	
1,4-Naphthoquinone	1.8 U	ug/L	5.0	1.8	1	06/30/16 09:01	07/01/16 18:34	130-15-4	
2-Nitroaniline	2.8 U	ug/L	50.0	2.8	1	06/30/16 09:01	07/01/16 18:34	88-74-4	
3-Nitroaniline	2.4 U	ug/L	50.0	2.4	1	06/30/16 09:01	07/01/16 18:34	99-09-2	
4-Nitroaniline	2.5 U	ug/L	20.0	2.5	1	06/30/16 09:01	07/01/16 18:34	100-01-6	
Nitrobenzene	1.7 U	ug/L	10.0	1.7	1	06/30/16 09:01	07/01/16 18:34	98-95-3	
2-Nitrophenol	1.7 U	ug/L	10.0	1.7	1	06/30/16 09:01	07/01/16 18:34	88-75-5	
4-Nitrophenol	5.8 U	ug/L	50.0	5.8	1	06/30/16 09:01	07/01/16 18:34	100-02-7	
5-Nitro-o-toluidine	1.2 U	ug/L	10.0	1.2	1	06/30/16 09:01	07/01/16 18:34	99-55-8	
N-Nitrosodiethylamine	1.8 U	ug/L	20.0	1.8	1	06/30/16 09:01	07/01/16 18:34	55-18-5	
N-Nitrosodimethylamine	1.3 U	ug/L	10.0	1.3	1	06/30/16 09:01	07/01/16 18:34	62-75-9	
N-Nitroso-di-n-butylamine	2.2 U	ug/L	10.0	2.2	1	06/30/16 09:01	07/01/16 18:34	924-16-3	
N-Nitroso-di-n-propylamine	2.1 U	ug/L	10.0	2.1	1	06/30/16 09:01	07/01/16 18:34	621-64-7	
N-Nitrosodiphenylamine	1.3 U	ug/L	10.0	1.3	1	06/30/16 09:01	07/01/16 18:34	86-30-6	
N-Nitrosomethylalkylamine	1.8 U	ug/L	10.0	1.8	1	06/30/16 09:01	07/01/16 18:34	10595-95-6	
N-Nitrosomorpholine	2.5 U	ug/L	10.0	2.5	1	06/30/16 09:01	07/01/16 18:34	59-89-2	
N-Nitrosopiperidine	1.9 U	ug/L	20.0	1.9	1	06/30/16 09:01	07/01/16 18:34	100-75-4	
N-Nitrosopyrrolidine	2.5 U	ug/L	10.0	2.5	1	06/30/16 09:01	07/01/16 18:34	930-55-2	
O,O,O-Triethylphosphorothioate	1.8 U	ug/L	10.0	1.8	1	06/30/16 09:01	07/01/16 18:34	126-68-1	
2,2'-Oxybis(1-chloropropane)	1.6 U	ug/L	10.0	1.6	1	06/30/16 09:01	07/01/16 18:34	108-60-1	
Pentachlorobenzene	2.0 U	ug/L	10.0	2.0	1	06/30/16 09:01	07/01/16 18:34	608-93-5	
Phenacetin	0.97 U	ug/L	20.0	0.97	1	06/30/16 09:01	07/01/16 18:34	62-44-2	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: JED
Pace Project No.: 35251015

Sample: MW-31A	Lab ID: 35251015001	Collected: 06/23/16 11:10	Received: 06/23/16 16:25	Matrix: Water					
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatile Organic	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Phenol	1.7 U	ug/L	10.0	1.7	1	06/30/16 09:01	07/01/16 18:34		
p-Phenylenediamine	0.96 U	ug/L	10.0	0.96	1	06/30/16 09:01	07/01/16 18:34	106-50-3	
Pronamide	0.97 U	ug/L	10.0	0.97	1	06/30/16 09:01	07/01/16 18:34	23950-58-5	
Safrole	1.5 U	ug/L	10.0	1.5	1	06/30/16 09:01	07/01/16 18:34	94-59-7	
1,2,4,5-Tetrachlorobenzene	1.7 U	ug/L	10.0	1.7	1	06/30/16 09:01	07/01/16 18:34	95-94-3	
2,3,4,6-Tetrachlorophenol	2.3 U	ug/L	10.0	2.3	1	06/30/16 09:01	07/01/16 18:34	58-90-2	
Thionazin	1.2 U	ug/L	20.0	1.2	1	06/30/16 09:01	07/01/16 18:34	297-97-2	
O-Toluidine	1.6 U	ug/L	10.0	1.6	1	06/30/16 09:01	07/01/16 18:34	95-53-4	
2,4,5-Trichlorophenol	2.2 U	ug/L	10.0	2.2	1	06/30/16 09:01	07/01/16 18:34	95-95-4	
2,4,6-Trichlorophenol	1.9 U	ug/L	10.0	1.9	1	06/30/16 09:01	07/01/16 18:34	88-06-2	
1,3,5-Trinitrobenzene	1.1 U	ug/L	10.0	1.1	1	06/30/16 09:01	07/01/16 18:34	99-35-4	
Surrogates									
Nitrobenzene-d5 (S)	71	%	21-110		1	06/30/16 09:01	07/01/16 18:34	4165-60-0	
2-Fluorobiphenyl (S)	67	%	27-110		1	06/30/16 09:01	07/01/16 18:34	321-60-8	
Terphenyl-d14 (S)	88	%	31-107		1	06/30/16 09:01	07/01/16 18:34	1718-51-0	
Phenol-d6 (S)	28	%	10-110		1	06/30/16 09:01	07/01/16 18:34	13127-88-3	
2-Fluorophenol (S)	39	%	12-110		1	06/30/16 09:01	07/01/16 18:34	367-12-4	
2,4,6-Tribromophenol (S)	80	%	27-110		1	06/30/16 09:01	07/01/16 18:34	118-79-6	
8260 MSV	Analytical Method: EPA 8260								
Acetone	10.0 U	ug/L	20.0	10.0	1		07/02/16 09:06	67-64-1	
Acetonitrile	5.0 U	ug/L	10.0	5.0	1		07/02/16 09:06	75-05-8	
Acrolein	10.0 U	ug/L	20.0	10.0	1		07/02/16 09:06	107-02-8	
Acrylonitrile	5.0 U	ug/L	10.0	5.0	1		07/02/16 09:06	107-13-1	
Allyl chloride	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	107-05-1	
Benzene	0.10 U	ug/L	1.0	0.10	1		07/02/16 09:06	71-43-2	
Bromochloromethane	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	74-97-5	
Bromodichloromethane	0.27 U	ug/L	0.60	0.27	1		07/02/16 09:06	75-27-4	
Bromoform	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	75-25-2	
Bromomethane	0.50 U	ug/L	5.0	0.50	1		07/02/16 09:06	74-83-9	
2-Butanone (MEK)	5.0 U	ug/L	10.0	5.0	1		07/02/16 09:06	78-93-3	
Carbon disulfide	5.0 U	ug/L	10.0	5.0	1		07/02/16 09:06	75-15-0	L3
Carbon tetrachloride	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	56-23-5	
Chlorobenzene	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	108-90-7	
Chloroethane	0.50 U	ug/L	10.0	0.50	1		07/02/16 09:06	75-00-3	
Chloroform	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	67-66-3	
Chloromethane	0.62 U	ug/L	1.0	0.62	1		07/02/16 09:06	74-87-3	
Chloroprene	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	126-99-8	
Dibromochloromethane	0.26 U	ug/L	0.50	0.26	1		07/02/16 09:06	124-48-1	
Dibromomethane	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	74-95-3	
trans-1,4-Dichloro-2-butene	5.0 U	ug/L	10.0	5.0	1		07/02/16 09:06	110-57-6	
Dichlorodifluoromethane	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	75-71-8	
1,1-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	75-34-3	
1,2-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	107-06-2	
1,1-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	75-35-4	
cis-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	156-59-2	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: JED
Pace Project No.: 35251015

Sample: MW-31A	Lab ID: 35251015001	Collected: 06/23/16 11:10	Received: 06/23/16 16:25	Matrix: Water					
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
trans-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	156-60-5	
1,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	78-87-5	
1,3-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	142-28-9	
2,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	594-20-7	
1,1-Dichloropropene	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	563-58-6	
cis-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		07/02/16 09:06	10061-01-5	
trans-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		07/02/16 09:06	10061-02-6	
Ethylbenzene	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	100-41-4	
Ethyl methacrylate	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	97-63-2	
Hexachloro-1,3-butadiene	0.40 U	ug/L	1.0	0.40	1		07/02/16 09:06	87-68-3	
2-Hexanone	5.0 U	ug/L	10.0	5.0	1		07/02/16 09:06	591-78-6	
Iodomethane	0.50 U	ug/L	10.0	0.50	1		07/02/16 09:06	74-88-4	
Isobutyl Alcohol	10.0 U	ug/L	20.0	10.0	1		07/02/16 09:06	78-83-1	
Methacrylonitrile	5.0 U	ug/L	10.0	5.0	1		07/02/16 09:06	126-98-7	
Methylene Chloride	2.5 U	ug/L	5.0	2.5	1		07/02/16 09:06	75-09-2	
Methyl methacrylate	5.0 U	ug/L	10.0	5.0	1		07/02/16 09:06	80-62-6	
4-Methyl-2-pentanone (MIBK)	5.0 U	ug/L	10.0	5.0	1		07/02/16 09:06	108-10-1	
Propionitrile	5.0 U	ug/L	10.0	5.0	1		07/02/16 09:06	107-12-0	
Styrene	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	100-42-5	
1,1,1,2-Tetrachloroethane	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	630-20-6	
1,1,2,2-Tetrachloroethane	0.12 U	ug/L	0.50	0.12	1		07/02/16 09:06	79-34-5	
Tetrachloroethene	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	127-18-4	L3
Toluene	0.75 I	ug/L	1.0	0.50	1		07/02/16 09:06	108-88-3	
1,2,4-Trichlorobenzene	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	120-82-1	
1,1,1-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	71-55-6	
1,1,2-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	79-00-5	
Trichloroethene	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	79-01-6	
Trichlorofluoromethane	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	75-69-4	
1,2,3-Trichloropropane	0.59 U	ug/L	1.0	0.59	1		07/02/16 09:06	96-18-4	
Vinyl acetate	1.0 U	ug/L	2.0	1.0	1		07/02/16 09:06	108-05-4	
Vinyl chloride	0.50 U	ug/L	1.0	0.50	1		07/02/16 09:06	75-01-4	
Xylene (Total)	1.5 U	ug/L	3.0	1.5	1		07/02/16 09:06	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-114		1		07/02/16 09:06	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	86-125		1		07/02/16 09:06	17060-07-0	
Toluene-d8 (S)	102	%	87-113		1		07/02/16 09:06	2037-26-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	81.0	mg/L	5.0	5.0	1		06/24/16 15:51		
9034 Sulfide Water	Analytical Method: EPA 9034								
Sulfide	1.0 U	mg/L	1.0	1.0	1		06/28/16 11:50	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	31.3	mg/L	5.0	2.5	1		06/29/16 10:06	16887-00-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: JED
Pace Project No.: 35251015

Sample: MW-31A	Lab ID: 35251015001	Collected: 06/23/16 11:10	Received: 06/23/16 16:25	Matrix: Water					
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	0.85	mg/L	0.050	0.020	1		06/29/16 11:57	7664-41-7	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	0.025 U	mg/L	0.050	0.025	1		06/25/16 07:28		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	0.0020 U	mg/L	0.010	0.0020	1	07/07/16 11:20	07/07/16 17:08	57-12-5	J(M1), J(R1)

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: JED
Pace Project No.: 35251015

Sample: MW-31B	Lab ID: 35251015002	Collected: 06/23/16 12:50	Received: 06/23/16 16:25	Matrix: Water					
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromo-3-chloropropane	0.0047 U	ug/L	0.019	0.0047	1	06/24/16 20:50	06/25/16 13:00	96-12-8	
1,2-Dibromoethane (EDB)	0.0072 U	ug/L	0.0096	0.0072	1	06/24/16 20:50	06/25/16 13:00	106-93-4	
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	0.0014 U	ug/L	0.0096	0.0014	1	06/23/16 23:30	06/24/16 10:29	309-00-2	
alpha-BHC	0.0020 U	ug/L	0.0096	0.0020	1	06/23/16 23:30	06/24/16 10:29	319-84-6	
beta-BHC	0.0077 U	ug/L	0.0096	0.0077	1	06/23/16 23:30	06/24/16 10:29	319-85-7	
delta-BHC	0.0046 U	ug/L	0.0096	0.0046	1	06/23/16 23:30	06/24/16 10:29	319-86-8	
gamma-BHC (Lindane)	0.0021 U	ug/L	0.0096	0.0021	1	06/23/16 23:30	06/24/16 10:29	58-89-9	
Chlordane (Technical)	0.17 U	ug/L	0.48	0.17	1	06/23/16 23:30	06/24/16 10:29	57-74-9	
Chlorobenzilate	0.037 U	ug/L	0.096	0.037	1	06/23/16 23:30	06/24/16 10:29	510-15-6	
4,4'-DDD	0.0085 U	ug/L	0.0096	0.0085	1	06/23/16 23:30	06/24/16 10:29	72-54-8	
4,4'-DDE	0.0048 U	ug/L	0.0096	0.0048	1	06/23/16 23:30	06/24/16 10:29	72-55-9	
4,4'-DDT	0.0048 U	ug/L	0.0096	0.0048	1	06/23/16 23:30	06/24/16 10:29	50-29-3	
Dieldrin	0.0019 U	ug/L	0.0096	0.0019	1	06/23/16 23:30	06/24/16 10:29	60-57-1	
Endosulfan I	0.0049 U	ug/L	0.0096	0.0049	1	06/23/16 23:30	06/24/16 10:29	959-98-8	
Endosulfan II	0.0038 U	ug/L	0.0096	0.0038	1	06/23/16 23:30	06/24/16 10:29	33213-65-9	
Endosulfan sulfate	0.0059 U	ug/L	0.096	0.0059	1	06/23/16 23:30	06/24/16 10:29	1031-07-8	
Endrin	0.0041 U	ug/L	0.0096	0.0041	1	06/23/16 23:30	06/24/16 10:29	72-20-8	
Endrin aldehyde	0.0035 U	ug/L	0.096	0.0035	1	06/23/16 23:30	06/24/16 10:29	7421-93-4	
Heptachlor	0.0059 U	ug/L	0.0096	0.0059	1	06/23/16 23:30	06/24/16 10:29	76-44-8	
Heptachlor epoxide	0.0050 U	ug/L	0.0096	0.0050	1	06/23/16 23:30	06/24/16 10:29	1024-57-3	
Methoxychlor	0.0092 U	ug/L	0.0096	0.0092	1	06/23/16 23:30	06/24/16 10:29	72-43-5	
Pentachloronitrobenzene	0.032 U	ug/L	0.096	0.032	1	06/23/16 23:30	06/24/16 10:29	82-68-8	
Toxaphene	0.24 U	ug/L	0.48	0.24	1	06/23/16 23:30	06/24/16 10:29	8001-35-2	
Surrogates									
Tetrachloro-m-xylene (S)	58	%	27-124		1	06/23/16 23:30	06/24/16 10:29	877-09-8	
Decachlorobiphenyl (S)	27	%	10-132		1	06/23/16 23:30	06/24/16 10:29	2051-24-3	
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	0.077 U	ug/L	0.48	0.077	1	06/23/16 23:30	06/24/16 11:38	12674-11-2	
PCB-1221 (Aroclor 1221)	0.078 U	ug/L	0.48	0.078	1	06/23/16 23:30	06/24/16 11:38	11104-28-2	
PCB-1232 (Aroclor 1232)	0.11 U	ug/L	0.48	0.11	1	06/23/16 23:30	06/24/16 11:38	11141-16-5	
PCB-1242 (Aroclor 1242)	0.12 U	ug/L	0.48	0.12	1	06/23/16 23:30	06/24/16 11:38	53469-21-9	
PCB-1248 (Aroclor 1248)	0.26 U	ug/L	0.48	0.26	1	06/23/16 23:30	06/24/16 11:38	12672-29-6	
PCB-1254 (Aroclor 1254)	0.14 U	ug/L	0.48	0.14	1	06/23/16 23:30	06/24/16 11:38	11097-69-1	
PCB-1260 (Aroclor 1260)	0.11 U	ug/L	0.48	0.11	1	06/23/16 23:30	06/24/16 11:38	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	57	%	21-126		1	06/23/16 23:30	06/24/16 11:38	877-09-8	
Decachlorobiphenyl (S)	23	%	10-140		1	06/23/16 23:30	06/24/16 11:38	2051-24-3	
8141 GCS O/P Pesticides	Analytical Method: EPA 8141 Preparation Method: EPA 3510								
Dimethoate	0.23 U	ug/L	0.48	0.23	1	06/30/16 15:40	07/01/16 16:35	60-51-5	
Disulfoton	0.25 U	ug/L	0.48	0.25	1	06/30/16 15:40	07/01/16 16:35	298-04-4	
Methyl parathion	0.26 U	ug/L	0.48	0.26	1	06/30/16 15:40	07/01/16 16:35	298-00-0	
Parathion (Ethyl parathion)	0.45 U	ug/L	0.96	0.45	1	06/30/16 15:40	07/01/16 16:35	56-38-2	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: JED
Pace Project No.: 35251015

Sample: MW-31B	Lab ID: 35251015002	Collected: 06/23/16 12:50	Received: 06/23/16 16:25	Matrix: Water					
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8141 GCS O/P Pesticides	Analytical Method: EPA 8141 Preparation Method: EPA 3510								
Phorate	0.40 U	ug/L	0.96	0.40	1	06/30/16 15:40	07/01/16 16:35	298-02-2	
Surrogates									
4-Chloro3nitrobenzotrifluoride	27	%	12-127		1	06/30/16 15:40	07/01/16 16:35		
8151 Chlorinated Herbicides	Analytical Method: EPA 8151 Preparation Method: EPA 8151								
2,4-D	0.21 U	ug/L	0.89	0.21	1	06/27/16 17:15	06/29/16 12:09	94-75-7	
Dinoseb	0.054 U	ug/L	0.18	0.054	1	06/27/16 17:15	06/29/16 12:09	88-85-7	
Pentachlorophenol	0.016 U	ug/L	0.027	0.016	1	06/27/16 17:15	06/29/16 12:09	87-86-5	
2,4,5-T	0.040 U	ug/L	0.18	0.040	1	06/27/16 17:15	06/29/16 12:09	93-76-5	
2,4,5-TP (Silvex)	0.046 U	ug/L	0.18	0.046	1	06/27/16 17:15	06/29/16 12:09	93-72-1	
Surrogates									
2,4-DCAA (S)	60	%	39-139		1	06/27/16 17:15	06/29/16 12:09	19719-28-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Barium	1080	ug/L	10.0	5.0	1	06/24/16 06:45	06/25/16 11:29	7440-39-3	
Beryllium	6.1	ug/L	1.0	0.50	1	06/24/16 06:45	06/25/16 11:29	7440-41-7	
Cadmium	3.2	ug/L	1.0	0.50	1	06/24/16 06:45	06/25/16 11:29	7440-43-9	
Chromium	131	ug/L	5.0	2.5	1	06/24/16 06:45	06/25/16 11:29	7440-47-3	
Cobalt	6.2 I	ug/L	10.0	5.0	1	06/24/16 06:45	06/25/16 11:29	7440-48-4	
Copper	22.3	ug/L	5.0	2.5	1	06/24/16 06:45	06/25/16 11:29	7440-50-8	
Iron	9490	ug/L	40.0	20.0	1	06/24/16 06:45	06/25/16 11:29	7439-89-6	
Lead	130	ug/L	10.0	5.0	1	06/24/16 06:45	06/25/16 11:29	7439-92-1	
Nickel	17.6	ug/L	5.0	2.5	1	06/24/16 06:45	06/25/16 11:29	7440-02-0	
Selenium	43.7	ug/L	15.0	7.5	1	06/24/16 06:45	06/25/16 11:29	7782-49-2	
Silver	2.5 U	ug/L	5.0	2.5	1	06/24/16 06:45	06/25/16 11:29	7440-22-4	
Sodium	10400	ug/L	1000	500	1	06/24/16 06:45	06/25/16 11:29	7440-23-5	
Tin	25.0 U	ug/L	50.0	25.0	1	06/24/16 06:45	06/25/16 11:29	7440-31-5	
Vanadium	211	ug/L	10.0	5.0	1	06/24/16 06:45	06/25/16 11:29	7440-62-2	
Zinc	17.9 I	ug/L	20.0	10.0	1	06/24/16 06:45	06/25/16 11:29	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	1.0 U	ug/L	2.0	1.0	2	06/24/16 06:45	06/28/16 16:04	7440-36-0	D3
Arsenic	15.5	ug/L	2.0	1.0	2	06/24/16 06:45	06/28/16 16:04	7440-38-2	D3
Thallium	1.0 U	ug/L	2.0	1.0	2	06/24/16 06:45	06/28/16 16:04	7440-28-0	D3
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	1.4	ug/L	0.20	0.10	1	07/02/16 10:27	07/05/16 16:13	7439-97-6	
8270 MSSV PAHLV by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	0.025 U	ug/L	0.50	0.025	1	06/30/16 11:10	07/01/16 17:46	83-32-9	
Acenaphthylene	0.025 U	ug/L	0.50	0.025	1	06/30/16 11:10	07/01/16 17:46	208-96-8	
Anthracene	0.025 U	ug/L	0.50	0.025	1	06/30/16 11:10	07/01/16 17:46	120-12-7	
Benzo(a)anthracene	0.025 U	ug/L	0.10	0.025	1	06/30/16 11:10	07/01/16 17:46	56-55-3	
Benzo(a)pyrene	0.025 U	ug/L	0.10	0.025	1	06/30/16 11:10	07/01/16 17:46	50-32-8	
Benzo(b)fluoranthene	0.025 U	ug/L	0.10	0.025	1	06/30/16 11:10	07/01/16 17:46	205-99-2	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: JED
Pace Project No.: 35251015

Sample: MW-31B	Lab ID: 35251015002	Collected: 06/23/16 12:50	Received: 06/23/16 16:25	Matrix: Water					
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH/LV by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Benzo(g,h,i)perylene	0.028 U	ug/L	0.50	0.028	1	06/30/16 11:10	07/01/16 17:46	191-24-2	
Benzo(k)fluoranthene	0.025 U	ug/L	0.50	0.025	1	06/30/16 11:10	07/01/16 17:46	207-08-9	
Chrysene	0.025 U	ug/L	0.50	0.025	1	06/30/16 11:10	07/01/16 17:46	218-01-9	
Dibenz(a,h)anthracene	0.025 U	ug/L	0.10	0.025	1	06/30/16 11:10	07/01/16 17:46	53-70-3	
Fluoranthene	0.025 U	ug/L	0.50	0.025	1	06/30/16 11:10	07/01/16 17:46	206-44-0	
Fluorene	0.025 U	ug/L	0.50	0.025	1	06/30/16 11:10	07/01/16 17:46	86-73-7	
Indeno(1,2,3-cd)pyrene	0.025 U	ug/L	0.10	0.025	1	06/30/16 11:10	07/01/16 17:46	193-39-5	
2-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	06/30/16 11:10	07/01/16 17:46	91-57-6	
Naphthalene	1.0 U	ug/L	2.0	1.0	1	06/30/16 11:10	07/01/16 17:46	91-20-3	
Phenanthrene	0.050 U	ug/L	0.50	0.050	1	06/30/16 11:10	07/01/16 17:46	85-01-8	
Pyrene	0.025 U	ug/L	0.50	0.025	1	06/30/16 11:10	07/01/16 17:46	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	66	%	33-101		1	06/30/16 11:10	07/01/16 17:46	321-60-8	
Terphenyl-d14 (S)	63	%	38-115		1	06/30/16 11:10	07/01/16 17:46	1718-51-0	
8270 MSSV Semivolatile Organic	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Acetophenone	6.5 U	ug/L	33.3	6.5	1	06/30/16 09:01	07/01/16 19:02	98-86-2	
2-Acetylaminofluorene	2.8 U	ug/L	66.7	2.8	1	06/30/16 09:01	07/01/16 19:02	53-96-3	
4-Aminobiphenyl	3.1 U	ug/L	33.3	3.1	1	06/30/16 09:01	07/01/16 19:02	92-67-1	
Benzyl alcohol	11.3 U	ug/L	66.7	11.3	1	06/30/16 09:01	07/01/16 19:02	100-51-6	
4-Bromophenylphenyl ether	4.4 U	ug/L	33.3	4.4	1	06/30/16 09:01	07/01/16 19:02	101-55-3	
Butylbenzylphthalate	2.5 U	ug/L	33.3	2.5	1	06/30/16 09:01	07/01/16 19:02	85-68-7	
4-Chloro-3-methylphenol	13.9 U	ug/L	66.7	13.9	1	06/30/16 09:01	07/01/16 19:02	59-50-7	
4-Chloroaniline	11.3 U	ug/L	66.7	11.3	1	06/30/16 09:01	07/01/16 19:02	106-47-8	
bis(2-Chloroethoxy)methane	5.6 U	ug/L	33.3	5.6	1	06/30/16 09:01	07/01/16 19:02	111-91-1	
bis(2-Chloroethyl) ether	4.9 U	ug/L	33.3	4.9	1	06/30/16 09:01	07/01/16 19:02	111-44-4	
2-Chloronaphthalene	7.4 U	ug/L	33.3	7.4	1	06/30/16 09:01	07/01/16 19:02	91-58-7	
2-Chlorophenol	4.9 U	ug/L	33.3	4.9	1	06/30/16 09:01	07/01/16 19:02	95-57-8	
4-Chlorophenylphenyl ether	7.0 U	ug/L	33.3	7.0	1	06/30/16 09:01	07/01/16 19:02	7005-72-3	
Diallate	4.3 U	ug/L	33.3	4.3	1	06/30/16 09:01	07/01/16 19:02	2303-16-4	
Dibenzofuran	5.9 U	ug/L	33.3	5.9	1	06/30/16 09:01	07/01/16 19:02	132-64-9	
1,2-Dichlorobenzene	4.0 U	ug/L	33.3	4.0	1	06/30/16 09:01	07/01/16 19:02	95-50-1	
1,3-Dichlorobenzene	3.6 U	ug/L	33.3	3.6	1	06/30/16 09:01	07/01/16 19:02	541-73-1	
1,4-Dichlorobenzene	4.1 U	ug/L	33.3	4.1	1	06/30/16 09:01	07/01/16 19:02	106-46-7	
3,3'-Dichlorobenzidine	4.7 U	ug/L	66.7	4.7	1	06/30/16 09:01	07/01/16 19:02	91-94-1	
2,4-Dichlorophenol	5.5 U	ug/L	33.3	5.5	1	06/30/16 09:01	07/01/16 19:02	120-83-2	
2,6-Dichlorophenol	6.1 U	ug/L	33.3	6.1	1	06/30/16 09:01	07/01/16 19:02	87-65-0	
Diethylphthalate	4.4 U	ug/L	33.3	4.4	1	06/30/16 09:01	07/01/16 19:02	84-66-2	
P-Dimethylaminoazobenzene	1.2 U	ug/L	16.7	1.2	1	06/30/16 09:01	07/01/16 19:02	60-11-7	
7,12-Dimethylbenz(a)anthracene	2.6 U	ug/L	33.3	2.6	1	06/30/16 09:01	07/01/16 19:02	57-97-6	
3,3'-Dimethylbenzidine	7.1 U	ug/L	33.3	7.1	1	06/30/16 09:01	07/01/16 19:02	119-93-7	
2,4-Dimethylphenol	7.3 U	ug/L	33.3	7.3	1	06/30/16 09:01	07/01/16 19:02	105-67-9	
a,a-Dimethylphenylethylamine	4.5 U	ug/L	167	4.5	1	06/30/16 09:01	07/01/16 19:02	122-09-8	J(L2)
Dimethylphthalate	4.9 U	ug/L	33.3	4.9	1	06/30/16 09:01	07/01/16 19:02	131-11-3	
Di-n-butylphthalate	3.5 U	ug/L	33.3	3.5	1	06/30/16 09:01	07/01/16 19:02	84-74-2	
4,6-Dinitro-2-methylphenol	5.5 U	ug/L	66.7	5.5	1	06/30/16 09:01	07/01/16 19:02	534-52-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: JED
Pace Project No.: 35251015

Sample: MW-31B Lab ID: 35251015002 Collected: 06/23/16 12:50 Received: 06/23/16 16:25 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatile Organic Analytical Method: EPA 8270 Preparation Method: EPA 3510									
1,3-Dinitrobenzene	5.0 U	ug/L	66.7	5.0	1	06/30/16 09:01	07/01/16 19:02	99-65-0	
2,4-Dinitrophenol	21.8 U	ug/L	167	21.8	1	06/30/16 09:01	07/01/16 19:02	51-28-5	
2,4-Dinitrotoluene	4.0 U	ug/L	33.3	4.0	1	06/30/16 09:01	07/01/16 19:02	121-14-2	
2,6-Dinitrotoluene	5.6 U	ug/L	33.3	5.6	1	06/30/16 09:01	07/01/16 19:02	606-20-2	
Di-n-octylphthalate	2.9 U	ug/L	33.3	2.9	1	06/30/16 09:01	07/01/16 19:02	117-84-0	
Diphenylamine	4.4 U	ug/L	33.3	4.4	1	06/30/16 09:01	07/01/16 19:02	122-39-4	
bis(2-Ethylhexyl)phthalate	2.8 U	ug/L	20.0	2.8	1	06/30/16 09:01	07/01/16 19:02	117-81-7	
Ethyl methanesulfonate	6.0 U	ug/L	66.7	6.0	1	06/30/16 09:01	07/01/16 19:02	62-50-0	
Famphur	5.8 U	ug/L	33.3	5.8	1	06/30/16 09:01	07/01/16 19:02	52-85-7	
Hexachlorobenzene	3.8 U	ug/L	33.3	3.8	1	06/30/16 09:01	07/01/16 19:02	118-74-1	
Hexachlorocyclopentadiene	5.8 U	ug/L	33.3	5.8	1	06/30/16 09:01	07/01/16 19:02	77-47-4	
Hexachloroethane	4.9 U	ug/L	33.3	4.9	1	06/30/16 09:01	07/01/16 19:02	67-72-1	
Hexachlorophene	38.4 U	ug/L	333	38.4	1	06/30/16 09:01	07/01/16 19:02	70-30-4	
Hexachloropropene	5.4 U	ug/L	33.3	5.4	1	06/30/16 09:01	07/01/16 19:02	1888-71-7	
Isodrin	6.8 U	ug/L	66.7	6.8	1	06/30/16 09:01	07/01/16 19:02	465-73-6	
Isophorone	5.9 U	ug/L	33.3	5.9	1	06/30/16 09:01	07/01/16 19:02	78-59-1	
Isosafrole	6.0 U	ug/L	33.3	6.0	1	06/30/16 09:01	07/01/16 19:02	120-58-1	
Kepone	10.5 U	ug/L	33.3	10.5	1	06/30/16 09:01	07/01/16 19:02	143-50-0	
Methapyrilene	9.2 U	ug/L	167	9.2	1	06/30/16 09:01	07/01/16 19:02	91-80-5	
3-Methylcholanthrene	2.7 U	ug/L	33.3	2.7	1	06/30/16 09:01	07/01/16 19:02	56-49-5	
Methyl methanesulfonate	4.2 U	ug/L	16.7	4.2	1	06/30/16 09:01	07/01/16 19:02	66-27-3	
2-Methylphenol(o-Cresol)	5.8 U	ug/L	33.3	5.8	1	06/30/16 09:01	07/01/16 19:02	95-48-7	
3&4-Methylphenol(m&p Cresol)	5.7 U	ug/L	33.3	5.7	1	06/30/16 09:01	07/01/16 19:02		
1-Naphthalenamine	3.2 U	ug/L	16.7	3.2	1	06/30/16 09:01	07/01/16 19:02	134-32-7	
2-Naphthalenamine	3.3 U	ug/L	16.7	3.3	1	06/30/16 09:01	07/01/16 19:02	91-59-8	
1,4-Naphthoquinone	5.9 U	ug/L	16.7	5.9	1	06/30/16 09:01	07/01/16 19:02	130-15-4	
2-Nitroaniline	9.4 U	ug/L	167	9.4	1	06/30/16 09:01	07/01/16 19:02	88-74-4	
3-Nitroaniline	8.1 U	ug/L	167	8.1	1	06/30/16 09:01	07/01/16 19:02	99-09-2	
4-Nitroaniline	8.5 U	ug/L	66.7	8.5	1	06/30/16 09:01	07/01/16 19:02	100-01-6	
Nitrobenzene	5.5 U	ug/L	33.3	5.5	1	06/30/16 09:01	07/01/16 19:02	98-95-3	
2-Nitrophenol	5.5 U	ug/L	33.3	5.5	1	06/30/16 09:01	07/01/16 19:02	88-75-5	
4-Nitrophenol	19.3 U	ug/L	167	19.3	1	06/30/16 09:01	07/01/16 19:02	100-02-7	
5-Nitro-o-toluidine	4.1 U	ug/L	33.3	4.1	1	06/30/16 09:01	07/01/16 19:02	99-55-8	
N-Nitrosodiethylamine	6.0 U	ug/L	66.7	6.0	1	06/30/16 09:01	07/01/16 19:02	55-18-5	
N-Nitrosodimethylamine	4.2 U	ug/L	33.3	4.2	1	06/30/16 09:01	07/01/16 19:02	62-75-9	
N-Nitroso-di-n-butylamine	7.4 U	ug/L	33.3	7.4	1	06/30/16 09:01	07/01/16 19:02	924-16-3	
N-Nitroso-di-n-propylamine	6.9 U	ug/L	33.3	6.9	1	06/30/16 09:01	07/01/16 19:02	621-64-7	
N-Nitrosodiphenylamine	4.4 U	ug/L	33.3	4.4	1	06/30/16 09:01	07/01/16 19:02	86-30-6	
N-Nitrosomethylmethylaniline	6.1 U	ug/L	33.3	6.1	1	06/30/16 09:01	07/01/16 19:02	10595-95-6	
N-Nitrosomorpholine	8.2 U	ug/L	33.3	8.2	1	06/30/16 09:01	07/01/16 19:02	59-89-2	
N-Nitrosopiperidine	6.2 U	ug/L	66.7	6.2	1	06/30/16 09:01	07/01/16 19:02	100-75-4	
N-Nitrosopyrrolidine	8.3 U	ug/L	33.3	8.3	1	06/30/16 09:01	07/01/16 19:02	930-55-2	
O,O,O-Triethylphosphorothioate	6.0 U	ug/L	33.3	6.0	1	06/30/16 09:01	07/01/16 19:02	126-68-1	
2,2'-Oxybis(1-chloropropane)	5.4 U	ug/L	33.3	5.4	1	06/30/16 09:01	07/01/16 19:02	108-60-1	
Pentachlorobenzene	6.7 U	ug/L	33.3	6.7	1	06/30/16 09:01	07/01/16 19:02	608-93-5	
Phenacetin	3.2 U	ug/L	66.7	3.2	1	06/30/16 09:01	07/01/16 19:02	62-44-2	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: JED
Pace Project No.: 35251015

Sample: MW-31B	Lab ID: 35251015002	Collected: 06/23/16 12:50	Received: 06/23/16 16:25	Matrix: Water					
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatile Organic	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Phenol	5.6 U	ug/L	33.3	5.6	1	06/30/16 09:01	07/01/16 19:02		
p-Phenylenediamine	3.2 U	ug/L	33.3	3.2	1	06/30/16 09:01	07/01/16 19:02	106-50-3	
Pronamide	3.2 U	ug/L	33.3	3.2	1	06/30/16 09:01	07/01/16 19:02	23950-58-5	
Safrole	5.0 U	ug/L	33.3	5.0	1	06/30/16 09:01	07/01/16 19:02	94-59-7	
1,2,4,5-Tetrachlorobenzene	5.6 U	ug/L	33.3	5.6	1	06/30/16 09:01	07/01/16 19:02	95-94-3	
2,3,4,6-Tetrachlorophenol	7.5 U	ug/L	33.3	7.5	1	06/30/16 09:01	07/01/16 19:02	58-90-2	
Thionazin	4.1 U	ug/L	66.7	4.1	1	06/30/16 09:01	07/01/16 19:02	297-97-2	
O-Toluidine	5.5 U	ug/L	33.3	5.5	1	06/30/16 09:01	07/01/16 19:02	95-53-4	
2,4,5-Trichlorophenol	7.5 U	ug/L	33.3	7.5	1	06/30/16 09:01	07/01/16 19:02	95-95-4	
2,4,6-Trichlorophenol	6.3 U	ug/L	33.3	6.3	1	06/30/16 09:01	07/01/16 19:02	88-06-2	
1,3,5-Trinitrobenzene	3.6 U	ug/L	33.3	3.6	1	06/30/16 09:01	07/01/16 19:02	99-35-4	
Surrogates									
Nitrobenzene-d5 (S)	15	%	21-110		1	06/30/16 09:01	07/01/16 19:02	4165-60-0	J(S0), P2
2-Fluorobiphenyl (S)	13	%	27-110		1	06/30/16 09:01	07/01/16 19:02	321-60-8	J(S0)
Terphenyl-d14 (S)	32	%	31-107		1	06/30/16 09:01	07/01/16 19:02	1718-51-0	
Phenol-d6 (S)	11	%	10-110		1	06/30/16 09:01	07/01/16 19:02	13127-88-3	
2-Fluorophenol (S)	12	%	12-110		1	06/30/16 09:01	07/01/16 19:02	367-12-4	
2,4,6-Tribromophenol (S)	24	%	27-110		1	06/30/16 09:01	07/01/16 19:02	118-79-6	J(S0)
8260 MSV	Analytical Method: EPA 8260								
Acetone	10.0 U	ug/L	20.0	10.0	1		07/03/16 11:09	67-64-1	
Acetonitrile	5.0 U	ug/L	10.0	5.0	1		07/03/16 11:09	75-05-8	
Acrolein	10.0 U	ug/L	20.0	10.0	1		07/03/16 11:09	107-02-8	
Acrylonitrile	5.0 U	ug/L	10.0	5.0	1		07/03/16 11:09	107-13-1	
Allyl chloride	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	107-05-1	
Benzene	0.10 U	ug/L	1.0	0.10	1		07/03/16 11:09	71-43-2	
Bromochloromethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	74-97-5	
Bromodichloromethane	0.27 U	ug/L	0.60	0.27	1		07/03/16 11:09	75-27-4	
Bromoform	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	75-25-2	
Bromomethane	0.50 U	ug/L	5.0	0.50	1		07/03/16 11:09	74-83-9	
2-Butanone (MEK)	5.0 U	ug/L	10.0	5.0	1		07/03/16 11:09	78-93-3	
Carbon disulfide	5.0 U	ug/L	10.0	5.0	1		07/03/16 11:09	75-15-0	L3
Carbon tetrachloride	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	56-23-5	
Chlorobenzene	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	108-90-7	
Chloroethane	0.50 U	ug/L	10.0	0.50	1		07/03/16 11:09	75-00-3	
Chloroform	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	67-66-3	
Chloromethane	0.62 U	ug/L	1.0	0.62	1		07/03/16 11:09	74-87-3	
Chloroprene	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	126-99-8	
Dibromochloromethane	0.26 U	ug/L	0.50	0.26	1		07/03/16 11:09	124-48-1	
Dibromomethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	74-95-3	
trans-1,4-Dichloro-2-butene	5.0 U	ug/L	10.0	5.0	1		07/03/16 11:09	110-57-6	J(L2)
Dichlorodifluoromethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	75-71-8	
1,1-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	75-34-3	
1,2-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	107-06-2	
1,1-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	75-35-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: JED
Pace Project No.: 35251015

Sample: MW-31B	Lab ID: 35251015002	Collected: 06/23/16 12:50	Received: 06/23/16 16:25	Matrix: Water					
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
cis-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	156-59-2	
trans-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	156-60-5	
1,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	78-87-5	
1,3-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	142-28-9	
2,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	594-20-7	
1,1-Dichloropropene	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	563-58-6	
cis-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		07/03/16 11:09	10061-01-5	
trans-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		07/03/16 11:09	10061-02-6	
Ethylbenzene	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	100-41-4	
Ethyl methacrylate	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	97-63-2	
Hexachloro-1,3-butadiene	0.40 U	ug/L	1.0	0.40	1		07/03/16 11:09	87-68-3	
2-Hexanone	5.0 U	ug/L	10.0	5.0	1		07/03/16 11:09	591-78-6	
Iodomethane	0.50 U	ug/L	10.0	0.50	1		07/03/16 11:09	74-88-4	
Isobutyl Alcohol	10.0 U	ug/L	20.0	10.0	1		07/03/16 11:09	78-83-1	
Methacrylonitrile	5.0 U	ug/L	10.0	5.0	1		07/03/16 11:09	126-98-7	
Methylene Chloride	2.5 U	ug/L	5.0	2.5	1		07/03/16 11:09	75-09-2	
Methyl methacrylate	5.0 U	ug/L	10.0	5.0	1		07/03/16 11:09	80-62-6	
4-Methyl-2-pentanone (MIBK)	5.0 U	ug/L	10.0	5.0	1		07/03/16 11:09	108-10-1	
Propionitrile	5.0 U	ug/L	10.0	5.0	1		07/03/16 11:09	107-12-0	
Styrene	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	100-42-5	
1,1,1,2-Tetrachloroethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	630-20-6	
1,1,2,2-Tetrachloroethane	0.12 U	ug/L	0.50	0.12	1		07/03/16 11:09	79-34-5	
Tetrachloroethene	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	127-18-4	L3
Toluene	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	108-88-3	
1,2,4-Trichlorobenzene	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	120-82-1	
1,1,1-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	71-55-6	
1,1,2-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	79-00-5	
Trichloroethene	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	79-01-6	
Trichlorofluoromethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	75-69-4	
1,2,3-Trichloropropane	0.59 U	ug/L	1.0	0.59	1		07/03/16 11:09	96-18-4	
Vinyl acetate	1.0 U	ug/L	2.0	1.0	1		07/03/16 11:09	108-05-4	
Vinyl chloride	0.50 U	ug/L	1.0	0.50	1		07/03/16 11:09	75-01-4	
Xylene (Total)	1.5 U	ug/L	3.0	1.5	1		07/03/16 11:09	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-114		1		07/03/16 11:09	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	86-125		1		07/03/16 11:09	17060-07-0	
Toluene-d8 (S)	100	%	87-113		1		07/03/16 11:09	2037-26-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	2710	mg/L	50.0	50.0	1		06/28/16 16:57		
9034 Sulfide Water	Analytical Method: EPA 9034								
Sulfide	10.0 U	mg/L	10.0	10.0	10		06/28/16 11:50	18496-25-8	D3
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	17.2	mg/L	10.0	5.0	2		07/01/16 18:07	16887-00-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: JED
Pace Project No.: 35251015

Sample: MW-31B	Lab ID: 35251015002	Collected: 06/23/16 12:50	Received: 06/23/16 16:25	Matrix: Water					
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	0.35	mg/L	0.050	0.020	1		06/29/16 12:09	7664-41-7	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	0.025 U	mg/L	0.050	0.025	1		06/25/16 07:30		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	0.0020 U	mg/L	0.010	0.0020	1	07/07/16 11:20	07/07/16 17:11	57-12-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: JED
Pace Project No.: 35251015

Sample: Trip Blank 1	Lab ID: 35251015003	Collected: 06/23/16 11:10	Received: 06/23/16 16:25	Matrix: Water					
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Acetone	10.0 U	ug/L	20.0	10.0	1		07/03/16 03:17	67-64-1	
Acetonitrile	5.0 U	ug/L	10.0	5.0	1		07/03/16 03:17	75-05-8	
Acrolein	10.0 U	ug/L	20.0	10.0	1		07/03/16 03:17	107-02-8	
Acrylonitrile	5.0 U	ug/L	10.0	5.0	1		07/03/16 03:17	107-13-1	
Allyl chloride	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	107-05-1	
Benzene	0.10 U	ug/L	1.0	0.10	1		07/03/16 03:17	71-43-2	
Bromochloromethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	74-97-5	
Bromodichloromethane	0.27 U	ug/L	0.60	0.27	1		07/03/16 03:17	75-27-4	
Bromoform	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	75-25-2	
Bromomethane	0.50 U	ug/L	5.0	0.50	1		07/03/16 03:17	74-83-9	
2-Butanone (MEK)	5.0 U	ug/L	10.0	5.0	1		07/03/16 03:17	78-93-3	
Carbon disulfide	5.0 U	ug/L	10.0	5.0	1		07/03/16 03:17	75-15-0	L3
Carbon tetrachloride	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	56-23-5	
Chlorobenzene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	108-90-7	
Chloroethane	0.50 U	ug/L	10.0	0.50	1		07/03/16 03:17	75-00-3	
Chloroform	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	67-66-3	
Chloromethane	0.62 U	ug/L	1.0	0.62	1		07/03/16 03:17	74-87-3	
Chloroprene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	126-99-8	
Dibromochloromethane	0.26 U	ug/L	0.50	0.26	1		07/03/16 03:17	124-48-1	
Dibromomethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	74-95-3	
trans-1,4-Dichloro-2-butene	5.0 U	ug/L	10.0	5.0	1		07/03/16 03:17	110-57-6	J(L2)
Dichlorodifluoromethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	75-71-8	
1,1-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	75-34-3	
1,2-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	107-06-2	
1,1-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	75-35-4	
cis-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	156-59-2	
trans-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	156-60-5	
1,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	78-87-5	
1,3-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	142-28-9	
2,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	594-20-7	
1,1-Dichloropropene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	563-58-6	
cis-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		07/03/16 03:17	10061-01-5	
trans-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		07/03/16 03:17	10061-02-6	
Ethylbenzene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	100-41-4	
Ethyl methacrylate	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	97-63-2	
Hexachloro-1,3-butadiene	0.40 U	ug/L	1.0	0.40	1		07/03/16 03:17	87-68-3	
2-Hexanone	5.0 U	ug/L	10.0	5.0	1		07/03/16 03:17	591-78-6	
Iodomethane	0.50 U	ug/L	10.0	0.50	1		07/03/16 03:17	74-88-4	
Isobutyl Alcohol	10.0 U	ug/L	20.0	10.0	1		07/03/16 03:17	78-83-1	
Methacrylonitrile	5.0 U	ug/L	10.0	5.0	1		07/03/16 03:17	126-98-7	
Methylene Chloride	2.5 U	ug/L	5.0	2.5	1		07/03/16 03:17	75-09-2	
Methyl methacrylate	5.0 U	ug/L	10.0	5.0	1		07/03/16 03:17	80-62-6	
4-Methyl-2-pentanone (MIBK)	5.0 U	ug/L	10.0	5.0	1		07/03/16 03:17	108-10-1	
Propionitrile	5.0 U	ug/L	10.0	5.0	1		07/03/16 03:17	107-12-0	
Styrene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	100-42-5	
1,1,1,2-Tetrachloroethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	630-20-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: JED
Pace Project No.: 35251015

Sample: Trip Blank 1 Lab ID: 35251015003 Collected: 06/23/16 11:10 Received: 06/23/16 16:25 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	0.12 U	ug/L	0.50	0.12	1		07/03/16 03:17	79-34-5	
Tetrachloroethene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	127-18-4	L3
Toluene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	108-88-3	
1,2,4-Trichlorobenzene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	120-82-1	
1,1,1-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	71-55-6	
1,1,2-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	79-00-5	
Trichloroethene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	79-01-6	
Trichlorofluoromethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	75-69-4	
1,2,3-Trichloropropane	0.59 U	ug/L	1.0	0.59	1		07/03/16 03:17	96-18-4	
Vinyl acetate	1.0 U	ug/L	2.0	1.0	1		07/03/16 03:17	108-05-4	
Vinyl chloride	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:17	75-01-4	
Xylene (Total)	1.5 U	ug/L	3.0	1.5	1		07/03/16 03:17	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	90	%	70-114		1		07/03/16 03:17	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	86-125		1		07/03/16 03:17	17060-07-0	
Toluene-d8 (S)	102	%	87-113		1		07/03/16 03:17	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: JED
Pace Project No.: 35251015

Sample: Trip Blank 2	Lab ID: 35251015004	Collected: 06/23/16 11:10	Received: 06/23/16 16:25	Matrix: Water					
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Acetone	10.0 U	ug/L	20.0	10.0	1		07/03/16 03:43	67-64-1	
Acetonitrile	5.0 U	ug/L	10.0	5.0	1		07/03/16 03:43	75-05-8	
Acrolein	10.0 U	ug/L	20.0	10.0	1		07/03/16 03:43	107-02-8	
Acrylonitrile	5.0 U	ug/L	10.0	5.0	1		07/03/16 03:43	107-13-1	
Allyl chloride	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	107-05-1	
Benzene	0.10 U	ug/L	1.0	0.10	1		07/03/16 03:43	71-43-2	
Bromochloromethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	74-97-5	
Bromodichloromethane	0.27 U	ug/L	0.60	0.27	1		07/03/16 03:43	75-27-4	
Bromoform	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	75-25-2	
Bromomethane	0.50 U	ug/L	5.0	0.50	1		07/03/16 03:43	74-83-9	
2-Butanone (MEK)	5.0 U	ug/L	10.0	5.0	1		07/03/16 03:43	78-93-3	
Carbon disulfide	5.0 U	ug/L	10.0	5.0	1		07/03/16 03:43	75-15-0	L3
Carbon tetrachloride	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	56-23-5	
Chlorobenzene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	108-90-7	
Chloroethane	0.50 U	ug/L	10.0	0.50	1		07/03/16 03:43	75-00-3	
Chloroform	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	67-66-3	
Chloromethane	0.62 U	ug/L	1.0	0.62	1		07/03/16 03:43	74-87-3	
Chloroprene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	126-99-8	
Dibromochloromethane	0.26 U	ug/L	0.50	0.26	1		07/03/16 03:43	124-48-1	
Dibromomethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	74-95-3	
trans-1,4-Dichloro-2-butene	5.0 U	ug/L	10.0	5.0	1		07/03/16 03:43	110-57-6	J(L2)
Dichlorodifluoromethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	75-71-8	
1,1-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	75-34-3	
1,2-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	107-06-2	
1,1-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	75-35-4	
cis-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	156-59-2	
trans-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	156-60-5	
1,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	78-87-5	
1,3-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	142-28-9	
2,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	594-20-7	
1,1-Dichloropropene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	563-58-6	
cis-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		07/03/16 03:43	10061-01-5	
trans-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		07/03/16 03:43	10061-02-6	
Ethylbenzene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	100-41-4	
Ethyl methacrylate	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	97-63-2	
Hexachloro-1,3-butadiene	0.40 U	ug/L	1.0	0.40	1		07/03/16 03:43	87-68-3	
2-Hexanone	5.0 U	ug/L	10.0	5.0	1		07/03/16 03:43	591-78-6	
Iodomethane	0.50 U	ug/L	10.0	0.50	1		07/03/16 03:43	74-88-4	
Isobutyl Alcohol	10.0 U	ug/L	20.0	10.0	1		07/03/16 03:43	78-83-1	
Methacrylonitrile	5.0 U	ug/L	10.0	5.0	1		07/03/16 03:43	126-98-7	
Methylene Chloride	2.5 U	ug/L	5.0	2.5	1		07/03/16 03:43	75-09-2	
Methyl methacrylate	5.0 U	ug/L	10.0	5.0	1		07/03/16 03:43	80-62-6	
4-Methyl-2-pentanone (MIBK)	5.0 U	ug/L	10.0	5.0	1		07/03/16 03:43	108-10-1	
Propionitrile	5.0 U	ug/L	10.0	5.0	1		07/03/16 03:43	107-12-0	
Styrene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	100-42-5	
1,1,1,2-Tetrachloroethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	630-20-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: JED
Pace Project No.: 35251015

Sample: Trip Blank 2 Lab ID: 35251015004 Collected: 06/23/16 11:10 Received: 06/23/16 16:25 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	0.12 U	ug/L	0.50	0.12	1		07/03/16 03:43	79-34-5	
Tetrachloroethene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	127-18-4	L3
Toluene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	108-88-3	
1,2,4-Trichlorobenzene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	120-82-1	
1,1,1-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	71-55-6	
1,1,2-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	79-00-5	
Trichloroethene	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	79-01-6	
Trichlorofluoromethane	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	75-69-4	
1,2,3-Trichloropropane	0.59 U	ug/L	1.0	0.59	1		07/03/16 03:43	96-18-4	
Vinyl acetate	1.0 U	ug/L	2.0	1.0	1		07/03/16 03:43	108-05-4	
Vinyl chloride	0.50 U	ug/L	1.0	0.50	1		07/03/16 03:43	75-01-4	
Xylene (Total)	1.5 U	ug/L	3.0	1.5	1		07/03/16 03:43	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	87	%	70-114		1		07/03/16 03:43	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	86-125		1		07/03/16 03:43	17060-07-0	
Toluene-d8 (S)	100	%	87-113		1		07/03/16 03:43	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

QC Batch:	306859	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
Associated Lab Samples:	35251015001, 35251015002		

METHOD BLANK: 1626082 Matrix: Water

Associated Lab Samples: 35251015001, 35251015002

Parameter	Units	Blank	Reporting	MDL	Analyzed	Qualifiers
		Result	Limit			
Mercury	ug/L	0.10 U	0.20	0.10	07/05/16 16:03	

LABORATORY CONTROL SAMPLE: 1626083

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Mercury	ug/L	2	1.9	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1626084 1626085

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		35251015001	Spike										
Mercury	ug/L	0.10 U	2	2	1.8	1.8	88	88	75-125	1	20		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

QC Batch:	305320	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET
Associated Lab Samples: 35251015001, 35251015002			

METHOD BLANK: 1617369 Matrix: Water

Associated Lab Samples: 35251015001, 35251015002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Barium	ug/L	5.0 U	10.0	5.0	06/25/16 10:57	
Beryllium	ug/L	0.50 U	1.0	0.50	06/25/16 10:57	
Cadmium	ug/L	0.50 U	1.0	0.50	06/25/16 10:57	
Chromium	ug/L	2.5 U	5.0	2.5	06/25/16 10:57	
Cobalt	ug/L	5.0 U	10.0	5.0	06/25/16 10:57	
Copper	ug/L	2.5 U	5.0	2.5	06/25/16 10:57	
Iron	ug/L	20.0 U	40.0	20.0	06/25/16 10:57	
Lead	ug/L	5.0 U	10.0	5.0	06/25/16 10:57	
Nickel	ug/L	2.5 U	5.0	2.5	06/25/16 10:57	
Selenium	ug/L	7.5 U	15.0	7.5	06/25/16 10:57	
Silver	ug/L	2.5 U	5.0	2.5	06/25/16 10:57	
Sodium	ug/L	500 U	1000	500	06/25/16 10:57	
Tin	ug/L	25.0 U	50.0	25.0	06/25/16 10:57	
Vanadium	ug/L	5.0 U	10.0	5.0	06/25/16 10:57	
Zinc	ug/L	10.0 U	20.0	10.0	06/25/16 10:57	

LABORATORY CONTROL SAMPLE: 1617370

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	250	249	100	80-120	
Beryllium	ug/L	25	25.6	102	80-120	
Cadmium	ug/L	25	25.8	103	80-120	
Chromium	ug/L	250	256	102	80-120	
Cobalt	ug/L	250	258	103	80-120	
Copper	ug/L	250	242	97	80-120	
Iron	ug/L	2500	2510	100	80-120	
Lead	ug/L	250	262	105	80-120	
Nickel	ug/L	250	259	103	80-120	
Selenium	ug/L	250	261	105	80-120	
Silver	ug/L	25	25.5	102	80-120	
Sodium	ug/L	12500	13200	105	80-120	
Tin	ug/L	1250	1300	104	80-120	
Vanadium	ug/L	250	247	99	80-120	
Zinc	ug/L	1250	1280	102	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		1617371		1617372									
Parameter	Units	MS		MSD		MS	MSD	% Rec	MSD	% Rec	% Rec	Max	
		35250614001	Spike	Spike	Conc.							RPD	RPD
		Result	Conc.	Result	Conc.	Result	Result	% Rec	Result	% Rec	Limits	RPD	RPD
Barium	ug/L	39.8	250	250	292	293	101	101	75-125	0	20		
Beryllium	ug/L	<0.50	25	25	25.3	25.2	100	100	75-125	0	20		
Cadmium	ug/L	<0.50	25	25	25.5	25.8	102	103	75-125	1	20		
Chromium	ug/L	2.5	1	250	250	255	257	101	102	75-125	1	20	
Cobalt	ug/L	<5.0	250	250	255	257	102	103	75-125	1	20		
Copper	ug/L	6.4	250	250	256	257	100	100	75-125	0	20		
Iron	ug/L	164	2500	2500	2530	2500	95	93	75-125	1	20		
Lead	ug/L	<5.0	250	250	255	258	102	103	75-125	1	20		
Nickel	ug/L	<2.5	250	250	249	250	99	100	75-125	0	20		
Selenium	ug/L	<7.5	250	250	195	186	77	73	75-125	5	20	J(M1)	
Silver	ug/L	<2.5	25	25	26.0	25.5	104	102	75-125	2	20		
Sodium	ug/L	101 mg/L	12500	12500	116000	116000	114	122	75-125	1	20		
Tin	ug/L	<25.0	1250	1250	1290	1300	104	104	75-125	1	20		
Vanadium	ug/L	<5.0	250	250	252	252	100	100	75-125	0	20		
Zinc	ug/L	<10.0	1250	1250	1270	1270	101	101	75-125	0	20		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

QC Batch:	305321	Analysis Method:	EPA 6020
QC Batch Method:	EPA 3010	Analysis Description:	6020 MET
Associated Lab Samples: 35251015001, 35251015002			

METHOD BLANK: 1617373 Matrix: Water

Associated Lab Samples: 35251015001, 35251015002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	0.50 U	1.0	0.50	06/24/16 19:45	
Arsenic	ug/L	0.50 U	1.0	0.50	06/24/16 19:45	
Thallium	ug/L	0.50 U	1.0	0.50	06/24/16 19:45	

LABORATORY CONTROL SAMPLE: 1617374

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	50	49.9	100	80-120	
Arsenic	ug/L	50	52.5	105	80-120	
Thallium	ug/L	50	51.1	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1617375 1617376

Parameter	Units	MS		MSD		MS Result	MS % Rec	MSD Result	MSD % Rec	% Rec Limits	Max	
		35250614002	Spiked Result	Spike Conc.	MS Result						RPD	RPD
Antimony	ug/L	<0.50	50	50	50.0	50.6	100	101	101	75-125	1	20
Arsenic	ug/L	<0.50	50	50	52.7	52.7	105	105	105	75-125	0	20
Thallium	ug/L	<0.50	50	50	51.6	52.5	103	105	105	75-125	2	20

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

QC Batch:	306770	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples: 35251015001			

METHOD BLANK: 1625448 Matrix: Water

Associated Lab Samples: 35251015001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
1,1,1-Trichloroethane	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
1,1,2,2-Tetrachloroethane	ug/L	0.12 U	0.50	0.12	07/02/16 01:10	
1,1,2-Trichloroethane	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
1,1-Dichloroethane	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
1,1-Dichloroethene	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
1,1-Dichloropropene	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
1,2,3-Trichloropropane	ug/L	0.59 U	1.0	0.59	07/02/16 01:10	
1,2,4-Trichlorobenzene	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
1,2-Dichloroethane	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
1,2-Dichloropropane	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
1,3-Dichloropropane	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
2,2-Dichloropropane	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
2-Butanone (MEK)	ug/L	5.0 U	10.0	5.0	07/02/16 01:10	
2-Hexanone	ug/L	5.0 U	10.0	5.0	07/02/16 01:10	
4-Methyl-2-pentanone (MIBK)	ug/L	5.0 U	10.0	5.0	07/02/16 01:10	
Acetone	ug/L	10.0 U	20.0	10.0	07/02/16 01:10	
Acetonitrile	ug/L	5.0 U	10.0	5.0	07/02/16 01:10	
Acrolein	ug/L	10.0 U	20.0	10.0	07/02/16 01:10	
Acrylonitrile	ug/L	5.0 U	10.0	5.0	07/02/16 01:10	
Allyl chloride	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
Benzene	ug/L	0.10 U	1.0	0.10	07/02/16 01:10	
Bromochloromethane	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
Bromodichloromethane	ug/L	0.27 U	0.60	0.27	07/02/16 01:10	
Bromoform	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
Bromomethane	ug/L	0.50 U	5.0	0.50	07/02/16 01:10	
Carbon disulfide	ug/L	5.0 U	10.0	5.0	07/02/16 01:10	
Carbon tetrachloride	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
Chlorobenzene	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
Chloroethane	ug/L	0.50 U	10.0	0.50	07/02/16 01:10	
Chloroform	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
Chloromethane	ug/L	0.62 U	1.0	0.62	07/02/16 01:10	
Chloroprene	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
cis-1,2-Dichloroethene	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
cis-1,3-Dichloropropene	ug/L	0.25 U	0.50	0.25	07/02/16 01:10	
Dibromochloromethane	ug/L	0.26 U	0.50	0.26	07/02/16 01:10	
Dibromomethane	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
Dichlorodifluoromethane	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
Ethyl methacrylate	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
Ethylbenzene	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
Hexachloro-1,3-butadiene	ug/L	0.40 U	1.0	0.40	07/02/16 01:10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

METHOD BLANK: 1625448 Matrix: Water
Associated Lab Samples: 35251015001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iodomethane	ug/L	0.50 U	10.0	0.50	07/02/16 01:10	
Isobutyl Alcohol	ug/L	10.0 U	20.0	10.0	07/02/16 01:10	
Methacrylonitrile	ug/L	5.0 U	10.0	5.0	07/02/16 01:10	
Methyl methacrylate	ug/L	5.0 U	10.0	5.0	07/02/16 01:10	
Methylene Chloride	ug/L	2.5 U	5.0	2.5	07/02/16 01:10	
Propionitrile	ug/L	5.0 U	10.0	5.0	07/02/16 01:10	
Styrene	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
Tetrachloroethene	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
Toluene	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
trans-1,2-Dichloroethene	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
trans-1,3-Dichloropropene	ug/L	0.25 U	0.50	0.25	07/02/16 01:10	
trans-1,4-Dichloro-2-butene	ug/L	5.0 U	10.0	5.0	07/02/16 01:10	
Trichloroethene	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
Trichlorofluoromethane	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
Vinyl acetate	ug/L	1.0 U	2.0	1.0	07/02/16 01:10	
Vinyl chloride	ug/L	0.50 U	1.0	0.50	07/02/16 01:10	
Xylene (Total)	ug/L	1.5 U	3.0	1.5	07/02/16 01:10	
1,2-Dichloroethane-d4 (S)	%	101	86-125		07/02/16 01:10	
4-Bromofluorobenzene (S)	%	102	70-114		07/02/16 01:10	
Toluene-d8 (S)	%	100	87-113		07/02/16 01:10	

LABORATORY CONTROL SAMPLE: 1625449

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	20.9	105	70-130	
1,1,1-Trichloroethane	ug/L	20	18.2	91	70-130	
1,1,2,2-Tetrachloroethane	ug/L	20	18.6	93	70-130	
1,1,2-Trichloroethane	ug/L	20	20.5	103	70-130	
1,1-Dichloroethane	ug/L	20	18.8	94	70-130	
1,1-Dichloroethene	ug/L	20	18.8	94	70-130	
1,1-Dichloropropene	ug/L	20	17.9	89	70-130	
1,2,3-Trichloropropane	ug/L	20	20.2	101	70-130	
1,2,4-Trichlorobenzene	ug/L	20	20.1	101	70-130	
1,2-Dichloroethane	ug/L	20	19.9	99	70-130	
1,2-Dichloropropane	ug/L	20	19.5	98	70-130	
1,3-Dichloropropane	ug/L	20	19.8	99	70-130	
2,2-Dichloropropane	ug/L	20	17.2	86	70-131	
2-Butanone (MEK)	ug/L	40	37.9	95	55-167	
2-Hexanone	ug/L	40	39.6	99	65-130	
4-Methyl-2-pentanone (MIBK)	ug/L	40	37.3	93	70-130	
Acetone	ug/L	40	40.1	100	40-150	
Acetonitrile	ug/L	200	212	106	63-138	
Acrolein	ug/L	200	297	148	44-170	
Acrylonitrile	ug/L	200	209	105	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

LABORATORY CONTROL SAMPLE: 1625449

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Allyl chloride	ug/L	20	26.0	130	70-130	
Benzene	ug/L	20	19.6	98	70-130	
Bromochloromethane	ug/L	20	20.2	101	70-130	
Bromodichloromethane	ug/L	20	20.3	101	70-130	
Bromoform	ug/L	20	20.1	101	68-130	
Bromomethane	ug/L	20	21.1	106	38-179	
Carbon disulfide	ug/L	20	33.1	165	51-155 J(LO)	
Carbon tetrachloride	ug/L	20	19.2	96	70-130	
Chlorobenzene	ug/L	20	21.1	105	70-130	
Chloroethane	ug/L	20	23.4	117	59-149	
Chloroform	ug/L	20	19.4	97	70-130	
Chloromethane	ug/L	20	22.5	113	68-130	
Chloroprene	ug/L	20	19.3	97	70-130	
cis-1,2-Dichloroethene	ug/L	20	18.9	94	70-130	
cis-1,3-Dichloropropene	ug/L	20	19.3	96	70-130	
Dibromochloromethane	ug/L	20	19.7	98	70-130	
Dibromomethane	ug/L	20	19.7	98	70-130	
Dichlorodifluoromethane	ug/L	20	20.5	102	67-130	
Ethyl methacrylate	ug/L	20	18.9	95	70-130	
Ethylbenzene	ug/L	20	20.5	102	70-130	
Hexachloro-1,3-butadiene	ug/L	20	19.2	96	70-130	
Iodomethane	ug/L	40	45.8	115	43-160	
Isobutyl Alcohol	ug/L	400	350	88	66-135	
Methacrylonitrile	ug/L	200	201	100	70-130	
Methyl methacrylate	ug/L	20	17.8	89	70-130	
Methylene Chloride	ug/L	20	19.6	98	70-130	
Propionitrile	ug/L	200	195	97	70-130	
Styrene	ug/L	20	20.9	105	70-130	
Tetrachloroethene	ug/L	20	29.4	147	66-133 J(LO)	
Toluene	ug/L	20	20.7	104	70-130	
trans-1,2-Dichloroethene	ug/L	20	18.6	93	70-130	
trans-1,3-Dichloropropene	ug/L	20	19.8	99	70-130	
trans-1,4-Dichloro-2-butene	ug/L	20	15.3	77	65-130	
Trichloroethene	ug/L	20	19.8	99	70-130	
Trichlorofluoromethane	ug/L	20	19.7	98	70-131	
Vinyl acetate	ug/L	20	16.8	84	69-135	
Vinyl chloride	ug/L	20	23.6	118	69-140	
Xylene (Total)	ug/L	60	60.7	101	70-130	
1,2-Dichloroethane-d4 (S)	%			100	86-125	
4-Bromofluorobenzene (S)	%			104	70-114	
Toluene-d8 (S)	%			102	87-113	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

MATRIX SPIKE SAMPLE:	1626565						
Parameter	Units	35251162001	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	0.50 U	20	19.1	96	70-130	
1,1,1-Trichloroethane	ug/L	0.50 U	20	18.4	92	70-130	
1,1,2,2-Tetrachloroethane	ug/L	0.12 U	20	17.8	89	70-130	
1,1,2-Trichloroethane	ug/L	0.50 U	20	18.9	94	70-130	
1,1-Dichloroethane	ug/L	0.50 U	20	18.1	91	70-130	
1,1-Dichloroethene	ug/L	0.50 U	20	19.9	99	70-130	
1,1-Dichloropropene	ug/L	0.50 U	20	17.8	89	70-130	
1,2,3-Trichloropropane	ug/L	0.59 U	20	20.4	102	70-130	
1,2,4-Trichlorobenzene	ug/L	0.50 U	20	17.3	86	70-130	
1,2-Dichloroethane	ug/L	0.50 U	20	17.3	87	70-130	
1,2-Dichloropropane	ug/L	0.50 U	20	17.7	89	70-130	
1,3-Dichloropropane	ug/L	0.50 U	20	18.7	93	70-130	
2,2-Dichloropropane	ug/L	0.50 U	20	12.1	61	70-130	J(M1)
2-Butanone (MEK)	ug/L	5.0 U	40	38.0	95	70-130	
2-Hexanone	ug/L	5.0 U	40	36.6	91	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	5.0 U	40	37.4	94	70-130	
Acetone	ug/L	133	40	139	14	70-130	J(M1)
Acetonitrile	ug/L	5.0 U	200	191	96	70-130	
Acrolein	ug/L	10.0 U	200	241	121	70-130	
Acrylonitrile	ug/L	5.0 U	200	178	89	70-130	
Allyl chloride	ug/L	0.50 U	20	23.4	117	70-130	
Benzene	ug/L	0.10 U	20	18.6	93	70-130	
Bromochloromethane	ug/L	0.50 U	20	19.6	98	70-130	
Bromodichloromethane	ug/L	0.27 U	20	18.5	93	70-130	
Bromoform	ug/L	0.50 U	20	18.6	93	70-130	
Bromomethane	ug/L	0.50 U	20	13.1	65	70-130	J(M1)
Carbon disulfide	ug/L	5.0 U	20	34.0	169	70-130	J(M0)
Carbon tetrachloride	ug/L	0.50 U	20	18.5	92	70-130	
Chlorobenzene	ug/L	0.50 U	20	19.2	96	70-130	
Chloroethane	ug/L	0.50 U	20	19.0	95	70-130	
Chloroform	ug/L	0.50 U	20	18.2	91	70-130	
Chloromethane	ug/L	1.6	20	17.0	77	70-130	
Chloroprene	ug/L	0.50 U	20	20.4	102	70-130	
cis-1,2-Dichloroethene	ug/L	1.7	20	19.7	90	70-130	
cis-1,3-Dichloropropene	ug/L	0.25 U	20	16.0	80	70-130	
Dibromochloromethane	ug/L	0.26 U	20	18.7	94	70-130	
Dibromomethane	ug/L	0.50 U	20	19.3	97	70-130	
Dichlorodifluoromethane	ug/L	0.50 U	20	10.8	54	70-130	J(M1)
Ethyl methacrylate	ug/L	0.50 U	20	17.8	89	70-130	
Ethylbenzene	ug/L	0.50 U	20	19.2	96	70-130	
Hexachloro-1,3-butadiene	ug/L	0.40 U	20	18.2	91	70-130	
Iodomethane	ug/L	0.50 U	40	40.3	101	70-130	
Isobutyl Alcohol	ug/L	10.0 U	400	331	83	70-130	
Methacrylonitrile	ug/L	5.0 U	200	199	99	70-130	
Methyl methacrylate	ug/L	5.0 U	20	17.8	89	70-130	
Methylene Chloride	ug/L	2.5 U	20	17.6	88	70-130	
Propionitrile	ug/L	5.0 U	200	187	93	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

MATRIX SPIKE SAMPLE:	1626565						
Parameter	Units	35251162001	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Styrene	ug/L	0.50 U	20	19.1	95	70-130	
Tetrachloroethene	ug/L	0.50 U	20	16.1	80	70-130	
Toluene	ug/L	0.50 U	20	18.8	93	70-130	
trans-1,2-Dichloroethene	ug/L	0.50 U	20	18.0	90	70-130	
trans-1,3-Dichloropropene	ug/L	0.25 U	20	16.6	83	70-130	
trans-1,4-Dichloro-2-butene	ug/L	5.0 U	20	7.4 I	37	70-130 J(M1)	
Trichloroethene	ug/L	0.50 U	20	18.6	92	70-130	
Trichlorofluoromethane	ug/L	0.50 U	20	19.3	96	70-130	
Vinyl acetate	ug/L	1.0 U	20	17.5	87	70-130	
Vinyl chloride	ug/L	1.3	20	19.3	90	70-130	
Xylene (Total)	ug/L	1.5 U	60	56.6	94	70-130	
1,2-Dichloroethane-d4 (S)	%				100	86-125	
4-Bromofluorobenzene (S)	%				103	70-114	
Toluene-d8 (S)	%				98	87-113	

SAMPLE DUPLICATE: 1626564

Parameter	Units	35250964002	Dup Result	Max RPD	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50 U			40
1,1,1-Trichloroethane	ug/L	<0.50	0.50 U			40
1,1,2,2-Tetrachloroethane	ug/L	<0.12	0.12 U			40
1,1,2-Trichloroethane	ug/L	<0.50	0.50 U			40
1,1-Dichloroethane	ug/L	<0.50	0.50 U			40
1,1-Dichloroethene	ug/L	<0.50	0.50 U			40
1,1-Dichloropropene	ug/L	<0.50	0.50 U			40
1,2,3-Trichloropropane	ug/L	<0.59	0.59 U			40
1,2,4-Trichlorobenzene	ug/L	<0.50	0.50 U			40
1,2-Dichloroethane	ug/L	<0.50	0.50 U			40
1,2-Dichloropropane	ug/L	<0.50	0.50 U			40
1,3-Dichloropropane	ug/L	<0.50	0.50 U			40
2,2-Dichloropropane	ug/L	<0.50	0.50 U			40
2-Butanone (MEK)	ug/L	<5.0	5.0 U			40
2-Hexanone	ug/L	<5.0	5.0 U			40
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	5.0 U			40
Acetone	ug/L	10.4 I	10.0 U			40
Acetonitrile	ug/L	<5.0	5.0 U			40
Acrolein	ug/L	<10.0	10.0 U			40
Acrylonitrile	ug/L	<5.0	5.0 U			40
Allyl chloride	ug/L	<0.50	0.50 U			40
Benzene	ug/L	<0.10	0.10 U			40
Bromochloromethane	ug/L	<0.50	0.50 U			40
Bromodichloromethane	ug/L	<0.27	0.27 U			40
Bromoform	ug/L	<0.50	0.50 U			40
Bromomethane	ug/L	<0.50	0.50 U			40
Carbon disulfide	ug/L	<5.0	5.0 U			40

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

SAMPLE DUPLICATE: 1626564

Parameter	Units	35250964002 Result	Dup Result	RPD	Max RPD	Qualifiers
Carbon tetrachloride	ug/L	<0.50	0.50 U		40	
Chlorobenzene	ug/L	<0.50	0.50 U		40	
Chloroethane	ug/L	<0.50	0.50 U		40	
Chloroform	ug/L	0.59 I	0.64 I		40	
Chloromethane	ug/L	<0.62	0.62 U		40	
Chloroprene	ug/L	<0.50	0.50 U		40	
cis-1,2-Dichloroethene	ug/L	<0.50	0.50 U		40	
cis-1,3-Dichloropropene	ug/L	<0.25	0.25 U		40	
Dibromochloromethane	ug/L	<0.26	0.26 U		40	
Dibromomethane	ug/L	<0.50	0.50 U		40	
Dichlorodifluoromethane	ug/L	<0.50	0.50 U		40	
Ethyl methacrylate	ug/L	<0.50	0.50 U		40	
Ethylbenzene	ug/L	<0.50	0.50 U		40	
Hexachloro-1,3-butadiene	ug/L	<0.40	0.40 U		40	
Iodomethane	ug/L	<0.50	0.50 U		40	
Isobutyl Alcohol	ug/L	<10.0	10.0 U		40	
Methacrylonitrile	ug/L	<5.0	5.0 U		40	
Methyl methacrylate	ug/L	<5.0	5.0 U		40	
Methylene Chloride	ug/L	<2.5	2.5 U		40	
Propionitrile	ug/L	<5.0	5.0 U		40	
Styrene	ug/L	<0.50	0.50 U		40	
Tetrachloroethene	ug/L	<0.50	0.50 U		40	
Toluene	ug/L	<0.50	0.50 U		40	
trans-1,2-Dichloroethene	ug/L	<0.50	0.50 U		40	
trans-1,3-Dichloropropene	ug/L	<0.25	0.25 U		40	
trans-1,4-Dichloro-2-butene	ug/L	<5.0	5.0 U		40	
Trichloroethene	ug/L	<0.50	0.50 U		40	
Trichlorofluoromethane	ug/L	<0.50	0.50 U		40	
Vinyl acetate	ug/L	<1.0	1.0 U		40	
Vinyl chloride	ug/L	<0.50	0.50 U		40	
Xylene (Total)	ug/L	<1.5	1.5 U		40	
1,2-Dichloroethane-d4 (S)	%	101	102	0	40	
4-Bromofluorobenzene (S)	%	102	101	1	40	
Toluene-d8 (S)	%	99	102	3	40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

QC Batch:	306784	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples:	35251015002, 35251015003, 35251015004		

METHOD BLANK: 1625565 Matrix: Water

Associated Lab Samples: 35251015002, 35251015003, 35251015004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
1,1,1-Trichloroethane	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
1,1,2,2-Tetrachloroethane	ug/L	0.12 U	0.50	0.12	07/03/16 01:58	
1,1,2-Trichloroethane	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
1,1-Dichloroethane	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
1,1-Dichloroethene	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
1,1-Dichloropropene	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
1,2,3-Trichloropropane	ug/L	0.59 U	1.0	0.59	07/03/16 01:58	
1,2,4-Trichlorobenzene	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
1,2-Dichloroethane	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
1,2-Dichloropropane	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
1,3-Dichloropropane	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
2,2-Dichloropropane	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
2-Butanone (MEK)	ug/L	5.0 U	10.0	5.0	07/03/16 01:58	
2-Hexanone	ug/L	5.0 U	10.0	5.0	07/03/16 01:58	
4-Methyl-2-pentanone (MIBK)	ug/L	5.0 U	10.0	5.0	07/03/16 01:58	
Acetone	ug/L	10.0 U	20.0	10.0	07/03/16 01:58	
Acetonitrile	ug/L	5.0 U	10.0	5.0	07/03/16 01:58	
Acrolein	ug/L	10.0 U	20.0	10.0	07/03/16 01:58	
Acrylonitrile	ug/L	5.0 U	10.0	5.0	07/03/16 01:58	
Allyl chloride	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
Benzene	ug/L	0.10 U	1.0	0.10	07/03/16 01:58	
Bromochloromethane	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
Bromodichloromethane	ug/L	0.27 U	0.60	0.27	07/03/16 01:58	
Bromoform	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
Bromomethane	ug/L	0.50 U	5.0	0.50	07/03/16 01:58	
Carbon disulfide	ug/L	5.0 U	10.0	5.0	07/03/16 01:58	
Carbon tetrachloride	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
Chlorobenzene	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
Chloroethane	ug/L	0.50 U	10.0	0.50	07/03/16 01:58	
Chloroform	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
Chloromethane	ug/L	0.62 U	1.0	0.62	07/03/16 01:58	
Chloroprene	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
cis-1,2-Dichloroethene	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
cis-1,3-Dichloropropene	ug/L	0.25 U	0.50	0.25	07/03/16 01:58	
Dibromochloromethane	ug/L	0.26 U	0.50	0.26	07/03/16 01:58	
Dibromomethane	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
Dichlorodifluoromethane	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
Ethyl methacrylate	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
Ethylbenzene	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
Hexachloro-1,3-butadiene	ug/L	0.40 U	1.0	0.40	07/03/16 01:58	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

METHOD BLANK: 1625565 Matrix: Water

Associated Lab Samples: 35251015002, 35251015003, 35251015004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iodomethane	ug/L	0.50 U	10.0	0.50	07/03/16 01:58	
Isobutyl Alcohol	ug/L	10.0 U	20.0	10.0	07/03/16 01:58	
Methacrylonitrile	ug/L	5.0 U	10.0	5.0	07/03/16 01:58	
Methyl methacrylate	ug/L	5.0 U	10.0	5.0	07/03/16 01:58	
Methylene Chloride	ug/L	2.5 U	5.0	2.5	07/03/16 01:58	
Propionitrile	ug/L	5.0 U	10.0	5.0	07/03/16 01:58	
Styrene	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
Tetrachloroethene	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
Toluene	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
trans-1,2-Dichloroethene	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
trans-1,3-Dichloropropene	ug/L	0.25 U	0.50	0.25	07/03/16 01:58	
trans-1,4-Dichloro-2-butene	ug/L	5.0 U	10.0	5.0	07/03/16 01:58	
Trichloroethene	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
Trichlorofluoromethane	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
Vinyl acetate	ug/L	1.0 U	2.0	1.0	07/03/16 01:58	
Vinyl chloride	ug/L	0.50 U	1.0	0.50	07/03/16 01:58	
Xylene (Total)	ug/L	1.5 U	3.0	1.5	07/03/16 01:58	
1,2-Dichloroethane-d4 (S)	%	101	86-125		07/03/16 01:58	
4-Bromofluorobenzene (S)	%	103	70-114		07/03/16 01:58	
Toluene-d8 (S)	%	101	87-113		07/03/16 01:58	

LABORATORY CONTROL SAMPLE: 1625566

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	21.7	108	70-130	
1,1,1-Trichloroethane	ug/L	20	19.1	96	70-130	
1,1,2,2-Tetrachloroethane	ug/L	20	19.5	98	70-130	
1,1,2-Trichloroethane	ug/L	20	19.8	99	70-130	
1,1-Dichloroethane	ug/L	20	18.9	94	70-130	
1,1-Dichloroethene	ug/L	20	20.9	105	70-130	
1,1-Dichloropropene	ug/L	20	19.0	95	70-130	
1,2,3-Trichloropropane	ug/L	20	19.9	100	70-130	
1,2,4-Trichlorobenzene	ug/L	20	19.5	97	70-130	
1,2-Dichloroethane	ug/L	20	18.3	92	70-130	
1,2-Dichloropropane	ug/L	20	20.0	100	70-130	
1,3-Dichloropropane	ug/L	20	19.6	98	70-130	
2,2-Dichloropropane	ug/L	20	16.4	82	70-131	
2-Butanone (MEK)	ug/L	40	36.6	92	55-167	
2-Hexanone	ug/L	40	37.4	93	65-130	
4-Methyl-2-pentanone (MIBK)	ug/L	40	38.5	96	70-130	
Acetone	ug/L	40	42.8	107	40-150	
Acetonitrile	ug/L	200	193	96	63-138	
Acrolein	ug/L	200	258	129	44-170	
Acrylonitrile	ug/L	200	186	93	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

LABORATORY CONTROL SAMPLE: 1625566

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Allyl chloride	ug/L	20	26.0	130	70-130	
Benzene	ug/L	20	19.8	99	70-130	
Bromochloromethane	ug/L	20	20.3	102	70-130	
Bromodichloromethane	ug/L	20	20.5	102	70-130	
Bromoform	ug/L	20	20.1	101	68-130	
Bromomethane	ug/L	20	17.2	86	38-179	
Carbon disulfide	ug/L	20	34.1	170	51-155 J(LO)	
Carbon tetrachloride	ug/L	20	19.4	97	70-130	
Chlorobenzene	ug/L	20	21.1	105	70-130	
Chloroethane	ug/L	20	24.2	121	59-149	
Chloroform	ug/L	20	19.4	97	70-130	
Chloromethane	ug/L	20	21.8	109	68-130	
Chloroprene	ug/L	20	19.9	99	70-130	
cis-1,2-Dichloroethene	ug/L	20	19.5	98	70-130	
cis-1,3-Dichloropropene	ug/L	20	19.1	95	70-130	
Dibromochloromethane	ug/L	20	20.7	103	70-130	
Dibromomethane	ug/L	20	20.1	100	70-130	
Dichlorodifluoromethane	ug/L	20	22.4	112	67-130	
Ethyl methacrylate	ug/L	20	18.6	93	70-130	
Ethylbenzene	ug/L	20	21.2	106	70-130	
Hexachloro-1,3-butadiene	ug/L	20	18.1	91	70-130	
Iodomethane	ug/L	40	34.0	85	43-160	
Isobutyl Alcohol	ug/L	400	344	86	66-135	
Methacrylonitrile	ug/L	200	198	99	70-130	
Methyl methacrylate	ug/L	20	18.2	91	70-130	
Methylene Chloride	ug/L	20	19.0	95	70-130	
Propionitrile	ug/L	200	182	91	70-130	
Styrene	ug/L	20	21.3	106	70-130	
Tetrachloroethene	ug/L	20	27.7	139	66-133 J(LO)	
Toluene	ug/L	20	20.7	103	70-130	
trans-1,2-Dichloroethene	ug/L	20	19.6	98	70-130	
trans-1,3-Dichloropropene	ug/L	20	19.4	97	70-130	
trans-1,4-Dichloro-2-butene	ug/L	20	12.3	62	65-130 J(LO)	
Trichloroethene	ug/L	20	20.7	104	70-130	
Trichlorofluoromethane	ug/L	20	20.9	104	70-131	
Vinyl acetate	ug/L	20	18.6	93	69-135	
Vinyl chloride	ug/L	20	23.3	116	69-140	
Xylene (Total)	ug/L	60	62.3	104	70-130	
1,2-Dichloroethane-d4 (S)	%			97	86-125	
4-Bromofluorobenzene (S)	%			106	70-114	
Toluene-d8 (S)	%			101	87-113	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

MATRIX SPIKE SAMPLE:	1626794						
Parameter	Units	35251756001	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	0.50 U	20	19.5	97	70-130	
1,1,1-Trichloroethane	ug/L	0.50 U	20	18.4	92	70-130	
1,1,2,2-Tetrachloroethane	ug/L	0.12 U	20	18.4	92	70-130	
1,1,2-Trichloroethane	ug/L	0.50 U	20	17.8	89	70-130	
1,1-Dichloroethane	ug/L	0.50 U	20	18.3	91	70-130	
1,1-Dichloroethene	ug/L	0.50 U	20	19.3	96	70-130	
1,1-Dichloropropene	ug/L	0.50 U	20	18.1	91	70-130	
1,2,3-Trichloropropane	ug/L	0.59 U	20	20.3	102	70-130	
1,2,4-Trichlorobenzene	ug/L	0.50 U	20	15.6	78	70-130	
1,2-Dichloroethane	ug/L	0.50 U	20	19.0	95	70-130	
1,2-Dichloropropane	ug/L	0.50 U	20	18.4	92	70-130	
1,3-Dichloropropane	ug/L	0.50 U	20	18.1	91	70-130	
2,2-Dichloropropane	ug/L	0.50 U	20	10.5	52	70-130	J(M1)
2-Butanone (MEK)	ug/L	5.0 U	40	36.4	91	70-130	
2-Hexanone	ug/L	5.0 U	40	38.4	96	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	5.0 U	40	37.9	95	70-130	
Acetone	ug/L	25.7	40	69.9	110	70-130	
Acetonitrile	ug/L	5.0 U	200	184	92	70-130	
Acrolein	ug/L	10.0 U	200	190	95	70-130	
Acrylonitrile	ug/L	5.0 U	200	191	95	70-130	
Allyl chloride	ug/L	0.50 U	20	25.4	127	70-130	
Benzene	ug/L	0.45 I	20	19.6	96	70-130	
Bromochloromethane	ug/L	0.50 U	20	18.3	91	70-130	
Bromodichloromethane	ug/L	0.27 U	20	19.6	98	70-130	
Bromoform	ug/L	0.50 U	20	19.5	98	70-130	
Bromomethane	ug/L	0.50 U	20	17.1	85	70-130	
Carbon disulfide	ug/L	5.0 U	20	34.8	173	70-130	J(M0)
Carbon tetrachloride	ug/L	0.50 U	20	19.7	98	70-130	
Chlorobenzene	ug/L	3.8	20	22.9	96	70-130	
Chloroethane	ug/L	0.50 U	20	23.9	119	70-130	
Chloroform	ug/L	0.50 U	20	18.5	93	70-130	
Chloromethane	ug/L	0.62 U	20	19.1	95	70-130	
Chloroprene	ug/L	0.50 U	20	20.1	101	70-130	
cis-1,2-Dichloroethene	ug/L	0.50 U	20	17.6	88	70-130	
cis-1,3-Dichloropropene	ug/L	0.25 U	20	16.4	82	70-130	
Dibromochloromethane	ug/L	0.26 U	20	19.7	98	70-130	
Dibromomethane	ug/L	0.50 U	20	18.2	91	70-130	
Dichlorodifluoromethane	ug/L	0.50 U	20	7.9	40	70-130	J(M1)
Ethyl methacrylate	ug/L	0.50 U	20	18.8	94	70-130	
Ethylbenzene	ug/L	0.50 U	20	19.5	97	70-130	
Hexachloro-1,3-butadiene	ug/L	0.40 U	20	15.4	77	70-130	
Iodomethane	ug/L	0.50 U	40	49.7	124	70-130	
Isobutyl Alcohol	ug/L	10.0 U	400	329	82	70-130	
Methacrylonitrile	ug/L	5.0 U	200	204	102	70-130	
Methyl methacrylate	ug/L	5.0 U	20	17.6	88	70-130	
Methylene Chloride	ug/L	2.5 U	20	17.4	87	70-130	
Propionitrile	ug/L	5.0 U	200	184	92	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

MATRIX SPIKE SAMPLE: 1626794

Parameter	Units	35251756001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Styrene	ug/L	0.50 U	20	18.4	92	70-130	
Tetrachloroethene	ug/L	0.50 U	20	15.4	77	70-130	
Toluene	ug/L	0.50 U	20	19.1	95	70-130	
trans-1,2-Dichloroethene	ug/L	0.50 U	20	17.7	88	70-130	
trans-1,3-Dichloropropene	ug/L	0.25 U	20	16.6	83	70-130	
trans-1,4-Dichloro-2-butene	ug/L	5.0 U	20	8.0 I	40	70-130 J(M0)	
Trichloroethene	ug/L	0.50 U	20	18.9	94	70-130	
Trichlorofluoromethane	ug/L	0.50 U	20	18.8	94	70-130	
Vinyl acetate	ug/L	1.0 U	20	13.8	69	70-130 J(M1)	
Vinyl chloride	ug/L	0.50 U	20	19.0	95	70-130	
Xylene (Total)	ug/L	1.5 U	60	55.6	93	70-130	
1,2-Dichloroethane-d4 (S)	%				101	86-125	
4-Bromofluorobenzene (S)	%				100	70-114	
Toluene-d8 (S)	%				97	87-113	

SAMPLE DUPLICATE: 1626795

Parameter	Units	35252170002 Result	Dup Result	Max RPD	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50 U			40
1,1,1-Trichloroethane	ug/L	<0.50	0.50 U			40
1,1,2,2-Tetrachloroethane	ug/L	<0.12	0.12 U			40
1,1,2-Trichloroethane	ug/L	<0.50	0.50 U			40
1,1-Dichloroethane	ug/L	<0.50	0.50 U			40
1,1-Dichloroethene	ug/L	<0.50	0.50 U			40
1,1-Dichloropropene	ug/L	<0.50	0.50 U			40
1,2,3-Trichloropropane	ug/L	<0.59	0.59 U			40
1,2,4-Trichlorobenzene	ug/L	<0.50	0.50 U			40
1,2-Dichloroethane	ug/L	<0.50	0.50 U			40
1,2-Dichloropropane	ug/L	<0.50	0.50 U			40
1,3-Dichloropropane	ug/L	<0.50	0.50 U			40
2,2-Dichloropropane	ug/L	<0.50	0.50 U			40
2-Butanone (MEK)	ug/L	<5.0	5.0 U			40
2-Hexanone	ug/L	<5.0	5.0 U			40
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	5.0 U			40
Acetone	ug/L	<10.0	10.0 U			40
Acetonitrile	ug/L	<5.0	5.0 U			40
Acrolein	ug/L	<10.0	10.0 U			40
Acrylonitrile	ug/L	<5.0	5.0 U			40
Allyl chloride	ug/L	<0.50	0.50 U			40
Benzene	ug/L	<0.10	0.10 U			40
Bromochloromethane	ug/L	<0.50	0.50 U			40
Bromodichloromethane	ug/L	<0.27	0.27 U			40
Bromoform	ug/L	<0.50	0.50 U			40
Bromomethane	ug/L	<0.50	0.50 U			40
Carbon disulfide	ug/L	<5.0	5.0 U			40

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

SAMPLE DUPLICATE: 1626795

Parameter	Units	35252170002 Result	Dup Result	RPD	Max RPD	Qualifiers
Carbon tetrachloride	ug/L	<0.50	0.50 U		40	
Chlorobenzene	ug/L	<0.50	0.50 U		40	
Chloroethane	ug/L	<0.50	0.50 U		40	
Chloroform	ug/L	<0.50	0.50 U		40	
Chloromethane	ug/L	<0.62	0.62 U		40	
Chloroprene	ug/L	<0.50	0.50 U		40	
cis-1,2-Dichloroethene	ug/L	<0.50	0.50 U		40	
cis-1,3-Dichloropropene	ug/L	<0.25	0.25 U		40	
Dibromochloromethane	ug/L	<0.26	0.26 U		40	
Dibromomethane	ug/L	<0.50	0.50 U		40	
Dichlorodifluoromethane	ug/L	<0.50	0.50 U		40	
Ethyl methacrylate	ug/L	<0.50	0.50 U		40	
Ethylbenzene	ug/L	<0.50	0.50 U		40	
Hexachloro-1,3-butadiene	ug/L	<0.40	0.40 U		40	
Iodomethane	ug/L	<0.50	0.50 U		40	
Isobutyl Alcohol	ug/L	<10.0	10.0 U		40	
Methacrylonitrile	ug/L	<5.0	5.0 U		40	
Methyl methacrylate	ug/L	<5.0	5.0 U		40	
Methylene Chloride	ug/L	<2.5	2.5 U		40	
Propionitrile	ug/L	<5.0	5.0 U		40	
Styrene	ug/L	<0.50	0.50 U		40	
Tetrachloroethene	ug/L	<0.50	0.50 U		40	
Toluene	ug/L	<0.50	0.50 U		40	
trans-1,2-Dichloroethene	ug/L	<0.50	0.50 U		40	
trans-1,3-Dichloropropene	ug/L	<0.25	0.25 U		40	
trans-1,4-Dichloro-2-butene	ug/L	<5.0	5.0 U		40	
Trichloroethene	ug/L	<0.50	0.50 U		40	
Trichlorofluoromethane	ug/L	<0.50	0.50 U		40	
Vinyl acetate	ug/L	<1.0	1.0 U		40	
Vinyl chloride	ug/L	<0.50	0.50 U		40	
Xylene (Total)	ug/L	<1.5	1.5 U		40	
1,2-Dichloroethane-d4 (S)	%	103	102	1	40	
4-Bromofluorobenzene (S)	%	98	100	2	40	
Toluene-d8 (S)	%	104	105	1	40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

QC Batch:	305261	Analysis Method:	EPA 8011
QC Batch Method:	EPA 8011	Analysis Description:	8011 EDB DBCP
Associated Lab Samples: 35251015001, 35251015002			

METHOD BLANK: 1617175 Matrix: Water

Associated Lab Samples: 35251015001, 35251015002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromo-3-chloropropane	ug/L	0.0049 U	0.020	0.0049	06/25/16 08:40	
1,2-Dibromoethane (EDB)	ug/L	0.0075 U	0.010	0.0075	06/25/16 08:40	

LABORATORY CONTROL SAMPLE: 1617176

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromo-3-chloropropane	ug/L	.25	0.25	102	60-140	
1,2-Dibromoethane (EDB)	ug/L	.25	0.23	92	60-140	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1618557 1618558

Parameter	Units	35251020001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
1,2-Dibromo-3-chloropropane	ug/L	0.0050 U	.44	.44	0.43	0.46	99	105	60-140	6	40	
1,2-Dibromoethane (EDB)	ug/L	0.0077 U	.44	.44	0.39	0.40	90	91	60-140	1	40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

QC Batch:	305253	Analysis Method:	EPA 8081
QC Batch Method:	EPA 3510	Analysis Description:	8081 GCS Pesticides
Associated Lab Samples:	35251015001, 35251015002		

METHOD BLANK: 1617159 Matrix: Water

Associated Lab Samples: 35251015001, 35251015002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
4,4'-DDD	ug/L	0.0089 U	0.010	0.0089	06/24/16 09:56	
4,4'-DDE	ug/L	0.0050 U	0.010	0.0050	06/24/16 09:56	
4,4'-DDT	ug/L	0.0050 U	0.010	0.0050	06/24/16 09:56	
Aldrin	ug/L	0.0015 U	0.010	0.0015	06/24/16 09:56	
alpha-BHC	ug/L	0.0021 U	0.010	0.0021	06/24/16 09:56	
beta-BHC	ug/L	0.0080 U	0.010	0.0080	06/24/16 09:56	
Chlordane (Technical)	ug/L	0.18 U	0.50	0.18	06/24/16 09:56	
Chlorobenzilate	ug/L	0.039 U	0.10	0.039	06/24/16 09:56	
delta-BHC	ug/L	0.0048 U	0.010	0.0048	06/24/16 09:56	
Dieldrin	ug/L	0.0020 U	0.010	0.0020	06/24/16 09:56	
Endosulfan I	ug/L	0.0051 U	0.010	0.0051	06/24/16 09:56	
Endosulfan II	ug/L	0.0040 U	0.010	0.0040	06/24/16 09:56	
Endosulfan sulfate	ug/L	0.0062 U	0.10	0.0062	06/24/16 09:56	
Endrin	ug/L	0.0043 U	0.010	0.0043	06/24/16 09:56	
Endrin aldehyde	ug/L	0.0057 I	0.10	0.0036	06/24/16 09:56	
gamma-BHC (Lindane)	ug/L	0.0022 U	0.010	0.0022	06/24/16 09:56	
Heptachlor	ug/L	0.0062 U	0.010	0.0062	06/24/16 09:56	
Heptachlor epoxide	ug/L	0.0052 U	0.010	0.0052	06/24/16 09:56	
Methoxychlor	ug/L	0.0096 U	0.010	0.0096	06/24/16 09:56	
Pentachloronitrobenzene	ug/L	0.033 U	0.10	0.033	06/24/16 09:56	
Toxaphene	ug/L	0.25 U	0.50	0.25	06/24/16 09:56	
Decachlorobiphenyl (S)	%	68	10-132		06/24/16 09:56	
Tetrachloro-m-xylene (S)	%	76	27-124		06/24/16 09:56	

LABORATORY CONTROL SAMPLE: 1617160

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4,4'-DDD	ug/L	.5	0.46	91	67-133	
4,4'-DDE	ug/L	.5	0.34	67	59-125	
4,4'-DDT	ug/L	.5	0.41	83	54-132	
Aldrin	ug/L	.5	0.33	66	25-116	
alpha-BHC	ug/L	.5	0.38	76	53-126	
beta-BHC	ug/L	.5	0.42	84	62-130	
delta-BHC	ug/L	.5	0.41	83	35-122	
Dieldrin	ug/L	.5	0.46	92	66-128	
Endosulfan I	ug/L	.5	0.47	94	67-125	
Endosulfan II	ug/L	.5	0.48	96	67-131	
Endosulfan sulfate	ug/L	.5	0.50	100	62-127	
Endrin	ug/L	.5	0.46	93	66-130	
Endrin aldehyde	ug/L	.5	0.47	94	61-124	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

LABORATORY CONTROL SAMPLE: 1617160

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
gamma-BHC (Lindane)	ug/L	.5	0.41	83	58-127	
Heptachlor	ug/L	.5	0.38	77	35-123	
Heptachlor epoxide	ug/L	.5	0.41	83	62-125	
Methoxychlor	ug/L	.5	0.55	110	59-135	
Decachlorobiphenyl (S)	%			59	10-132	
Tetrachloro-m-xylene (S)	%			77	27-124	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1617465 1617466

Parameter	Units	35250803001		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max	
		Spiked	Conc.	Spiked	Conc.						RPD	RPD
4,4'-DDD	ug/L	0.0087	U	.5	.5	0.48	0.47	97	94	67-133	2	40
4,4'-DDE	ug/L	0.0049	U	.5	.5	0.42	0.40	85	80	59-125	5	40
4,4'-DDT	ug/L	0.0049	U	.5	.5	0.51	0.49	102	98	54-132	3	40
Aldrin	ug/L	0.0015	U	.5	.5	0.34	0.33	70	66	25-116	4	40
alpha-BHC	ug/L	0.0057	I	.5	.5	0.36	0.35	72	70	53-126	3	40
beta-BHC	ug/L	0.34		.5	.5	0.73	0.74	79	80	62-130	1	40
delta-BHC	ug/L	0.014		.5	.5	0.40	0.40	78	78	35-122	0	40
Dieldrin	ug/L	0.031		.5	.5	0.48	0.46	90	86	66-128	4	40
Endosulfan I	ug/L	0.0050	U	.5	.5	0.46	0.45	93	89	67-125	3	40
Endosulfan II	ug/L	0.0039	U	.5	.5	0.50	0.49	101	99	67-131	2	40
Endosulfan sulfate	ug/L	0.0061	U	.5	.5	0.49	0.48	100	97	62-127	2	40
Endrin	ug/L	0.0042	U	.5	.5	0.49	0.48	98	97	66-130	1	40
Endrin aldehyde	ug/L	0.0035	U	.5	.5	0.47	0.29	95	58	61-124	49	40 J(M1), J(R1)
gamma-BHC (Lindane)	ug/L	0.0076	I	.5	.5	0.40	0.40	78	78	58-127	0	40
Heptachlor	ug/L	0.0061	U	.5	.5	0.37	0.37	74	74	35-123	0	40
Heptachlor epoxide	ug/L	0.0094	I	.5	.5	0.41	0.40	81	78	62-125	3	40
Methoxychlor	ug/L	0.0094	U	.5	.5	0.56	0.55	112	110	59-135	1	40
Decachlorobiphenyl (S)	%							77	73	10-132		
Tetrachloro-m-xylene (S)	%							72	70	27-124		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

QC Batch:	305254	Analysis Method:	EPA 8082
QC Batch Method:	EPA 3510	Analysis Description:	8082 GCS PCB
Associated Lab Samples: 35251015001, 35251015002			

METHOD BLANK: 1617161 Matrix: Water

Associated Lab Samples: 35251015001, 35251015002

Parameter	Units	Blank	Reporting	MDL	Analyzed	Qualifiers
		Result	Limit			
PCB-1016 (Aroclor 1016)	ug/L	0.080	U	0.50	0.080	06/24/16 09:58
PCB-1221 (Aroclor 1221)	ug/L	0.081	U	0.50	0.081	06/24/16 09:58
PCB-1232 (Aroclor 1232)	ug/L	0.12	U	0.50	0.12	06/24/16 09:58
PCB-1242 (Aroclor 1242)	ug/L	0.13	U	0.50	0.13	06/24/16 09:58
PCB-1248 (Aroclor 1248)	ug/L	0.28	U	0.50	0.28	06/24/16 09:58
PCB-1254 (Aroclor 1254)	ug/L	0.14	U	0.50	0.14	06/24/16 09:58
PCB-1260 (Aroclor 1260)	ug/L	0.11	U	0.50	0.11	06/24/16 09:58
Decachlorobiphenyl (S)	%	65		10-140		06/24/16 09:58
Tetrachloro-m-xylene (S)	%	84		21-126		06/24/16 09:58

Parameter	Units	1617162						1617464			
		Spike	LCS	LCSD	LCS	LCSD	% Rec	Max	RPD	RPD	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	2.5	2.1	2.0	85	80	47-122	6	40		
PCB-1260 (Aroclor 1260)	ug/L	2.5	1.9	1.9	76	75	58-117	2	40		
Decachlorobiphenyl (S)	%				57	135	10-140				
Tetrachloro-m-xylene (S)	%				81	151	21-126				P2,S7

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

QC Batch:	306530	Analysis Method:	EPA 8141
QC Batch Method:	EPA 3510	Analysis Description:	8141 GCS, O/P Pesticides
Associated Lab Samples: 35251015001, 35251015002			

METHOD BLANK: 1624145 Matrix: Water

Associated Lab Samples: 35251015001, 35251015002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dimethoate	ug/L	0.24 U	0.50	0.24	07/01/16 14:45	
Disulfoton	ug/L	0.26 U	0.50	0.26	07/01/16 14:45	
Methyl parathion	ug/L	0.27 U	0.50	0.27	07/01/16 14:45	
Parathion (Ethyl parathion)	ug/L	0.47 U	1.0	0.47	07/01/16 14:45	
Phorate	ug/L	0.42 U	1.0	0.42	07/01/16 14:45	
4-Chloro3nitrobenzotrifluoride	%	30	12-127		07/01/16 14:45	

LABORATORY CONTROL SAMPLE & LCSD: 1624146

Parameter	Units	1624147								
		Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Dimethoate	ug/L	2	1.1	0.94	53	47	19-110	12	40	
Disulfoton	ug/L	2	1.6	1.4	82	72	26-110	13	40	
Methyl parathion	ug/L	2	1.9	1.7	93	83	29-113	11	40	
Parathion (Ethyl parathion)	ug/L	4	3.6	3.3	90	82	28-116	10	40	
Phorate	ug/L	4	3.6	3.3	91	82	30-110	10	40	
4-Chloro3nitrobenzotrifluoride	%				61	56	12-127			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

QC Batch:	305691	Analysis Method:	EPA 8151
QC Batch Method:	EPA 8151	Analysis Description:	8151A GCS Herbicides
Associated Lab Samples: 35251015001, 35251015002			

METHOD BLANK: 1619674 Matrix: Water

Associated Lab Samples: 35251015001, 35251015002

Parameter	Units	Blank	Reporting	MDL	Analyzed	Qualifiers
		Result	Limit			
2,4,5-T	ug/L	0.042	U	0.19	0.042	06/29/16 10:08
2,4,5-TP (Silvex)	ug/L	0.049	U	0.19	0.049	06/29/16 10:08
2,4-D	ug/L	0.22	U	0.94	0.22	06/29/16 10:08
Dinoseb	ug/L	0.057	U	0.19	0.057	06/29/16 10:08
Pentachlorophenol	ug/L	0.017	U	0.028	0.017	06/29/16 10:08
2,4-DCAA (S)	%		80	39-139		06/29/16 10:08

LABORATORY CONTROL SAMPLE & LCSD: 1619675

1619827

Parameter	Units	Spike	LCS	LCSD	LCS	LCSD	% Rec	RPD	Max RPD	Qualifiers
		Conc.	Result	Result	% Rec	% Rec	Limits			
2,4,5-T	ug/L	1.2	1.3	1.3	108	105	37-133	3	40	
2,4,5-TP (Silvex)	ug/L	1.2	1.1	1.2	93	99	53-134	7	40	
2,4-D	ug/L	6	5.3	5.4	88	91	35-124	4	40	
Dinoseb	ug/L	1.2	1.1	1.1	88	91	13-116	3	40	
Pentachlorophenol	ug/L	.18	0.20	0.20	109	113	39-170	3	40	
2,4-DCAA (S)	%				82	86	39-139		40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

QC Batch:	306310	Analysis Method:	EPA 8270 by SIM
QC Batch Method:	EPA 3510	Analysis Description:	8270 Water PAHLV by SIM MSSV
Associated Lab Samples: 35251015001, 35251015002			

METHOD BLANK: 1622864 Matrix: Water

Associated Lab Samples: 35251015001, 35251015002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
2-Methylnaphthalene	ug/L	1.0 U	2.0	1.0	07/01/16 10:59	
Acenaphthene	ug/L	0.025 U	0.50	0.025	07/01/16 10:59	
Acenaphthylene	ug/L	0.025 U	0.50	0.025	07/01/16 10:59	
Anthracene	ug/L	0.025 U	0.50	0.025	07/01/16 10:59	
Benzo(a)anthracene	ug/L	0.025 U	0.10	0.025	07/01/16 10:59	
Benzo(a)pyrene	ug/L	0.025 U	0.10	0.025	07/01/16 10:59	
Benzo(b)fluoranthene	ug/L	0.025 U	0.10	0.025	07/01/16 10:59	
Benzo(g,h,i)perylene	ug/L	0.028 U	0.50	0.028	07/01/16 10:59	
Benzo(k)fluoranthene	ug/L	0.025 U	0.50	0.025	07/01/16 10:59	
Chrysene	ug/L	0.025 U	0.50	0.025	07/01/16 10:59	
Dibenz(a,h)anthracene	ug/L	0.025 U	0.10	0.025	07/01/16 10:59	
Fluoranthene	ug/L	0.025 U	0.50	0.025	07/01/16 10:59	
Fluorene	ug/L	0.025 U	0.50	0.025	07/01/16 10:59	
Indeno(1,2,3-cd)pyrene	ug/L	0.025 U	0.10	0.025	07/01/16 10:59	
Naphthalene	ug/L	1.0 U	2.0	1.0	07/01/16 10:59	
Phenanthrene	ug/L	0.050 U	0.50	0.050	07/01/16 10:59	
Pyrene	ug/L	0.025 U	0.50	0.025	07/01/16 10:59	
2-Fluorobiphenyl (S)	%	55	33-101		07/01/16 10:59	
Terphenyl-d14 (S)	%	42	38-115		07/01/16 10:59	

LABORATORY CONTROL SAMPLE: 1622865

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Methylnaphthalene	ug/L	5	2.5	51	34-104	
Acenaphthene	ug/L	5	2.8	56	38-109	
Acenaphthylene	ug/L	5	2.3	45	31-115	
Anthracene	ug/L	5	2.7	53	38-111	
Benzo(a)anthracene	ug/L	5	3.1	61	36-110	
Benzo(a)pyrene	ug/L	5	1.9	37	27-107	
Benzo(b)fluoranthene	ug/L	5	2.0	41	32-119	
Benzo(g,h,i)perylene	ug/L	5	1.0	20	10-109	
Benzo(k)fluoranthene	ug/L	5	3.4	69	28-118	
Chrysene	ug/L	5	4.0	81	33-130	
Dibenz(a,h)anthracene	ug/L	5	1.1	21	10-104	
Fluoranthene	ug/L	5	2.4	47	45-115	
Fluorene	ug/L	5	2.6	52	41-114	
Indeno(1,2,3-cd)pyrene	ug/L	5	1.3	26	10-104	
Naphthalene	ug/L	5	2.4	49	38-100	
Phenanthrene	ug/L	5	3.3	65	41-106	
Pyrene	ug/L	5	2.3	46	45-115	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

LABORATORY CONTROL SAMPLE: 1622865

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Fluorobiphenyl (S)	%			59	33-101	
Terphenyl-d14 (S)	%			49	38-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1623418 1623419

Parameter	Units	35251015001		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max		
		Result	Spike Conc.	MS Result	MSD Result				RPD	RPD	Qual
2-Methylnaphthalene	ug/L	1.0 U	5	5	3.8	3.8	76	76	34-104	0	40
Acenaphthene	ug/L	0.025 U	5	5	3.9	3.9	78	78	38-109	1	40
Acenaphthylene	ug/L	0.025 U	5	5	3.8	3.7	75	75	31-115	1	40
Anthracene	ug/L	0.025 U	5	5	4.5	4.8	90	95	38-111	6	40
Benzo(a)anthracene	ug/L	0.025 U	5	5	4.8	5.1	96	102	36-110	6	40
Benzo(a)pyrene	ug/L	0.025 U	5	5	2.8	3.1	56	63	27-107	12	40
Benzo(b)fluoranthene	ug/L	0.025 U	5	5	4.5	5.0	90	101	32-119	12	40
Benzo(g,h,i)perylene	ug/L	0.028 U	5	5	3.2	3.7	63	74	10-109	16	40
Benzo(k)fluoranthene	ug/L	0.025 U	5	5	4.0	4.2	81	84	28-118	5	40
Chrysene	ug/L	0.025 U	5	5	4.7	4.9	95	99	33-130	4	40
Dibenz(a,h)anthracene	ug/L	0.025 U	5	5	3.1	3.6	62	72	10-104	16	40
Fluoranthene	ug/L	0.025 U	5	5	4.8	5.0	95	101	45-115	6	40
Fluorene	ug/L	0.025 U	5	5	4.3	4.4	86	87	41-114	1	40
Indeno(1,2,3-cd)pyrene	ug/L	0.025 U	5	5	1.3	2.0	27	39	10-104	38	40
Naphthalene	ug/L	1.0 U	5	5	3.3	3.3	65	66	38-100	1	40
Phenanthrene	ug/L	0.050 U	5	5	4.6	4.8	92	96	41-106	4	40
Pyrene	ug/L	0.025 U	5	5	4.4	4.7	89	95	45-115	6	40
2-Fluorobiphenyl (S)	%						66	67	33-101		
Terphenyl-d14 (S)	%						77	83	38-115		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

QC Batch:	319369	Analysis Method:	EPA 8270
QC Batch Method:	EPA 3510	Analysis Description:	8270 Water MSSV
Associated Lab Samples: 35251015001, 35251015002			

METHOD BLANK: 1769766 Matrix: Water

Associated Lab Samples: 35251015001, 35251015002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/L	1.7 U	10.0	1.7	07/01/16 14:46	
1,2-Dichlorobenzene	ug/L	1.2 U	10.0	1.2	07/01/16 14:46	
1,3,5-Trinitrobenzene	ug/L	1.1 U	10.0	1.1	07/01/16 14:46	
1,3-Dichlorobenzene	ug/L	1.1 U	10.0	1.1	07/01/16 14:46	
1,3-Dinitrobenzene	ug/L	1.5 U	20.0	1.5	07/01/16 14:46	
1,4-Dichlorobenzene	ug/L	1.2 U	10.0	1.2	07/01/16 14:46	
1,4-Naphthoquinone	ug/L	1.8 U	5.0	1.8	07/01/16 14:46	
1-Naphthalenamine	ug/L	0.96 U	5.0	0.96	07/01/16 14:46	
2,2'-Oxybis(1-chloropropane)	ug/L	1.6 U	10.0	1.6	07/01/16 14:46	
2,3,4,6-Tetrachlorophenol	ug/L	2.3 U	10.0	2.3	07/01/16 14:46	
2,4,5-Trichlorophenol	ug/L	2.2 U	10.0	2.2	07/01/16 14:46	
2,4,6-Trichlorophenol	ug/L	1.9 U	10.0	1.9	07/01/16 14:46	
2,4-Dichlorophenol	ug/L	1.7 U	10.0	1.7	07/01/16 14:46	
2,4-Dimethylphenol	ug/L	2.2 U	10.0	2.2	07/01/16 14:46	
2,4-Dinitrophenol	ug/L	6.5 U	50.0	6.5	07/01/16 14:46	
2,4-Dinitrotoluene	ug/L	1.2 U	10.0	1.2	07/01/16 14:46	
2,6-Dichlorophenol	ug/L	1.8 U	10.0	1.8	07/01/16 14:46	
2,6-Dinitrotoluene	ug/L	1.7 U	10.0	1.7	07/01/16 14:46	
2-Acetylaminofluorene	ug/L	0.84 U	20.0	0.84	07/01/16 14:46	
2-Chloronaphthalene	ug/L	2.2 U	10.0	2.2	07/01/16 14:46	
2-Chlorophenol	ug/L	1.5 U	10.0	1.5	07/01/16 14:46	
2-Methylphenol(o-Cresol)	ug/L	1.7 U	10.0	1.7	07/01/16 14:46	
2-Naphthalenamine	ug/L	0.98 U	5.0	0.98	07/01/16 14:46	
2-Nitroaniline	ug/L	2.8 U	50.0	2.8	07/01/16 14:46	
2-Nitrophenol	ug/L	1.7 U	10.0	1.7	07/01/16 14:46	
3&4-Methylphenol(m&p Cresol)	ug/L	1.7 U	10.0	1.7	07/01/16 14:46	
3,3'-Dichlorobenzidine	ug/L	1.4 U	20.0	1.4	07/01/16 14:46	
3,3'-Dimethylbenzidine	ug/L	2.1 U	10.0	2.1	07/01/16 14:46	
3-Methylcholanthrene	ug/L	0.82 U	10.0	0.82	07/01/16 14:46	
3-Nitroaniline	ug/L	2.4 U	50.0	2.4	07/01/16 14:46	
4,6-Dinitro-2-methylphenol	ug/L	1.7 U	20.0	1.7	07/01/16 14:46	
4-Aminobiphenyl	ug/L	0.92 U	10.0	0.92	07/01/16 14:46	
4-Bromophenylphenyl ether	ug/L	1.3 U	10.0	1.3	07/01/16 14:46	
4-Chloro-3-methylphenol	ug/L	4.2 U	20.0	4.2	07/01/16 14:46	
4-Chloroaniline	ug/L	3.4 U	20.0	3.4	07/01/16 14:46	
4-Chlorophenylphenyl ether	ug/L	2.1 U	10.0	2.1	07/01/16 14:46	
4-Nitroaniline	ug/L	2.5 U	20.0	2.5	07/01/16 14:46	
4-Nitrophenol	ug/L	5.8 U	50.0	5.8	07/01/16 14:46	
5-Nitro-o-toluidine	ug/L	1.2 U	10.0	1.2	07/01/16 14:46	
7,12-Dimethylbenz(a)anthracene	ug/L	0.77 U	10.0	0.77	07/01/16 14:46	
a,a-Dimethylphenylethylamine	ug/L	1.4 U	50.0	1.4	07/01/16 14:46	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

METHOD BLANK: 1769766

Matrix: Water

Associated Lab Samples: 35251015001, 35251015002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetophenone	ug/L	2.0 U	10.0	2.0	07/01/16 14:46	
Benzyl alcohol	ug/L	3.4 U	20.0	3.4	07/01/16 14:46	
bis(2-Chloroethoxy)methane	ug/L	1.7 U	10.0	1.7	07/01/16 14:46	
bis(2-Chloroethyl) ether	ug/L	1.5 U	10.0	1.5	07/01/16 14:46	
bis(2-Ethylhexyl)phthalate	ug/L	0.85 U	6.0	0.85	07/01/16 14:46	
Butylbenzylphthalate	ug/L	0.75 U	10.0	0.75	07/01/16 14:46	
Di-n-butylphthalate	ug/L	1.1 U	10.0	1.1	07/01/16 14:46	
Di-n-octylphthalate	ug/L	0.86 U	10.0	0.86	07/01/16 14:46	
Diallate	ug/L	1.3 U	10.0	1.3	07/01/16 14:46	
Dibenzofuran	ug/L	1.8 U	10.0	1.8	07/01/16 14:46	
Diethylphthalate	ug/L	1.3 U	10.0	1.3	07/01/16 14:46	
Dimethylphthalate	ug/L	1.5 U	10.0	1.5	07/01/16 14:46	
Diphenylamine	ug/L	1.3 U	10.0	1.3	07/01/16 14:46	
Ethyl methanesulfonate	ug/L	1.8 U	20.0	1.8	07/01/16 14:46	
Famphur	ug/L	1.7 U	10.0	1.7	07/01/16 14:46	
Hexachlorobenzene	ug/L	1.1 U	10.0	1.1	07/01/16 14:46	
Hexachlorocyclopentadiene	ug/L	1.8 U	10.0	1.8	07/01/16 14:46	
Hexachloroethane	ug/L	1.5 U	10.0	1.5	07/01/16 14:46	
Hexachlorophene	ug/L	11.5 U	100	11.5	07/01/16 14:46	
Hexachloropropene	ug/L	1.6 U	10.0	1.6	07/01/16 14:46	
Isodrin	ug/L	2.0 U	20.0	2.0	07/01/16 14:46	
Isophorone	ug/L	1.8 U	10.0	1.8	07/01/16 14:46	
Isosafrole	ug/L	1.8 U	10.0	1.8	07/01/16 14:46	
Kepone	ug/L	3.1 U	10.0	3.1	07/01/16 14:46	
Methapyrilene	ug/L	2.7 U	50.0	2.7	07/01/16 14:46	
Methyl methanesulfonate	ug/L	1.3 U	5.0	1.3	07/01/16 14:46	
N-Nitroso-di-n-butylamine	ug/L	2.2 U	10.0	2.2	07/01/16 14:46	
N-Nitroso-di-n-propylamine	ug/L	2.1 U	10.0	2.1	07/01/16 14:46	
N-Nitrosodiethylamine	ug/L	1.8 U	20.0	1.8	07/01/16 14:46	
N-Nitrosodimethylamine	ug/L	1.3 U	10.0	1.3	07/01/16 14:46	
N-Nitrosodiphenylamine	ug/L	1.3 U	10.0	1.3	07/01/16 14:46	
N-Nitrosomethylmethylenamine	ug/L	1.8 U	10.0	1.8	07/01/16 14:46	
N-Nitrosomorpholine	ug/L	2.5 U	10.0	2.5	07/01/16 14:46	
N-Nitrosopiperidine	ug/L	1.9 U	20.0	1.9	07/01/16 14:46	
N-Nitrosopyrrolidine	ug/L	2.5 U	10.0	2.5	07/01/16 14:46	
Nitrobenzene	ug/L	1.7 U	10.0	1.7	07/01/16 14:46	
O,O,O-Triethylphosphorothioate	ug/L	1.8 U	10.0	1.8	07/01/16 14:46	
O-Toluidine	ug/L	1.6 U	10.0	1.6	07/01/16 14:46	
P-Dimethylaminoazobenzene	ug/L	0.35 U	5.0	0.35	07/01/16 14:46	
p-Phenylenediamine	ug/L	0.96 U	10.0	0.96	07/01/16 14:46	
Pentachlorobenzene	ug/L	2.0 U	10.0	2.0	07/01/16 14:46	
Phenacetin	ug/L	0.97 U	20.0	0.97	07/01/16 14:46	
Phenol	ug/L	1.7 U	10.0	1.7	07/01/16 14:46	
Pronamide	ug/L	0.97 U	10.0	0.97	07/01/16 14:46	
Safrole	ug/L	1.5 U	10.0	1.5	07/01/16 14:46	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

METHOD BLANK: 1769766 Matrix: Water

Associated Lab Samples: 35251015001, 35251015002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Thionazin	ug/L	1.2 U	20.0	1.2	07/01/16 14:46	
2,4,6-Tribromophenol (S)	%	85	27-110		07/01/16 14:46	
2-Fluorobiphenyl (S)	%	70	27-110		07/01/16 14:46	
2-Fluorophenol (S)	%	43	12-110		07/01/16 14:46	
Nitrobenzene-d5 (S)	%	76	21-110		07/01/16 14:46	
Phenol-d6 (S)	%	32	10-110		07/01/16 14:46	
Terphenyl-d14 (S)	%	95	31-107		07/01/16 14:46	

LABORATORY CONTROL SAMPLE: 1769767

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/L	50	36.3	73	16-129	
1,2-Dichlorobenzene	ug/L	50	29.4	59	38-120	
1,3,5-Trinitrobenzene	ug/L	50	34.7	69	55-125	
1,3-Dichlorobenzene	ug/L	50	28.9	58	30-122	
1,3-Dinitrobenzene	ug/L	50	39.4	79	30-122	
1,4-Dichlorobenzene	ug/L	50	28.4	57	37-120	
1,4-Naphthoquinone	ug/L	50	42.2	84	31-120	
1-Naphthalenamine	ug/L	50	28.3	57	37-126	
2,2'-Oxybis(1-chloropropane)	ug/L	50	38.1	76	18-120	
2,3,4,6-Tetrachlorophenol	ug/L	50	82.6	165	54-276	
2,4,5-Trichlorophenol	ug/L	50	43.3	87	43-113	
2,4,6-Trichlorophenol	ug/L	50	44.7	89	42-120	
2,4-Dichlorophenol	ug/L	50	41.5	83	30-120	
2,4-Dimethylphenol	ug/L	50	39.7	79	29-111	
2,4-Dinitrophenol	ug/L	250	119	47	19-132	
2,4-Dinitrotoluene	ug/L	50	43.8	88	58-128	
2,6-Dichlorophenol	ug/L	50	41.9	84	54-128	
2,6-Dinitrotoluene	ug/L	50	46.4	93	54-129	
2-Acetylaminofluorene	ug/L	50	53.0	106	81-160	
2-Chloronaphthalene	ug/L	50	45.1	90	43-117	
2-Chlorophenol	ug/L	50	36.8	74	37-120	
2-Methylphenol(o-Cresol)	ug/L	50	31.9	64	31-120	
2-Naphthalenamine	ug/L	50	38.8	78	41-136	
2-Nitroaniline	ug/L	100	83.8	84	48-121	
2-Nitrophenol	ug/L	50	43.1	86	25-116	
3&4-Methylphenol(m&p Cresol)	ug/L	50	29.9	60	23-120	
3,3'-Dichlorobenzidine	ug/L	250	84.0	34	10-154	
3,3'-Dimethylbenzidine	ug/L	100	40.7	41	10-157	
3-Methylcholanthrene	ug/L	50	39.2	78	65-130	
3-Nitroaniline	ug/L	100	80.8	81	43-115	
4,6-Dinitro-2-methylphenol	ug/L	100	78.8	79	44-124	
4-Aminobiphenyl	ug/L	50	29.6	59	21-125	
4-Bromophenylphenyl ether	ug/L	50	44.5	89	34-113	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

LABORATORY CONTROL SAMPLE: 1769767

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Chloro-3-methylphenol	ug/L	100	82.7	83	31-110	
4-Chloroaniline	ug/L	100	75.6	76	20-120	
4-Chlorophenylphenyl ether	ug/L	50	41.6	83	34-116	
4-Nitroaniline	ug/L	100	74.2	74	46-128	
4-Nitrophenol	ug/L	250	85.0	34	11-120	
5-Nitro-o-toluidine	ug/L	50	47.5	95	78-160	
7,12-Dimethylbenz(a)anthracene	ug/L	50	37.2	74	47-124	
Acetophenone	ug/L	50	42.8	86	24-120	
Benzyl alcohol	ug/L	100	77.4	77	27-120	
bis(2-Chloroethoxy)methane	ug/L	50	41.2	82	32-120	
bis(2-Chloroethyl) ether	ug/L	50	38.5	77	33-111	
bis(2-Ethylhexyl)phthalate	ug/L	50	53.6	107	50-145	
Butylbenzylphthalate	ug/L	50	52.9	106	54-138	
Di-n-butylphthalate	ug/L	50	48.3	97	56-125	
Di-n-octylphthalate	ug/L	50	52.8	106	50-134	
Diallate	ug/L	50	41.7	83	47-123	
Dibenzofuran	ug/L	50	40.9	82	45-120	
Diethylphthalate	ug/L	50	43.4	87	53-120	
Dimethylphthalate	ug/L	50	42.3	85	55-116	
Diphenylamine	ug/L	50	39.7	79	42-120	
Ethyl methanesulfonate	ug/L	50	38.8	78	43-120	
Famphur	ug/L	100	72.5	72	40-160	
Hexachlorobenzene	ug/L	50	40.5	81	49-116	
Hexachlorocyclopentadiene	ug/L	50	23.7	47	26-158	
Hexachloroethane	ug/L	50	27.1	54	30-114	
Hexachlorophene	ug/L	500	278	56	10-130	
Hexachloropropene	ug/L	50	26.3	53	13-137	
Isodrin	ug/L	50	47.9	96	68-129	
Isophorone	ug/L	50	43.3	87	31-118	
Isosafrole	ug/L	50	42.0	84	48-107	
Kepone	ug/L	100	59.7	60	10-124	
Methapyrilene	ug/L	50	31.0 I	62	40-160	
Methyl methanesulfonate	ug/L	50	31.1	62	25-114	
N-Nitroso-di-n-butylamine	ug/L	50	37.1	74	36-115	
N-Nitroso-di-n-propylamine	ug/L	50	38.8	78	32-119	
N-Nitrosodiethylamine	ug/L	50	43.7	87	47-115	
N-Nitrosodimethylamine	ug/L	50	19.1	38	13-120	
N-Nitrosodiphenylamine	ug/L	50	39.7	79	43-120	
N-Nitrosomethylethylamine	ug/L	50	39.6	79	39-120	
N-Nitrosomorpholine	ug/L	50	37.7	75	40-126	
N-Nitrosopiperidine	ug/L	50	44.3	89	43-113	
N-Nitrosopyrrolidine	ug/L	50	37.4	75	32-110	
Nitrobenzene	ug/L	50	40.5	81	33-110	
O,O,O-Triethylphosphorothioate	ug/L	50	40.1	80	51-127	
O-Toluidine	ug/L	50	34.2	68	27-120	
P-Dimethylaminoazobenzene	ug/L	100	23.8	24	10-120	
p-Phenylenediamine	ug/L	50	43.3	87	72-143	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

LABORATORY CONTROL SAMPLE: 1769767

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Pentachlorobenzene	ug/L	50	38.4	77	30-137	
Phenacetin	ug/L	50	44.6	89	60-130	
Phenol	ug/L	50	19.7	39	10-120	
Pronamide	ug/L	50	44.4	89	75-124	
Safrole	ug/L	50	39.1	78	41-120	
Thionazin	ug/L	50	43.5	87	63-137	
2,4,6-Tribromophenol (S)	%			92	27-110	
2-Fluorobiphenyl (S)	%			76	27-110	
2-Fluorophenol (S)	%			46	12-110	
Nitrobenzene-d5 (S)	%			81	21-110	
Phenol-d6 (S)	%			34	10-110	
Terphenyl-d14 (S)	%			96	31-107	

MATRIX SPIKE SAMPLE: 1769768

Parameter	Units	92302889001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/L	ND	50	38.6	77	50-150	
1,2-Dichlorobenzene	ug/L	ND	50	34.7	69	10-110	
1,3,5-Trinitrobenzene	ug/L	ND	50	43.8	88	50-150	
1,3-Dichlorobenzene	ug/L	ND	50	34.0	68	10-110	
1,3-Dinitrobenzene	ug/L	ND	50	40.9	82	50-150	
1,4-Dichlorobenzene	ug/L	ND	50	33.8	68	10-110	
1,4-Naphthoquinone	ug/L	ND	50	43.7	87	50-150	
1-Naphthalenamine	ug/L	ND	50	22.6	45	50-150	J(M1)
2,2'-Oxybis(1-chloropropane)	ug/L	ND	50	40.7	81	50-150	
2,3,4,6-Tetrachlorophenol	ug/L	ND	50	56.8	114	50-150	
2,4,5-Trichlorophenol	ug/L	ND	50	44.7	89	19-105	
2,4,6-Trichlorophenol	ug/L	ND	50	44.7	89	13-108	
2,4-Dichlorophenol	ug/L	ND	50	44.1	88	29-111	
2,4-Dimethylphenol	ug/L	ND	50	41.4	83	21-103	
2,4-Dinitrophenol	ug/L	ND	250	139	56	10-109	
2,4-Dinitrotoluene	ug/L	ND	50	45.2	79	27-104	
2,6-Dichlorophenol	ug/L	ND	50	43.2	86	50-150	
2,6-Dinitrotoluene	ug/L	ND	50	48.3	97	28-101	
2-Acetylaminofluorene	ug/L	ND	50	55.5	108	50-150	
2-Chloronaphthalene	ug/L	ND	50	44.8	90	14-102	
2-Chlorophenol	ug/L	ND	50	41.3	83	16-110	
2-Methylphenol(o-Cresol)	ug/L	ND	50	37.3	75	19-110	
2-Naphthalenamine	ug/L	ND	50	32.5	65	50-150	
2-Nitroaniline	ug/L	ND	100	83.7	84	26-103	
2-Nitrophenol	ug/L	ND	50	44.4	89	20-110	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	50	34.8	70	20-110	
3,3'-Dichlorobenzidine	ug/L	ND	250	83.8	33	25-112	
3,3'-Dimethylbenzidine	ug/L	ND	100	11.4	11	50-150	J(M1)
3-Methylcholanthrene	ug/L	ND	50	40.9	79	50-150	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

MATRIX SPIKE SAMPLE:	1769768		92302889001	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Parameter	Units	Result						
3-Nitroaniline	ug/L	ND	100	80.9	81	29-110		
4,6-Dinitro-2-methylphenol	ug/L	ND	100	84.7	85	10-117		
4-Aminobiphenyl	ug/L	ND	50	21.2	42	50-150 J(M1)		
4-Bromophenylphenyl ether	ug/L	ND	50	3.1 I	1	20-105 J(M1)		
4-Chloro-3-methylphenol	ug/L	ND	100	89.5	90	22-110		
4-Chloroaniline	ug/L	ND	100	73.4	73	20-100		
4-Chlorophenylphenyl ether	ug/L	ND	50	42.4	85	19-102		
4-Nitroaniline	ug/L	ND	100	72.4	72	29-110		
4-Nitrophenol	ug/L	ND	250	115	45	10-110		
5-Nitro-o-toluidine	ug/L	ND	50	47.9	96	50-150		
7,12-Dimethylbenz(a)anthracene	ug/L	ND	50	38.3	74	50-150		
a,a-Dimethylphenylethylamine	ug/L	ND	50	1.4 U	0	50-150 J(M0)		
Acetophenone	ug/L	ND	50	46.3	93	50-150		
Benzyl alcohol	ug/L	ND	100	90.3	90	19-101		
bis(2-Chloroethoxy)methane	ug/L	ND	50	41.6	83	22-110		
bis(2-Chloroethyl) ether	ug/L	ND	50	43.5	87	16-110		
bis(2-Ethylhexyl)phthalate	ug/L	ND	50	53.8	104	23-102 J(M1)		
Butylbenzylphthalate	ug/L	ND	50	54.9	107	25-110		
Di-n-butylphthalate	ug/L	ND	50	48.4	97	26-110		
Di-n-octylphthalate	ug/L	ND	50	53.9	105	22-110		
Diallate	ug/L	ND	50	41.3	83	50-150		
Dibenzofuran	ug/L	ND	50	41.7	83	19-102		
Diethylphthalate	ug/L	ND	50	44.2	88	29-110		
Dimethylphthalate	ug/L	ND	50	43.0	86	27-110		
Diphenylamine	ug/L	ND	50	39.9	80	50-150		
Ethyl methanesulfonate	ug/L	ND	50	43.0	86	50-150		
Famphur	ug/L	ND	100	74.3	74	50-150		
Hexachlorobenzene	ug/L	ND	50	41.0	82	21-116		
Hexachlorocyclopentadiene	ug/L	ND	50	28.8	58	10-110		
Hexachloroethane	ug/L	ND	50	32.7	65	10-110		
Hexachlorophene	ug/L	ND	500	302	60	50-150		
Hexachloropropene	ug/L	ND	50	32.2	64	50-150		
Isodrin	ug/L	ND	50	48.2	96	50-150		
Isophorone	ug/L	ND	50	44.7	89	50-150		
Isosafrole	ug/L	ND	50	42.3	85	50-150		
Kepone	ug/L	ND	100	58.0	56	50-150		
Methapyrilene	ug/L	ND	50	7.6 I	15	50-150 J(M1)		
Methyl methanesulfonate	ug/L	ND	50	36.2	72	50-150		
N-Nitroso-di-n-butylamine	ug/L	ND	50	39.2	78	50-150		
N-Nitroso-di-n-propylamine	ug/L	ND	50	42.7	85	21-105		
N-Nitrosodiethylamine	ug/L	ND	50	47.4	95	50-150		
N-Nitrosodimethylamine	ug/L	ND	50	23.2	46	10-110		
N-Nitrosodiphenylamine	ug/L	ND	50	39.9	80	23-107		
N-Nitrosomethylethylamine	ug/L	ND	50	44.1	88	50-150		
N-Nitrosomorpholine	ug/L	ND	50	43.8	88	50-150		
N-Nitrosopiperidine	ug/L	ND	50	46.2	92	50-150		
N-Nitrosopyrrolidine	ug/L	ND	50	46.2	92	50-150		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

MATRIX SPIKE SAMPLE: 1769768

Parameter	Units	92302889001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrobenzene	ug/L	ND	50	42.0	84	20-110	
O,O,O-Triethylphosphorothioate	ug/L	ND	50	41.0	82	50-150	
O-Toluidine	ug/L	ND	50	36.4	73	50-150	
P-Dimethylaminoazobenzene	ug/L	ND	100	24.3	24	50-150 J(M1)	
p-Phenylenediamine	ug/L	ND	50	46.5	93	50-150	
Pentachlorobenzene	ug/L	ND	50	39.4	79	50-150	
Phenacetin	ug/L	ND	50	45.6	91	50-150	
Phenol	ug/L	ND	50	25.2	50	12-110	
Pronamide	ug/L	ND	50	44.1	88	50-150	
Safrole	ug/L	ND	50	41.8	84	50-150	
Thionazin	ug/L	ND	50	43.8	88	50-150	
2,4,6-Tribromophenol (S)	%				94	27-110	
2-Fluorobiphenyl (S)	%				76	27-110	
2-Fluorophenol (S)	%				55	12-110	
Nitrobenzene-d5 (S)	%				82	21-110	
Phenol-d6 (S)	%				44	10-110	
Terphenyl-d14 (S)	%				82	31-107	

SAMPLE DUPLICATE: 1769769

Parameter	Units	92302889002 Result	Dup Result	Max RPD	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/L	ND	1.7 U	30	
1,2-Dichlorobenzene	ug/L	ND	1.2 U	30	
1,3,5-Trinitrobenzene	ug/L	ND	1.1 U	30	
1,3-Dichlorobenzene	ug/L	ND	1.1 U	30	
1,3-Dinitrobenzene	ug/L	ND	1.5 U	30	
1,4-Dichlorobenzene	ug/L	ND	1.2 U	30	
1,4-Naphthoquinone	ug/L	ND	1.8 U	30	
1-Naphthalenamine	ug/L	ND	0.96 U	30	
2,2'-Oxybis(1-chloropropane)	ug/L	ND	1.6 U	30	
2,3,4,6-Tetrachlorophenol	ug/L	ND	2.3 U	30	
2,4,5-Trichlorophenol	ug/L	ND	2.2 U	30	
2,4,6-Trichlorophenol	ug/L	ND	1.9 U	30	
2,4-Dichlorophenol	ug/L	ND	1.7 U	30	
2,4-Dimethylphenol	ug/L	ND	2.2 U	30	
2,4-Dinitrophenol	ug/L	ND	6.5 U	30	
2,4-Dinitrotoluene	ug/L	ND	1.2 U	30	
2,6-Dichlorophenol	ug/L	ND	1.8 U	30	
2,6-Dinitrotoluene	ug/L	ND	1.7 U	30	
2-Acetylaminofluorene	ug/L	ND	1.5 I	30	
2-Chloronaphthalene	ug/L	ND	2.2 U	30	
2-Chlorophenol	ug/L	ND	1.5 U	30	
2-Methylphenol(o-Cresol)	ug/L	ND	1.7 U	30	
2-Naphthalenamine	ug/L	ND	0.98 U	30	
2-Nitroaniline	ug/L	ND	2.8 U	30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

SAMPLE DUPLICATE: 1769769

Parameter	Units	92302889002 Result	Dup Result	RPD	Max RPD	Qualifiers
2-Nitrophenol	ug/L	ND	1.7 U		30	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	1.7 U		30	
3,3'-Dichlorobenzidine	ug/L	ND	2.0 I		30	
3,3'-Dimethylbenzidine	ug/L	ND	2.1 U		30	
3-Methylcholanthrene	ug/L	ND	1.2 I		30	
3-Nitroaniline	ug/L	ND	2.4 U		30	
4,6-Dinitro-2-methylphenol	ug/L	ND	1.7 U		30	
4-Aminobiphenyl	ug/L	ND	0.92 U		30	
4-Bromophenylphenyl ether	ug/L	ND	1.3 U		30	
4-Chloro-3-methylphenol	ug/L	ND	4.2 U		30	
4-Chloroaniline	ug/L	ND	3.4 U		30	
4-Chlorophenylphenyl ether	ug/L	ND	2.1 U		30	
4-Nitroaniline	ug/L	ND	2.5 U		30	
4-Nitrophenol	ug/L	ND	5.8 U		30	
5-Nitro-o-tolidine	ug/L	ND	1.2 U			
7,12-Dimethylbenz(a)anthracene	ug/L	ND	1.4 I		30	
a,a-Dimethylphenylethylamine	ug/L	ND	1.4 U		30	
Acetophenone	ug/L	ND	2.0 U		30	
Benzyl alcohol	ug/L	ND	3.4 U		30	
bis(2-Chloroethoxy)methane	ug/L	ND	1.7 U		30	
bis(2-Chloroethyl) ether	ug/L	ND	1.5 U		30	
bis(2-Ethylhexyl)phthalate	ug/L	ND	1.7 I		30	
Butylbenzylphthalate	ug/L	ND	1.6 I		30	
Di-n-butylphthalate	ug/L	ND	1.1 U		30	
Di-n-octylphthalate	ug/L	ND	1.6 I		30	
Diallate	ug/L	ND	1.3 U		30	
Dibenzofuran	ug/L	ND	1.8 U		30	
Diethylphthalate	ug/L	ND	1.3 U		30	
Dimethylphthalate	ug/L	ND	1.5 U		30	
Diphenylamine	ug/L	ND	1.3 U		30	
Ethyl methanesulfonate	ug/L	ND	1.8 U		30	
Famphur	ug/L	ND	1.7 U		30	
Hexachlorobenzene	ug/L	ND	1.1 U		30	
Hexachlorocyclopentadiene	ug/L	ND	1.8 U		30	
Hexachloroethane	ug/L	ND	1.5 U		30	
Hexachlorophene	ug/L	ND	39.4 I		30	
Hexachloropropene	ug/L	ND	1.6 U		30	
Isodrin	ug/L	ND	2.0 U		30	
Isophorone	ug/L	ND	1.8 U		30	
Isosafrole	ug/L	ND	1.8 U		30	
Kepone	ug/L	ND	3.1 U		30	
Methapyrilene	ug/L	ND	2.7 U		30	
Methyl methanesulfonate	ug/L	ND	1.3 U		30	
N-Nitroso-di-n-butylamine	ug/L	ND	2.2 U		30	
N-Nitroso-di-n-propylamine	ug/L	ND	2.1 U		30	
N-Nitrosodiethylamine	ug/L	ND	1.8 U		30	
N-Nitrosodimethylamine	ug/L	ND	1.3 U		30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

SAMPLE DUPLICATE: 1769769

Parameter	Units	92302889002 Result	Dup Result	RPD	Max RPD	Qualifiers
N-Nitrosodiphenylamine	ug/L	ND	1.3 U		30	
N-Nitrosomethylamphetamine	ug/L	ND	1.8 U		30	
N-Nitrosomorpholine	ug/L	ND	2.5 U		30	
N-Nitrosopiperidine	ug/L	ND	1.9 U		30	
N-Nitrosopyrrolidine	ug/L	ND	2.5 U		30	
Nitrobenzene	ug/L	ND	1.7 U		30	
O,O,O-Triethylphosphorothioate	ug/L	ND	1.8 U		30	
O-Toluidine	ug/L	ND	1.6 U		30	
P-Dimethylaminoazobenzene	ug/L	ND	0.52 I		30	
p-Phenylenediamine	ug/L	ND	0.96 U		30	
Pentachlorobenzene	ug/L	ND	2.0 U		30	
Phenacetin	ug/L	ND	0.97 U		30	
Phenol	ug/L	ND	1.7 U		30	
Pronamide	ug/L	ND	0.97 U		30	
Safrole	ug/L	ND	1.5 U		30	
Thionazin	ug/L	ND	1.2 U		30	
2,4,6-Tribromophenol (S)	%	61	77	23		
2-Fluorobiphenyl (S)	%	51	66	26		
2-Fluorophenol (S)	%	32	38	16		
Nitrobenzene-d5 (S)	%	56	69	20		
Phenol-d6 (S)	%	25	30	18		
Terphenyl-d14 (S)	%	63	60	5		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

QC Batch:	305407	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
Associated Lab Samples: 35251015001			

METHOD BLANK: 1617793 Matrix: Water

Associated Lab Samples: 35251015001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	5.0 U	5.0	5.0	06/24/16 15:46	

LABORATORY CONTROL SAMPLE: 1617794

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	288	96	90-110	

SAMPLE DUPLICATE: 1617795

Parameter	Units	35250870001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	204	211	3	5	

SAMPLE DUPLICATE: 1617796

Parameter	Units	35251010002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	267	272	2	5	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

QC Batch:	305988	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
Associated Lab Samples: 35251015002			

METHOD BLANK: 1621002 Matrix: Water

Associated Lab Samples: 35251015002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	5.0 U	5.0	5.0	06/28/16 16:50	

LABORATORY CONTROL SAMPLE: 1621003

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	297	99	90-110	

SAMPLE DUPLICATE: 1621004

Parameter	Units	35251464001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	922	912	1	5	

SAMPLE DUPLICATE: 1621005

Parameter	Units	35251434003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	433	455	5	5	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

QC Batch:	305833	Analysis Method:	EPA 9034
QC Batch Method:	EPA 9034	Analysis Description:	9034 Sulfide Water
Associated Lab Samples:	35251015001, 35251015002		

METHOD BLANK: 1620347 Matrix: Water

Associated Lab Samples: 35251015001, 35251015002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	1.0 U	1.0	1.0	06/28/16 11:50	

LABORATORY CONTROL SAMPLE: 1620348

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	6	5.5	91	80-120	

MATRIX SPIKE SAMPLE: 1620350

Parameter	Units	35251015002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	10.0 U	6	5.6	94	80-120	

SAMPLE DUPLICATE: 1620349

Parameter	Units	35251015001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide	mg/L	1.0 U	1.0 U		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

QC Batch:	306092	Analysis Method:	EPA 300.0
QC Batch Method:	EPA 300.0	Analysis Description:	300.0 IC Anions
Associated Lab Samples: 35251015001, 35251015002			

METHOD BLANK: 1621710 Matrix: Water

Associated Lab Samples: 35251015001, 35251015002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	2.5 U	5.0	2.5	06/29/16 07:09	

LABORATORY CONTROL SAMPLE: 1621711

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	48.6	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1621712 1621713

Parameter	Units	35251655001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
Chloride	mg/L	27.0	50	50	77.9	79.8	102	106	90-110	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1621714 1621715

Parameter	Units	35251661001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
Chloride	mg/L	2.5 U	50	50	48.9	49.0	98	98	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

QC Batch:	305888	Analysis Method:	EPA 350.1
QC Batch Method:	EPA 350.1	Analysis Description:	350.1 Ammonia
Associated Lab Samples:	35251015001		

METHOD BLANK: 1620524 Matrix: Water

Associated Lab Samples: 35251015001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	0.020 U	0.050	0.020	06/29/16 11:18	

LABORATORY CONTROL SAMPLE: 1620525

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1	1.1	107	90-110	

MATRIX SPIKE SAMPLE: 1620527

Parameter	Units	35250840002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	0.56	1	1.6	103	90-110	

SAMPLE DUPLICATE: 1620526

Parameter	Units	35250840002 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Ammonia	mg/L	0.56	0.58	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

QC Batch:	306168	Analysis Method:	EPA 350.1
QC Batch Method:	EPA 350.1	Analysis Description:	350.1 Ammonia
Associated Lab Samples: 35251015002			

METHOD BLANK: 1621944 Matrix: Water

Associated Lab Samples: 35251015002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	0.020 U	0.050	0.020	06/29/16 11:59	

LABORATORY CONTROL SAMPLE: 1621945

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1	1.1	108	90-110	

MATRIX SPIKE SAMPLE: 1621947

Parameter	Units	35250896001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	0.020 U	1	1.1	107	90-110	

SAMPLE DUPLICATE: 1621946

Parameter	Units	35250896001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Ammonia	mg/L	0.020 U	0.020 U		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

QC Batch:	305493	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples:	35251015001, 35251015002		

METHOD BLANK: 1618743 Matrix: Water

Associated Lab Samples: 35251015001, 35251015002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	0.025 U	0.050	0.025	06/25/16 07:23	

SAMPLE DUPLICATE: 1618745

Parameter	Units	35251005003 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	mg/L	0.025 U	0.025 U		20	

SAMPLE DUPLICATE: 1618747

Parameter	Units	35251154001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	mg/L	0.41	0.41	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: JED
Pace Project No.: 35251015

QC Batch:	307458	Analysis Method:	EPA 9012
QC Batch Method:	EPA 9012	Analysis Description:	9012 Cyanide
Associated Lab Samples: 35251015001, 35251015002			

METHOD BLANK: 1629217 Matrix: Water

Associated Lab Samples: 35251015001, 35251015002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/L	0.0020 U	0.010	0.0020	07/07/16 17:06	

LABORATORY CONTROL SAMPLE: 1629218

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.05	0.048	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1629219 1629220

Parameter	Units	35251015001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Max Qual
Cyanide	mg/L	0.0020 U	.025	.025	0.016	0.013	63	48	80-120	26	20	J(M1), J(R1)

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALIFIERS

Project: JED
 Pace Project No.: 35251015

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C Pace Analytical Services - Charlotte

PASI-O Pace Analytical Services - Ormond Beach

BATCH QUALIFIERS

Batch: 305349

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- U Compound was analyzed for but not detected.
- D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- J(L0) Estimated Value. Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- J(L2) Estimated Value. Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
- J(M0) Estimated Value. Matrix spike recovery was outside laboratory control limits.
- J(M1) Estimated Value. Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- J(R1) Estimated Value. RPD value was outside control limits.
- J(S0) Estimated Value. Surrogate recovery outside laboratory control limits.
- L3 Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
- P2 Re-extraction or re-analysis could not be performed due to insufficient sample amount.
- S7 Surrogate recovery outside control limits (not confirmed by re-analysis).

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JED
Pace Project No.: 35251015

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35251015001	MW-31A	EPA 8011	305261	EPA 8011	305472
35251015002	MW-31B	EPA 8011	305261	EPA 8011	305472
35251015001	MW-31A	EPA 3510	305253	EPA 8081	305348
35251015002	MW-31B	EPA 3510	305253	EPA 8081	305348
35251015001	MW-31A	EPA 3510	305254	EPA 8082	305349
35251015002	MW-31B	EPA 3510	305254	EPA 8082	305349
35251015001	MW-31A	EPA 3510	306530	EPA 8141	307007
35251015002	MW-31B	EPA 3510	306530	EPA 8141	307007
35251015001	MW-31A	EPA 8151	305691	EPA 8151	306062
35251015002	MW-31B	EPA 8151	305691	EPA 8151	306062
35251015001	MW-31A	EPA 3010	305320	EPA 6010	305400
35251015002	MW-31B	EPA 3010	305320	EPA 6010	305400
35251015001	MW-31A	EPA 3010	305321	EPA 6020	305401
35251015002	MW-31B	EPA 3010	305321	EPA 6020	305401
35251015001	MW-31A	EPA 7470	306859	EPA 7470	306974
35251015002	MW-31B	EPA 7470	306859	EPA 7470	306974
35251015001	MW-31A	EPA 3510	306310	EPA 8270 by SIM	306556
35251015002	MW-31B	EPA 3510	306310	EPA 8270 by SIM	306556
35251015001	MW-31A	EPA 3510	319369	EPA 8270	319657
35251015002	MW-31B	EPA 3510	319369	EPA 8270	319657
35251015001	MW-31A	EPA 8260	306770		
35251015002	MW-31B	EPA 8260	306784		
35251015003	Trip Blank 1	EPA 8260	306784		
35251015004	Trip Blank 2	EPA 8260	306784		
35251015001	MW-31A	SM 2540C	305407		
35251015002	MW-31B	SM 2540C	305988		
35251015001	MW-31A	EPA 9034	305833		
35251015002	MW-31B	EPA 9034	305833		
35251015001	MW-31A	EPA 300.0	306092		
35251015002	MW-31B	EPA 300.0	306092		
35251015001	MW-31A	EPA 350.1	305888		
35251015002	MW-31B	EPA 350.1	306168		
35251015001	MW-31A	EPA 353.2	305493		
35251015002	MW-31B	EPA 353.2	305493		
35251015001	MW-31A	EPA 9012	307458	EPA 9012	307577
35251015002	MW-31B	EPA 9012	307458	EPA 9012	307577

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

PURCHASED
5/23/2016 K. WILLS



35251015

tical Request Document

All relevant fields must be completed accurately.

Section A

Required Client Information:

Company: Progressive Waste Solutions of Florida
 Address: 11457 C.R. 672
 Riverview, FL 33579
 Email: kirk.wills@pacelabs.com
 Phone: (941)748-5543 | Fax: (941)748-5543
 Requested Due Date:

Section B

Required Project Information:

Report To: Kirk Wills
 Copy To:
 Purchase Order #:
 Project Name: JED
 Project #: 35251015

Invoice Information:

Attention:
 Company Name:
 Address:
 Pace Quote:
 Pace Project Manager: mike.valder@pacelabs.com,
 Pace Profile #:

Page : 1 Of 2 1

Regulatory Agency

State / Location

FL

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX Drinking Water Water Waste Water Product Soil/Solid Oil Wipe Air Other Tissue	CODE DW WT WW P SL OL WP AR OT TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Analyses Test	Requested Analysis Filtered (Y/N)													
						START		END				H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	ammonia	Cl, NO3, TDS	6010 Metals-Aspl + Fe, Na, Sb, Tl+ Hg	EDB and DBOP EPA 8011 ^a	8081 Pesticides	8082 PCBs	8141 OGP (SUB OUT)	8151 Chlorinated Herbicides	8260 App II	PAH by 8270 SIM (low vol)	8270 App II (SUB TO INC)	Residual Chlorine (Y/N)		
						DATE	TIME	DATE	TIME			10:50	11:10	10:50	11:10	10:50	11:10	10:50	X	X	X	X	X	X	X	X	X	X	X	X		
1	GW-18- K.W -31A		WT	G		10:50	11:10	10:50	11:10	10:50	11:10	10:50	11:10	10:50	11:10	10:50	11:10	10:50	X	X	X	X	X	X	X	X	X	X	X			
2	GW-19 K.W -31B		WT	G		10:50	11:10	10:50	11:10	10:50	11:10	10:50	11:10	10:50	11:10	10:50	11:10	10:50	X	X	X	X	X	X	X	X	X	X	X			
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																
ADDITIONAL COMMENTS				RELINQUISHED BY / AFFILIATION				DATE	TIME	ACCEPTED BY / AFFILIATION				DATE	TIME	SAMPLE CONDITIONS																
Static Water Level Before Purging, pH, Temp, Spec Cond, DO, Turbidity, Color and Sheen by Observation				RELINQUISHED BY / AFFILIATION				6/23/16	10:50	ACCEPTED BY / AFFILIATION				6/23/16	11:10	SAMPLE CONDITIONS																
BLANKS included				RELINQUISHED BY / AFFILIATION				6/23/16	10:50	ACCEPTED BY / AFFILIATION				6/23/16	11:10	SAMPLE CONDITIONS																

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed:
6/23/16
 TEMP in C
 Received on
 Ice (Y/N)
 Custody Sealed
 Cooler
 Samples In tact (Y/N)



(Q13) 308.1000

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A

Required Client Information:

Company: Progressive Waste Solutions of Florida

Address: 11457 C.R. 672

Riverview, FL 33579

Email:

Phone: (941)748-5543

Fax:

Requested Due Date:

Section B

Required Project Information:

Report To: Kirk Wills

Copy To:

Purchase Order #:

Project Name: JED

Project #:

Section C

Invoice Information:

Attention:

Company Name:

Address:

Pace Quote:

Pace Project Manager: mike.valder@pacelabs.com,

Pace Profile #:

Page : 2 Of 2

Regulatory Agency

State / Location

FL

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX Drinking Water Water Waste Water Product Soil/Solid Oil Wipe Air Other Tissue	CODE DW WT WW P SL OL WP AR OT TS	MATRIX CODE (see valid codes to left) WT G	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION # OF CONTAINERS	Preservatives								Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)			
						START		END			Unpreserved				H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Cyanide	Sulfide	8290 HighRes Dioxin	8081 MS/MSD	8082 MS/MSD	8151 MS/MSD	PAH MS/MSD	8270 MS/MSD	8141 MS/MSD	Trip BLANK	
						DATE	TIME	DATE	TIME																							
13	GW-18 M-W-31 A			WT G		6/23 12	1040	6/23 12	110	9	2											X	X	X	X	X	X	X	X	X		
14	GW-19 M-W-31 B			WT G		6/23 12	1230	6/22 12	1250	9	2											X	X	X	X	X	X	X	X	X		
15																																
16																																
17																																
18																																
19																																
20																																
21																																
22																																
23																																
24																																
	ADDITIONAL COMMENTS					RELINQUISHED BY / AFFILIATION				DATE		TIME																				
	Static Water Level Before Purging, pH, Temp, Spec Cond, DO, Turbidity, Color and Sheen by Observation																															
	BLANKS included																															

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 6/23/10

TEMP in C
 Received on
 Ice (Y/N)
 Custody
 Sealed
 Cooler
 Intact (Y/N)
 Samples
 Intact (Y/N)



Document Name:
Sample Condition Upon Receipt Form
Document No.:
F-FL-C-007 rev. 07

Document Revised:
December 28, 2015
Issuing Authority:
Pace Florida Quality Office

--	--

Project # WO# : 35251015
Project Manager: PM: MFV **Due Date:** 07/05/16
Client: CLIENT: 37-PWSSL

Courier: Fed Ex UPS USPS Client Commercial Pace
Shipping Method: First Overnight Priority Overnight Standard Overnight Ground
Billing: Recipient Sender Third Party Unknown
Tracking # _____

Date and Initials of person examining contents:	<u>Jeff 23/11/07</u>
Label:	<u>Jeff</u>
Deliver:	<u>Jeff</u>
pH:	<u>Log</u>

Sample Condition Upon Receipt Form (SCUR)

Custody Seal on Cooler/Box Present:	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	Seals intact:	<input type="checkbox"/> yes <input type="checkbox"/> no
Packing Material:	<input type="checkbox"/> Bubble Wrap <input checked="" type="checkbox"/> Bubble Bags	Type of Ice:	<input type="checkbox"/> None <input type="checkbox"/> Other _____
Thermometer Used	<u>TPA-14</u>	(Correction Factor)	<u>20.1</u> (Actual)
Cooler #1 Temperature°C	<u>20.1</u> (Visual)	(Correction Factor)	<u>0</u> (Actual)
Cooler #2 Temperature°C	<u>18.1</u> (Visual)	(Correction Factor)	<u>18.1</u> (Actual)
Cooler #3 Temperature°C	<u>18.3</u> (Visual)	(Correction Factor)	<u>18.3</u> (Actual)
Cooler #4 Temperature°C	<u> </u> (Visual)	(Correction Factor)	<u> </u> (Actual)
Cooler #5 Temperature°C	<u> </u> (Visual)	(Correction Factor)	<u> </u> (Actual)
Cooler #6 Temperature°C	<u> </u> (Visual)	(Correction Factor)	<u> </u> (Actual)
Comments:			
Chain of Custody Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Chain of Custody Filled Out	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Relinquished Signature & Sampler Name COC	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Samples Arrived within Hold Time	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Rush TAT requested on COC	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Sufficient Volume	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Pace Containers Used	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Sample Labels match COC /sample IDs & date/time of collection)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
All containers needing acid/base preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
All Containers needing preservation are found to be in compliance with EPA recommendation:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Exceptions: VOA, Coliform, TOC, O&G	<input type="checkbox"/> HNO3 pH<2 <input type="checkbox"/> HCl pH<2 <input type="checkbox"/> H2SO4 pH<2 <input type="checkbox"/> NaOH pH>12 <input type="checkbox"/> NaOH/ZnOAc pH>9		
No Headspace in VOA Vials (>6mm):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Client Notification/ Resolution:			
Person Contacted:			
Comments/ Resolution (use back for additional comments):			
Date/Time:			

Date and Initials of person examining contents: Jeff 23/11/07
Label: Jeff
Deliver: Jeff
pH: Log

Biological Tissue is Frozen: Yes No N/A
Samples on ice, cooling process has begun

Report Prepared for:

Mike Valder
PASI Florida
8 East Tower Circle
Ormond Beach FL 32174

**REPORT OF
LABORATORY
ANALYSIS FOR
PCDD/PCDF**

Report Prepared Date:

July 5, 2016

Report No.....10353673_8290

Report Information:

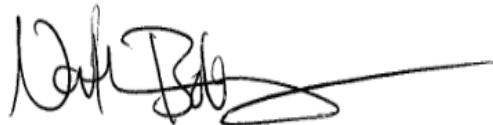
Pace Project #: 10353673
Sample Receipt Date: 06/28/2016
Client Project #: 35251015
Client Sub PO #: N/A
State Cert #: E87605

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Nathan Boberg, your Pace Project Manager.

This report has been reviewed by:



July 05, 2016

Nathan Boberg, Project Manager

(612) 607-6444 (fax)
nathan.boberg@pacelabs.com



Report of Laboratory Analysis

This report should not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

The results relate only to the samples included in this report.

Page 69 of 80

Page 1 of 12



Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analyses performed on two samples submitted by a representative of Pace Analytical Services, Inc. The samples were analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using USEPA Method 1613B. The reporting limits were based on signal-to-noise measurements. Estimated Maximum Possible Concentration (EMPC) values were treated as positives in the toxic equivalence calculations.

The recovery of the isotopically-labeled PCDD/PCDF internal standards in the sample extracts ranged from 58-93%. All of the labeled standard recoveries obtained for this project were within the target ranges specified in Method 1613B. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

Values were flagged "I" where incorrect isotope ratios were obtained. Values below the calibration range were flagged "J" and should be regarded as estimates.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show that PCDDs and PCDFs were not detected.

A laboratory spike sample was also prepared with the sample batch using reference material that had been fortified with native standards. The recoveries of the spiked native compounds ranged from 89-119%. These values were within method limits. Matrix spikes were prepared using a sample from a different project in this sample batch. Results are available upon request.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Page 70 of 80



Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Mississippi	MN00064
Alabama	40770	Montana	92
Alaska	MN00064	Nebraska	NE-OS-18-06
Arizona	AZ0014	Nevada	MN_00064_200
Arkansas	88-0680	New Jersey (NE)	MN002
California	01155CA	New York (NEL)	11647
Colorado	MN00064	North Carolina	27700
Connecticut	PH-0256	North Dakota	R-036
EPA Region 8	8TMS-Q	Ohio	4150
Florida (NELAP)	E87605	Oklahoma	D9922
Georgia (DNR)	959	Oregon (ELAP)	MN200001-005
Guam	959	Oregon (OREL)	MN300001-001
Hawaii	SLD	Pennsylvania	68-00563
Idaho	MN00064	Puerto Rico	MN00064
Illinois	200012	Saipan	MP0003
Indiana	C-MN-01	South Carolina	74003001
Indiana	C-MN-01	Tennessee	TN02818
Iowa	368	Texas	T104704192-08
Kansas	E-10167	Utah (NELAP)	MN00064
Kentucky	90062	Virginia	00251
Louisiana	03086	Washington	C755
Maine	2007029	West Virginia #	9952C
Maryland	322	West Virginia D	382
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming	8TMS-Q

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Appendix A

Sample Management

Chain of Custody

Wochender 35/251015

Workorder Name * Kirk Wills

Mira Valdés

Pace Analytical Tampa
54560 Beaumont Center Blvd
Suite 520
Tampa, FL 33634
Phone: 813-299-0404

Pace Analytical Minnesota
1700 Elm Street SE
Suite 200
Minneapolis, MN 55414
Phone (612)607-1700

Owner Received Date: 6/23/2016 Results Requested By: 7/5/2016

LAB USE ONLY						
1	MW-31A	PS	6/23/2016 11:10	35251015001	Water	1
2	MW-31B	PS	6/23/2016 12:50	35251015002	Water	1
3						
4						
5						

Cooler Temperature on Receipt		40 °C	Custody Seal Y or N	Received on Ice Y or N	Samples Intact Y or N
Transfers	Released By	Date/Time	Received By	Date/Time	
1	Mary Ann M.	10/21/16 1700	Monica Marquez	6/21/16 (arr)	
2					
3					

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

	Document Name: Sample Condition Upon Receipt Form	Document Revised: 04Apr2016 Page 1 of 1
	Document No.: F-MN-L-213-rev.16	Issuing Authority: Pace Minnesota Quality Office
Sample Condition Upon Receipt	Client Name: <i>Pace - FL</i>	Project #: WO# : 10353673
Courier:	<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Client	 10353673
<input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Pace <input type="checkbox"/> SpeeDee <input type="checkbox"/> Other: _____		
Tracking Number:	<i>6806 5218 7815</i>	

Custody Seal on Cooler/Box Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Seals Intact?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Optional: Proj. Due Date: _____ Proj. Name: _____
Packing Material:	<input type="checkbox"/> Bubble Wrap <input checked="" type="checkbox"/> Bubble Bags <input type="checkbox"/> None <input type="checkbox"/> Other: _____			Temp Blank? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Thermometer Used:	<input type="checkbox"/> 151401163 <input checked="" type="checkbox"/> B88A912167504 <input type="checkbox"/> 151401164 <input type="checkbox"/> B88A0143310098	Type of Ice:	<input checked="" type="checkbox"/> Wet <input type="checkbox"/> Blue <input type="checkbox"/> None	Samples on ice, cooling process has begun
Cooler Temp Read (°C): <i>4.0</i>	Cooler Temp Corrected (°C): <i>4.0</i>	Biological Tissue Frozen? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Temp should be above freezing to 6°C		Correction Factor: <i>true</i> Date and Initials of Person Examining Contents: <i>VS 6/28/16</i>		
USDA Regulated Soil (<input checked="" type="checkbox"/> N/A, water sample)				
Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, IA. MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? <input type="checkbox"/> Yes <input type="checkbox"/> No including Hawaii and Puerto Rico? <input type="checkbox"/> Yes <input type="checkbox"/> No				

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

	COMMENTS:		
Chain of Custody Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A 1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A 2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A 3.
Sampler Name and/or Signature on COC?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A 4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A 5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A 6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A 7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A 8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A 9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Containers Intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A 10.
Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A 11. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A 12. <i>Times on labels 001 1050 002 1230</i>
-Includes Date/Time/ID/Analysis Matrix: <i>WT</i>			
All containers needing acid/base preservation have been checked?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A 13. <input type="checkbox"/> HNO ₃ <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> NaOH <input type="checkbox"/> HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>12 Cyanide)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Headspace in VOA Vials (>6mm)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A 14.
Trip Blank Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A 15.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Pace Trip Blank Lot # (if purchased):			

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted: _____ Date/Time: _____
Comments/Resolution: _____

Project Manager Review: *Lathan Robberg*

Date: *6/28/16*

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

Reporting Flags

A = Reporting Limit based on signal to noise

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

I = Interference present

J = Estimated value

Nn = Value obtained from additional analysis

P = PCDE Interference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

* = See Discussion

REPORT OF LABORATORY ANALYSIS

Appendix B

Sample Analysis Summary



Method 8290 Sample Analysis Results

Client - PASI Florida

Client's Sample ID	MW-31A				
Lab Sample ID	35251015001				
Filename	U160702A_10				
Injected By	BAL				
Total Amount Extracted	854 mL			Matrix	Water
% Moisture	NA			Dilution	NA
Dry Weight Extracted	NA			Collected	06/23/2016 11:10
ICAL ID	U160204			Received	06/28/2016 10:00
CCal Filename(s)	U160701B_18 & U160702A_15			Extracted	06/29/2016 13:25
Method Blank ID	BLANK-50893			Analyzed	07/02/2016 13:38

Native Isomers	Conc pg/L	EMPC pg/L	EDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	2.00	2,3,7,8-TCDF-13C	2.00	71
Total TCDF	ND	----	2.00	2,3,7,8-TCDD-13C	2.00	81
				1,2,3,7,8-PeCDF-13C	2.00	62
2,3,7,8-TCDD	ND	----	1.30	2,3,4,7,8-PeCDF-13C	2.00	58
Total TCDD	ND	----	1.30	1,2,3,7,8-PeCDD-13C	2.00	66
				1,2,3,4,7,8-HxCDF-13C	2.00	61
1,2,3,7,8-PeCDF	ND	----	3.80	1,2,3,6,7,8-HxCDF-13C	2.00	62
2,3,4,7,8-PeCDF	ND	----	2.20	2,3,4,6,7,8-HxCDF-13C	2.00	68
Total PeCDF	ND	----	3.00	1,2,3,7,8,9-HxCDF-13C	2.00	72
				1,2,3,4,7,8-HxCDD-13C	2.00	69
1,2,3,7,8-PeCDD	ND	----	3.90	1,2,3,6,7,8-HxCDD-13C	2.00	64
Total PeCDD	ND	----	3.90	1,2,3,4,6,7,8-HpCDF-13C	2.00	77
				1,2,3,4,7,8,9-HpCDF-13C	2.00	93
1,2,3,4,7,8-HxCDF	ND	----	1.20	1,2,3,4,6,7,8-HpCDD-13C	2.00	90
1,2,3,6,7,8-HxCDF	ND	----	0.62	OCDD-13C	4.00	89
2,3,4,6,7,8-HxCDF	ND	----	0.99			
1,2,3,7,8,9-HxCDF	ND	----	0.91	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	0.93	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	1.30	2,3,7,8-TCDD-37Cl4	0.20	83
1,2,3,6,7,8-HxCDD	ND	----	0.95			
1,2,3,7,8,9-HxCDD	ND	----	0.66			
Total HxCDD	ND	----	0.96			
1,2,3,4,6,7,8-HpCDF	ND	----	0.47	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	0.30	Equivalence: 0.038 pg/L		
Total HpCDF	ND	----	0.39	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	2.4	----	0.94 J			
Total HpCDD	2.4	----	0.94 J			
OCDF	ND	----	1.40			
OCDD	----	14	2.60 IJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).

ND = Not Detected

EMPC = Estimated Maximum Possible Concentration

NA = Not Applicable

EDL = Estimated Detection Limit

NC = Not Calculated

J = Estimated value

I = Interference present

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Page 77 of 80



Method 8290 Sample Analysis Results

Client - PASI Florida

Client's Sample ID	MW-31B					
Lab Sample ID	35251015002					
Filename	U160702A_11					
Injected By	BAL					
Total Amount Extracted	1050 mL			Matrix	Water	
% Moisture	NA			Dilution	NA	
Dry Weight Extracted	NA			Collected	06/23/2016 12:50	
ICAL ID	U160204			Received	06/28/2016 10:00	
CCal Filename(s)	U160701B_18 & U160702A_15			Extracted	06/29/2016 13:25	
Method Blank ID	BLANK-50893			Analyzed	07/02/2016 14:22	

Native Isomers	Conc pg/L	EMPC pg/L	EDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.89	2,3,7,8-TCDF-13C	2.00	76
Total TCDF	ND	----	0.89	2,3,7,8-TCDD-13C	2.00	86
				1,2,3,7,8-PeCDF-13C	2.00	64
2,3,7,8-TCDD	ND	----	2.10	2,3,4,7,8-PeCDF-13C	2.00	62
Total TCDD	9.1	----	2.10 J	1,2,3,7,8-PeCDD-13C	2.00	70
				1,2,3,4,7,8-HxCDF-13C	2.00	73
1,2,3,7,8-PeCDF	ND	----	1.30	1,2,3,6,7,8-HxCDF-13C	2.00	70
2,3,4,7,8-PeCDF	ND	----	1.10	2,3,4,6,7,8-HxCDF-13C	2.00	76
Total PeCDF	ND	----	1.20	1,2,3,7,8,9-HxCDF-13C	2.00	76
				1,2,3,4,7,8-HxCDD-13C	2.00	78
1,2,3,7,8-PeCDD	ND	----	3.30	1,2,3,6,7,8-HxCDD-13C	2.00	68
Total PeCDD	18.0	----	3.30 J	1,2,3,4,6,7,8-HpCDF-13C	2.00	79
				1,2,3,4,7,8,9-HpCDF-13C	2.00	91
1,2,3,4,7,8-HxCDF	ND	----	0.64	1,2,3,4,6,7,8-HpCDD-13C	2.00	87
1,2,3,6,7,8-HxCDF	ND	----	0.67	OCDD-13C	4.00	88
2,3,4,6,7,8-HxCDF	ND	----	0.50			
1,2,3,7,8,9-HxCDF	ND	----	0.31	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	0.53	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	1.60	2,3,7,8-TCDD-37Cl4	0.20	86
1,2,3,6,7,8-HxCDD	ND	----	1.20			
1,2,3,7,8,9-HxCDD	ND	----	1.60			
Total HxCDD	130.0	----	1.50			
1,2,3,4,6,7,8-HpCDF	ND	----	0.67	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	0.78	Equivalence: 1.5 pg/L		
Total HpCDF	ND	----	0.72	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	56.0	----	3.30			
Total HpCDD	230.0	----	3.30			
OCDF	ND	----	0.86			
OCDD	920.0	----	9.30			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).

ND = Not Detected

EMPC = Estimated Maximum Possible Concentration

NA = Not Applicable

EDL = Estimated Detection Limit

NC = Not Calculated

J = Estimated value

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Page 78 of 80



Method 8290 Blank Analysis Results

Lab Sample ID	BLANK-50893	Matrix	Water
Filename	U160701B_04	Dilution	NA
Total Amount Extracted	1050 mL	Extracted	06/29/2016 13:25
ICAL ID	U160204	Analyzed	07/01/2016 20:05
CCal Filename(s)	U160701B_01 & U160701B_18	Injected By	BAL

Native Isomers	Conc pg/L	EMPC pg/L	EDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.84	2,3,7,8-TCDF-13C	2.00	82
Total TCDF	ND	----	0.84	2,3,7,8-TCDD-13C	2.00	97
				1,2,3,7,8-PeCDF-13C	2.00	82
2,3,7,8-TCDD	ND	----	1.30	2,3,4,7,8-PeCDF-13C	2.00	77
Total TCDD	ND	----	1.30	1,2,3,7,8-PeCDD-13C	2.00	88
				1,2,3,4,7,8-HxCDF-13C	2.00	76
1,2,3,7,8-PeCDF	ND	----	1.60	1,2,3,6,7,8-HxCDF-13C	2.00	75
2,3,4,7,8-PeCDF	ND	----	1.70	2,3,4,6,7,8-HxCDF-13C	2.00	81
Total PeCDF	ND	----	1.60	1,2,3,7,8,9-HxCDF-13C	2.00	82
				1,2,3,4,7,8-HxCDD-13C	2.00	85
1,2,3,7,8-PeCDD	ND	----	2.60	1,2,3,6,7,8-HxCDD-13C	2.00	73
Total PeCDD	ND	----	2.60	1,2,3,4,6,7,8-HpCDF-13C	2.00	78
				1,2,3,4,7,8,9-HpCDF-13C	2.00	88
1,2,3,4,7,8-HxCDF	ND	----	0.89	1,2,3,4,6,7,8-HpCDD-13C	2.00	89
1,2,3,6,7,8-HxCDF	ND	----	0.71	OCDD-13C	4.00	91
2,3,4,6,7,8-HxCDF	ND	----	0.81			
1,2,3,7,8,9-HxCDF	ND	----	0.81	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	0.80	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	1.10	2,3,7,8-TCDD-37Cl4	0.20	94
1,2,3,6,7,8-HxCDD	ND	----	0.83			
1,2,3,7,8,9-HxCDD	ND	----	0.78			
Total HxCDD	ND	----	0.89			
1,2,3,4,6,7,8-HpCDF	ND	----	0.77	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	0.88	Equivalence: 0.015 pg/L		
Total HpCDF	ND	----	0.82	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	----	1.1	1.10	IJ		
Total HpCDD	ND	----	1.10			
OCDF	----	1.1	0.81	IJ		
OCDD	----	2.8	2.00	IJ		

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).

EMPC = Estimated Maximum Possible Concentration

EDL = Estimated Detection Limit

J = Estimated value

I = Interference present

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Page 79 of 80



Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCS-50894	Matrix	Water
Filename	U160701B_17	Dilution	NA
Total Amount Extracted	1030 mL	Extracted	06/29/2016 13:25
ICAL ID	U160204	Analyzed	07/02/2016 05:35
CCal Filename(s)	U160701B_01 & U160701B_18	Injected By	BAL
Method Blank ID	BLANK-50893		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.22	108	2,3,7,8-TCDF-13C	2.0	75
Total TCDF				2,3,7,8-TCDD-13C	2.0	83
				1,2,3,7,8-PeCDF-13C	2.0	68
2,3,7,8-TCDD	0.20	0.18	89	2,3,4,7,8-PeCDF-13C	2.0	63
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	73
				1,2,3,4,7,8-HxCDF-13C	2.0	68
1,2,3,7,8-PeCDF	1.0	1.0	103	1,2,3,6,7,8-HxCDF-13C	2.0	66
2,3,4,7,8-PeCDF	1.0	1.1	114	2,3,4,6,7,8-HxCDF-13C	2.0	71
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	74
				1,2,3,4,7,8-HxCDD-13C	2.0	73
1,2,3,7,8-PeCDD	1.0	0.96	96	1,2,3,6,7,8-HxCDD-13C	2.0	63
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	74
				1,2,3,4,7,8,9-HpCDF-13C	2.0	83
1,2,3,4,7,8-HxCDF	1.0	1.1	108	1,2,3,4,6,7,8-HpCDD-13C	2.0	78
1,2,3,6,7,8-HxCDF	1.0	1.1	110	OCDD-13C	4.0	84
2,3,4,6,7,8-HxCDF	1.0	1.1	105			
1,2,3,7,8,9-HxCDF	1.0	0.97	97	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.1	106	2,3,7,8-TCDD-37Cl4	0.20	86
1,2,3,6,7,8-HxCDD	1.0	1.1	113			
1,2,3,7,8,9-HxCDD	1.0	1.2	119			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.1	108			
1,2,3,4,7,8,9-HpCDF	1.0	1.0	102			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	1.1	114			
Total HpCDD						
OCDF	2.0	2.1	106			
OCDD	2.0	2.3	116			

Qs = Quantity Spiked

Qm = Quantity Measured

Rec. = Recovery (Expressed as Percent)

R = Recovery outside of target range

Y = RF averaging used in calculations

Nn = Value obtained from additional analysis

NA = Not Applicable

* = See Discussion

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Page 80 of 80