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May 3, 2018

Ms. Julie Hudson
Waste Cleanup Section
Florida Department of Environmental Protection
Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

Subject: **Letter of Transmittal**
Site Assessment Report
Perma-Fix of Florida, Inc.
1940 NW 67th Place
Gainesville
OER Incident No. 2017-11-57115Z
Incident Date: January 5, 2017

Dear Ms. Hudson:

On behalf of Perma-Fix of Florida, Inc., AECOM Technical Services, Inc., hereby presents one printed and one electronic copy of the subject document to the Florida Department of Environmental Protection – Northest District for review and approval. If you have any questions or require additional information, please contact Mr. Kurt Fogleman at (352) 395-1356 or via email at kfogleman@perma-fix.com.

Respectfully submitted,
AECOM Technical Services, Inc.

William C. Kelly, PG
Senior Geologist

Enclosures

ec: Mr. Kurt Fogleman, Perma-Fix

Submitted to
Kurt Fogleman
Environmental, Heath & Safety Manager
Perma-Fix of Florida, Inc.
1940 NW 67th Place
Gainesville, FL 32653

Submitted by
AECOM
4168 Southpoint Parkway South
Suite 205
Jacksonville, FL 32216
May 2018

Site Assessment Report

Perma-Fix of Florida Facility
1940 NW 67th Place
Gainesville, FL 32653
Incident Date: January 5, 2017
OER# 2017-11-571157

5/3/18

William C. Kelly, P.G. **Date**
Project Manager/Senior Geologist

Site Assessment Report

Perma-Fix of Florida Facility
1940 NW 67th Place
Gainesville, Alachua County, FL 32653
Incident Date: January 5, 2017
OER# 2017-11-571157

QUALIFIED REGISTERED PROFESSIONAL GEOLOGIST CERTIFICATION

I hereby certify that I have supervised the field work and preparation of this report, in accordance with Florida Rules and Regulations. As a registered professional geologist authorized by Chapters 492, Florida Statutes, I certify that I am a qualified groundwater professional, with knowledge and experience in groundwater contamination assessment and cleanup. To the best of my knowledge, the information and laboratory data summarized in this report are true, accurate, complete, and in accordance with applicable State Rules and Regulations.

Will C. Kelly 5/3/18

William C. Kelly, P.G. Date
Professional Geologist
Florida Registration No. 1345

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1.0 INTRODUCTION

This Site Assessment Report (SAR) has been prepared by AECOM Technical Services, Inc. (AECOM), for Perma-Fix of Florida, Inc., and presents a summary of site assessment activities performed to date at the Perma-Fix of Florida Facility in the vicinity of a Roll-Off Box Fire Incident Area, located at 1940 NW 67th Place, Gainesville, Alachua County, Florida. The assessment activities included an investigation of soil and groundwater quality at the property, and a sensitive receptor survey. This document has been prepared to conform to the requirements of Chapter 62-780.600, Florida Administrative Code (FAC).

On January 5, 2017, a fire ignited in an open-top roll-off box staged on concrete pavement in the northern portion of the subject facility in Gainesville Florida. At the time of the incident, the box contained approximately 10 cubic yards of hazardous waste solids, that included spent vapor-phase granular activated carbon (GAC) impacted with tetrachloroethylene and acetone. The Gainesville Fire and Rescue Department responded to the incident and extinguished the blaze using water for fire suppression. Some of the suppression water escaped from the roll-off box (via a leaking drain cap) and was observed to have migrated to a nearby storm drain structure. Initial sampling of water within the drainage structure and surficial soil immediately below the outfall was subsequently conducted by Perma-Fix personnel, to determine whether or not the suppression water may have caused waste chemicals to escape from the box and possibly impact a portion of the facility. The samples were analyzed for volatile organic compounds (VOC), for semivolatile organic compounds (SVOC) and for RCRA metals.

In January 2017, Perma-Fix submitted a report to the Florida Department of Environmental Protection (FDEP), summarizing the incident and the implementation of the contingency plan to respond to the incident. The document included the results of laboratory testing of the soil samples collected from the area of concern. The water sampling results for a significant portion of the organics analyses were reported with method detection limits (MDL) significantly above Florida Groundwater Cleanup Target Levels (GCTL), as provided on Table I of Chapter 62-777, FAC. Therefore, portions of the water sampling results were inconclusive, relative to regulatory standards. The soil analyses achieved a lower MDL and the results detected no solvent analytes at concentrations above Florida Soil Cleanup Target Levels (SCTL), as provided on Table II of Chapter 62-777, FAC. However polycyclic aromatic hydrocarbons (PAH) and arsenic (As) were detected in the soil sample at concentrations exceeding corresponding SCTLs. The source of the PAH and As impacts is unknown and does not appear to be related to the fire incident. In June 2017, Perma-Fix authorized AECOM to continue with site assessment efforts at the facility.

2.0 SITE INFORMATION

This commercial property is licensed and permitted to treat characteristic and listed mixed waste, soils, liquids, sludges, and debris. The site is zoned for light manufacturing. A site location map is included as **Figure 1**.

2.1 Site Attributes

The subject site is comprised of an office building, a warehouse building, and paved exterior parking and storage areas. The office building is two stories and is 14,433 square feet (ft^2). The warehouse is three stories and is 15,251 ft^2. Paved parking is 39,450 ft^2 and is located on the north and south sides of the office building. A site plan is presented as **Figure 2**.

2.2 Site Location and Surrounding Properties

The property is bounded to the north by wooded land, to the south across NW 67th Place is a USPS Customer Center and North Central Florida Regional Planning Council, to the west is a vacant warehouse building, and to the east is Sinmat, Inc., a chemical mechanical polishing facility.

3.0 ENVIRONMENTAL SETTING

Environmental characteristics including topography, geology, and hydrogeology were evaluated based on observations recorded at the property, as well as published literature.

3.1 Topography

According to Google Pro the subject property lies at an average elevation of approximately 192 feet (ft.) above Mean Sea Level (MSL). Based on the topographic map and site observations, surface topography in the vicinity of the subject property is relatively flat, with a gradual slope towards the north (**Figure 1**).

3.2 Regional Geology/Hydrogeology

Alachua County is part of the Central Florida Ridge or Central Highlands of the Atlantic Coastal plain. The uppermost sediments are Pleistocene-age Terrance Deposits that are underlain by the Alachua Formation, the Hawthorne Formation, and the Ocala Group. The Pleistocene Terrance Deposits consist of medium sand, silt, and clay. The thickness ranges from 20 to 45 ft. The post-Eocene-age Alachua Formation is primarily composed of reworked phosphatic and fossiliferous clays and sands. The thickness ranges from 25 to 35 ft. The Miocene-age Hawthorne Formation consists of quartz sand, dense plastic clay, carbonate, and pebbles. The thickness ranges from tens of feet to absent in select areas where the underlying Ocala Group is exposed. The Eocene-age Ocala Group consists of fossiliferous and porous chalky limestone. From west to east across Alachua County, the thickness ranges from 80 to 220 ft.

Alachua County consists of three aquifer systems which consist of an uppermost water table aquifer, an intermediate secondary artesian aquifer, and the underlying Floridian Aquifer. The water table aquifer consists primarily of two feet of sand. This aquifer is recharged directly by rainfall. The secondary aquifer is primarily in a few limestone and sandy layers within the Hawthorne Formation. The water table is recharged from the overlying water table or from the underlying Floridian Aquifer. The Floridian aquifer is located within the upper several hundred feet of limestone and serves as the primary potable water resource for the Gainesville area.

3.3 Soils

According to the United States Department of Agriculture (USDA) Soil Conservation Service, the majority of the soil at the subject property consists of loamy and poorly-drained Newnan sand.

3.4 Sensitive Receptor Survey

During the course of this investigation, a visual reconnaissance of the site vicinity, as well as a review of topographic references and regulatory databases was completed to identify potential receptors and potential influential features in the vicinity of the property.

3.4.1 Nearby Surface Water Bodies

There is one unnamed storm water drainage ditch (intermittent water body) that is located 15 ft. north of the subject property boundary. This drainage ditch is depicted on **Figure 2**.

3.4.2 Potable Well Survey

There are no water supply wells on the property. On July 19, 2017, a public water supply well survey was conducted for a 0.5-mile radius of the subject property, using the Florida Department of Health (FDOH) public water supply database. The FDOH database did not report any public or private wells. A copy of the FDOH report is included in **Appendix A**.

3.4.3 Nearby Subsurface Utilities

Prior to commencement of subsurface investigating, Sunshine State One Call was contacted and local public underground utilities were marked. Additionally, Ground Penetrating Radar Services, Inc. performed a ground penetrating radar survey to locate potential private utilities in the assessment area. No public or private utilities were discovered in the assessment area.

4.0 SITE ASSESSMENT ACTIVITIES

4.1 Soil and Sediment Assessment

4.1.1 Soil Borings

On July 17, 2017, AECOM personnel mobilized to the site to assess potential soil impacts in the vicinity of the roll-off box (SB-1), from near the downgradient storm water drain inlet (SB-2), from beneath the stormwater outfall (Outfall #3) (SB-3) and from three other locations downgradient of the outfall and parallel to the drainage ditch (SB-4, SB-5, and SB-6). The locations of the borings are depicted on **Figure 3**. Preferred Drilling Services, Inc. (PDS) of Live Oak, Florida, under the observation of AECOM personnel, utilized Geoprobe™ direct-push technology (DPT) track-mounted drilling equipment to collect samples from (SB-1, SB-2, and SB-3) from land surface to various depths. PDS used a decontaminated steel hand auger to collect samples from (SB-4, SB-5, and SB-6) to 6 ft. below land surface (bls) along the bank of the drainage ditch. Soil samples were field screened using a calibrated organic vapor analyzer (OVA) equipped with a photoionization detector (PID) using the headspace vapor method prescribed in Rule 62-780.200(15), FAC. None of the screened soils exhibited discernable odors, staining, or yielded an OVA response. **Table 1** presents the soil screening data.

Collected samples were stored on wet ice and submitted to Advanced Environmental Laboratories (AEL) for analysis of priority pollutant VOCs, using Environmental Protection Agency (EPA) Method 8260B, priority pollutant SVOCs using EPA Method 8270C, total petroleum hydrocarbons (TPH) using the FL-PRO Method, 4 RCRA Metals (arsenic, cadmium, chromium, and lead) using EPA Method 6010B, organochlorine pesticides using EPA Method 8081B, and polychlorinated biphenyls (PCB) using EPA Method 8082A. Soil boring and calibration logs are provided in **Appendix C**. Laboratory analytical data reports are provided in **Appendix D**.

On August 8, 2017, AECOM personnel mobilized to the site to further assess soil quality in the drainage ditch that is located north of the subject property and runs parallel to the northern property boundary. Surface water flow was observed to be toward the east in the drainage ditch. Therefore, sediment samples (SS-1, and SS-2) were collected from the upper six inches of sediment horizon along the drainage ditch, downstream (east) of the outfall. The boring and sediment sample locations are depicted on **Figure 3**.

Collected samples were stored on wet ice and submitted to AEL for analysis of SVOCs using EPA Method 8270C and 4 RCRA Metals using EPA Method 6010B. Laboratory analytical data reports are provided in **Appendix D**.

4.1.2 Soil and Sediment Analytical Results

No analyzed constituents were detected at concentrations above corresponding SCTLs. The soil analytical results are summarized on **Tables 2** and **3**. The laboratory reports of analyses are included in **Appendix D**.

4.2 Surface Water and Groundwater Assessment

4.2.1 Monitoring Well Installation

On July 17, 2017, AECOM personnel mobilized to the site to supervise the installation of three monitoring wells (MW-1 through MW-3). These three monitoring wells were each completed using mobile DPT drilling equipment to advance a closed-tip hollow steel probe to a depth of approximately 16 ft-bls in MW-1 and MW-3 and to 14 ft-bls in MW-2. Next, a 10-ft section of 1-inch-diameter 0.010-inch-slotted PVC pre-packed well screen and 6 ft of 1-inch-diameter schedule 40 PVC riser into the probe for MW-1 and MW-3 and 4 ft of 1-inch-diameter schedule 40 PVC riser into the probe for MW-2. Additional 20/30 grade silica sand filter pack was added to the annular space opposite the well screen interval, a hydraulic seal consisting of 30/65 grade fine silica sand was then placed immediately above the filter pack, then the steel probe sleeve was retracted to expose the well screen to the formation. The remaining borehole was then filled to near grade with Portland cement. Each well head assembly was secured within a steel meter box and concrete apron, finished flush to surrounding grade.

Between July 19 and August 8, 2017, AECOM personnel mobilized to the site to collect groundwater samples from monitoring wells MW-1 and MW-2. The samples were analyzed for priority pollutant VOCs using EPA Method 8260B, priority pollutant SVOCs using EPA Method 8270C, TPH using the FL-PRO Method, 4 RCRA Metals using EPA Method 6010B, organochlorine pesticides using EPA Method 8081B, and PCBs using EPA Method 8082A.

Purging and sampling were performed in accordance with current FDEP Groundwater Sampling Standard Operating Procedure 001/01. AECOM technicians also recorded field parameters such as pH, dissolved oxygen, turbidity, conductivity, and oxidation reduction potential (ORP) on the groundwater sampling logs. Groundwater samples were placed in laboratory supplied containers, stored on wet ice and submitted under chain-of-custody record to AEL.

4.2.2 Surface Water Samples

Between July 7 and September 17, 2017 AECOM personnel mobilized to the site to collect surface water samples from the drainage ditch that is located north of the subject site. Surface water samples (SW-1 through SW-5) were collected from the drainage ditch. The locations of the borings are depicted on **Figure 6**.

The surface water samples were stored on wet ice and submitted to AEL for testing. Surface water samples SW-1 through SW-3 were priority pollutant VOCs using EPA Method 8260B, priority pollutant SVOCs using EPA Method 8270C, TPH using the FL-PRO Method, 4 RCRA Metals using EPA Method 6010B, organochlorine pesticides using EPA Method 8081B, and PCBs using EPA Method 8082A. Surface water samples SW-4 and SW-5 were analyzed for SVOCs using EPA Method 8270C, TPH using the FL-PRO Method, and 4 RCRA Metals using EPA Method 6010B.

4.2.3 Water Level Measurements

On July 19, 2017, water level measurements were recorded from monitoring wells MW-1, MW-2, and MW-3, each screened in the upper segment of the shallow aquifer. Based on the gauging data collected during this event, the average depth to water table across the subject site is 7.87 ft. bls.

The top of casing elevation for each of the three monitoring wells was also surveyed and referenced to an arbitrary datum. Water table elevation data are presented on **Table 4**. A water table elevation contour map is provided on **Figure 4**. Based on these data, the general direction of groundwater flow in this portion of this facility is toward the west.

4.2.4 Surface Water and Groundwater Analytical Results

No exceedances of GCTLs were detected in the groundwater samples collected during this investigation.

Surface water analytical results detected a bis(2-Ethylhexyl) phthalate concentration of 3.1 microgram per liter (µg/L) in SW-1, located downstream of the outfall. This concentration is above the corresponding GCTL of 2.2 µg/L for Class III fresh surface water, as provided on Table I of Chapter 62-777, FAC. According to a published article by the Wisconsin Department of Natural Resources entitled *Problems Associated with bis(2-ethylhexyl)phthalate Detections in Groundwater Monitoring wells*, bis(2-Ethylhexyl) phthalate is used in plastics and is a common laboratory contaminant. In addition, this analyte was not detected in other soil, sediment, groundwater, or surface water samples at concentrations above corresponding cleanup target levels. Therefore AECOM interprets the concentration of bis(2-Ethylhexyl) phthalate detected in this lone surface water sample to be suspect and not representative of actual site conditions. Lead, chromium, fluoranthene, and pyrene were detected in one surface water sample (SW-2) at concentrations of 30, 24, 2.8, and 2.4 µg/L, respectively. These values are above the corresponding GCTLs of 8.5, 11, 0.3, and 0.3 µg/L for these analytes. Surface water sample SW-2 was collected near the outfall and during sample collection it was noted that there was less than six inches of water present in the drainage ditch and the water was extremely turbid and cloudy. The sample was analyzed for total metals concentrations and turbidity may contribute to an elevated (exaggerated) response during testing. In addition, fluoranthene and pyrene were not detected in other soil, sediment, groundwater, or surface water samples at concentrations above corresponding cleanup target levels. Therefore AECOM interprets the concentration of these two compounds in this lone surface water sample to be suspect and de minimis.

The groundwater and surface water analytical results are summarized on **Tables 5** and **6**. The laboratory reports of analyses are included in **Appendix D**.

5.0 LOCAL LITHOLOGY/HYDROGEOLOGY

5.1 Lithology

Sediments encountered at the site include fine-grained silty sand from land surface to 7 ft-bls, clayey sand to 15 ft-bls, silty sand to 17 ft-bls, sandy clay to 19 ft bls, and medium to fine grain silty sand to 20 ft bls.

6.0 CONCLUSIONS

AECOM has completed site assessment activities at the Perma-Fix of Florida Facility in Gainesville, Florida. An investigation of soil, sediment, surface water, and groundwater quality, a sensitive receptor survey, and a review of regional and local geology and hydrogeology was conducted as part of this investigation.

The lithologic profile of the upper sediments beneath the subject site consists of fine-grained silty sand from land surface to 7 ft-bls, underlain by 13 ft of interbedded silty sand to sandy clay.

There are no water supply wells on the property and no public or private wells were identified in the vicinity of the property. Water level elevation data indicates that groundwater flow in the upper surficial aquifer beneath the property is generally toward the west, parallel to the northern property boundary.

Soil and sediment analytical results for borings completed in the area of concern detected no constituents of concern at concentrations above SCTLs. Groundwater analytical results for wells completed in the area of concern also detected no constituents of concern at concentrations above GCTLs.

Surface water analytical results detected a bis(2-Ethylhexyl) phthalate concentration in one sample (SW-1), located downstream of the outfall, at a concentration of 3.1 µg/L, slightly exceeding the corresponding GCTL of 2.2 µg/L for Class III fresh surface water. This analyte is used in plastics and is a common laboratory contaminant. In addition, this analyte was not detected in other soil, sediment, groundwater, or surface water samples at concentrations above corresponding cleanup target levels. Therefore AECOM interprets the concentration of bis(2-Ethylhexyl) phthalate detected in this lone surface water sample to be suspect and not representative of actual site conditions. Lead, chromium, fluoranthene, and pyrene were detected in one surface water sample (SW-2) at concentrations of 30, 24, 2.8, and 2.4 µg/L, respectively. These values are above the corresponding GCTLs of 8.5, 11, 0.3, and 0.3 µg/L for these analytes. Surface water sample SW-2 was collected near the outfall and during sample collection it was noted that there was less than six inches of water present in the drainage ditch and the water was extremely turbid and cloudy. The sample was analyzed for total metals concentrations and turbidity may contribute to an elevated (exaggerated) response during testing. In addition, fluoranthene and pyrene were not detected in other soil, sediment, groundwater, or surface water samples at concentrations above corresponding cleanup target levels. Therefore AECOM interprets the concentration of these two compounds in this lone surface water sample to be suspect and de minimus.

7.0 RECOMMENDATIONS

AECOM recommends no further assessment for the January 5, 2017 discharge. Upon regulatory review of this document, AECOM requests that the FDEP grant no further action approval for this incident.

8.0 REFERENCES

Alachua County Property Appaiser. (n.d.). Retrieved September 27, 2017, from Search Property Address: http://www.acpafl.org/searchaddr.asp

Problems Associated with bis(2-ethylhexyl)phthalate detections in Groundwater Monitoring Wells, Wisconsin Department of Natural resources Waste & Materials Management, Publication WA 1011, Revision 2002

United States Department of Agriculture, Soil Conservation Service, 1982, Soil Survey of Alachua County Florida.

Florida Department of Health, Bureau of Water Programs, July 18, 2017 Public and Private Wells Database Search Report.

TABLES

Table 1
Perma-Fix Florida
1940 NW 67th Place
Gainesville, Florida 32653

Boring/Date/ Location	Depth Interval (ft-bls)	PID Reading (ppm)	Comment
SB-1	1	ND	SB-1 at 1'
	2	ND	
	3	ND	
	4	ND	SB-1 at 4'
	5	ND	
	6	ND	
	8	ND	
	10	ND	SB-1 at 10'
	12	ND	
	14	ND	
	16	ND	
	18	ND	
	20	ND	
SB-2	1	ND	SB-2 at 1.5'
	2	ND	
	3	ND	
	4	ND	SB-2 at 4'
	5	ND	
	6	ND	
	8	ND	
	10	ND	
	12	ND	
	14	ND	
	16	ND	
	18	ND	
	20	ND	
SB-3/MW-2	1	ND	SB-3 at 6"
	2	ND	
	3	ND	SB-3 at 4'
	4	ND	
	5	ND	
	6	ND	
	8	ND	
	10	ND	
	12	ND	
	14	ND	
	16	ND	
	18	ND	
	20	ND	
SB-4	1	ND	SB-4 at 6"
	2	ND	
	3	ND	
	4	ND	SB-4 at 4'
	5	ND	
	6	ND	
SB-5	1	ND	SB-5 at 6"
	2	ND	
	3	ND	
	4	ND	
	5	ND	SB-5 at 4'
	6	ND	
SB-6	1	ND	SB-6 at 6"
	2	ND	
	3	ND	
	4	ND	SB-6 at 4'
	5	ND	
	6	ND	

Notes
ppm = parts per million
ND = Not Detected

Table 2
Summary of Soil Analytical Results
Perma-Fix Florida
1940 NW 67th Place
Gainesville, FL 32653

Client Sample ID			SB-1	SB-1	SB-2	SB-2	SB-3	SB-3	SB-4	SB-4	SB-5	SB-5	SB-6	SB-6	State of Florida SCTLs		
Sample Depth (feet)			1 ft.	4 ft	1.5 ft	4 ft	4 ft	6 ft	4 ft	6 ft	4 ft	6 ft	4 ft	6 ft			
Collect Date			7/17/2017	7/17/2017	7/17/2017	7/17/2017	7/17/2017	7/17/2017	7/17/2017	7/17/2017	7/17/2017	7/17/2017	7/17/2017	7/17/2017	Direct Exposure		Leachability to Groundwater Standard
Method	Parameter	Units													Residential	Commercial/ Industrial	
Metals																	
6010B	Arsenic	mg/kg	0.27 U	0.24 U	0.24 U	0.24 U	0.30	0.25 U	0.28 U	0.26 U	0.27 U	0.24 U	0.27 U	0.26 U	*2.1*	*12*	*
6010B	Cadmium	mg/kg	0.090 I	0.033 U	0.034 I	0.059 I	0.033 U	0.20	0.039 U	0.23 U	0.038 U	0.27	0.037 U	0.26	*82*	*1,700*	*7.5*
6010B	Chromium	mg/kg	3.1	2.2	1.5	2.0	1.5	29	1.1	29	1.4	33	0.73	34	*210*	*470*	*38*
6010B	Lead	mg/kg	1.1	1.6	0.88	0.77	0.99	7.4	0.76	12	0.87	13	0.54	11	*400*	*1,400*	*
Total Petroleum Hydrocarbons																	
FLPRO	TPH	mg/kg	14 I	20	10 U	11 U	10 U	55	12 U	110 U	12 U	110 U	13 I	110 U	*460*	*2700*	*340*
Polycyclic Aromatic Hydrocarbons (PAH)																	
8270C	Acenaphthene	mg/kg	0.0030 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U	0.0029 U	0.0038 U	0.035 U	0.0038 U	0.033 U	0.0037 U	0.035 U	*2,400*	*20,000*	*2.1*
8270C	Acenaphthylene	mg/kg	0.0040 U	0.0035 U	0.0036 U	0.0036 U	0.0035 U	0.0038 U	0.0050 U	0.046 U	0.0050 U	0.044 U	0.0049 U	0.047 U	*1,800*	*20,000*	*27*
8270C	Antracene	mg/kg	0.0042 U	0.0037 U	0.0037 U	0.0038 U	0.0036 U	0.0039 U	0.0052 U	0.048 U	0.0051 U	0.046 U	0.0051 U	0.049 U	*21,000*	*300,000*	*2,500*
8270C	Benzo(a)anthracene	mg/kg	0.0033 U	0.0029 U	0.0030 U	0.0030 U	0.017	0.053	0.0042 U	0.081 I	0.0041 U	0.12	0.0041 U	0.057 I	*#*	*#*	*0.8*
8270C	Beno(a)pyrene	mg/kg	0.0069 U	0.0061 U	0.0061 U	0.0062 U	0.0060 U	0.040	0.0086 U	0.094	0.0085 U	0.14	0.0084 U	0.080 U	*0.1*	*0.7*	*8*
8270C	Benzo(b)fluoranthene	mg/kg	0.0050 U	0.0044 U	0.0044 U	0.0045 U	0.0049 I	0.065	0.0062 U	0.14	0.0062 U	0.19	0.0061 U	0.12	*#*	*#*	*2.4*
8270C	Benzo(g,h,i)perylene	mg/kg	0.0056 U	0.0049 U	0.0050 U	0.0050 U	0.0049 U	0.037	0.0070 U	0.093	0.0069 U	0.14	0.0068 U	0.084 I	*2,500*	*52,000*	*32,000*
8270C	Benzo(k)fluoranthene	mg/kg	0.0051 U	0.0045 U	0.0045 U	0.0046 U	0.0044 U	0.023	0.0064 U	0.058 U	0.0063 U	0.076 I	0.0062 U	0.059 U	*#*	*#*	*24*
8270C	Chrysene	mg/kg	0.0041 U	0.0036 U	0.0037 U	0.0037 U	0.0036 U	0.052	0.0051 U	0.11	0.0051 U	0.16	0.0050 U	0.089 I	*#*	*#*	*77*
8270C	Dibenzo(a,h)anthracene	mg/kg	0.0038 U	0.0033 U	0.0033 U	0.0034 U	0.0033 U	0.0097 I	0.0047 U	0.043 U	0.0046 U	0.041 U	0.0016 U	0.044 U	*#*	*#*	*0.7*
8270C	Fluoranthene	mg/kg	0.0052 U	0.0046 U	0.0046 U	0.0047 U	0.0045 U	0.067	0.0065 U	0.13	0.0064 U	0.20	0.0063 U	0.097	*3,200*	*59,000*	*1,200*
8270C	Fluorene	mg/kg	0.0035 U	0.0031 U	0.0031 U	0.0031 U	0.0030 U	0.0032 U	0.0043 U	0.040 U	0.0043 U	0.038 U	0.0042 U	0.040 U	*2,600*	*33,000*	*160*
8270C	Indeno(1,2,3-cd)pyrene	mg/kg	0.0041 U	0.0036 U	0.0036 U	0.0037 U	0.0036 U	0.034	0.0051 U	0.094	0.0051 U	0.14	0.0050 U	0.080 I	*#*	*#*	*6.6*
8270C	Naphthalene	mg/kg	0.0025 U	0.0022 U	0.0022 U	0.0022 U	0.0021 U	0.0023 U	0.0031 U	0.028 U	0.0030 U	0.027 U	0.0030 U	0.029 U	*55*	*300*	*1.2*
8270C	Phenanthrene	mg/kg	0.0032 U	0.0029 U	0.0029 U	0.0029 U	0.0028 U	0.013	0.0040 U	0.049 I	0.0040 U	0.080 I	0.0039 U	0.038 U	*2,200*	*36,000*	*250*
8270C	Pyrene	mg/kg	0.0028 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.063	0.0035 U	0.15	0.0035 U	0.28	0.0034 U	0.11	*2,400*	*45,000*	*880*
Other Semivolatiles																	
8270C	bis(2-Ethylhexyl) phthalate	mg/kg	0.091 U	0.080 U	0.081 U	0.082 U	0.079 U	0.085 U	NS	NS	NS	NS	NS	NS	*72*	*390*	*3600*

* Leachability values may be derived using the SPLP test to calculate site-specific SCTLs or may be determined using the TCLP in the event that oily wastes are present.
SCTL Soil Cleanup Target Level, Table II, Chapter 62-777, Florida Administrative Code
Bold Indicates an exceedance of an FDEP SCTL
NS Not Sampled
Compound referenced to sum Benzo(a)pyrene (BaP) equivalent values
U Concentration is below the the laboratory method detection limit
I Concentration is estimate and below the practical quantitiation limit, but above the method detection limit

Table 3
Summary of Sediment Analytical Results
Perma-Fix Florida
1940 NW 67th Place
Gainesville, FL 32653

Client Sample ID			SS-1	SS-2	State of Florida SCTLs		
Location							
Collect Date			8/8/2017	8/8/2017	Direct Exposure		Leachability to Groundwater Standard
Method	Parameter	Units			Residential	Commercial/ Industrial	
Metals							
6010B	Arsenic	mg/kg	0.28 U	0.80	*2.1*	*12*	*
6010B	Cadmium	mg/kg	0.039 U	0.038 U	*82*	*1,700*	*7.5*
6010B	Chromium	mg/kg	13	16	*210*	*470*	*38*
6010B	Lead	mg/kg	4.9	10	*400*	*1,400*	*NA*
Polycyclic Aromatic Hydrocarbons (PAH)							
8270C	Acenaphthene	mg/kg	0.0033 U	0.0032 U	*2,400*	*20,000*	*2.1*
8270C	Acenaphthylene	mg/kg	0.0043 U	0.0043 U	*1,800*	*20,000*	*27*
8270C	Antracene	mg/kg	0.0045 U	0.0044 U	*21,000*	*300,000*	*2,500*
8270C	Benzo(a)anthracene	mg/kg	0.0036 U	0.0035 U	*#*	*#*	*0.8*
8270C	Benzo(a)pyrene	mg/kg	0.0074 U	0.0073 U	*0.1*	*0.7*	*8*
8270C	Benzo(b)fluoranthene	mg/kg	0.010	0.0053 U	*#*	*#*	*2.4*
8270C	Benzo(g,h,i)perylene	mg/kg	0.0060 I	0.0059 U	*2,500*	*52,000*	*32,000*
8270C	Benzo(k)fluoranthene	mg/kg	0.0055 U	0.0054 U	*#*	*#*	*24*
8270C	Chrysene	mg/kg	0.0044 U	0.0044 U	*#*	*#*	*77*
8270C	Dibenzo(a,h)anthracene	mg/kg	0.0040 U	0.0040 U	*#*	*#*	*0.7*
8270C	Fluoranthene	mg/kg	0.0056 U	0.0055 U	*3,200*	*59,000*	*1,200*
8270C	Fluorene	mg/kg	0.0037 U	0.0037 U	*2,600*	*33,000*	*160*
8270C	Indeno(1,2,3-cd)pyrene	mg/kg	0.0046 I	0.0043 U	*#*	*#*	*6.6*
8270C	Naphthalene	mg/kg	0.0026 U	0.0026 U	*55*	*300*	*1.2*
8270C	Phenanthrene	mg/kg	0.0035 U	0.0034 U	*2,200*	*36,000*	*250*
8270C	Pyrene	mg/kg	0.0050 I	0.0030 U	*2,400*	*45,000*	*880*
Other Semivolatiles							
8270C	bis(2-Ethylhexyl) phthalate	mg/kg	0.098 U	0.096 U	*72*	*390*	*3600*

*	Leachability values may be derived using the SPLP test to calculate site-specific SCTLs or may be determined using the
SCTL	Soil Cleanup Target Level, Table II, Chapter 62-777, Florida Administrative Code
Bold	Indicates an exceedance of an FDEP SCTL
#	Compound referenced to sum Benzo(a)pyrene (BaP) equivalent values
U	Concentration is below the the laboratory method detection limit
I	Concentration is estimate and below the practical quantitiation limit, but above the method detection limit

TABLE 4
WATER TABLE ELEVATION SUMMARY
Perma-Fix of Florida
1940 NW 67th Place
Gainesville, FL 32653

All Measurements = Feet

WELL NO.	MW-1			MW-2			MW-3		
DIAMETER	1-inch			1-inch			1-inch		
WELL DEPTH	16			14			16		
SCREEN INTERVAL	6-16			4-14			6-16		
TOC ELEVATION	50.00			50.00			50.45		
DATE	**ELEV**	**DTW**	**FP**	**ELEV**	**DTW**	**FP**	**ELEV**	**DTW**	**FP**
7/19/2017	41.88	8.12	0.00	43.99	6.01	0.00	40.97	9.48	0.00
Average		8.12			6.01			9.48	

Table 5
Summary of Groundwater Analytical Results
Perma-Fix Florida
1940 NW 67th Place
Gainesville, FL 32653

Client sample ID			MW-1	MW-2		
Collect Date			7/19/2017	7/19/2017		
Method	Parameter	Units			GCTL	NADSC
6010B	Arsenic	µg/L	8.5 U	8.5 U	*10*	*100*
6010B	Cadmium	µg/L	0.34 I	0.39 I	5	50
6010B	Chromium	µg/L	8.8	0.85 I	*100*	*1,100*
6010B	Lead	µg/L	1.3 U	1.3 U	*15*	*150*
Total Petroleum Hydrocarbons						
FL-PRO	TPH	µg/L	600	600 U	50,000	*5,000*
Polycyclic Aromatic Hydrocarbons (PAH)						
8270C	Acenaphthene	µg/L	0.040 U	0.16 U	*20*	*200*
8270C	Acenaphthylene	µg/L	0.042 U	0.17 U	*210*	*2,100*
8270C	Antracene	µg/L	0.035 U	0.14 U	*2,100*	*21,000*
8270C	Benzo(a)anthracene	µg/L	0.012 U	0.056 I	*0.05*	*5*
8270C	Beno(a)pyrene	µg/L	0.037 U	0.15 U	*0.2*	*20*
8270C	Benzo(b)fluoranthene	µg/L	0.012 U	0.050 U	*0.05*	*5*
8270C	Benzo(g,h,i)perylene	µg/L	0.048 U	0.19 U	*210*	*2,100*
8270C	Benzo(k)fluoranthene	µg/L	0.048 U	0.19 U	*0.5*	*50*
8270C	Chrysene	µg/L	0.033 U	0.13 U	*4.8*	*480*
8270C	Dibenzo(a,h)anthracene	µg/L	0.024 U	0.095 U	*0.005*	*0.5*
8270C	Fluoranthene	µg/L	0.037 U	0.15 U	*280*	*2,800*
8270C	Fluorene	µg/L	0.038 U	0.15 U	*280*	*2,800*
8270C	Indeno(1,2,3-cd)pyrene	µg/L	0.011 U	0.045 U	*0.05*	*5*
8270C	Naphthalene	µg/L	0.048 U	0.22	*14*	*140*
8270C	Phenanthrene	µg/L	0.040 U	0.16 U	*210*	*2,100*
8270C	Pyrene	µg/L	0.036 U	0.14 U	*210*	*2,100*
Other Semivolatiles						
8270C	bis(2-Ethylhexyl) phthalate	µg/L	2.0 U	2.0 U	*6*	*600*
8270C	Di-n-Butyl Phthalate	µg/L	0.88 U	6.6	*700*	*7,000*

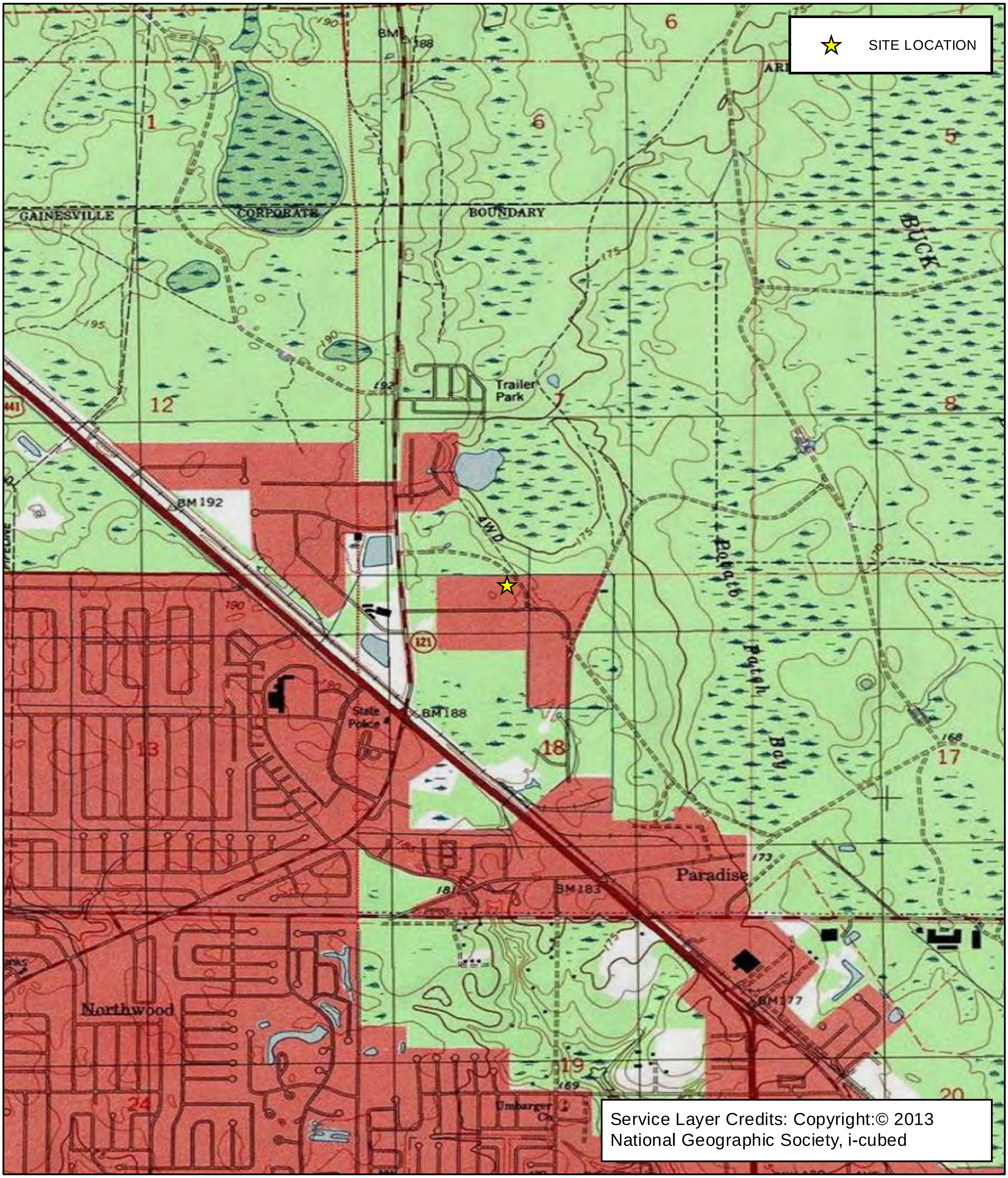
Notes
Bold Indicates an exceedance of the FDEP GCTL
U Concentration is below the the laboratory method detection limit (MDL)
I Concentration is estimate and below the practical quantitiation limit, but above the MDL

Table 6
Summary of Surface Water Analytical Results
Perma-Fix Florida
1940 NW 67th Place
Gainesville, FL 32653

Client sample ID			SW-1	SW-2	SW-3	SW-4	SW-5	
Location								
Collect Date			7/27/2017	7/27/2017	7/27/2017	9/15/2017	9/15/2017	
Method	Parameter	Units						FW CTLs
Metals								
6010B	Arsenic	µg/L	8.5 U	8.5 U	8.5 U	8.5 U	8.5 U	*50*
6010B	Cadmium	µg/L	0.55 I	1.5	0.32 U	0.32 U	0.32 U	8.8
6010B	Chromium	µg/L	6.1	**24**	1.4	1.1 V	1.2 V	*11*
6010B	Lead	µg/L	6.1 I	**30**	1.3 U	1.3 U	1.3 U	*8.5*
Total Petroleum Hydrocarbons								
FL-PRO	TPH	µg/L	1,300	2,800	1,500	910	770	*5,000*
Polycyclic Aromatic Hydrocarbons (PAH)								
8270C	Acenaphthene	µg/L	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	*3*
8270C	Acenaphthylene	µg/L	0.042 U	0.042 U	0.042 U	0.042 U	0.042 U	***
8270C	Antracene	µg/L	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U	*0.3*
8270C	Benzo(a)anthracene	µg/L	0.012 U	1.6	0.012 U	0.012 U	0.012 U	***
8270C	Beno(a)pyrene	µg/L	0.037 U	2.0	0.037 U	0.037 U	0.037 U	***
8270C	Benzo(b)fluoranthene	µg/L	0.012 U	3.8	0.012 U	0.012 U	0.012 U	***
8270C	Benzo(g,h,i)perylene	µg/L	0.048 U	2.5	0.048 U	0.048 U	0.048 U	***
8270C	Benzo(k)fluoranthene	µg/L	0.048 U	1.5	0.048 U	0.048 U	0.048 U	***
8270C	Chrysene	µg/L	0.033 U	2.6	0.033 U	0.033 U	0.033 U	***
8270C	Dibenzo(a,h)anthracene	µg/L	0.024 U	0.54	0.024 U	0.024 U	0.024 U	***
8270C	Fluoranthene	µg/L	0.037 U	**2.8**	0.037 U	0.037 U	0.037 U	*0.3*
8270C	Fluorene	µg/L	0.20	0.038 U	0.038 U	0.038 U	0.038 U	*30*
8270C	Indeno(1,2,3-cd)pyrene	µg/L	0.011 U	2.2	0.011 U	0.011 U	0.011 U	***
8270C	Naphthalene	µg/L	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	*26*
8270C	Phenanthrene	µg/L	0.040 U	0.53	0.040 U	0.040 U	0.040 U	***
8270C	Pyrene	µg/L	0.036 U	**2.4**	0.036 U	0.036 U	0.036 U	*0.3*
Other Semivolatiles								
8270C	bis(2-Ethylhexyl) phthalate	µg/l	**3.1 I**	2.2 I	2.0 U	2.0 U	2.0 U	*2.2*

Notes
Bold Indicates an exceedance of the FDEP GCTL (Surface Water)
U Concentration is below the the laboratory method detection limit
I Concentration is estimate and below the practical quantitiation limit, but above the method detection limit
*** Annual average 0.031 (Chapter 62-302 Class III Surface Water)
FW CTLs Fresh Water Cleanup Target Levels, Class III

FIGURES



AECOM

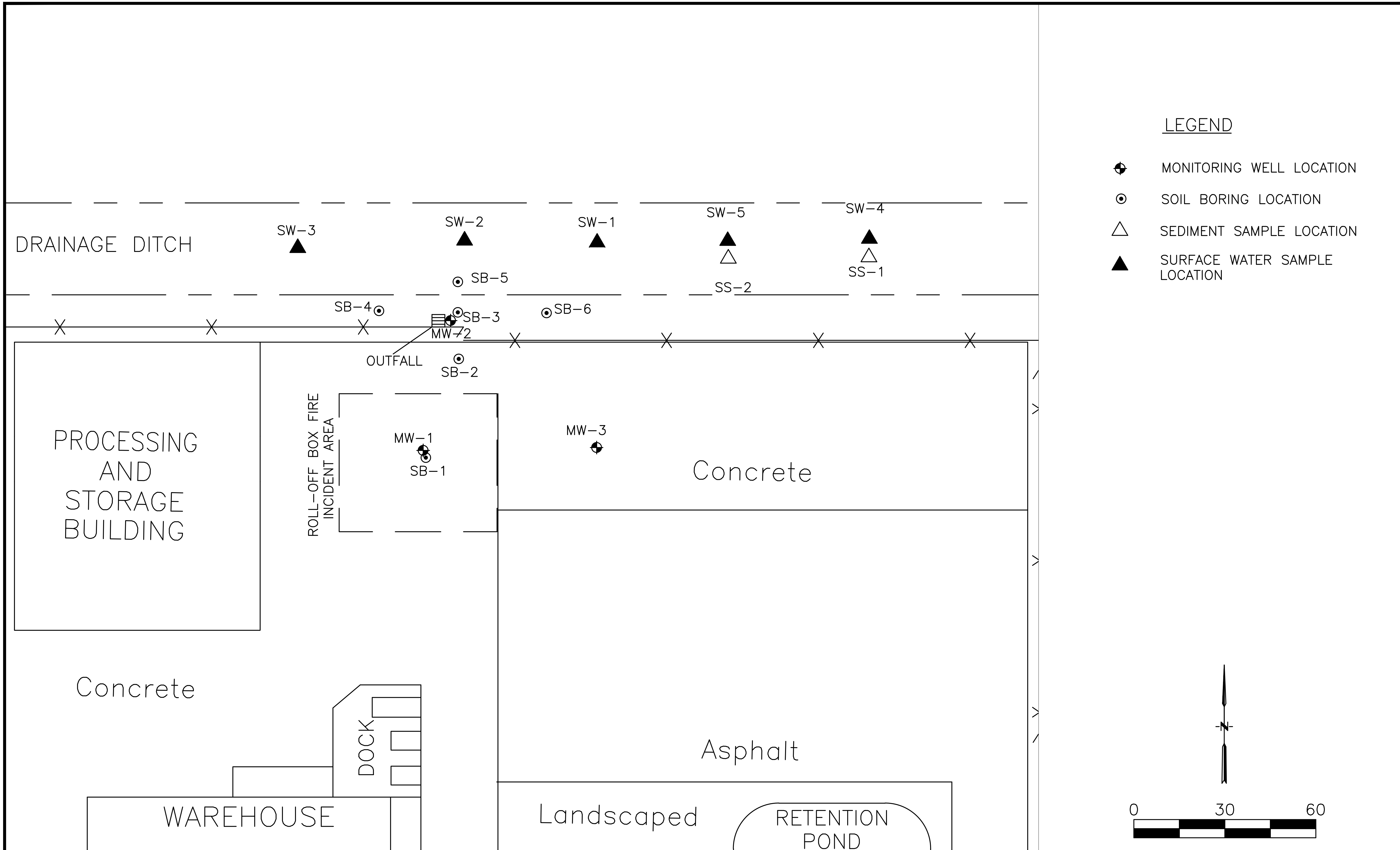
PERMA-FIX OF FLORIDA FACILITY
1940 NW 67TH PLACE
GAINESVILLE, FL 32653

N

0 0.175 0.35 0.7 Miles

FIGURE 1

SITE LOCATION MAP



REV	DESCRIPTION OF REVISION	BY	DATE

PERMA-FIX OF FLORIDA FACILITY
ROLL-OFF BOX FIRE INCIDENT AREA
1940 NW 67TH PLACE
GAINESVILLE, FL

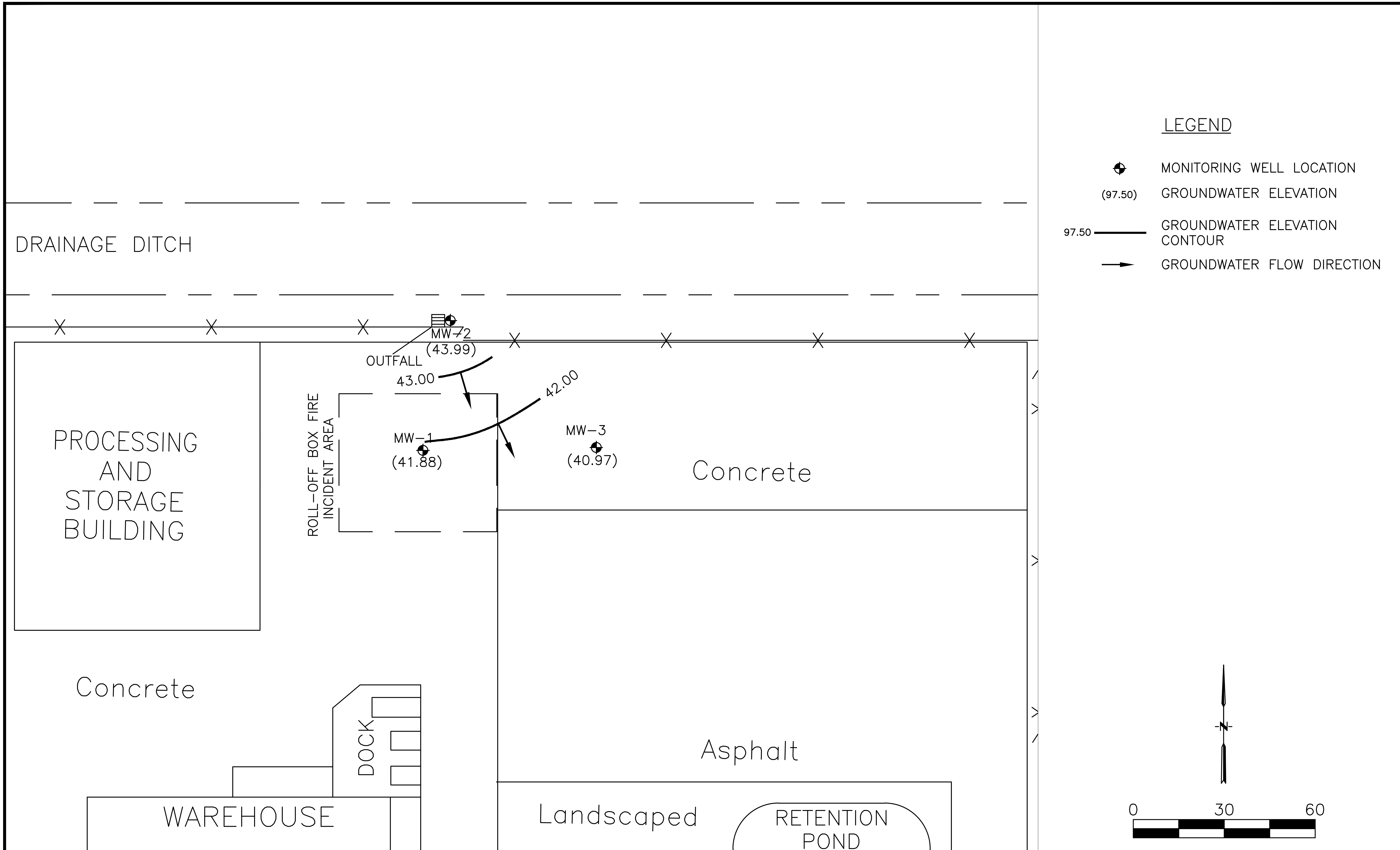
AECOM
4168 SOUTHPOINT PARKWAY
SUITE 205
JACKSONVILLE, FLORIDA 32216
(904) 281-9251

SCALE 1" = 30'
DRAWN BY: DBM
CHECKED BY: WCK
9/28/17

SITE PLAN

PROJECT NUMBER
60541241

FIGURE
2



REV	DESCRIPTION OF REVISION	BY	DATE

PERMA-FIX OF FLORIDA FACILITY
ROLL-OFF BOX FIRE INCIDENT AREA
1940 NW 67TH PLACE
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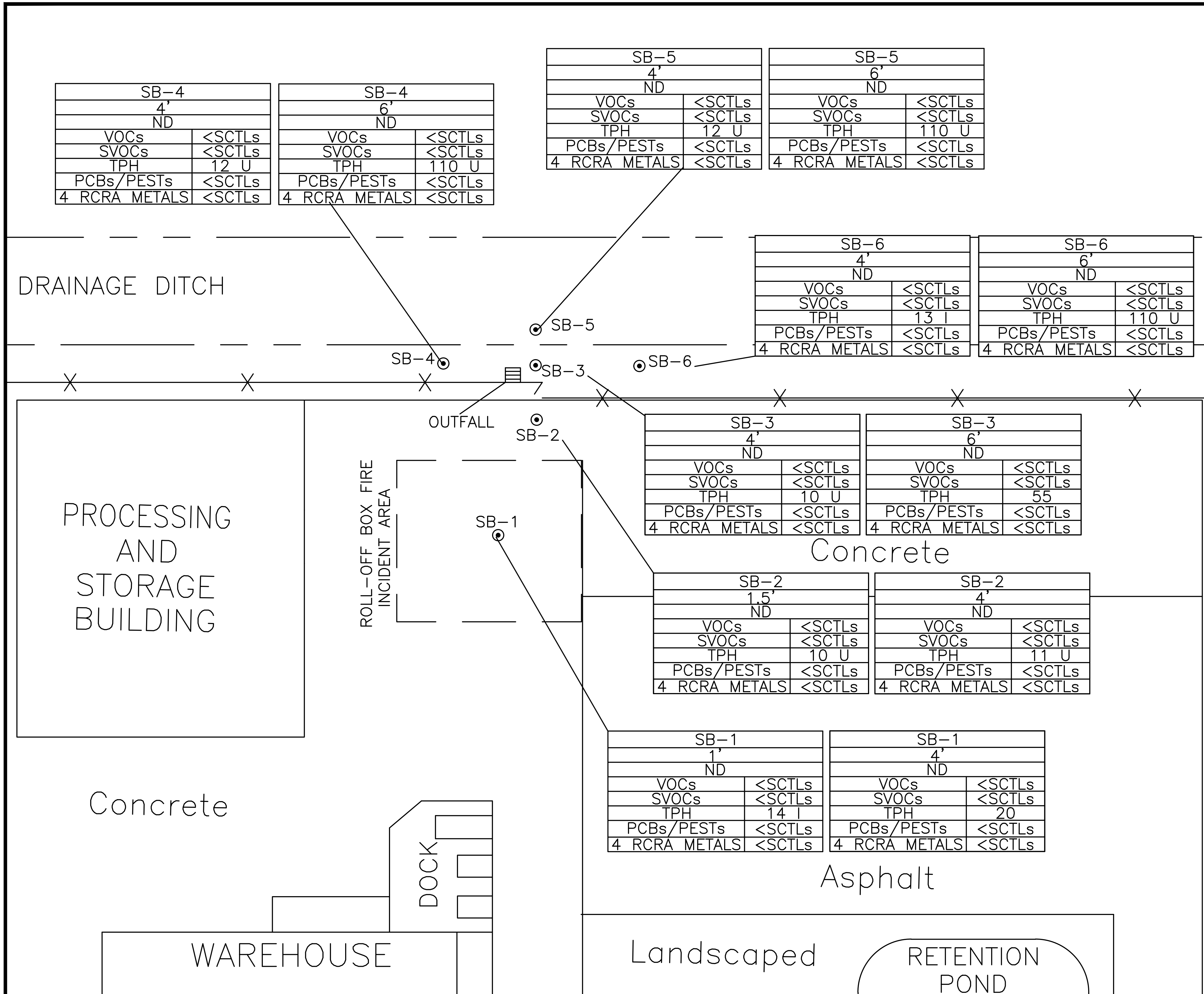
AECOM
4168 SOUTHPOINT PARKWAY
SUITE 205
JACKSONVILLE, FLORIDA 32216
(904) 281-9251

SCALE 1" = 30'
DRAWN BY: DBM
CHECKED BY: WCK
9/28/17

WATER TABLE ELEVATION MAP,
JULY 19, 2017

PROJECT NUMBER 60541241

FIGURE 3



Boring ID	Sample Depth	OVA Response	VOCs	SVOCs	TPH	PCBs/PESTs	4 RCRA METALS
SB-4	4'	ND	<SCTLs	<SCTLs	12 U	<SCTLs	<SCTLs
SB-4	6'	ND	<SCTLs	<SCTLs	110 U	<SCTLs	<SCTLs
SB-5	4'	ND	<SCTLs	<SCTLs	12 U	<SCTLs	<SCTLs
SB-5	6'	ND	<SCTLs	<SCTLs	110 U	<SCTLs	<SCTLs
SB-6	4'	ND	<SCTLs	<SCTLs	13 I	<SCTLs	<SCTLs
SB-6	6'	ND	<SCTLs	<SCTLs	110 U	<SCTLs	<SCTLs
SB-3	4'	ND	<SCTLs	<SCTLs	10 U	<SCTLs	<SCTLs
SB-3	6'	ND	<SCTLs	<SCTLs	55	<SCTLs	<SCTLs
SB-2	1.5'	ND	<SCTLs	<SCTLs	10 U	<SCTLs	<SCTLs
SB-2	4'	ND	<SCTLs	<SCTLs	11 U	<SCTLs	<SCTLs
SB-1	1'	ND	<SCTLs	<SCTLs	14 I	<SCTLs	<SCTLs
SB-1	4'	ND	<SCTLs	<SCTLs	20	<SCTLs	<SCTLs

LEGEND

⊙ SOIL BORING LOCATION

BORING ID
SAMPLE DEPTH
OVA RESPONSE
VOCs
PP
SVOCs
TPH
PCBs
4 RCRA METALS

NOTE:
CONCENTRATIONS EXPRESSED IN MILIGRAMS PER KILIGRAM
SCTLs = SOIL CLEANUP TARGET LEVELS
VOCs = VOLATILE ORGANIC COMPOUNDS
SVOCs = SEMIVOLATILE ORGANIC COMPOUNDS
TPH = TOTAL PETROLEUM HYDROCARBONS
PCBs/PESTs = POLYCHLORINATED BIPHENYLS AND ORGANOCHLORINE PESTICIDES
RCRA = RESOURCE CONSERVATION AND RECOVERY ACT

N

0 30 60

REV	DESCRIPTION OF REVISION	BY	DATE

PERMA-FIX OF FLORIDA FACILITY
ROLL-OFF BOX FIRE INCIDENT AREA
1940 NW 67TH PLACE
GAINESVILLE, FL

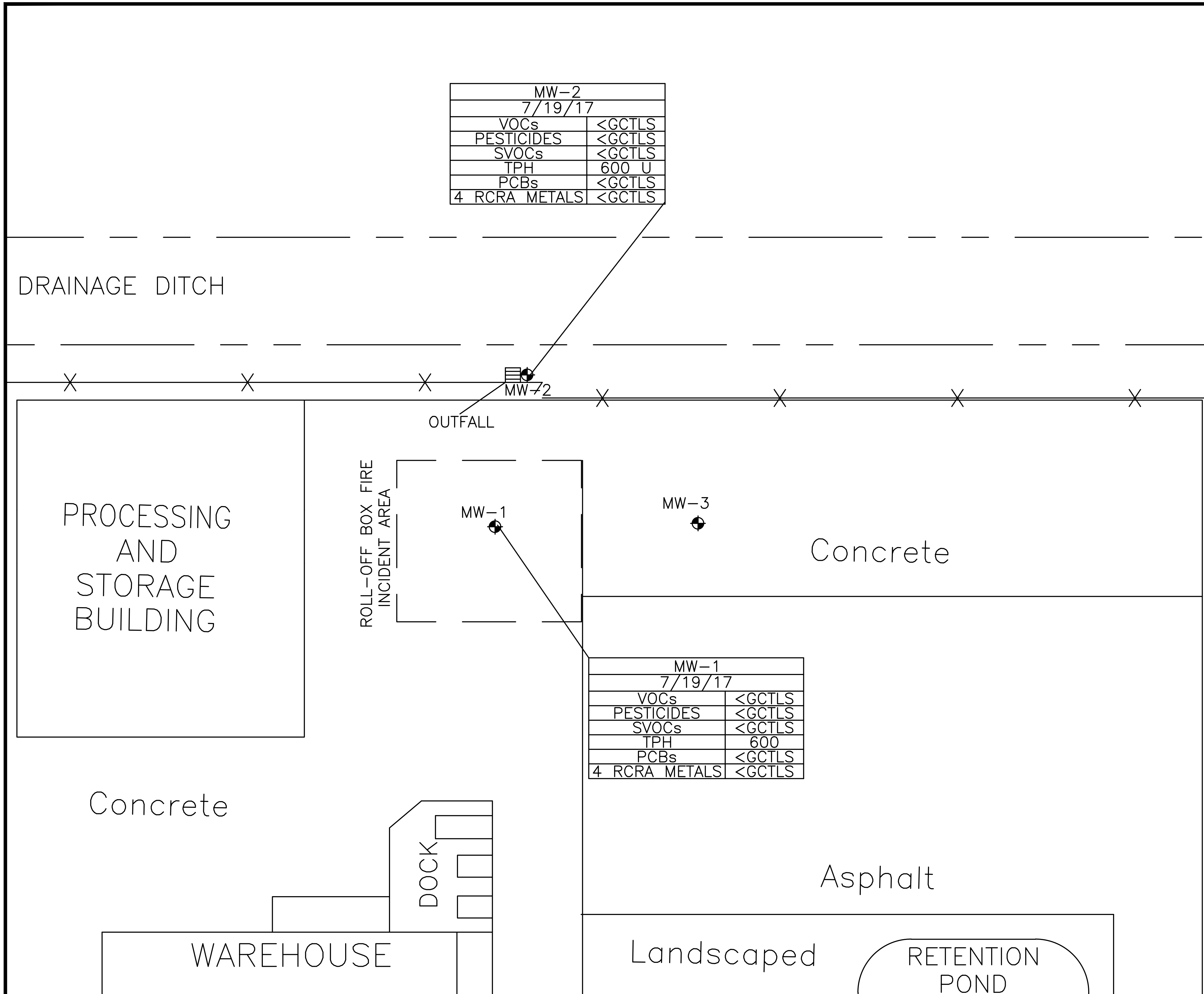
AECOM
4168 SOUTHPOINT PARKWAY
SUITE 205
JACKSONVILLE, FLORIDA 32216
(904) 281-9251

SCALE 1" = 30'
DRAWN BY: DBM
CHECKED BY: WCK
9/28/17

DISTRIBUTION OF CONSTITUENTS OF CONCERN IN SOIL,
JULY 17, 2017

PROJECT NUMBER 60541241

FIGURE 4



MW-2	
7/19/17	
VOCs	<GCTLS
PESTICIDES	<GCTLS
SVOCs	<GCTLS
TPH	600 U
PCBs	<GCTLS
4 RCRA METALS	<GCTLS

MW-1	
7/19/17	
VOCs	<GCTLS
PESTICIDES	<GCTLS
SVOCs	<GCTLS
TPH	600
PCBs	<GCTLS
4 RCRA METALS	<GCTLS

LEGEND

MONITORING WELL LOCATION

WELL ID
SAMPLE DATE
VOCs
PESTICIDES
SVOCs
TPH
PCBs
4 RCRA METALS

NOTE:
GCTLS = GROUNDWATER CLEANUP TARGET LEVELS
VOCs = VOLATILE ORGANIC COMPOUNDS
PESTICIDES = ORGANOCHLORINE PESTICIDES
SVOCs = SEMIVOLATILE ORGANIC COMPOUNDS
TPH = TOTAL PETROLEUM HYDROCARBONS
PCBs = POLYCHLORINATED BIPHENYLS
RCRA = RESOURCE CONSERVATION AND RECOVERY ACT

N

0 30 60

REV	DESCRIPTION OF REVISION	BY	DATE

PERMA-FIX OF FLORIDA FACILITY
ROLL-OFF BOX FIRE INCIDENT AREA
1940 NW 67TH PLACE
GAINESVILLE, FL

AECOM
4168 SOUTHPOINT PARKWAY
SUITE 205
JACKSONVILLE, FLORIDA 32216
(904) 281-9251

SCALE 1" = 30'
DRAWN BY: DBM
CHECKED BY: WCK
9/28/17

DISTRIBUTION OF CONSTITUENTS OF CONCERN IN GROUNDWATER, JULY 19, 2017

PROJECT NUMBER 60541241

FIGURE 5

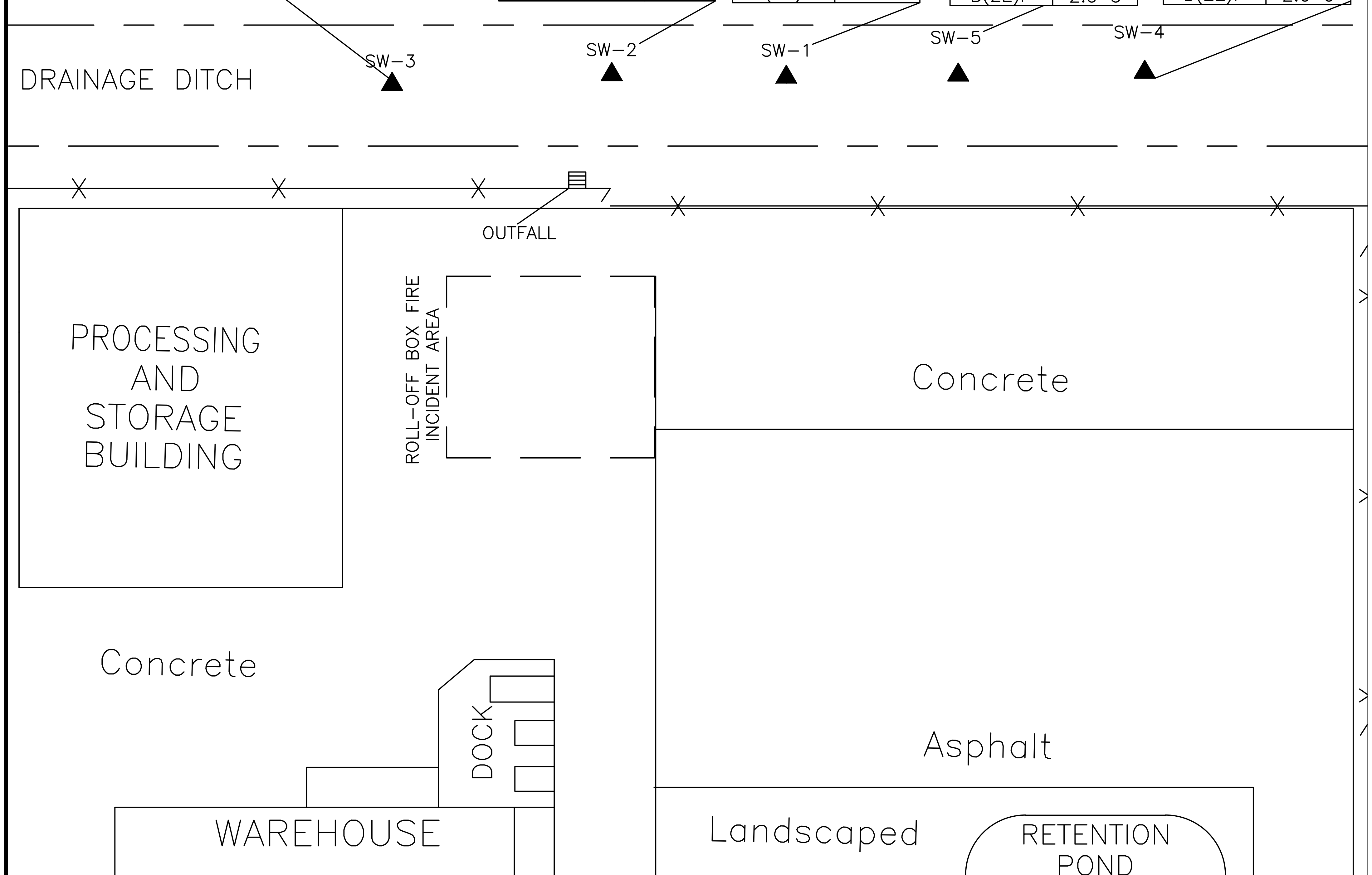
SW-3	
7/19/17	
VOCs	<GCTLs
PESTICIDES	<GCTLs
OTHER SVOCs	<GCTLs
TPH	1,500
PCBs	<GCTLs
ARSENIC	8.5 U
CADMIUM	0.32 U
CHROMIUM	1.4
LEAD	1.3 U
B(2E)P	2.0 U

SW-2	
7/19/17	
VOCs	<GCTLs
PESTICIDES	<GCTLs
FLUORANTHENE	2.8
PYRENE	2.4
TPH	2,800
PCBs	<GCTLs
ARSENIC	8.5 U
CADMIUM	1.5
CHROMIUM	24
LEAD	30
B(2E)P	2.2 I

SW-1	
7/19/17	
VOCs	<GCTLs
PESTICIDES	<GCTLs
OTHER SVOCs	<GCTLs
TPH	1,300
PCBs	<GCTLs
ARSENIC	8.5 U
CADMIUM	0.55 I
CHROMIUM	6.1
LEAD	6.1 I
B(2E)P	3.1 I

SW-5	
9/15/17	
VOCs	<GCTLs
PESTICIDES	<GCTLs
OTHER SVOCs	<GCTLs
TPH	770
PCBs	<GCTLs
ARSENIC	8.5 U
CADMIUM	0.32 U
CHROMIUM	1.2 V
LEAD	1.3 U
B(2E)P	2.0 U

SW-4	
9/15/17	
VOCs	<GCTLs
PESTICIDES	<GCTLs
OTHER SVOCs	<GCTLs
TPH	910
PCBs	<GCTLs
ARSENIC	8.5 U
CADMIUM	0.32 U
CHROMIUM	1.1 V
LEAD	1.3 U
B(2E)P	2.0 U



LEGEND

▲ SURFACE WATER SAMPLE LOCATION

SAMPLE ID
SAMPLE DATE
VOCs
PESTICIDES
OTHER SVOCs
TPH
PCBs
ARSENIC
CADMIUM
CHROMIUM
LEAD
B(2E)P

NOTE:
CONCENTRATIONS EXPRESSED IN MICROGRAMS PER LITER
GCTLs = GROUNDWATER CLEANUP TARGET LEVELS
VOCs = VOLATILE ORGANIC COMPOUNDS
PESTICIDES = ORGANIOCHLORINE PESTICIDES
SVOCs = SEMIVOLATILE ORGANIC COMPOUNDS
TPH = TOTAL PETROLEUM HYDROCARBONS
PCBs = POLYCHLORINATED BIPHENYL
B(2E)P = BIS(2-ETHYLHEXYL) PHTHALATE

N

0 30 60

REV	DESCRIPTION OF REVISION	BY	DATE

PERMA-FIX OF FLORIDA FACILITY
ROLL-OFF BOX FIRE INCIDENT AREA
1940 NW 67TH PLACE
GAINESVILLE, FL

AECOM
4168 SOUTHPOINT PARKWAY
SUITE 205
JACKSONVILLE, FLORIDA 32216
(904) 281-9251

SCALE 1" = 30'
DRAWN BY: DBM
CHECKED BY: WCK
9/28/17

DISTRIBUTION OF CONSTITUENTS OF CONCERN IN SURFACE WATER, JULY 19, 2017

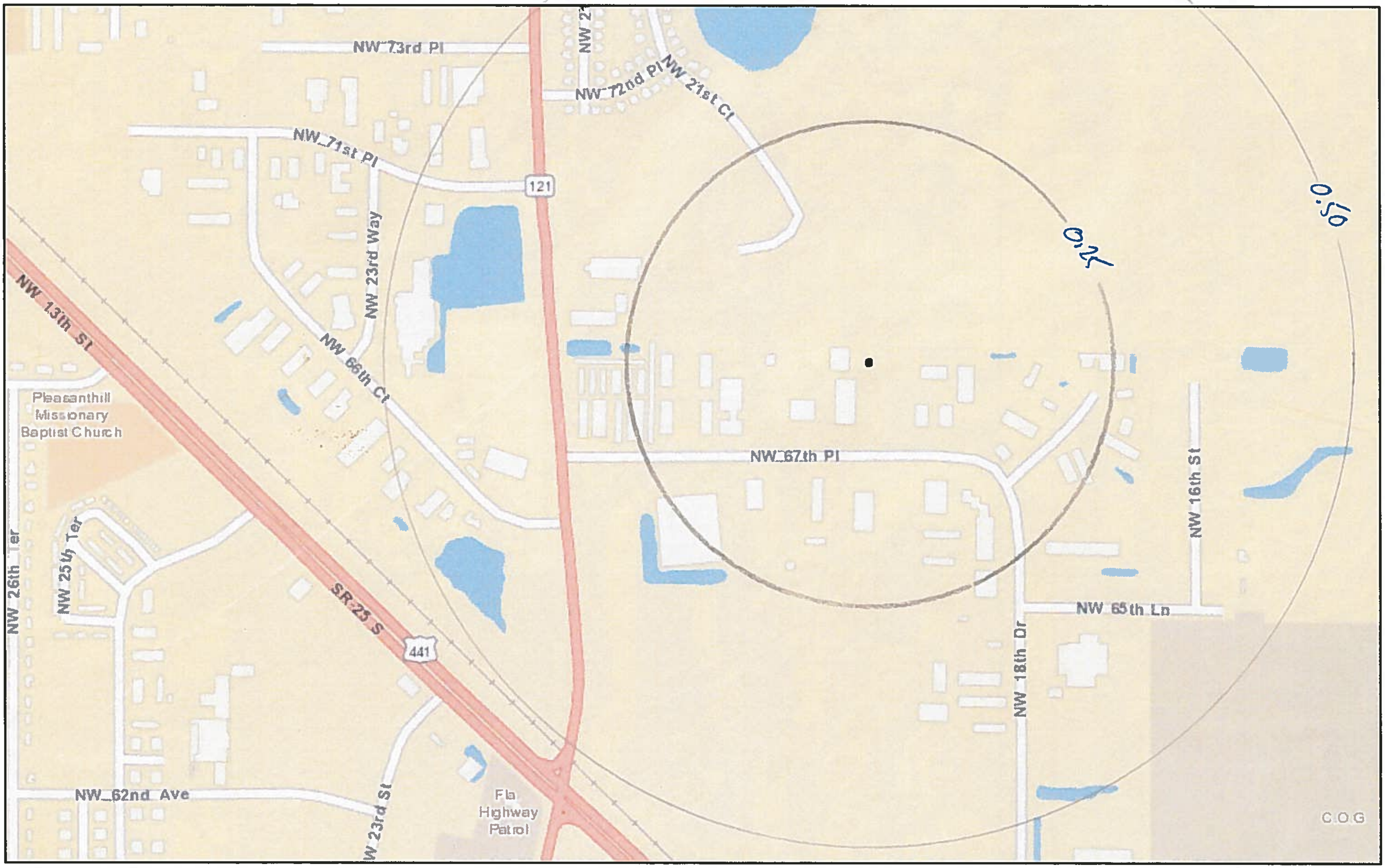
PROJECT NUMBER 60541241

FIGURE 6

APPENDIX A

FDOH POTABLE WELL SURVEY

FL DOH EH Water Printout



July 18, 2017

Delineated Zone (62-524)

Well Locations

County Boundaries

1:9,028

0 0.075 0.15 0.3 mi

0 0.075 0.15 0.3 km

Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand),

FL DOH
FL DOH

APPENDIX B

SOIL BORING AND MONITORING WELL CONSTRUCTION LOGS

AECOM

EQUIPMENT CALIBRATION / VERIFICATION LOG

DATE/TIME COMPLETE: 07-17-17 0748
(MM/DD/YY, HH:MM)

PROJECT: Perma-Fix

TASK: Soil Sampling

FIELD PERSONNEL: Bobby Fleming
NAME (PRINT)

Robert M. Fleming
(SIGNATURE)

GROUNDWATER PRE-SAMPLING EVENT EQUIPMENT:
(i.e., YSI 556, Oakton, etc)

	pH (std units)			D.O.* (%)	Conductivity (umho/cm)	Turbidity (NTUs, minimum of two standards)			
STANDARDS (If blank, specify):	4.00	7.00	10.00	100% in air	1409.00				
INITIAL READING									
FINAL READING									
TEMPERATURE									
CALIBRATED / VERIFIED	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER

OVA/FID/PID/LEL EQUIPMENT (Specify): PhotoVac 2020
(i.e., PortaFID, PhotoVac PID, Q RAE II, etc.)

	Methane (use for PortaFID or DP-4)	Isobutylene (use for PhotoVAC 2020)	LEL Meter Bump	LEL Meter Calibrated Y / N
STANDARDS (If blank, specify):	100 ppm	100 ppm	2.5% Methane (50% LEL)	Multiple Concentrations
INITIAL READING		85ppm		
FINAL READING		100ppm		
CALIBRATED / VERIFIED	CAL / VER	CAL / VER	CAL / VER	

DATE/TIME COMPLETE:
(MM/DD/YY, HH:MM)

GROUNDWATER POST-SAMPLING EVENT EQUIPMENT:
(i.e., YSI 556, Oakton, etc)

	pH (std units)			D.O.* (%)	Conductivity (umho/cm)	Turbidity (NTUs, minimum of two standards)			
STANDARDS (If blank, specify):	4.00	7.00	10.00	100% in air	1409.00				
INITIAL READING									
FINAL READING									
TEMPERATURE									
CALIBRATED / VERIFIED	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER

* - Although dissolved oxygen is typically calibrated in percent (%) saturation in air, stabilization readings should be recorded in milligrams per liter (mg/l)

Verification Acceptance Criteria:
pH +/- 0.2 pH Units
Conductivity +/- 5%
D.O. +/- 0.3 mg/L
Turb. 0.1-10 NTU

BORING LOG

Boring/Well Number: SB-1	Permit Number:	FDEP Facility Identification Number: OER# 2017-11-57157
Site Name: Perma-Fix	Borehole Start Date: 07/17/17 End Date: 07/17/17	Borehole Start Time: 1256 ☐ AM ☑ PM End Time: 1330 ☐ AM ☑ PM
Environmental Contractor: AECOM	Geologist's Name: Bobby Fleming	Environmental Technician's Name: N/A

Drilling Company: Preferred Drilling Solutions	Pavement Thickness (inches): 8"	Borehole Diameter (inches): 4"	Borehole Depth (feet): 20'
Drilling Method(s): Hand Auger/DPT	Apparent Borehole DTW (in feet from soil moisture content): 13	Measured Well DTW (in feet after water recharges in well): 10	OVA (list model and check type): ☐ FID ☑ PID

Disposition of Drill Cuttings [check method(s)]: ☑ Drum ☐ Spread ☐ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☑ Well ☐ Grout ☐ Bentonite ☐ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	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)
HA	1	24"	NA	ND	NA	0	1	0-8" Conctret/Rebar	SM	D	SB-1 at 1' (1258)
HA	2	24"	NA	ND	NA	0	2	8"-5' Medium to fine grain silty sand, low density, no plasticity, poorly graded, brown color, no odor	SM	D	
HA	3	24"	NA	ND	NA	0	3		SM	D	
HA	4	24"	NA	ND	NA	0	4		SM	D	SB-1 at 4' (1305)
HA	5	24"	NA	ND	NA	0	5	5'-10' 10% Clay, silty sand, light brown color	SM	D	
HA	6	24"	NA	ND	NA	0	6		SM	D	
							7		SM	D	
DPT	8	48"	NA	ND	NA	0	8		SM	D	
							9		SM	D	
DPT	10	48"	NA	ND	NA	0	10		SM	D	SB-1 at 10' (1315)
							11		SM	D	
DPT	12	48"	NA	ND	NA	0	12		SM	D	

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

Florida Department of Environmental Protection - Division of Waste Management - Bureau of Petroleum Storage Systems

BORING LOG

Boring/Well Number:	FDEP Facility Identification Number:	Site Name:	Borehole Start Date: 07/17/17
SB-1	OER# 2017-11-57157	Perma-Fix	End Date: 07/17/17

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	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)
									SM	S	
							13	14-15 Clayey sand, tan color, 35% clay, low to medium plasticity and density, no odor			
DPT	14	48"	NA	ND	NA	0			SC	S	
							14	15-17 Medium to fine grain silty sand, tan color, no odor			
									SM	D	
							15				
DPT	16	48"	NA	ND	NA	0			SM	S	
							16	17-19 Sandy clay, 55% clay, density and plastcity, grey color			
									CS	S	
							17				
DPT	18	48"	NA	ND	NA	0			CS	D	
							18	19-20 Medium to fine grain silty sand, tan color			
									SM	D	
							19				
DPT	20	48"	NA	ND	NA	0			SM	D	
							20	End of Boring			
							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 Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB-2	FDEP Facility Identification Number: OER# 2017-11-57157	Site Name: Perma-Fix	Borehole Start Date: 07/17/17 End Date: 07/17/17

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	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)
								13-19 Clayie sand, tan color, 45% clay, medium plasticity and density, no odor	SC	D	
							13				
DPT	14	48"	NA	ND	NA	0			SC	D	
							14				
									SC	D	
							15				
DPT	16	48"	NA	ND	NA	0			SC	D	
							16				
									SC	D	
							17				
DPT	18	48"	NA	ND	NA	0			SC	D	
							18				
								19-20 Medium to fine grain silty sand, light brown color	SM	D	
							19				
DPT	20	48"	NA	ND	NA	0			SM	W	
							20				
								End of Boring			
							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 Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number:	FDEP Facility Identification Number:	Site Name:	Borehole Start Date: 07/17/17
SB-3	OER# 2017-11-57157	Perma-Fix	End Date: 07/17/17

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	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)
							13		SC	D	
DPT	14	48"	NA	ND	NA	0	14	14-17 Silty sand, light brown color, trace of dark brown color, medium to fine grain sand, no odor	SC	D	
							15		SC	D	
DPT	16	48"	NA	ND	NA	0	16		SC	D	
							17	17-19 Bluish Grey Clay, 80% clay, high plastcity and density	SC	D	
DPT	18	48"	NA	ND	NA	0	18		SC	D	
							19	19-20 Medium to fine grain silty sand, light brown color, 10% crushed lime rock	SM	D	
DPT	20	48"	NA	ND	NA	0	20		SM	W	
							21	End of Boring			
							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 Cuttings

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

Florida Department of Environmental Protection - Division of Waste Management - Bureau of Petroleum Storage Systems

BORING LOG

Boring/Well Number: SB-5	Permit Number: NA	FDEP Facility Identification Number: OER# 2017-11-57157
Site Name: Perma-Fix of Florida	Borehole Start Date: 07/17/17 End Date: 07/17/17	Borehole Start Time: 0916 ☑ AM ☐ PM End Time: 0924 ☑ AM ☐ PM
Environmental Contractor: AECOM	Geologist's Name: Bobby Fleming	Environmental Technician's Name: N/A

Drilling Company: Preferred Drilling Solutions	Pavement Thickness (inches): NA Grass	Borehole Diameter (inches): 4"	Borehole Depth (feet): 6'
Drilling Method(s): Hand Auger	Apparent Borehole DTW (in feet from soil moisture content): 5'	Measured Well DTW (in feet after water recharges in well): NA	OVA (list model and check type): PhotoVac 2020 ☐ FID ☑

Disposition of Drill Cuttings [check method(s)]: ☑ Drum ☐ Spread ☐ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	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)
HA	1	24"	NA	ND	NA	0	1	0-2" Grass	SM	D	SB-5 at 6" (0918)
HA	2	24"	NA	ND	NA	0	2	2"-6' Medium to fine grain silty sand, low density, no plasticity, poorly graded, light brown color, no odor	SM	D	
HA	3	24"	NA	ND	NA	0	3		SM	D	
HA	4	24"	NA	ND	NA	0	4		SM	D	SB-5 at 4' (0922)
HA	5	24"	NA	ND	NA	0	5		SM	W	
HA	6	24"	NA	ND	NA	0	6		SM	W	
							7	End of Boring			
							8				
							9				
							10				
							11				
							12				

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

BORING LOG

Boring/Well Number: MW-3	Permit Number: NA	FDEP Facility Identification Number: OER# 2017-11-57157
Site Name: Perma-Fix of Florida	Borehole Start Date: 07/17/17 End Date: 07/17/17	Borehole Start Time: 1340 ☐ AM ☑ PM End Time: 1405 ☐ AM ☑ PM
Environmental Contractor: AECOM	Geologist's Name: Bobby Fleming	Environmental Technician's Name: N/A

Drilling Company: Preferred Drilling Solutions	Pavement Thickness (inches): 8"	Borehole Diameter (inches): 4"	Borehole Depth (feet): 6'
Drilling Method(s): Hand Auger	Apparent Borehole DTW (in feet from soil moisture content): NA	Measured Well DTW (in feet after water recharges in well): 10	OVA (list model and check type): PhotoVac 2020 ☐ FID ☑

Disposition of Drill Cuttings [check method(s)]: ☑ Drum ☐ Spread ☐ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	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)
HA	1	24"	NA	ND	NA	0	1	0-8" Concrete/Rebar 8"-5' Medium to fine grain silty sand, low density, no plasticity, poorly graded, brown color, no odor	SM	D	
HA	2	24"	NA	ND	NA	0	2		SM	D	
HA	3	24"	NA	ND	NA	0	3		SM	D	
HA	4	24"	NA	ND	NA	0	4		SM	D	
HA	5	24"	NA	ND	NA	0	5		SM	D	
HA	6	24"	NA	ND	NA	0	6		SM	D	
							7	End of Boring			
							8				
							9				
							10				
							11				
							12				

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

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA

Well Number: MW-1	Site Name: Perma-Fix	FDEP Facility I.D. Number:	Well Install Date(s): 7/17/17

Well Location and Type (check appropriate boxes): ☑ On-Site ☐ Right-of-Way ☐ Off-Site Private Property ☐ Above Grade (AG) ☑ Flush-to-Grade

If AG, list feet of riser above land surface:

Well Purpose: ☐ Perched Monitoring ☑ Shallow (Water-Table) Monitoring ☐ Intermediate or Deep Monitoring ☐ Remediation or Other (describe)

Well Install Method: Direct Push

Surface Casing Install Method: NA

Borehole Depth (feet): 20	Well Depth (feet): 16	Borehole Diameter (inches): 4	Manhole Diameter (inches): 8.25	Well Pad Size: 2 feet by 2 feet

Riser Diameter and Material: 1-inch Schedule 40 PVC

Riser/Screen Connections: ☑ Flush-Threaded ☐ Other (describe)

Riser Length: 6 feet from 0 feet to 6 feet

Screen Diameter and Material: 1-inch Schedule 40 PVC

Screen Slot Size: 0.01

Screen Length: 10 feet from 6 feet to 16 feet

1st Surface Casing Material: also check: ☐ Permanent ☐ Temporary

1st Surface Casing I.D. (inches):

1st Surface Casing Length: feet from 0 feet to feet

2nd Surface Casing Material: also check: ☐ Permanent ☐ Temporary

2nd Surface Casing I.D. (inches):

2nd Surface Casing Length: feet from 0 feet to feet

3rd Surface Casing Material: also check: ☐ Permanent ☐ Temporary

3rd Surface Casing I.D. (inches):

3rd Surface Casing Length: feet from 0 12 feet

Filter Pack Material and Size: 20/30 Sand

Prepacked Filter Around Screen (check one): ☑ Yes ☐ No

Filter Pack Length: 12 feet from 4 feet to 16 feet

Filter Pack Seal Material and Size: 30/65 Fine Sand

Filter Pack Seal Length: 2 feet from 2 feet to 4 feet

Surface Seal Material: Portland Cement

Surface Seal Length: 2 feet from 0 feet to 2 feet

WELL DEVELOPMENT DATA

Well Development Date: 07/17/17

Well Development Method (check one): ☐ Surge/Pum ☑ Pump ☐ Compressed Air ☐ Other (describe)

Development Pump Type (check): ☐ Centrifugal ☑ Peristaltic ☐ Submersible ☐ Other (describe)

Depth to Groundwater (before developing in feet): 10'

Pumping Rate (gallons per minute): 0.1

Maximum Drawdown of Groundwater During Development (feet): NA

Well Purged Dry (check one): ☐ Yes ☑ No

Pumping Condition (check one): ☑ Continuous ☐ Intermittent

Total Development Water Removed (gallons): 3

Development Duration (minutes): 30

Development Water Drummed (check one): ☑ Yes ☐ No

Water Appearance (color and odor) At Start of Development: Light Brown

Water Appearance (color and odor) At End of Development: Clear

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA

Well Number: MW-2	Site Name: Perma-Fix	FDEP Facility I.D. Number:	Well Install Date(s): 7/17/17

Well Location and Type (check appropriate boxes): ☑ On-Site ☐ Right-of-Way ☐ Off-Site Private Property ☐ Above Grade (AG) ☑ Flush-to-Grade

If AG, list feet of riser above land surface:

Well Purpose: ☐ Perched Monitoring ☑ Shallow (Water-Table) Monitoring ☐ Intermediate or Deep Monitoring ☐ Remediation or Other (describe)

Well Install Method: Direct Push

Surface Casing Install Method: NA

Borehole Depth (feet): 20	Well Depth (feet): 14	Borehole Diameter (inches): 4	Manhole Diameter (inches): 8.25	Well Pad Size: 2 feet by 2 feet

Riser Diameter and Material: 1-inch Schedule 40 PVC

Riser/Screen Connections: ☑ Flush-Threaded ☐ Other (describe)

Riser Length: 4 feet from 0 feet to 4 feet

Screen Diameter and Material: 1-inch Schedule 40 PVC

Screen Slot Size: 0.01

Screen Length: 10 feet from 4 feet to 14 feet

1st Surface Casing Material: also check: ☐ Permanent ☐ Temporary

1st Surface Casing I.D. (inches):

1st Surface Casing Length: ____ feet from 0 feet to ____ feet

2nd Surface Casing Material: also check: ☐ Permanent ☐ Temporary

2nd Surface Casing I.D. (inches):

2nd Surface Casing Length: ____ feet from 0 feet to ____ feet

3rd Surface Casing Material: also check: ☐ Permanent ☐ Temporary

3rd Surface Casing I.D. (inches):

3rd Surface Casing Length: ____ feet from 0 12 ____ feet

Filter Pack Material and Size: 20/30 Sand

Prepacked Filter Around Screen (check one): ☑ Yes ☐ No

Filter Pack Length: 12 feet from 2 feet to 14 feet

Filter Pack Seal Material and Size: 30/65 Fine Sand

Filter Pack Seal Length: 1 feet from 1 feet to 2 feet

Surface Seal Material: Portland Cement

Surface Seal Length: 1 feet from 0 feet to 1 feet

WELL DEVELOPMENT DATA

Well Development Date:

Well Development Method (check one): ☐ Surge/Pu ☐ Pump ☐ Compressed Air ☐ Other (describe)

Development Pump Type (check): ☐ Centrifugal ☐ Peristaltic ☐ Submersible ☐ Other (describe)

Depth to Groundwater (before developing in feet):

Pumping Rate (gallons per minute):

Maximum Drawdown of Groundwater During Development (feet):

Well Purged Dry (check one): ☐ Yes ☐ No

Pumping Condition (check one): ☐ Continuous ☐ Intermittent

Total Development Water Removed (gallons):

Development Duration (minutes):

Development Water Drummed (check one): ☐ Yes ☐ No

Water Appearance (color and odor) At Start of Development:

Water Appearance (color and odor) At End of Development:

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA

Well Number: MW-3	Site Name: Perma-Fix	FDEP Facility I.D. Number:	Well Install Date(s): 7/17/17

Well Location and Type (check appropriate boxes): ☑ On-Site ☐ Right-of-Way ☐ Off-Site Private Property ☐ Above Grade (AG) ☑ Flush-to-Grade

If AG, list feet of riser above land surface:

Well Purpose: ☐ Perched Monitoring ☑ Shallow (Water-Table) Monitoring ☐ Intermediate or Deep Monitoring ☐ Remediation or Other (describe)

Well Install Method: Direct Push

Surface Casing Install Method: NA

Borehole Depth (feet): 20	Well Depth (feet): 16	Borehole Diameter (inches): 4	Manhole Diameter (inches): 8.25	Well Pad Size: 2 feet by 2 feet

Riser Diameter and Material: 1-inch Schedule 40 PVC

Riser/Screen Connections: ☑ Flush-Threaded ☐ Other (describe)

Riser Length: 6 feet from 0 feet to 6 feet

Screen Diameter and Material: 1-inch Schedule 40 PVC

Screen Slot Size: 0.01

Screen Length: 10 feet from 6 feet to 16 feet

1st Surface Casing Material: also check: ☐ Permanent ☐ Temporary

1st Surface Casing I.D. (inches):

1st Surface Casing Length: ____ feet from 0 feet to ____ feet

2nd Surface Casing Material: also check: ☐ Permanent ☐ Temporary

2nd Surface Casing I.D. (inches):

2nd Surface Casing Length: ____ feet from 0 feet to ____ feet

3rd Surface Casing Material: also check: ☐ Permanent ☐ Temporary

3rd Surface Casing I.D. (inches):

3rd Surface Casing Length: ____ feet from 0 12 ____ feet

Filter Pack Material and Size: 20/30 Sand

Prepacked Filter Around Screen (check one): ☑ Yes ☐ No

Filter Pack Length: 12 feet from 4 feet to 16 feet

Filter Pack Seal Material and Size: 30/65 Fine Sand

Filter Pack Seal Length: 2 feet from 2 feet to 4 feet

Surface Seal Material: Portland Cement

Surface Seal Length: 2 feet from 0 feet to 2 feet

WELL DEVELOPMENT DATA

Well Development Date: 07/17/17

Well Development Method (check one): ☐ Surge/Pu ☑ Pump ☐ Compressed Air ☐ Other (describe)

Development Pump Type (check): ☐ Centrifugal ☑ Peristaltic ☐ Submersible ☐ Other (describe)

Depth to Groundwater (before developing in feet): 10'

Pumping Rate (gallons per minute): 0.1

Maximum Drawdown of Groundwater During Development (feet): NA

Well Purged Dry (check one): ☐ Yes ☑ No

Pumping Condition (check one): ☑ Continuous ☐ Intermittent

Total Development Water Removed (gallons): 3

Development Duration (minutes): 30

Development Water Drummed (check one): ☑ Yes ☐ No

Water Appearance (color and odor) At Start of Development: Clear

Water Appearance (color and odor) At End of Development: Clear

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

ADDENDIX C

LABORATORY ANALYTICAL REPORTS AND CHAIN OF CUSTODY DOCUMENTATION

Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Facility/Site Name: Perma-Fix of Florida
Location: 1940 NW 67th Place Gainesville, FL 32653
Facility/Site ID No.:

Soil Sample No. SB-3
Sample Date 7/17/2017
Location:
Depth (ft): 4 ft.

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration reported has no qualifier) or estimated (the concentration reported has a "J", "T" or "I" qualifier). Enter the contaminant concentrations (in mg/kg) for all seven carcinogenic PAHs in the yellow boxes using the following criteria (and see table below):

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

Contaminant	Concentration (mg/kg)	Toxic Equivalency Factor	Benzo(a)pyrene Equivalents
Benzo(a)pyrene	0.003	1.0	0.0030
Benzo(a)anthracene	0.017	0.1	0.0017
Benzo(b)fluoranthene	0.005	0.1	0.0005
Benzo(k)fluoranthene	0.002	0.01	0.0000
Chrysene	0.002	0.001	0.0000
Dibenz(a,h)anthracene	0.002	1.0	0.0017
Indeno(1,2,3-cd)pyrene	0.002	0.1	0.0002

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

Total Benzo(a)pyrene Equivalents = 0.0

The concentration shown does not exceed the Residential Direct Exposure SCTL of 0.1 mg/kg.

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

Summary Criteria for Table Entries			
Detection	**Concentration Reported**	**Data Qualifier**	**Enter**
Various	Quantified with certainty	None	reported value
Various	Estimated	J	reported (estimated) value
ND at MDL	MDL	U	1/2 reported value
< MDL	Estimated	T	reported (estimated) value
≥ MDL but < PQL	Estimated	I	reported (estimated) value
≥ MDL but < PQL	PQL	M	1/2 reported value

Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Facility/Site Name: Perma-Fix of Florida
Location: 1940 NW 67th Place Gainesville, FL 32653
Facility/Site ID No.:

Soil Sample No. SB-3
Sample Date 7/17/2017
Location:
Depth (ft): 6 ft.

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration reported has no qualifier) or estimated (the concentration reported has a "J", "T" or "I" qualifier). Enter the contaminant concentrations (in mg/kg) for all seven carcinogenic PAHs in the yellow boxes using the following criteria (and see table below):

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

Contaminant	Concentration (mg/kg)	Toxic Equivalency Factor	Benzo(a)pyrene Equivalents
Benzo(a)pyrene	0.040	1.0	0.0400
Benzo(a)anthracene	0.053	0.1	0.0053
Benzo(b)fluoranthene	0.065	0.1	0.0065
Benzo(k)fluoranthene	0.023	0.01	0.0002
Chrysene	0.052	0.001	0.0001
Dibenz(a,h)anthracene	0.010	1.0	0.0097
Indeno(1,2,3-cd)pyrene	0.034	0.1	0.0034

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

Total Benzo(a)pyrene Equivalents = 0.1

The concentration shown does not exceed the Residential Direct Exposure SCTL of 0.1 mg/kg.

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

Summary Criteria for Table Entries

Detection	Concentration Reported	Data Qualifier	Enter
Various	Quantified with certainty	None	reported value
Various	Estimated	J	reported (estimated) value
ND at MDL	MDL	U	1/2 reported value
< MDL	Estimated	T	reported (estimated) value
≥ MDL but < PQL	Estimated	I	reported (estimated) value
≥ MDL but < PQL	PQL	M	1/2 reported value

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August 3, 2017

William C. Kelly
AECOM
4168 Southpoint Parkway South
Suite 205
Jacksonville, FL 32216

RE: Workorder: J1707141 Perma-Fix

Dear William Kelly:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, July 18, 2017. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Paul Gunsaulies - Project Manager
PGunsaulies@AELLab.com

Enclosures

CERTIFICATE OF ANALYSIS

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SAMPLE SUMMARY

Workorder: J1707141 Perma-Fix

Lab ID	Sample ID	Matrix	Date Collected	Date Received
J1707141001	SB-3 at 6	Soil	7/17/2017 10:06	7/18/2017 08:55
J1707141002	SB-3 at 4	Soil	7/17/2017 10:10	7/18/2017 08:55
J1707141003	SB-2 at 1.5	Soil	7/17/2017 11:40	7/18/2017 08:55
J1707141004	SB-2 at 4	Soil	7/17/2017 11:45	7/18/2017 08:55
J1707141005	SB-1 at 1	Soil	7/17/2017 12:58	7/18/2017 08:55
J1707141006	SB-1 at 4	Soil	7/17/2017 13:05	7/18/2017 08:55
J1707141007	SW-1	Water	7/17/2017 13:57	7/18/2017 08:55
J1707141008	SW-2	Water	7/17/2017 14:04	7/18/2017 08:55
J1707141009	SW-3	Water	7/17/2017 14:32	7/18/2017 08:55
J1707141010	SB-6 at 6	Soil	7/17/2017 09:08	7/18/2017 08:55
J1707141011	SB-6 at 4	Soil	7/17/2017 09:15	7/18/2017 08:55
J1707141012	SB-5 at 6	Soil	7/17/2017 09:18	7/18/2017 08:55
J1707141013	SB-5 at 4	Soil	7/17/2017 09:22	7/18/2017 08:55
J1707141014	SB-4 at 6	Soil	7/17/2017 09:41	7/18/2017 08:55
J1707141015	SB-4 at 4	Soil	7/17/2017 09:42	7/18/2017 08:55

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141001** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-3 at 6** Date Collected: 07/17/17 10:06
Results for sample J1707141001 are reported on a dry weight basis.
Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B Analysis,Soils	Preparation Method: SW-846 3050B Analytical Method: SW-846 6010							
Arsenic	**0.25**	**U**	**mg/Kg**	**1**	0.27	0.25	7/20/2017 17:47	J
Cadmium	**0.20**		**mg/Kg**	**1**	0.16	0.034	7/20/2017 17:47	J
Chromium	**29**		**mg/Kg**	**1**	0.11	0.065	7/20/2017 17:47	J
Lead	**7.4**		**mg/Kg**	**1**	0.19	0.055	7/20/2017 17:47	J
SEMIVOLATILES								
Analysis Desc: 8081B Pesticide Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: EPA 8081							
4,4`-DDD	**3.0**	**U**	**ug/Kg**	**5**	18	3.0	7/19/2017 19:21	J
4,4`-DDE	**2.3**	**U**	**ug/Kg**	**5**	18	2.3	7/19/2017 19:21	J
4,4`-DDT	**5.0**	**U**	**ug/Kg**	**5**	18	5.0	7/19/2017 19:21	J
Aldrin	**2.7**	**U**	**ug/Kg**	**5**	18	2.7	7/19/2017 19:21	J
Chlordane (technical)	**73**	**U**	**ug/Kg**	**5**	180	73	7/19/2017 19:21	J
Dieldrin	**2.3**	**U**	**ug/Kg**	**5**	18	2.3	7/19/2017 19:21	J
Endosulfan I	**2.8**	**U**	**ug/Kg**	**5**	18	2.8	7/19/2017 19:21	J
Endosulfan II	**1.9**	**U**	**ug/Kg**	**5**	18	1.9	7/19/2017 19:21	J
Endosulfan Sulfate	**3.3**	**U**	**ug/Kg**	**5**	18	3.3	7/19/2017 19:21	J
Endrin	**5.0**	**U**	**ug/Kg**	**5**	18	5.0	7/19/2017 19:21	J
Endrin Aldehyde	**3.0**	**U**	**ug/Kg**	**5**	18	3.0	7/19/2017 19:21	J
Heptachlor	**3.4**	**U**	**ug/Kg**	**5**	18	3.4	7/19/2017 19:21	J
Heptachlor Epoxide	**2.5**	**U**	**ug/Kg**	**5**	18	2.5	7/19/2017 19:21	J
Methoxychlor	**3.7**	**U**	**ug/Kg**	**5**	18	3.7	7/19/2017 19:21	J
Toxaphene	**130**	**U**	**ug/Kg**	**5**	180	130	7/19/2017 19:21	J
alpha-BHC	**3.1**	**U**	**ug/Kg**	**5**	18	3.1	7/19/2017 19:21	J
beta-BHC	**2.1**	**U**	**ug/Kg**	**5**	18	2.1	7/19/2017 19:21	J
delta-BHC	**2.2**	**U**	**ug/Kg**	**5**	18	2.2	7/19/2017 19:21	J
gamma-BHC (Lindane)	**3.2**	**U**	**ug/Kg**	**5**	18	3.2	7/19/2017 19:21	J
Tetrachloro-m-xylene (S)	**0**	**1**	**%**	**5**	42-129		7/19/2017 19:21	
Decachlorobiphenyl (S)	**0**	**1**	**%**	**5**	63-130		7/19/2017 19:21	
Analysis Desc: FL-PRO Analysis, Soil	Preparation Method: FL-PRO Analytical Method: FL-PRO							
TPH	**55**	**U**	**mg/Kg**	**5**	95	55	7/23/2017 07:50	J
o-Terphenyl (S)	**0**	**1**	**%**	**5**	62-109		7/23/2017 07:50	
Nonatricontane-C39 (S)	**0**	**1**	**%**	**5**	60-118		7/23/2017 07:50	

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141001** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-3 at 6** Date Collected: 07/17/17 10:06
Results for sample J1707141001 are reported on a dry weight basis.
Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: 8082A PCB Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8082A							
Aroclor 1016 (PCB-1016)	**34**	**U**	**ug/Kg**	**5**	180	34	7/19/2017 19:21	J
Aroclor 1221 (PCB-1221)	**65**	**U**	**ug/Kg**	**5**	180	65	7/19/2017 19:21	J
Aroclor 1232 (PCB-1232)	**160**	**U**	**ug/Kg**	**5**	180	160	7/19/2017 19:21	J
Aroclor 1242 (PCB-1242)	**43**	**U**	**ug/Kg**	**5**	180	43	7/19/2017 19:21	J
Aroclor 1248 (PCB-1248)	**110**	**U**	**ug/Kg**	**5**	180	110	7/19/2017 19:21	J
Aroclor 1254 (PCB-1254)	**76**	**U**	**ug/Kg**	**5**	180	76	7/19/2017 19:21	J
Aroclor 1260 (PCB-1260)	**38**	**U**	**ug/Kg**	**5**	180	38	7/19/2017 19:21	J
Tetrachloro-m-xylene (S)	**0**	**1**	**%**	**5**	44-130		7/19/2017 19:21	
Decachlorobiphenyl (S)	**0**	**1**	**%**	**5**	61-147		7/19/2017 19:21	
Analysis Desc: 8270C Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C							
1,2,4-Trichlorobenzene	**0.065**	**U**	**mg/Kg**	**1**	0.18	0.065	7/19/2017 13:24	J
1,2-Dichlorobenzene	**0.068**	**U**	**mg/Kg**	**1**	0.18	0.068	7/19/2017 13:24	J
1,2-Diphenylhydrazine	**0.070**	**U**	**mg/Kg**	**1**	0.18	0.070	7/19/2017 13:24	J
1,3-Dichlorobenzene	**0.064**	**U**	**mg/Kg**	**1**	0.18	0.064	7/19/2017 13:24	J
1,4-Dichlorobenzene	**0.063**	**U**	**mg/Kg**	**1**	0.18	0.063	7/19/2017 13:24	J
2,4,6-Trichlorophenol	**0.022**	**U**	**mg/Kg**	**1**	0.18	0.022	7/19/2017 13:24	J
2,4-Dichlorophenol	**0.021**	**U**	**mg/Kg**	**1**	0.18	0.021	7/19/2017 13:24	J
2,4-Dimethylphenol	**0.012**	**U**	**mg/Kg**	**1**	0.18	0.012	7/19/2017 13:24	J
2,4-Dinitrophenol	**0.33**	**U**	**mg/Kg**	**1**	0.37	0.33	7/19/2017 13:24	J
2,4-Dinitrotoluene (2,4-DNT)	**0.068**	**U**	**mg/Kg**	**1**	0.18	0.068	7/19/2017 13:24	J
2,6-Dinitrotoluene (2,6-DNT)	**0.060**	**U**	**mg/Kg**	**1**	0.18	0.060	7/19/2017 13:24	J
2-Chloronaphthalene	**0.069**	**U**	**mg/Kg**	**1**	0.18	0.069	7/19/2017 13:24	J
2-Chlorophenol	**0.015**	**U**	**mg/Kg**	**1**	0.18	0.015	7/19/2017 13:24	J
2-Methyl-4,6-dinitrophenol	**0.34**	**U**	**mg/Kg**	**1**	0.37	0.34	7/19/2017 13:24	J
2-Nitrophenol	**0.027**	**U**	**mg/Kg**	**1**	0.18	0.027	7/19/2017 13:24	J
3,3`-Dichlorobenzidine	**0.075**	**U**	**mg/Kg**	**1**	0.18	0.075	7/19/2017 13:24	J
4-Bromophenyl Phenyl Ether	**0.068**	**U**	**mg/Kg**	**1**	0.18	0.068	7/19/2017 13:24	J
4-Chloro-3-methylphenol	**0.022**	**U**	**mg/Kg**	**1**	0.18	0.022	7/19/2017 13:24	J
4-Chlorophenyl Phenyl Ether	**0.082**	**U**	**mg/Kg**	**1**	0.18	0.082	7/19/2017 13:24	J
4-Nitrophenol	**0.031**	**U**	**mg/Kg**	**1**	0.18	0.031	7/19/2017 13:24	J
Acenaphthene	**0.0029**	**U**	**mg/Kg**	**1**	0.0074	0.0029	7/19/2017 13:24	J
Acenaphthylene	**0.0038**	**U**	**mg/Kg**	**1**	0.0074	0.0038	7/19/2017 13:24	J
Anthracene	**0.0039**	**U**	**mg/Kg**	**1**	0.0074	0.0039	7/19/2017 13:24	J
Benzidine	**0.030**	**U**	**mg/Kg**	**1**	0.18	0.030	7/19/2017 13:24	J
Benzo[a]anthracene	**0.053**		**mg/Kg**	**1**	0.0074	0.0031	7/19/2017 13:24	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141001** Date Received: 07/18/17 08:55 Matrix: Soil

Sample ID: **SB-3 at 6** Date Collected: 07/17/17 10:06

Results for sample J1707141001 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Benzo[a]pyrene	**0.040**		**mg/Kg**	**1**	0.0074	0.0065	7/19/2017 13:24	J
Benzo[b]fluoranthene	**0.065**		**mg/Kg**	**1**	0.0074	0.0047	7/19/2017 13:24	J
Benzo[g,h,i]perylene	**0.037**		**mg/Kg**	**1**	0.0074	0.0052	7/19/2017 13:24	J
Benzo[k]fluoranthene	**0.023**		**mg/Kg**	**1**	0.0074	0.0048	7/19/2017 13:24	J
Butyl benzyl phthalate	**0.077**	**U**	**mg/Kg**	**1**	0.18	0.077	7/19/2017 13:24	J
Chrysene	**0.052**		**mg/Kg**	**1**	0.0074	0.0039	7/19/2017 13:24	J
Di-n-Butyl Phthalate	**0.082**	**U**	**mg/Kg**	**1**	0.18	0.082	7/19/2017 13:24	J
Di-n-octyl Phthalate	**0.087**	**U**	**mg/Kg**	**1**	0.18	0.087	7/19/2017 13:24	J
Dibenzo[a,h]anthracene	**0.0097**	**I**	**mg/Kg**	**1**	0.18	0.0035	7/19/2017 13:24	J
Diethyl phthalate	**0.080**	**U**	**mg/Kg**	**1**	0.18	0.080	7/19/2017 13:24	J
Dimethyl phthalate	**0.36**	**U**	**mg/Kg**	**1**	0.37	0.36	7/19/2017 13:24	J
Fluoranthene	**0.067**		**mg/Kg**	**1**	0.0074	0.0049	7/19/2017 13:24	J
Fluorene	**0.0032**	**U**	**mg/Kg**	**1**	0.0074	0.0032	7/19/2017 13:24	J
Hexachlorobenzene	**0.067**	**U**	**mg/Kg**	**1**	0.18	0.067	7/19/2017 13:24	J
Hexachlorobutadiene	**0.056**	**U**	**mg/Kg**	**1**	0.18	0.056	7/19/2017 13:24	J
Hexachlorocyclopentadiene	**0.066**	**U**	**mg/Kg**	**1**	0.18	0.066	7/19/2017 13:24	J
Hexachloroethane	**0.074**	**U**	**mg/Kg**	**1**	0.18	0.074	7/19/2017 13:24	J
Indeno(1,2,3-cd)pyrene	**0.034**		**mg/Kg**	**1**	0.0074	0.0038	7/19/2017 13:24	J
Isophorone	**0.072**	**U**	**mg/Kg**	**1**	0.18	0.072	7/19/2017 13:24	J
N-Nitrosodi-n-propylamine	**0.082**	**U**	**mg/Kg**	**1**	0.18	0.082	7/19/2017 13:24	J
N-Nitrosodimethylamine	**0.063**	**U**	**mg/Kg**	**1**	0.18	0.063	7/19/2017 13:24	J
N-Nitrosodiphenylamine	**0.077**	**U**	**mg/Kg**	**1**	0.18	0.077	7/19/2017 13:24	J
Naphthalene	**0.0023**	**U**	**mg/Kg**	**1**	0.0074	0.0023	7/19/2017 13:24	J
Nitrobenzene	**0.079**	**U**	**mg/Kg**	**1**	0.18	0.079	7/19/2017 13:24	J
Pentachlorophenol	**0.077**	**U**	**mg/Kg**	**1**	0.18	0.077	7/19/2017 13:24	J
Phenanthrene	**0.013**		**mg/Kg**	**1**	0.0074	0.0030	7/19/2017 13:24	J
Phenol	**0.020**	**U**	**mg/Kg**	**1**	0.18	0.020	7/19/2017 13:24	J
Pyrene	**0.063**		**mg/Kg**	**1**	0.0074	0.0026	7/19/2017 13:24	J
bis(2-Chloroethoxy)methane	**0.072**	**U**	**mg/Kg**	**1**	0.18	0.072	7/19/2017 13:24	J
bis(2-Chloroethyl)Ether	**0.070**	**U**	**mg/Kg**	**1**	0.18	0.070	7/19/2017 13:24	J
bis(2-Chloroisopropyl) Ether	**0.072**	**U**	**mg/Kg**	**1**	0.18	0.072	7/19/2017 13:24	J
bis(2-Ethylhexyl) phthalate	**0.085**	**U**	**mg/Kg**	**1**	0.18	0.085	7/19/2017 13:24	J
2-Fluorophenol (S)	**98**		**%**	**1**	59-122		7/19/2017 13:24	
Phenol-d6 (S)	**97**		**%**	**1**	54-124		7/19/2017 13:24	
Nitrobenzene-d5 (S)	**94**		**%**	**1**	46-118		7/19/2017 13:24	
2-Fluorobiphenyl (S)	**101**		**%**	**1**	54-134		7/19/2017 13:24	
2,4,6-Tribromophenol (S)	**107**		**%**	**1**	38-141		7/19/2017 13:24	
p-Terphenyl-d14 (S)	**123**		**%**	**1**	60-143		7/19/2017 13:24	

VOLATILES

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141001**	Date Received: 07/18/17 08:55	Matrix: Soil	
Sample ID: **SB-3 at 6**	Date Collected: 07/17/17 10:06		

Results for sample J1707141001 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: 8260B Analysis, Soil	Preparation Method: SW-846 5035 Analytical Method: SW-846 8260B							
1,1,1-Trichloroethane	**1.2**	**U**	**ug/Kg**	**1**	2.7	1.2	7/20/2017 11:56	J
1,1,2,2-Tetrachloroethane	**1.8**	**U**	**ug/Kg**	**1**	2.7	1.8	7/20/2017 11:56	J
1,1,2-Trichloroethane	**1.2**	**U**	**ug/Kg**	**1**	2.7	1.2	7/20/2017 11:56	J
1,1-Dichloroethane	**1.1**	**U**	**ug/Kg**	**1**	2.7	1.1	7/20/2017 11:56	J
1,1-Dichloroethylene	**1.1**	**U**	**ug/Kg**	**1**	2.7	1.1	7/20/2017 11:56	J
1,2-Dichlorobenzene	**1.2**	**U**	**ug/Kg**	**1**	2.7	1.2	7/20/2017 11:56	J
1,2-Dichloroethane	**1.3**	**U**	**ug/Kg**	**1**	2.7	1.3	7/20/2017 11:56	J
1,2-Dichloropropane	**1.1**	**U**	**ug/Kg**	**1**	2.7	1.1	7/20/2017 11:56	J
1,3-Dichlorobenzene	**1.1**	**U**	**ug/Kg**	**1**	2.7	1.1	7/20/2017 11:56	J
1,4-Dichlorobenzene	**1.0**	**U**	**ug/Kg**	**1**	2.7	1.0	7/20/2017 11:56	J
2-Chloroethyl Vinyl Ether	**0.68**	**U**	**ug/Kg**	**1**	4.5	0.68	7/20/2017 11:56	J
Acrolein (Propenal)	**3.6**	**U**	**ug/Kg**	**1**	13	3.6	7/20/2017 11:56	J
Acrylonitrile	**4.6**	**U**	**ug/Kg**	**1**	13	4.6	7/20/2017 11:56	J
Benzene	**1.1**	**U**	**ug/Kg**	**1**	2.7	1.1	7/20/2017 11:56	J
Bromodichloromethane	**1.2**	**U**	**ug/Kg**	**1**	2.7	1.2	7/20/2017 11:56	J
Bromoform	**1.7**	**U**	**ug/Kg**	**1**	4.5	1.7	7/20/2017 11:56	J
Bromomethane	**1.2**	**U**	**ug/Kg**	**1**	2.7	1.2	7/20/2017 11:56	J
Carbon Tetrachloride	**1.3**	**U**	**ug/Kg**	**1**	2.7	1.3	7/20/2017 11:56	J
Chlorobenzene	**1.3**	**U**	**ug/Kg**	**1**	2.7	1.3	7/20/2017 11:56	J
Chloroethane	**0.89**	**U**	**ug/Kg**	**1**	2.7	0.89	7/20/2017 11:56	J
Chloroform	**1.2**	**U**	**ug/Kg**	**1**	2.7	1.2	7/20/2017 11:56	J
Chloromethane	**0.91**	**U**	**ug/Kg**	**1**	2.7	0.91	7/20/2017 11:56	J
Dibromochloromethane	**1.2**	**U**	**ug/Kg**	**1**	2.7	1.2	7/20/2017 11:56	J
Dichlorodifluoromethane	**0.75**	**U**	**ug/Kg**	**1**	2.7	0.75	7/20/2017 11:56	J
Ethylbenzene	**0.97**	**U**	**ug/Kg**	**1**	2.7	0.97	7/20/2017 11:56	J
Methylene Chloride	**2.5**	**U**	**ug/Kg**	**1**	8.9	2.5	7/20/2017 11:56	J
Tetrachloroethylene (PCE)	**1.1**	**U**	**ug/Kg**	**1**	2.7	1.1	7/20/2017 11:56	J
Toluene	**1.2**	**U**	**ug/Kg**	**1**	2.7	1.2	7/20/2017 11:56	J
Trichloroethene	**0.91**	**U**	**ug/Kg**	**1**	2.7	0.91	7/20/2017 11:56	J
Trichlorofluoromethane	**0.81**	**U**	**ug/Kg**	**1**	2.7	0.81	7/20/2017 11:56	J
Vinyl Chloride	**1.1**	**U**	**ug/Kg**	**1**	2.7	1.1	7/20/2017 11:56	J
Xylene (Total)	**3.4**	**U**	**ug/Kg**	**1**	8.0	3.4	7/20/2017 11:56	J
cis-1,2-Dichloroethylene	**1.3**	**U**	**ug/Kg**	**1**	2.7	1.3	7/20/2017 11:56	J
cis-1,3-Dichloropropene	**0.95**	**U**	**ug/Kg**	**1**	2.7	0.95	7/20/2017 11:56	J
trans-1,2-Dichloroethylene	**0.88**	**U**	**ug/Kg**	**1**	2.7	0.88	7/20/2017 11:56	J
trans-1,3-Dichloropropylene	**0.67**	**U**	**ug/Kg**	**1**	2.7	0.67	7/20/2017 11:56	J
1,2-Dichloroethane-d4 (S)	**101**		**%**	**1**	69-134		7/20/2017 11:56	

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141001**	Date Received: 07/18/17 08:55	Matrix:	Soil
Sample ID: **SB-3 at 6**	Date Collected: 07/17/17 10:06		

Results for sample J1707141001 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Toluene-d8 (S)	**102**		**%**	**1**	72-122		7/20/2017 11:56	
Bromofluorobenzene (S)	**125**		**%**	**1**	79-126		7/20/2017 11:56	
VOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**9.7**		**%**	**1**			7/20/2017 09:15	J

Lab ID: **J1707141002**	Date Received: 07/18/17 08:55	Matrix:	Soil
Sample ID: **SB-3 at 4**	Date Collected: 07/17/17 10:10		

Results for sample J1707141002 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B Analysis,Soils	Preparation Method: SW-846 3050B Analytical Method: SW-846 6010							
Arsenic	**0.30**		**mg/Kg**	**1**	0.26	0.23	7/20/2017 17:51	J
Cadmium	**0.033**	**U**	**mg/Kg**	**1**	0.16	0.033	7/20/2017 17:51	J
Chromium	**1.5**		**mg/Kg**	**1**	0.10	0.062	7/20/2017 17:51	J
Lead	**0.99**		**mg/Kg**	**1**	0.18	0.052	7/20/2017 17:51	J
SEMIVOLATILES								
Analysis Desc: 8081B Pesticide Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: EPA 8081							
4,4`-DDD	**2.8**	**U**	**ug/Kg**	**5**	17	2.8	7/19/2017 19:42	J
4,4`-DDE	**2.1**	**U**	**ug/Kg**	**5**	17	2.1	7/19/2017 19:42	J
4,4`-DDT	**4.7**	**U**	**ug/Kg**	**5**	17	4.7	7/19/2017 19:42	J
Aldrin	**2.5**	**U**	**ug/Kg**	**5**	17	2.5	7/19/2017 19:42	J
Chlordane (technical)	**68**	**U**	**ug/Kg**	**5**	170	68	7/19/2017 19:42	J
Dieldrin	**2.1**	**U**	**ug/Kg**	**5**	17	2.1	7/19/2017 19:42	J
Endosulfan I	**2.6**	**U**	**ug/Kg**	**5**	17	2.6	7/19/2017 19:42	J
Endosulfan II	**1.8**	**U**	**ug/Kg**	**5**	17	1.8	7/19/2017 19:42	J
Endosulfan Sulfate	**3.1**	**U**	**ug/Kg**	**5**	17	3.1	7/19/2017 19:42	J
Endrin	**4.7**	**U**	**ug/Kg**	**5**	17	4.7	7/19/2017 19:42	J
Endrin Aldehyde	**2.8**	**U**	**ug/Kg**	**5**	17	2.8	7/19/2017 19:42	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141002** Date Received: 07/18/17 08:55 Matrix: Soil

Sample ID: **SB-3 at 4** Date Collected: 07/17/17 10:10

Results for sample J1707141002 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Heptachlor	**3.1**	**U**	**ug/Kg**	**5**	17	3.1	7/19/2017 19:42	J
Heptachlor Epoxide	**2.3**	**U**	**ug/Kg**	**5**	17	2.3	7/19/2017 19:42	J
Methoxychlor	**3.4**	**U**	**ug/Kg**	**5**	17	3.4	7/19/2017 19:42	J
Toxaphene	**120**	**U**	**ug/Kg**	**5**	170	120	7/19/2017 19:42	J
alpha-BHC	**2.8**	**U**	**ug/Kg**	**5**	17	2.8	7/19/2017 19:42	J
beta-BHC	**2.0**	**U**	**ug/Kg**	**5**	17	2.0	7/19/2017 19:42	J
delta-BHC	**2.0**	**U**	**ug/Kg**	**5**	17	2.0	7/19/2017 19:42	J
gamma-BHC (Lindane)	**3.0**	**U**	**ug/Kg**	**5**	17	3.0	7/19/2017 19:42	J
Tetrachloro-m-xylene (S)	**0**	**1**	**%**	**5**	42-129		7/19/2017 19:42	
Decachlorobiphenyl (S)	**0**	**1**	**%**	**5**	63-130		7/19/2017 19:42	
Analysis Desc: FL-PRO Analysis, Soil	Preparation Method: FL-PRO Analytical Method: FL-PRO							
TPH	**10**	**U**	**mg/Kg**	**1**	18	10	7/23/2017 04:46	J
o-Terphenyl (S)	**75**		**%**	**1**	62-109		7/23/2017 04:46	
Nonatricontane-C39 (S)	**75**		**%**	**1**	60-118		7/23/2017 04:46	
Analysis Desc: 8082A PCB Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8082A							
Aroclor 1016 (PCB-1016)	**31**	**U**	**ug/Kg**	**5**	170	31	7/19/2017 19:42	J
Aroclor 1221 (PCB-1221)	**61**	**U**	**ug/Kg**	**5**	170	61	7/19/2017 19:42	J
Aroclor 1232 (PCB-1232)	**150**	**U**	**ug/Kg**	**5**	170	150	7/19/2017 19:42	J
Aroclor 1242 (PCB-1242)	**40**	**U**	**ug/Kg**	**5**	170	40	7/19/2017 19:42	J
Aroclor 1248 (PCB-1248)	**110**	**U**	**ug/Kg**	**5**	170	110	7/19/2017 19:42	J
Aroclor 1254 (PCB-1254)	**71**	**U**	**ug/Kg**	**5**	170	71	7/19/2017 19:42	J
Aroclor 1260 (PCB-1260)	**36**	**U**	**ug/Kg**	**5**	170	36	7/19/2017 19:42	J
Tetrachloro-m-xylene (S)	**0**	**1**	**%**	**5**	44-130		7/19/2017 19:42	
Decachlorobiphenyl (S)	**0**	**1**	**%**	**5**	61-147		7/19/2017 19:42	
Analysis Desc: 8270C Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C							
1,2,4-Trichlorobenzene	**0.060**	**U**	**mg/Kg**	**1**	0.17	0.060	7/19/2017 14:05	J
1,2-Dichlorobenzene	**0.064**	**U**	**mg/Kg**	**1**	0.17	0.064	7/19/2017 14:05	J
1,2-Diphenylhydrazine	**0.065**	**U**	**mg/Kg**	**1**	0.17	0.065	7/19/2017 14:05	J
1,3-Dichlorobenzene	**0.060**	**U**	**mg/Kg**	**1**	0.17	0.060	7/19/2017 14:05	J
1,4-Dichlorobenzene	**0.058**	**U**	**mg/Kg**	**1**	0.17	0.058	7/19/2017 14:05	J
2,4,6-Trichlorophenol	**0.020**	**U**	**mg/Kg**	**1**	0.17	0.020	7/19/2017 14:05	J
2,4-Dichlorophenol	**0.019**	**U**	**mg/Kg**	**1**	0.17	0.019	7/19/2017 14:05	J
2,4-Dimethylphenol	**0.012**	**U**	**mg/Kg**	**1**	0.17	0.012	7/19/2017 14:05	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141002** Date Received: 07/18/17 08:55 Matrix: Soil

Sample ID: **SB-3 at 4** Date Collected: 07/17/17 10:10

Results for sample J1707141002 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
2,4-Dinitrophenol	**0.31**	**U**	**mg/Kg**	**1**	0.34	0.31	7/19/2017 14:05	J
2,4-Dinitrotoluene (2,4-DNT)	**0.064**	**U**	**mg/Kg**	**1**	0.17	0.064	7/19/2017 14:05	J
2,6-Dinitrotoluene (2,6-DNT)	**0.055**	**U**	**mg/Kg**	**1**	0.17	0.055	7/19/2017 14:05	J
2-Chloronaphthalene	**0.064**	**U**	**mg/Kg**	**1**	0.17	0.064	7/19/2017 14:05	J
2-Chlorophenol	**0.014**	**U**	**mg/Kg**	**1**	0.17	0.014	7/19/2017 14:05	J
2-Methyl-4,6-dinitrophenol	**0.32**	**U**	**mg/Kg**	**1**	0.34	0.32	7/19/2017 14:05	J
2-Nitrophenol	**0.025**	**U**	**mg/Kg**	**1**	0.17	0.025	7/19/2017 14:05	J
3,3`-Dichlorobenzidine	**0.070**	**U**	**mg/Kg**	**1**	0.17	0.070	7/19/2017 14:05	J
4-Bromophenyl Phenyl Ether	**0.063**	**U**	**mg/Kg**	**1**	0.17	0.063	7/19/2017 14:05	J
4-Chloro-3-methylphenol	**0.020**	**U**	**mg/Kg**	**1**	0.17	0.020	7/19/2017 14:05	J
4-Chlorophenyl Phenyl Ether	**0.076**	**U**	**mg/Kg**	**1**	0.17	0.076	7/19/2017 14:05	J
4-Nitrophenol	**0.029**	**U**	**mg/Kg**	**1**	0.17	0.029	7/19/2017 14:05	J
Acenaphthene	**0.0027**	**U**	**mg/Kg**	**1**	0.0069	0.0027	7/19/2017 14:05	J
Acenaphthylene	**0.0035**	**U**	**mg/Kg**	**1**	0.0069	0.0035	7/19/2017 14:05	J
Anthracene	**0.0036**	**U**	**mg/Kg**	**1**	0.0069	0.0036	7/19/2017 14:05	J
Benzidine	**0.028**	**U**	**mg/Kg**	**1**	0.17	0.028	7/19/2017 14:05	J
Benzo[a]anthracene	**0.017**		**mg/Kg**	**1**	0.0069	0.0029	7/19/2017 14:05	J
Benzo[a]pyrene	**0.0060**	**U**	**mg/Kg**	**1**	0.0069	0.0060	7/19/2017 14:05	J
Benzo[b]fluoranthene	**0.0049**	**I**	**mg/Kg**	**1**	0.0069	0.0044	7/19/2017 14:05	J
Benzo[g,h,i]perylene	**0.0049**	**U**	**mg/Kg**	**1**	0.0069	0.0049	7/19/2017 14:05	J
Benzo[k]fluoranthene	**0.0044**	**U**	**mg/Kg**	**1**	0.0069	0.0044	7/19/2017 14:05	J
Butyl benzyl phthalate	**0.072**	**U**	**mg/Kg**	**1**	0.17	0.072	7/19/2017 14:05	J
Chrysene	**0.0036**	**U**	**mg/Kg**	**1**	0.0069	0.0036	7/19/2017 14:05	J
Di-n-Butyl Phthalate	**0.076**	**U**	**mg/Kg**	**1**	0.17	0.076	7/19/2017 14:05	J
Di-n-octyl Phthalate	**0.081**	**U**	**mg/Kg**	**1**	0.17	0.081	7/19/2017 14:05	J
Dibenzo[a,h]anthracene	**0.0033**	**U**	**mg/Kg**	**1**	0.17	0.0033	7/19/2017 14:05	J
Diethyl phthalate	**0.075**	**U**	**mg/Kg**	**1**	0.17	0.075	7/19/2017 14:05	J
Dimethyl phthalate	**0.34**	**U**	**mg/Kg**	**1**	0.34	0.34	7/19/2017 14:05	J
Fluoranthene	**0.0045**	**U**	**mg/Kg**	**1**	0.0069	0.0045	7/19/2017 14:05	J
Fluorene	**0.0030**	**U**	**mg/Kg**	**1**	0.0069	0.0030	7/19/2017 14:05	J
Hexachlorobenzene	**0.063**	**U**	**mg/Kg**	**1**	0.17	0.063	7/19/2017 14:05	J
Hexachlorobutadiene	**0.052**	**U**	**mg/Kg**	**1**	0.17	0.052	7/19/2017 14:05	J
Hexachlorocyclopentadiene	**0.061**	**U**	**mg/Kg**	**1**	0.17	0.061	7/19/2017 14:05	J
Hexachloroethane	**0.069**	**U**	**mg/Kg**	**1**	0.17	0.069	7/19/2017 14:05	J
Indeno(1,2,3-cd)pyrene	**0.0036**	**U**	**mg/Kg**	**1**	0.0069	0.0036	7/19/2017 14:05	J
Isophorone	**0.067**	**U**	**mg/Kg**	**1**	0.17	0.067	7/19/2017 14:05	J
N-Nitrosodi-n-propylamine	**0.076**	**U**	**mg/Kg**	**1**	0.17	0.076	7/19/2017 14:05	J
N-Nitrosodimethylamine	**0.058**	**U**	**mg/Kg**	**1**	0.17	0.058	7/19/2017 14:05	J
N-Nitrosodiphenylamine	**0.072**	**U**	**mg/Kg**	**1**	0.17	0.072	7/19/2017 14:05	J
Naphthalene	**0.0021**	**U**	**mg/Kg**	**1**	0.0069	0.0021	7/19/2017 14:05	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID:	**J1707141002**	Date Received: 07/18/17 08:55	Matrix: Soil
Sample ID:	**SB-3 at 4**	Date Collected: 07/17/17 10:10	

Results for sample J1707141002 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Nitrobenzene	**0.074**	**U**	**mg/Kg**	**1**	0.17	0.074	7/19/2017 14:05	J
Pentachlorophenol	**0.072**	**U**	**mg/Kg**	**1**	0.17	0.072	7/19/2017 14:05	J
Phenanthrene	**0.0028**	**U**	**mg/Kg**	**1**	0.0069	0.0028	7/19/2017 14:05	J
Phenol	**0.018**	**U**	**mg/Kg**	**1**	0.17	0.018	7/19/2017 14:05	J
Pyrene	**0.0025**	**U**	**mg/Kg**	**1**	0.0069	0.0025	7/19/2017 14:05	J
bis(2-Chloroethoxy)methane	**0.067**	**U**	**mg/Kg**	**1**	0.17	0.067	7/19/2017 14:05	J
bis(2-Chloroethyl)Ether	**0.065**	**U**	**mg/Kg**	**1**	0.17	0.065	7/19/2017 14:05	J
bis(2-Chloroisopropyl) Ether	**0.067**	**U**	**mg/Kg**	**1**	0.17	0.067	7/19/2017 14:05	J
bis(2-Ethylhexyl) phthalate	**0.079**	**U**	**mg/Kg**	**1**	0.17	0.079	7/19/2017 14:05	J
2-Fluorophenol (S)	**97**		**%**	**1**	59-122		7/19/2017 14:05	
Phenol-d6 (S)	**97**		**%**	**1**	54-124		7/19/2017 14:05	
Nitrobenzene-d5 (S)	**93**		**%**	**1**	46-118		7/19/2017 14:05	
2-Fluorobiphenyl (S)	**95**		**%**	**1**	54-134		7/19/2017 14:05	
2,4,6-Tribromophenol (S)	**113**		**%**	**1**	38-141		7/19/2017 14:05	
p-Terphenyl-d14 (S)	**127**		**%**	**1**	60-143		7/19/2017 14:05	

VOLATILES

Analysis Desc: 8260B Analysis, Soil — Preparation Method: SW-846 5035 — Analytical Method: SW-846 8260B

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
1,1,1-Trichloroethane	**1.1**	**U**	**ug/Kg**	**1**	2.4	1.1	7/20/2017 12:27	J
1,1,2,2-Tetrachloroethane	**1.6**	**U**	**ug/Kg**	**1**	2.4	1.6	7/20/2017 12:27	J
1,1,2-Trichloroethane	**1.1**	**U**	**ug/Kg**	**1**	2.4	1.1	7/20/2017 12:27	J
1,1-Dichloroethane	**1.0**	**U**	**ug/Kg**	**1**	2.4	1.0	7/20/2017 12:27	J
1,1-Dichloroethylene	**0.95**	**U**	**ug/Kg**	**1**	2.4	0.95	7/20/2017 12:27	J
1,2-Dichlorobenzene	**1.1**	**U**	**ug/Kg**	**1**	2.4	1.1	7/20/2017 12:27	J
1,2-Dichloroethane	**1.1**	**U**	**ug/Kg**	**1**	2.4	1.1	7/20/2017 12:27	J
1,2-Dichloropropane	**0.97**	**U**	**ug/Kg**	**1**	2.4	0.97	7/20/2017 12:27	J
1,3-Dichlorobenzene	**1.0**	**U**	**ug/Kg**	**1**	2.4	1.0	7/20/2017 12:27	J
1,4-Dichlorobenzene	**0.90**	**U**	**ug/Kg**	**1**	2.4	0.90	7/20/2017 12:27	J
2-Chloroethyl Vinyl Ether	**0.60**	**U**	**ug/Kg**	**1**	4.0	0.60	7/20/2017 12:27	J
Acrolein (Propenal)	**3.2**	**U**	**ug/Kg**	**1**	12	3.2	7/20/2017 12:27	J
Acrylonitrile	**4.1**	**U**	**ug/Kg**	**1**	12	4.1	7/20/2017 12:27	J
Benzene	**0.97**	**U**	**ug/Kg**	**1**	2.4	0.97	7/20/2017 12:27	J
Bromodichloromethane	**1.1**	**U**	**ug/Kg**	**1**	2.4	1.1	7/20/2017 12:27	J
Bromoform	**1.5**	**U**	**ug/Kg**	**1**	4.0	1.5	7/20/2017 12:27	J
Bromomethane	**1.0**	**U**	**ug/Kg**	**1**	2.4	1.0	7/20/2017 12:27	J
Carbon Tetrachloride	**1.1**	**U**	**ug/Kg**	**1**	2.4	1.1	7/20/2017 12:27	J
Chlorobenzene	**1.1**	**U**	**ug/Kg**	**1**	2.4	1.1	7/20/2017 12:27	J
Chloroethane	**0.79**	**U**	**ug/Kg**	**1**	2.4	0.79	7/20/2017 12:27	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141002** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-3 at 4** Date Collected: 07/17/17 10:10

Results for sample J1707141002 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Chloroform	**1.0**	**U**	**ug/Kg**	**1**	2.4	1.0	7/20/2017 12:27	J
Chloromethane	**0.81**	**U**	**ug/Kg**	**1**	2.4	0.81	7/20/2017 12:27	J
Dibromochloromethane	**1.0**	**U**	**ug/Kg**	**1**	2.4	1.0	7/20/2017 12:27	J
Dichlorodifluoromethane	**0.67**	**U**	**ug/Kg**	**1**	2.4	0.67	7/20/2017 12:27	J
Ethylbenzene	**0.86**	**U**	**ug/Kg**	**1**	2.4	0.86	7/20/2017 12:27	J
Methylene Chloride	**2.2**	**U**	**ug/Kg**	**1**	7.9	2.2	7/20/2017 12:27	J
Tetrachloroethylene (PCE)	**0.97**	**U**	**ug/Kg**	**1**	2.4	0.97	7/20/2017 12:27	J
Toluene	**1.1**	**U**	**ug/Kg**	**1**	2.4	1.1	7/20/2017 12:27	J
Trichloroethene	**0.81**	**U**	**ug/Kg**	**1**	2.4	0.81	7/20/2017 12:27	J
Trichlorofluoromethane	**0.72**	**U**	**ug/Kg**	**1**	2.4	0.72	7/20/2017 12:27	J
Vinyl Chloride	**0.97**	**U**	**ug/Kg**	**1**	2.4	0.97	7/20/2017 12:27	J
Xylene (Total)	**3.0**	**U**	**ug/Kg**	**1**	7.1	3.0	7/20/2017 12:27	J
cis-1,2-Dichloroethylene	**1.1**	**U**	**ug/Kg**	**1**	2.4	1.1	7/20/2017 12:27	J
cis-1,3-Dichloropropene	**0.84**	**U**	**ug/Kg**	**1**	2.4	0.84	7/20/2017 12:27	J
trans-1,2-Dichloroethylene	**0.78**	**U**	**ug/Kg**	**1**	2.4	0.78	7/20/2017 12:27	J
trans-1,3-Dichloropropylene	**0.59**	**U**	**ug/Kg**	**1**	2.4	0.59	7/20/2017 12:27	J
1,2-Dichloroethane-d4 (S)	**109**		**%**	**1**	69-134		7/20/2017 12:27	
Toluene-d8 (S)	**95**		**%**	**1**	72-122		7/20/2017 12:27	
Bromofluorobenzene (S)	**113**		**%**	**1**	79-126		7/20/2017 12:27	

VOLATILES

Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**4.4**		**%**	**1**			7/20/2017 09:15	J

Lab ID: **J1707141003** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-2 at 1.5** Date Collected: 07/17/17 11:40

Results for sample J1707141003 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B Analysis,Soils	Preparation Method: SW-846 3050B Analytical Method: SW-846 6010							
Arsenic	**0.24**	**U**	**mg/Kg**	**1**	0.26	0.24	7/20/2017 17:55	J
Cadmium	**0.034**	**I**	**mg/Kg**	**1**	0.16	0.033	7/20/2017 17:55	J
Chromium	**1.5**		**mg/Kg**	**1**	0.10	0.062	7/20/2017 17:55	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141003** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-2 at 1.5** Date Collected: 07/17/17 11:40
Results for sample J1707141003 are reported on a dry weight basis.
Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Lead	**0.88**		**mg/Kg**	**1**	0.18	0.053	7/20/2017 17:55	J
SEMIVOLATILES								
Analysis Desc: 8081B Pesticide Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: EPA 8081							
4,4`-DDD	**2.8**	**U**	**ug/Kg**	**5**	17	2.8	7/19/2017 20:03	J
4,4`-DDE	**2.2**	**U**	**ug/Kg**	**5**	17	2.2	7/19/2017 20:03	J
4,4`-DDT	**4.8**	**U**	**ug/Kg**	**5**	17	4.8	7/19/2017 20:03	J
Aldrin	**2.6**	**U**	**ug/Kg**	**5**	17	2.6	7/19/2017 20:03	J
Chlordane (technical)	**70**	**U**	**ug/Kg**	**5**	170	70	7/19/2017 20:03	J
Dieldrin	**2.2**	**U**	**ug/Kg**	**5**	17	2.2	7/19/2017 20:03	J
Endosulfan I	**2.7**	**U**	**ug/Kg**	**5**	17	2.7	7/19/2017 20:03	J
Endosulfan II	**1.9**	**U**	**ug/Kg**	**5**	17	1.9	7/19/2017 20:03	J
Endosulfan Sulfate	**3.2**	**U**	**ug/Kg**	**5**	17	3.2	7/19/2017 20:03	J
Endrin	**4.8**	**U**	**ug/Kg**	**5**	17	4.8	7/19/2017 20:03	J
Endrin Aldehyde	**2.9**	**U**	**ug/Kg**	**5**	17	2.9	7/19/2017 20:03	J
Heptachlor	**3.2**	**U**	**ug/Kg**	**5**	17	3.2	7/19/2017 20:03	J
Heptachlor Epoxide	**2.4**	**U**	**ug/Kg**	**5**	17	2.4	7/19/2017 20:03	J
Methoxychlor	**3.5**	**U**	**ug/Kg**	**5**	17	3.5	7/19/2017 20:03	J
Toxaphene	**120**	**U**	**ug/Kg**	**5**	170	120	7/19/2017 20:03	J
alpha-BHC	**2.9**	**U**	**ug/Kg**	**5**	17	2.9	7/19/2017 20:03	J
beta-BHC	**2.0**	**U**	**ug/Kg**	**5**	17	2.0	7/19/2017 20:03	J
delta-BHC	**2.1**	**U**	**ug/Kg**	**5**	17	2.1	7/19/2017 20:03	J
gamma-BHC (Lindane)	**3.1**	**U**	**ug/Kg**	**5**	17	3.1	7/19/2017 20:03	J
Tetrachloro-m-xylene (S)	**0**	**1**	**%**	**5**	42-129		7/19/2017 20:03	
Decachlorobiphenyl (S)	**0**	**1**	**%**	**5**	63-130		7/19/2017 20:03	
Analysis Desc: FL-PRO Analysis, Soil	Preparation Method: FL-PRO Analytical Method: FL-PRO							
TPH	**10**	**U**	**mg/Kg**	**1**	18	10	7/23/2017 05:12	J
o-Terphenyl (S)	**75**		**%**	**1**	62-109		7/23/2017 05:12	
Nonatricontane-C39 (S)	**80**		**%**	**1**	60-118		7/23/2017 05:12	
Analysis Desc: 8082A PCB Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8082A							
Aroclor 1016 (PCB-1016)	**32**	**U**	**ug/Kg**	**5**	170	32	7/19/2017 20:03	J
Aroclor 1221 (PCB-1221)	**63**	**U**	**ug/Kg**	**5**	170	63	7/19/2017 20:03	J
Aroclor 1232 (PCB-1232)	**150**	**U**	**ug/Kg**	**5**	170	150	7/19/2017 20:03	J
Aroclor 1242 (PCB-1242)	**41**	**U**	**ug/Kg**	**5**	170	41	7/19/2017 20:03	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID:	**J1707141003**	Date Received: 07/18/17 08:55	Matrix: Soil
Sample ID:	**SB-2 at 1.5**	Date Collected: 07/17/17 11:40	

Results for sample J1707141003 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Aroclor 1248 (PCB-1248)	**110**	**U**	**ug/Kg**	**5**	170	110	7/19/2017 20:03	J
Aroclor 1254 (PCB-1254)	**73**	**U**	**ug/Kg**	**5**	170	73	7/19/2017 20:03	J
Aroclor 1260 (PCB-1260)	**37**	**U**	**ug/Kg**	**5**	170	37	7/19/2017 20:03	J
Tetrachloro-m-xylene (S)	**0**	**1**	**%**	**5**	44-130		7/19/2017 20:03	
Decachlorobiphenyl (S)	**0**	**1**	**%**	**5**	61-147		7/19/2017 20:03	
Analysis Desc: 8270C Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C							
1,2,4-Trichlorobenzene	**0.062**	**U**	**mg/Kg**	**1**	0.17	0.062	7/19/2017 14:46	J
1,2-Dichlorobenzene	**0.065**	**U**	**mg/Kg**	**1**	0.17	0.065	7/19/2017 14:46	J
1,2-Diphenylhydrazine	**0.067**	**U**	**mg/Kg**	**1**	0.17	0.067	7/19/2017 14:46	J
1,3-Dichlorobenzene	**0.061**	**U**	**mg/Kg**	**1**	0.17	0.061	7/19/2017 14:46	J
1,4-Dichlorobenzene	**0.059**	**U**	**mg/Kg**	**1**	0.17	0.059	7/19/2017 14:46	J
2,4,6-Trichlorophenol	**0.021**	**U**	**mg/Kg**	**1**	0.17	0.021	7/19/2017 14:46	J
2,4-Dichlorophenol	**0.020**	**U**	**mg/Kg**	**1**	0.17	0.020	7/19/2017 14:46	J
2,4-Dimethylphenol	**0.012**	**U**	**mg/Kg**	**1**	0.17	0.012	7/19/2017 14:46	J
2,4-Dinitrophenol	**0.32**	**U**	**mg/Kg**	**1**	0.35	0.32	7/19/2017 14:46	J
2,4-Dinitrotoluene (2,4-DNT)	**0.065**	**U**	**mg/Kg**	**1**	0.17	0.065	7/19/2017 14:46	J
2,6-Dinitrotoluene (2,6-DNT)	**0.057**	**U**	**mg/Kg**	**1**	0.17	0.057	7/19/2017 14:46	J
2-Chloronaphthalene	**0.065**	**U**	**mg/Kg**	**1**	0.17	0.065	7/19/2017 14:46	J
2-Chlorophenol	**0.014**	**U**	**mg/Kg**	**1**	0.17	0.014	7/19/2017 14:46	J
2-Methyl-4,6-dinitrophenol	**0.33**	**U**	**mg/Kg**	**1**	0.35	0.33	7/19/2017 14:46	J
2-Nitrophenol	**0.025**	**U**	**mg/Kg**	**1**	0.17	0.025	7/19/2017 14:46	J
3,3`-Dichlorobenzidine	**0.071**	**U**	**mg/Kg**	**1**	0.17	0.071	7/19/2017 14:46	J
4-Bromophenyl Phenyl Ether	**0.064**	**U**	**mg/Kg**	**1**	0.17	0.064	7/19/2017 14:46	J
4-Chloro-3-methylphenol	**0.021**	**U**	**mg/Kg**	**1**	0.17	0.021	7/19/2017 14:46	J
4-Chlorophenyl Phenyl Ether	**0.078**	**U**	**mg/Kg**	**1**	0.17	0.078	7/19/2017 14:46	J
4-Nitrophenol	**0.029**	**U**	**mg/Kg**	**1**	0.17	0.029	7/19/2017 14:46	J
Acenaphthene	**0.0027**	**U**	**mg/Kg**	**1**	0.0070	0.0027	7/19/2017 14:46	J
Acenaphthylene	**0.0036**	**U**	**mg/Kg**	**1**	0.0070	0.0036	7/19/2017 14:46	J
Anthracene	**0.0037**	**U**	**mg/Kg**	**1**	0.0070	0.0037	7/19/2017 14:46	J
Benzidine	**0.028**	**U**	**mg/Kg**	**1**	0.17	0.028	7/19/2017 14:46	J
Benzo[a]anthracene	**0.0030**	**U**	**mg/Kg**	**1**	0.0070	0.0030	7/19/2017 14:46	J
Benzo[a]pyrene	**0.0061**	**U**	**mg/Kg**	**1**	0.0070	0.0061	7/19/2017 14:46	J
Benzo[b]fluoranthene	**0.0044**	**U**	**mg/Kg**	**1**	0.0070	0.0044	7/19/2017 14:46	J
Benzo[g,h,i]perylene	**0.0050**	**U**	**mg/Kg**	**1**	0.0070	0.0050	7/19/2017 14:46	J
Benzo[k]fluoranthene	**0.0045**	**U**	**mg/Kg**	**1**	0.0070	0.0045	7/19/2017 14:46	J
Butyl benzyl phthalate	**0.073**	**U**	**mg/Kg**	**1**	0.17	0.073	7/19/2017 14:46	J
Chrysene	**0.0037**	**U**	**mg/Kg**	**1**	0.0070	0.0037	7/19/2017 14:46	J
Di-n-Butyl Phthalate	**0.077**	**U**	**mg/Kg**	**1**	0.17	0.077	7/19/2017 14:46	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141003** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-2 at 1.5** Date Collected: 07/17/17 11:40
Results for sample J1707141003 are reported on a dry weight basis.
Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Di-n-octyl Phthalate	**0.082**	**U**	**mg/Kg**	**1**	0.17	0.082	7/19/2017 14:46	J
Dibenzo[a,h]anthracene	**0.0033**	**U**	**mg/Kg**	**1**	0.17	0.0033	7/19/2017 14:46	J
Diethyl phthalate	**0.076**	**U**	**mg/Kg**	**1**	0.17	0.076	7/19/2017 14:46	J
Dimethyl phthalate	**0.35**	**U**	**mg/Kg**	**1**	0.35	0.35	7/19/2017 14:46	J
Fluoranthene	**0.0046**	**U**	**mg/Kg**	**1**	0.0070	0.0046	7/19/2017 14:46	J
Fluorene	**0.0031**	**U**	**mg/Kg**	**1**	0.0070	0.0031	7/19/2017 14:46	J
Hexachlorobenzene	**0.064**	**U**	**mg/Kg**	**1**	0.17	0.064	7/19/2017 14:46	J
Hexachlorobutadiene	**0.053**	**U**	**mg/Kg**	**1**	0.17	0.053	7/19/2017 14:46	J
Hexachlorocyclopentadiene	**0.062**	**U**	**mg/Kg**	**1**	0.17	0.062	7/19/2017 14:46	J
Hexachloroethane	**0.070**	**U**	**mg/Kg**	**1**	0.17	0.070	7/19/2017 14:46	J
Indeno(1,2,3-cd)pyrene	**0.0036**	**U**	**mg/Kg**	**1**	0.0070	0.0036	7/19/2017 14:46	J
Isophorone	**0.068**	**U**	**mg/Kg**	**1**	0.17	0.068	7/19/2017 14:46	J
N-Nitrosodi-n-propylamine	**0.078**	**U**	**mg/Kg**	**1**	0.17	0.078	7/19/2017 14:46	J
N-Nitrosodimethylamine	**0.059**	**U**	**mg/Kg**	**1**	0.17	0.059	7/19/2017 14:46	J
N-Nitrosodiphenylamine	**0.073**	**U**	**mg/Kg**	**1**	0.17	0.073	7/19/2017 14:46	J
Naphthalene	**0.0022**	**U**	**mg/Kg**	**1**	0.0070	0.0022	7/19/2017 14:46	J
Nitrobenzene	**0.075**	**U**	**mg/Kg**	**1**	0.17	0.075	7/19/2017 14:46	J
Pentachlorophenol	**0.073**	**U**	**mg/Kg**	**1**	0.17	0.073	7/19/2017 14:46	J
Phenanthrene	**0.0029**	**U**	**mg/Kg**	**1**	0.0070	0.0029	7/19/2017 14:46	J
Phenol	**0.019**	**U**	**mg/Kg**	**1**	0.17	0.019	7/19/2017 14:46	J
Pyrene	**0.0025**	**U**	**mg/Kg**	**1**	0.0070	0.0025	7/19/2017 14:46	J
bis(2-Chloroethoxy)methane	**0.069**	**U**	**mg/Kg**	**1**	0.17	0.069	7/19/2017 14:46	J
bis(2-Chloroethyl)Ether	**0.066**	**U**	**mg/Kg**	**1**	0.17	0.066	7/19/2017 14:46	J
bis(2-Chloroisopropyl) Ether	**0.068**	**U**	**mg/Kg**	**1**	0.17	0.068	7/19/2017 14:46	J
bis(2-Ethylhexyl) phthalate	**0.081**	**U**	**mg/Kg**	**1**	0.17	0.081	7/19/2017 14:46	J
2-Fluorophenol (S)	**42**	**J4**	**%**	**1**	59-122		7/19/2017 14:46	
Phenol-d6 (S)	**77**		**%**	**1**	54-124		7/19/2017 14:46	
Nitrobenzene-d5 (S)	**92**		**%**	**1**	46-118		7/19/2017 14:46	
2-Fluorobiphenyl (S)	**95**		**%**	**1**	54-134		7/19/2017 14:46	
2,4,6-Tribromophenol (S)	**17**	**J4**	**%**	**1**	38-141		7/19/2017 14:46	
p-Terphenyl-d14 (S)	**127**		**%**	**1**	60-143		7/19/2017 14:46	

VOLATILES

Analysis Desc: 8260B Analysis, Soil Preparation Method: SW-846 5035
Analytical Method: SW-846 8260B

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
1,1,1-Trichloroethane	**1.1**	**U**	**ug/Kg**	**1**	2.3	1.1	7/20/2017 12:58	J
1,1,2,2-Tetrachloroethane	**1.5**	**U**	**ug/Kg**	**1**	2.3	1.5	7/20/2017 12:58	J
1,1,2-Trichloroethane	**1.0**	**U**	**ug/Kg**	**1**	2.3	1.0	7/20/2017 12:58	J
1,1-Dichloroethane	**0.97**	**U**	**ug/Kg**	**1**	2.3	0.97	7/20/2017 12:58	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141003** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-2 at 1.5** Date Collected: 07/17/17 11:40
Results for sample J1707141003 are reported on a dry weight basis.
Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
1,1-Dichloroethylene	**0.92**	**U**	**ug/Kg**	**1**	2.3	0.92	7/20/2017 12:58	J
1,2-Dichlorobenzene	**1.0**	**U**	**ug/Kg**	**1**	2.3	1.0	7/20/2017 12:58	J
1,2-Dichloroethane	**1.1**	**U**	**ug/Kg**	**1**	2.3	1.1	7/20/2017 12:58	J
1,2-Dichloropropane	**0.94**	**U**	**ug/Kg**	**1**	2.3	0.94	7/20/2017 12:58	J
1,3-Dichlorobenzene	**0.97**	**U**	**ug/Kg**	**1**	2.3	0.97	7/20/2017 12:58	J
1,4-Dichlorobenzene	**0.87**	**U**	**ug/Kg**	**1**	2.3	0.87	7/20/2017 12:58	J
2-Chloroethyl Vinyl Ether	**0.58**	**U**	**ug/Kg**	**1**	3.8	0.58	7/20/2017 12:58	J
Acrolein (Propenal)	**3.1**	**U**	**ug/Kg**	**1**	12	3.1	7/20/2017 12:58	J
Acrylonitrile	**3.9**	**U**	**ug/Kg**	**1**	12	3.9	7/20/2017 12:58	J
Benzene	**0.94**	**U**	**ug/Kg**	**1**	2.3	0.94	7/20/2017 12:58	J
Bromodichloromethane	**1.0**	**U**	**ug/Kg**	**1**	2.3	1.0	7/20/2017 12:58	J
Bromoform	**1.5**	**U**	**ug/Kg**	**1**	3.8	1.5	7/20/2017 12:58	J
Bromomethane	**0.99**	**U**	**ug/Kg**	**1**	2.3	0.99	7/20/2017 12:58	J
Carbon Tetrachloride	**1.1**	**U**	**ug/Kg**	**1**	2.3	1.1	7/20/2017 12:58	J
Chlorobenzene	**1.1**	**U**	**ug/Kg**	**1**	2.3	1.1	7/20/2017 12:58	J
Chloroethane	**0.77**	**U**	**ug/Kg**	**1**	2.3	0.77	7/20/2017 12:58	J
Chloroform	**1.0**	**U**	**ug/Kg**	**1**	2.3	1.0	7/20/2017 12:58	J
Chloromethane	**0.78**	**U**	**ug/Kg**	**1**	2.3	0.78	7/20/2017 12:58	J
Dibromochloromethane	**1.0**	**U**	**ug/Kg**	**1**	2.3	1.0	7/20/2017 12:58	J
Dichlorodifluoromethane	**0.64**	**U**	**ug/Kg**	**1**	2.3	0.64	7/20/2017 12:58	J
Ethylbenzene	**0.84**	**U**	**ug/Kg**	**1**	2.3	0.84	7/20/2017 12:58	J
Methylene Chloride	**2.1**	**U**	**ug/Kg**	**1**	7.7	2.1	7/20/2017 12:58	J
Tetrachloroethylene (PCE)	**0.94**	**U**	**ug/Kg**	**1**	2.3	0.94	7/20/2017 12:58	J
Toluene	**1.1**	**U**	**ug/Kg**	**1**	2.3	1.1	7/20/2017 12:58	J
Trichloroethene	**0.78**	**U**	**ug/Kg**	**1**	2.3	0.78	7/20/2017 12:58	J
Trichlorofluoromethane	**0.70**	**U**	**ug/Kg**	**1**	2.3	0.70	7/20/2017 12:58	J
Vinyl Chloride	**0.94**	**U**	**ug/Kg**	**1**	2.3	0.94	7/20/2017 12:58	J
Xylene (Total)	**2.9**	**U**	**ug/Kg**	**1**	6.9	2.9	7/20/2017 12:58	J
cis-1,2-Dichloroethylene	**1.1**	**U**	**ug/Kg**	**1**	2.3	1.1	7/20/2017 12:58	J
cis-1,3-Dichloropropene	**0.81**	**U**	**ug/Kg**	**1**	2.3	0.81	7/20/2017 12:58	J
trans-1,2-Dichloroethylene	**0.75**	**U**	**ug/Kg**	**1**	2.3	0.75	7/20/2017 12:58	J
trans-1,3-Dichloropropylene	**0.58**	**U**	**ug/Kg**	**1**	2.3	0.58	7/20/2017 12:58	J
1,2-Dichloroethane-d4 (S)	**116**		**%**	**1**	69-134		7/20/2017 12:58	
Toluene-d8 (S)	**97**		**%**	**1**	72-122		7/20/2017 12:58	
Bromofluorobenzene (S)	**111**		**%**	**1**	79-126		7/20/2017 12:58	

VOLATILES

Analysis Desc: Percent Solids,SM2540G,Soil — Analytical Method: SM 2540G

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Percent Moisture	**5.5**		**%**	**1**			7/20/2017 09:15	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141004** Date Received: 07/18/17 08:55 Matrix: Soil

Sample ID: **SB-2 at 4** Date Collected: 07/17/17 11:45

Results for sample J1707141004 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B Analysis,Soils	Preparation Method: SW-846 3050B Analytical Method: SW-846 6010							
Arsenic	**0.24**	**U**	**mg/Kg**	**1**	0.26	0.24	7/20/2017 17:59	J
Cadmium	**0.059**	**I**	**mg/Kg**	**1**	0.16	0.033	7/20/2017 17:59	J
Chromium	**2.0**		**mg/Kg**	**1**	0.10	0.062	7/20/2017 17:59	J
Lead	**0.77**		**mg/Kg**	**1**	0.18	0.053	7/20/2017 17:59	J
SEMIVOLATILES								
Analysis Desc: 8081B Pesticide Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: EPA 8081							
4,4`-DDD	**2.8**	**U**	**ug/Kg**	**5**	17	2.8	7/19/2017 20:24	J
4,4`-DDE	**2.1**	**U**	**ug/Kg**	**5**	17	2.1	7/19/2017 20:24	J
4,4`-DDT	**4.7**	**U**	**ug/Kg**	**5**	17	4.7	7/19/2017 20:24	J
Aldrin	**2.5**	**U**	**ug/Kg**	**5**	17	2.5	7/19/2017 20:24	J
Chlordane (technical)	**69**	**U**	**ug/Kg**	**5**	170	69	7/19/2017 20:24	J
Dieldrin	**2.2**	**U**	**ug/Kg**	**5**	17	2.2	7/19/2017 20:24	J
Endosulfan I	**2.7**	**U**	**ug/Kg**	**5**	17	2.7	7/19/2017 20:24	J
Endosulfan II	**1.8**	**U**	**ug/Kg**	**5**	17	1.8	7/19/2017 20:24	J
Endosulfan Sulfate	**3.1**	**U**	**ug/Kg**	**5**	17	3.1	7/19/2017 20:24	J
Endrin	**4.7**	**U**	**ug/Kg**	**5**	17	4.7	7/19/2017 20:24	J
Endrin Aldehyde	**2.8**	**U**	**ug/Kg**	**5**	17	2.8	7/19/2017 20:24	J
Heptachlor	**3.2**	**U**	**ug/Kg**	**5**	17	3.2	7/19/2017 20:24	J
Heptachlor Epoxide	**2.3**	**U**	**ug/Kg**	**5**	17	2.3	7/19/2017 20:24	J
Methoxychlor	**3.4**	**U**	**ug/Kg**	**5**	17	3.4	7/19/2017 20:24	J
Toxaphene	**120**	**U**	**ug/Kg**	**5**	170	120	7/19/2017 20:24	J
alpha-BHC	**2.9**	**U**	**ug/Kg**	**5**	17	2.9	7/19/2017 20:24	J
beta-BHC	**2.0**	**U**	**ug/Kg**	**5**	17	2.0	7/19/2017 20:24	J
delta-BHC	**2.0**	**U**	**ug/Kg**	**5**	17	2.0	7/19/2017 20:24	J
gamma-BHC (Lindane)	**3.0**	**U**	**ug/Kg**	**5**	17	3.0	7/19/2017 20:24	J
Tetrachloro-m-xylene (S)	**0**	**1**	**%**	**5**	42-129		7/19/2017 20:24	
Decachlorobiphenyl (S)	**0**	**1**	**%**	**5**	63-130		7/19/2017 20:24	
Analysis Desc: FL-PRO Analysis, Soil	Preparation Method: FL-PRO Analytical Method: FL-PRO							
TPH	**11**	**U**	**mg/Kg**	**1**	18	11	7/23/2017 05:39	J
o-Terphenyl (S)	**77**		**%**	**1**	62-109		7/23/2017 05:39	
Nonatricontane-C39 (S)	**79**		**%**	**1**	60-118		7/23/2017 05:39	

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141004** Date Received: 07/18/17 08:55 Matrix: Soil

Sample ID: **SB-2 at 4** Date Collected: 07/17/17 11:45

Results for sample J1707141004 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: 8082A PCB Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8082A							
Aroclor 1016 (PCB-1016)	**31**	**U**	**ug/Kg**	**5**	170	31	7/19/2017 20:24	J
Aroclor 1221 (PCB-1221)	**61**	**U**	**ug/Kg**	**5**	170	61	7/19/2017 20:24	J
Aroclor 1232 (PCB-1232)	**150**	**U**	**ug/Kg**	**5**	170	150	7/19/2017 20:24	J
Aroclor 1242 (PCB-1242)	**40**	**U**	**ug/Kg**	**5**	170	40	7/19/2017 20:24	J
Aroclor 1248 (PCB-1248)	**110**	**U**	**ug/Kg**	**5**	170	110	7/19/2017 20:24	J
Aroclor 1254 (PCB-1254)	**71**	**U**	**ug/Kg**	**5**	170	71	7/19/2017 20:24	J
Aroclor 1260 (PCB-1260)	**36**	**U**	**ug/Kg**	**5**	170	36	7/19/2017 20:24	J
Tetrachloro-m-xylene (S)	**0**	**1**	**%**	**5**	44-130		7/19/2017 20:24	
Decachlorobiphenyl (S)	**0**	**1**	**%**	**5**	61-147		7/19/2017 20:24	
Analysis Desc: 8270C Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C							
1,2,4-Trichlorobenzene	**0.062**	**U**	**mg/Kg**	**1**	0.18	0.062	7/19/2017 15:28	J
1,2-Dichlorobenzene	**0.066**	**U**	**mg/Kg**	**1**	0.18	0.066	7/19/2017 15:28	J
1,2-Diphenylhydrazine	**0.067**	**U**	**mg/Kg**	**1**	0.18	0.067	7/19/2017 15:28	J
1,3-Dichlorobenzene	**0.062**	**U**	**mg/Kg**	**1**	0.18	0.062	7/19/2017 15:28	J
1,4-Dichlorobenzene	**0.060**	**U**	**mg/Kg**	**1**	0.18	0.060	7/19/2017 15:28	J
2,4,6-Trichlorophenol	**0.021**	**U**	**mg/Kg**	**1**	0.18	0.021	7/19/2017 15:28	J
2,4-Dichlorophenol	**0.020**	**U**	**mg/Kg**	**1**	0.18	0.020	7/19/2017 15:28	J
2,4-Dimethylphenol	**0.012**	**U**	**mg/Kg**	**1**	0.18	0.012	7/19/2017 15:28	J
2,4-Dinitrophenol	**0.32**	**U**	**mg/Kg**	**1**	0.35	0.32	7/19/2017 15:28	J
2,4-Dinitrotoluene (2,4-DNT)	**0.066**	**U**	**mg/Kg**	**1**	0.18	0.066	7/19/2017 15:28	J
2,6-Dinitrotoluene (2,6-DNT)	**0.057**	**U**	**mg/Kg**	**1**	0.18	0.057	7/19/2017 15:28	J
2-Chloronaphthalene	**0.066**	**U**	**mg/Kg**	**1**	0.18	0.066	7/19/2017 15:28	J
2-Chlorophenol	**0.014**	**U**	**mg/Kg**	**1**	0.18	0.014	7/19/2017 15:28	J
2-Methyl-4,6-dinitrophenol	**0.33**	**U**	**mg/Kg**	**1**	0.35	0.33	7/19/2017 15:28	J
2-Nitrophenol	**0.026**	**U**	**mg/Kg**	**1**	0.18	0.026	7/19/2017 15:28	J
3,3`-Dichlorobenzidine	**0.072**	**U**	**mg/Kg**	**1**	0.18	0.072	7/19/2017 15:28	J
4-Bromophenyl Phenyl Ether	**0.065**	**U**	**mg/Kg**	**1**	0.18	0.065	7/19/2017 15:28	J
4-Chloro-3-methylphenol	**0.021**	**U**	**mg/Kg**	**1**	0.18	0.021	7/19/2017 15:28	J
4-Chlorophenyl Phenyl Ether	**0.079**	**U**	**mg/Kg**	**1**	0.18	0.079	7/19/2017 15:28	J
4-Nitrophenol	**0.030**	**U**	**mg/Kg**	**1**	0.18	0.030	7/19/2017 15:28	J
Acenaphthene	**0.0027**	**U**	**mg/Kg**	**1**	0.0071	0.0027	7/19/2017 15:28	J
Acenaphthylene	**0.0036**	**U**	**mg/Kg**	**1**	0.0071	0.0036	7/19/2017 15:28	J
Anthracene	**0.0038**	**U**	**mg/Kg**	**1**	0.0071	0.0038	7/19/2017 15:28	J
Benzidine	**0.029**	**U**	**mg/Kg**	**1**	0.18	0.029	7/19/2017 15:28	J
Benzo[a]anthracene	**0.0030**	**U**	**mg/Kg**	**1**	0.0071	0.0030	7/19/2017 15:28	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141004** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-2 at 4** Date Collected: 07/17/17 11:45

Results for sample J1707141004 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Benzo[a]pyrene	**0.0062**	**U**	**mg/Kg**	**1**	0.0071	0.0062	7/19/2017 15:28	J
Benzo[b]fluoranthene	**0.0045**	**U**	**mg/Kg**	**1**	0.0071	0.0045	7/19/2017 15:28	J
Benzo[g,h,i]perylene	**0.0050**	**U**	**mg/Kg**	**1**	0.0071	0.0050	7/19/2017 15:28	J
Benzo[k]fluoranthene	**0.0046**	**U**	**mg/Kg**	**1**	0.0071	0.0046	7/19/2017 15:28	J
Butyl benzyl phthalate	**0.074**	**U**	**mg/Kg**	**1**	0.18	0.074	7/19/2017 15:28	J
Chrysene	**0.0037**	**U**	**mg/Kg**	**1**	0.0071	0.0037	7/19/2017 15:28	J
Di-n-Butyl Phthalate	**0.078**	**U**	**mg/Kg**	**1**	0.18	0.078	7/19/2017 15:28	J
Di-n-octyl Phthalate	**0.083**	**U**	**mg/Kg**	**1**	0.18	0.083	7/19/2017 15:28	J
Dibenzo[a,h]anthracene	**0.0034**	**U**	**mg/Kg**	**1**	0.18	0.0034	7/19/2017 15:28	J
Diethyl phthalate	**0.077**	**U**	**mg/Kg**	**1**	0.18	0.077	7/19/2017 15:28	J
Dimethyl phthalate	**0.35**	**U**	**mg/Kg**	**1**	0.35	0.35	7/19/2017 15:28	J
Fluoranthene	**0.0047**	**U**	**mg/Kg**	**1**	0.0071	0.0047	7/19/2017 15:28	J
Fluorene	**0.0031**	**U**	**mg/Kg**	**1**	0.0071	0.0031	7/19/2017 15:28	J
Hexachlorobenzene	**0.065**	**U**	**mg/Kg**	**1**	0.18	0.065	7/19/2017 15:28	J
Hexachlorobutadiene	**0.053**	**U**	**mg/Kg**	**1**	0.18	0.053	7/19/2017 15:28	J
Hexachlorocyclopentadiene	**0.063**	**U**	**mg/Kg**	**1**	0.18	0.063	7/19/2017 15:28	J
Hexachloroethane	**0.071**	**U**	**mg/Kg**	**1**	0.18	0.071	7/19/2017 15:28	J
Indeno(1,2,3-cd)pyrene	**0.0037**	**U**	**mg/Kg**	**1**	0.0071	0.0037	7/19/2017 15:28	J
Isophorone	**0.069**	**U**	**mg/Kg**	**1**	0.18	0.069	7/19/2017 15:28	J
N-Nitrosodi-n-propylamine	**0.078**	**U**	**mg/Kg**	**1**	0.18	0.078	7/19/2017 15:28	J
N-Nitrosodimethylamine	**0.060**	**U**	**mg/Kg**	**1**	0.18	0.060	7/19/2017 15:28	J
N-Nitrosodiphenylamine	**0.074**	**U**	**mg/Kg**	**1**	0.18	0.074	7/19/2017 15:28	J
Naphthalene	**0.0022**	**U**	**mg/Kg**	**1**	0.0071	0.0022	7/19/2017 15:28	J
Nitrobenzene	**0.076**	**U**	**mg/Kg**	**1**	0.18	0.076	7/19/2017 15:28	J
Pentachlorophenol	**0.074**	**U**	**mg/Kg**	**1**	0.18	0.074	7/19/2017 15:28	J
Phenanthrene	**0.0029**	**U**	**mg/Kg**	**1**	0.0071	0.0029	7/19/2017 15:28	J
Phenol	**0.019**	**U**	**mg/Kg**	**1**	0.18	0.019	7/19/2017 15:28	J
Pyrene	**0.0025**	**U**	**mg/Kg**	**1**	0.0071	0.0025	7/19/2017 15:28	J
bis(2-Chloroethoxy)methane	**0.069**	**U**	**mg/Kg**	**1**	0.18	0.069	7/19/2017 15:28	J
bis(2-Chloroethyl)Ether	**0.067**	**U**	**mg/Kg**	**1**	0.18	0.067	7/19/2017 15:28	J
bis(2-Chloroisopropyl) Ether	**0.069**	**U**	**mg/Kg**	**1**	0.18	0.069	7/19/2017 15:28	J
bis(2-Ethylhexyl) phthalate	**0.082**	**U**	**mg/Kg**	**1**	0.18	0.082	7/19/2017 15:28	J
2-Fluorophenol (S)	**97**		**%**	**1**	59-122		7/19/2017 15:28	
Phenol-d6 (S)	**97**		**%**	**1**	54-124		7/19/2017 15:28	
Nitrobenzene-d5 (S)	**92**		**%**	**1**	46-118		7/19/2017 15:28	
2-Fluorobiphenyl (S)	**98**		**%**	**1**	54-134		7/19/2017 15:28	
2,4,6-Tribromophenol (S)	**111**		**%**	**1**	38-141		7/19/2017 15:28	
p-Terphenyl-d14 (S)	**127**		**%**	**1**	60-143		7/19/2017 15:28	

VOLATILES

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141004**	Date Received: 07/18/17 08:55	Matrix:	Soil
Sample ID: **SB-2 at 4**	Date Collected: 07/17/17 11:45		

Results for sample J1707141004 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: 8260B Analysis, Soil	Preparation Method: SW-846 5035 Analytical Method: SW-846 8260B							
1,1,1-Trichloroethane	**1.0**	**U**	**ug/Kg**	**1**	2.2	1.0	7/20/2017 13:29	J
1,1,2,2-Tetrachloroethane	**1.4**	**U**	**ug/Kg**	**1**	2.2	1.4	7/20/2017 13:29	J
1,1,2-Trichloroethane	**0.98**	**U**	**ug/Kg**	**1**	2.2	0.98	7/20/2017 13:29	J
1,1-Dichloroethane	**0.93**	**U**	**ug/Kg**	**1**	2.2	0.93	7/20/2017 13:29	J
1,1-Dichloroethylene	**0.88**	**U**	**ug/Kg**	**1**	2.2	0.88	7/20/2017 13:29	J
1,2-Dichlorobenzene	**0.98**	**U**	**ug/Kg**	**1**	2.2	0.98	7/20/2017 13:29	J
1,2-Dichloroethane	**1.0**	**U**	**ug/Kg**	**1**	2.2	1.0	7/20/2017 13:29	J
1,2-Dichloropropane	**0.90**	**U**	**ug/Kg**	**1**	2.2	0.90	7/20/2017 13:29	J
1,3-Dichlorobenzene	**0.93**	**U**	**ug/Kg**	**1**	2.2	0.93	7/20/2017 13:29	J
1,4-Dichlorobenzene	**0.84**	**U**	**ug/Kg**	**1**	2.2	0.84	7/20/2017 13:29	J
2-Chloroethyl Vinyl Ether	**0.56**	**U**	**ug/Kg**	**1**	3.7	0.56	7/20/2017 13:29	J
Acrolein (Propenal)	**3.0**	**U**	**ug/Kg**	**1**	11	3.0	7/20/2017 13:29	J
Acrylonitrile	**3.8**	**U**	**ug/Kg**	**1**	11	3.8	7/20/2017 13:29	J
Benzene	**0.90**	**U**	**ug/Kg**	**1**	2.2	0.90	7/20/2017 13:29	J
Bromodichloromethane	**0.98**	**U**	**ug/Kg**	**1**	2.2	0.98	7/20/2017 13:29	J
Bromoform	**1.4**	**U**	**ug/Kg**	**1**	3.7	1.4	7/20/2017 13:29	J
Bromomethane	**0.95**	**U**	**ug/Kg**	**1**	2.2	0.95	7/20/2017 13:29	J
Carbon Tetrachloride	**1.0**	**U**	**ug/Kg**	**1**	2.2	1.0	7/20/2017 13:29	J
Chlorobenzene	**1.1**	**U**	**ug/Kg**	**1**	2.2	1.1	7/20/2017 13:29	J
Chloroethane	**0.73**	**U**	**ug/Kg**	**1**	2.2	0.73	7/20/2017 13:29	J
Chloroform	**0.96**	**U**	**ug/Kg**	**1**	2.2	0.96	7/20/2017 13:29	J
Chloromethane	**0.75**	**U**	**ug/Kg**	**1**	2.2	0.75	7/20/2017 13:29	J
Dibromochloromethane	**0.96**	**U**	**ug/Kg**	**1**	2.2	0.96	7/20/2017 13:29	J
Dichlorodifluoromethane	**0.62**	**U**	**ug/Kg**	**1**	2.2	0.62	7/20/2017 13:29	J
Ethylbenzene	**0.80**	**U**	**ug/Kg**	**1**	2.2	0.80	7/20/2017 13:29	J
Methylene Chloride	**2.1**	**U**	**ug/Kg**	**1**	7.3	2.1	7/20/2017 13:29	J
Tetrachloroethylene (PCE)	**0.90**	**U**	**ug/Kg**	**1**	2.2	0.90	7/20/2017 13:29	J
Toluene	**1.0**	**U**	**ug/Kg**	**1**	2.2	1.0	7/20/2017 13:29	J
Trichloroethene	**0.75**	**U**	**ug/Kg**	**1**	2.2	0.75	7/20/2017 13:29	J
Trichlorofluoromethane	**0.67**	**U**	**ug/Kg**	**1**	2.2	0.67	7/20/2017 13:29	J
Vinyl Chloride	**0.90**	**U**	**ug/Kg**	**1**	2.2	0.90	7/20/2017 13:29	J
Xylene (Total)	**2.8**	**U**	**ug/Kg**	**1**	6.6	2.8	7/20/2017 13:29	J
cis-1,2-Dichloroethylene	**1.0**	**U**	**ug/Kg**	**1**	2.2	1.0	7/20/2017 13:29	J
cis-1,3-Dichloropropene	**0.78**	**U**	**ug/Kg**	**1**	2.2	0.78	7/20/2017 13:29	J
trans-1,2-Dichloroethylene	**0.72**	**U**	**ug/Kg**	**1**	2.2	0.72	7/20/2017 13:29	J
trans-1,3-Dichloropropylene	**0.55**	**U**	**ug/Kg**	**1**	2.2	0.55	7/20/2017 13:29	J
1,2-Dichloroethane-d4 (S)	**112**		**%**	**1**	69-134		7/20/2017 13:29	

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141004** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-2 at 4** Date Collected: 07/17/17 11:45
Results for sample J1707141004 are reported on a dry weight basis.
Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Toluene-d8 (S)	**101**		**%**	**1**	72-122		7/20/2017 13:29	
Bromofluorobenzene (S)	**111**		**%**	**1**	79-126		7/20/2017 13:29	
VOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**5.5**		**%**	**1**			7/20/2017 09:15	J

Lab ID: **J1707141005** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-1 at 1** Date Collected: 07/17/17 12:58
Results for sample J1707141005 are reported on a dry weight basis.
Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B Analysis,Soils	Preparation Method: SW-846 3050B Analytical Method: SW-846 6010							
Arsenic	**0.27**	**U**	**mg/Kg**	**1**	0.29	0.27	7/20/2017 18:03	J
Cadmium	**0.090**	**I**	**mg/Kg**	**1**	0.18	0.037	7/20/2017 18:03	J
Chromium	**3.1**		**mg/Kg**	**1**	0.12	0.070	7/20/2017 18:03	J
Lead	**1.1**		**mg/Kg**	**1**	0.21	0.059	7/20/2017 18:03	J
SEMIVOLATILES								
Analysis Desc: 8081B Pesticide Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: EPA 8081							
4,4`-DDD	**3.1**	**U**	**ug/Kg**	**5**	19	3.1	7/19/2017 20:44	J
4,4`-DDE	**2.4**	**U**	**ug/Kg**	**5**	19	2.4	7/19/2017 20:44	J
4,4`-DDT	**5.3**	**U**	**ug/Kg**	**5**	19	5.3	7/19/2017 20:44	J
Aldrin	**2.9**	**U**	**ug/Kg**	**5**	19	2.9	7/19/2017 20:44	J
Chlordane (technical)	**78**	**U**	**ug/Kg**	**5**	190	78	7/19/2017 20:44	J
Dieldrin	**2.5**	**U**	**ug/Kg**	**5**	19	2.5	7/19/2017 20:44	J
Endosulfan I	**3.0**	**U**	**ug/Kg**	**5**	19	3.0	7/19/2017 20:44	J
Endosulfan II	**2.1**	**U**	**ug/Kg**	**5**	19	2.1	7/19/2017 20:44	J
Endosulfan Sulfate	**3.5**	**U**	**ug/Kg**	**5**	19	3.5	7/19/2017 20:44	J
Endrin	**5.3**	**U**	**ug/Kg**	**5**	19	5.3	7/19/2017 20:44	J
Endrin Aldehyde	**3.2**	**U**	**ug/Kg**	**5**	19	3.2	7/19/2017 20:44	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141005** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-1 at 1** Date Collected: 07/17/17 12:58
Results for sample J1707141005 are reported on a dry weight basis.
Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Heptachlor	**3.6**	**U**	**ug/Kg**	**5**	19	3.6	7/19/2017 20:44	J
Heptachlor Epoxide	**2.6**	**U**	**ug/Kg**	**5**	19	2.6	7/19/2017 20:44	J
Methoxychlor	**3.9**	**U**	**ug/Kg**	**5**	19	3.9	7/19/2017 20:44	J
Toxaphene	**140**	**U**	**ug/Kg**	**5**	190	140	7/19/2017 20:44	J
alpha-BHC	**3.2**	**U**	**ug/Kg**	**5**	19	3.2	7/19/2017 20:44	J
beta-BHC	**2.2**	**U**	**ug/Kg**	**5**	19	2.2	7/19/2017 20:44	J
delta-BHC	**2.3**	**U**	**ug/Kg**	**5**	19	2.3	7/19/2017 20:44	J
gamma-BHC (Lindane)	**3.4**	**U**	**ug/Kg**	**5**	19	3.4	7/19/2017 20:44	J
Tetrachloro-m-xylene (S)	**0**	**1**	**%**	**5**	42-129		7/19/2017 20:44	
Decachlorobiphenyl (S)	**0**	**1**	**%**	**5**	63-130		7/19/2017 20:44	
Analysis Desc: FL-PRO Analysis, Soil	Preparation Method: FL-PRO Analytical Method: FL-PRO							
TPH	**14**	**I**	**mg/Kg**	**1**	20	12	7/25/2017 11:41	J
o-Terphenyl (S)	**86**		**%**	**1**	62-109		7/25/2017 11:41	
Nonatricontane-C39 (S)	**60**		**%**	**1**	60-118		7/25/2017 11:41	
Analysis Desc: 8082A PCB Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8082A							
Aroclor 1016 (PCB-1016)	**36**	**U**	**ug/Kg**	**5**	190	36	7/19/2017 20:44	J
Aroclor 1221 (PCB-1221)	**70**	**U**	**ug/Kg**	**5**	190	70	7/19/2017 20:44	J
Aroclor 1232 (PCB-1232)	**170**	**U**	**ug/Kg**	**5**	190	170	7/19/2017 20:44	J
Aroclor 1242 (PCB-1242)	**46**	**U**	**ug/Kg**	**5**	190	46	7/19/2017 20:44	J
Aroclor 1248 (PCB-1248)	**120**	**U**	**ug/Kg**	**5**	190	120	7/19/2017 20:44	J
Aroclor 1254 (PCB-1254)	**81**	**U**	**ug/Kg**	**5**	190	81	7/19/2017 20:44	J
Aroclor 1260 (PCB-1260)	**41**	**U**	**ug/Kg**	**5**	190	41	7/19/2017 20:44	J
Tetrachloro-m-xylene (S)	**0**	**1**	**%**	**5**	44-130		7/19/2017 20:44	
Decachlorobiphenyl (S)	**0**	**1**	**%**	**5**	61-147		7/19/2017 20:44	
Analysis Desc: 8270C Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C							
1,2,4-Trichlorobenzene	**0.069**	**U**	**mg/Kg**	**1**	0.20	0.069	7/19/2017 16:09	J
1,2-Dichlorobenzene	**0.073**	**U**	**mg/Kg**	**1**	0.20	0.073	7/19/2017 16:09	J
1,2-Diphenylhydrazine	**0.075**	**U**	**mg/Kg**	**1**	0.20	0.075	7/19/2017 16:09	J
1,3-Dichlorobenzene	**0.069**	**U**	**mg/Kg**	**1**	0.20	0.069	7/19/2017 16:09	J
1,4-Dichlorobenzene	**0.067**	**U**	**mg/Kg**	**1**	0.20	0.067	7/19/2017 16:09	J
2,4,6-Trichlorophenol	**0.023**	**U**	**mg/Kg**	**1**	0.20	0.023	7/19/2017 16:09	J
2,4-Dichlorophenol	**0.022**	**U**	**mg/Kg**	**1**	0.20	0.022	7/19/2017 16:09	J
2,4-Dimethylphenol	**0.013**	**U**	**mg/Kg**	**1**	0.20	0.013	7/19/2017 16:09	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID:	**J1707141005**	Date Received:	07/18/17 08:55	Matrix:	Soil
Sample ID:	**SB-1 at 1**	Date Collected:	07/17/17 12:58		

Results for sample J1707141005 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
2,4-Dinitrophenol	**0.36**	**U**	**mg/Kg**	**1**	0.39	0.36	7/19/2017 16:09	J
2,4-Dinitrotoluene (2,4-DNT)	**0.073**	**U**	**mg/Kg**	**1**	0.20	0.073	7/19/2017 16:09	J
2,6-Dinitrotoluene (2,6-DNT)	**0.064**	**U**	**mg/Kg**	**1**	0.20	0.064	7/19/2017 16:09	J
2-Chloronaphthalene	**0.073**	**U**	**mg/Kg**	**1**	0.20	0.073	7/19/2017 16:09	J
2-Chlorophenol	**0.016**	**U**	**mg/Kg**	**1**	0.20	0.016	7/19/2017 16:09	J
2-Methyl-4,6-dinitrophenol	**0.37**	**U**	**mg/Kg**	**1**	0.39	0.37	7/19/2017 16:09	J
2-Nitrophenol	**0.029**	**U**	**mg/Kg**	**1**	0.20	0.029	7/19/2017 16:09	J
3,3`-Dichlorobenzidine	**0.080**	**U**	**mg/Kg**	**1**	0.20	0.080	7/19/2017 16:09	J
4-Bromophenyl Phenyl Ether	**0.073**	**U**	**mg/Kg**	**1**	0.20	0.073	7/19/2017 16:09	J
4-Chloro-3-methylphenol	**0.023**	**U**	**mg/Kg**	**1**	0.20	0.023	7/19/2017 16:09	J
4-Chlorophenyl Phenyl Ether	**0.088**	**U**	**mg/Kg**	**1**	0.20	0.088	7/19/2017 16:09	J
4-Nitrophenol	**0.033**	**U**	**mg/Kg**	**1**	0.20	0.033	7/19/2017 16:09	J
Acenaphthene	**0.0030**	**U**	**mg/Kg**	**1**	0.0079	0.0030	7/19/2017 16:09	J
Acenaphthylene	**0.0040**	**U**	**mg/Kg**	**1**	0.0079	0.0040	7/19/2017 16:09	J
Anthracene	**0.0042**	**U**	**mg/Kg**	**1**	0.0079	0.0042	7/19/2017 16:09	J
Benzidine	**0.032**	**U**	**mg/Kg**	**1**	0.20	0.032	7/19/2017 16:09	J
Benzo[a]anthracene	**0.0033**	**U**	**mg/Kg**	**1**	0.0079	0.0033	7/19/2017 16:09	J
Benzo[a]pyrene	**0.0069**	**U**	**mg/Kg**	**1**	0.0079	0.0069	7/19/2017 16:09	J
Benzo[b]fluoranthene	**0.0050**	**U**	**mg/Kg**	**1**	0.0079	0.0050	7/19/2017 16:09	J
Benzo[g,h,i]perylene	**0.0056**	**U**	**mg/Kg**	**1**	0.0079	0.0056	7/19/2017 16:09	J
Benzo[k]fluoranthene	**0.0051**	**U**	**mg/Kg**	**1**	0.0079	0.0051	7/19/2017 16:09	J
Butyl benzyl phthalate	**0.082**	**U**	**mg/Kg**	**1**	0.20	0.082	7/19/2017 16:09	J
Chrysene	**0.0041**	**U**	**mg/Kg**	**1**	0.0079	0.0041	7/19/2017 16:09	J
Di-n-Butyl Phthalate	**0.087**	**U**	**mg/Kg**	**1**	0.20	0.087	7/19/2017 16:09	J
Di-n-octyl Phthalate	**0.093**	**U**	**mg/Kg**	**1**	0.20	0.093	7/19/2017 16:09	J
Dibenzo[a,h]anthracene	**0.0038**	**U**	**mg/Kg**	**1**	0.20	0.0038	7/19/2017 16:09	J
Diethyl phthalate	**0.086**	**U**	**mg/Kg**	**1**	0.20	0.086	7/19/2017 16:09	J
Dimethyl phthalate	**0.39**	**U**	**mg/Kg**	**1**	0.39	0.39	7/19/2017 16:09	J
Fluoranthene	**0.0052**	**U**	**mg/Kg**	**1**	0.0079	0.0052	7/19/2017 16:09	J
Fluorene	**0.0035**	**U**	**mg/Kg**	**1**	0.0079	0.0035	7/19/2017 16:09	J
Hexachlorobenzene	**0.072**	**U**	**mg/Kg**	**1**	0.20	0.072	7/19/2017 16:09	J
Hexachlorobutadiene	**0.059**	**U**	**mg/Kg**	**1**	0.20	0.059	7/19/2017 16:09	J
Hexachlorocyclopentadiene	**0.070**	**U**	**mg/Kg**	**1**	0.20	0.070	7/19/2017 16:09	J
Hexachloroethane	**0.079**	**U**	**mg/Kg**	**1**	0.20	0.079	7/19/2017 16:09	J
Indeno(1,2,3-cd)pyrene	**0.0041**	**U**	**mg/Kg**	**1**	0.0079	0.0041	7/19/2017 16:09	J
Isophorone	**0.077**	**U**	**mg/Kg**	**1**	0.20	0.077	7/19/2017 16:09	J
N-Nitrosodi-n-propylamine	**0.087**	**U**	**mg/Kg**	**1**	0.20	0.087	7/19/2017 16:09	J
N-Nitrosodimethylamine	**0.067**	**U**	**mg/Kg**	**1**	0.20	0.067	7/19/2017 16:09	J
N-Nitrosodiphenylamine	**0.082**	**U**	**mg/Kg**	**1**	0.20	0.082	7/19/2017 16:09	J
Naphthalene	**0.0025**	**U**	**mg/Kg**	**1**	0.0079	0.0025	7/19/2017 16:09	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141005** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-1 at 1** Date Collected: 07/17/17 12:58
Results for sample J1707141005 are reported on a dry weight basis.
Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Nitrobenzene	**0.084**	**U**	**mg/Kg**	**1**	0.20	0.084	7/19/2017 16:09	J
Pentachlorophenol	**0.083**	**U**	**mg/Kg**	**1**	0.20	0.083	7/19/2017 16:09	J
Phenanthrene	**0.0032**	**U**	**mg/Kg**	**1**	0.0079	0.0032	7/19/2017 16:09	J
Phenol	**0.021**	**U**	**mg/Kg**	**1**	0.20	0.021	7/19/2017 16:09	J
Pyrene	**0.0028**	**U**	**mg/Kg**	**1**	0.0079	0.0028	7/19/2017 16:09	J
bis(2-Chloroethoxy)methane	**0.077**	**U**	**mg/Kg**	**1**	0.20	0.077	7/19/2017 16:09	J
bis(2-Chloroethyl)Ether	**0.074**	**U**	**mg/Kg**	**1**	0.20	0.074	7/19/2017 16:09	J
bis(2-Chloroisopropyl) Ether	**0.077**	**U**	**mg/Kg**	**1**	0.20	0.077	7/19/2017 16:09	J
bis(2-Ethylhexyl) phthalate	**0.091**	**U**	**mg/Kg**	**1**	0.20	0.091	7/19/2017 16:09	J
2-Fluorophenol (S)	**58**	**J4**	**%**	**1**	59-122		7/19/2017 16:09	
Phenol-d6 (S)	**85**		**%**	**1**	54-124		7/19/2017 16:09	
Nitrobenzene-d5 (S)	**89**		**%**	**1**	46-118		7/19/2017 16:09	
2-Fluorobiphenyl (S)	**96**		**%**	**1**	54-134		7/19/2017 16:09	
2,4,6-Tribromophenol (S)	**34**	**J4**	**%**	**1**	38-141		7/19/2017 16:09	
p-Terphenyl-d14 (S)	**121**		**%**	**1**	60-143		7/19/2017 16:09	

VOLATILES

Analysis Desc: 8260B Analysis, Soil — Preparation Method: SW-846 5035 — Analytical Method: SW-846 8260B

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
1,1,1-Trichloroethane	**1.3**	**U**	**ug/Kg**	**1**	2.7	1.3	7/20/2017 14:01	J
1,1,2,2-Tetrachloroethane	**1.8**	**U**	**ug/Kg**	**1**	2.7	1.8	7/20/2017 14:01	J
1,1,2-Trichloroethane	**1.2**	**U**	**ug/Kg**	**1**	2.7	1.2	7/20/2017 14:01	J
1,1-Dichloroethane	**1.2**	**U**	**ug/Kg**	**1**	2.7	1.2	7/20/2017 14:01	J
1,1-Dichloroethylene	**1.1**	**U**	**ug/Kg**	**1**	2.7	1.1	7/20/2017 14:01	J
1,2-Dichlorobenzene	**1.2**	**U**	**ug/Kg**	**1**	2.7	1.2	7/20/2017 14:01	J
1,2-Dichloroethane	**1.3**	**U**	**ug/Kg**	**1**	2.7	1.3	7/20/2017 14:01	J
1,2-Dichloropropane	**1.1**	**U**	**ug/Kg**	**1**	2.7	1.1	7/20/2017 14:01	J
1,3-Dichlorobenzene	**1.2**	**U**	**ug/Kg**	**1**	2.7	1.2	7/20/2017 14:01	J
1,4-Dichlorobenzene	**1.0**	**U**	**ug/Kg**	**1**	2.7	1.0	7/20/2017 14:01	J
2-Chloroethyl Vinyl Ether	**0.69**	**U**	**ug/Kg**	**1**	4.6	0.69	7/20/2017 14:01	J
Acrolein (Propenal)	**3.7**	**U**	**ug/Kg**	**1**	14	3.7	7/20/2017 14:01	J
Acrylonitrile	**4.7**	**U**	**ug/Kg**	**1**	14	4.7	7/20/2017 14:01	J
Benzene	**1.1**	**U**	**ug/Kg**	**1**	2.7	1.1	7/20/2017 14:01	J
Bromodichloromethane	**1.2**	**U**	**ug/Kg**	**1**	2.7	1.2	7/20/2017 14:01	J
Bromoform	**1.8**	**U**	**ug/Kg**	**1**	4.6	1.8	7/20/2017 14:01	J
Bromomethane	**1.2**	**U**	**ug/Kg**	**1**	2.7	1.2	7/20/2017 14:01	J
Carbon Tetrachloride	**1.3**	**U**	**ug/Kg**	**1**	2.7	1.3	7/20/2017 14:01	J
Chlorobenzene	**1.3**	**U**	**ug/Kg**	**1**	2.7	1.3	7/20/2017 14:01	J
Chloroethane	**0.91**	**U**	**ug/Kg**	**1**	2.7	0.91	7/20/2017 14:01	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141005** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-1 at 1** Date Collected: 07/17/17 12:58
Results for sample J1707141005 are reported on a dry weight basis.
Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Chloroform	**1.2**	**U**	**ug/Kg**	**1**	2.7	1.2	7/20/2017 14:01	J
Chloromethane	**0.93**	**U**	**ug/Kg**	**1**	2.7	0.93	7/20/2017 14:01	J
Dibromochloromethane	**1.2**	**U**	**ug/Kg**	**1**	2.7	1.2	7/20/2017 14:01	J
Dichlorodifluoromethane	**0.77**	**U**	**ug/Kg**	**1**	2.7	0.77	7/20/2017 14:01	J
Ethylbenzene	**1.0**	**U**	**ug/Kg**	**1**	2.7	1.0	7/20/2017 14:01	J
Methylene Chloride	**2.6**	**U**	**ug/Kg**	**1**	9.1	2.6	7/20/2017 14:01	J
Tetrachloroethylene (PCE)	**1.1**	**U**	**ug/Kg**	**1**	2.7	1.1	7/20/2017 14:01	J
Toluene	**1.3**	**U**	**ug/Kg**	**1**	2.7	1.3	7/20/2017 14:01	J
Trichloroethene	**0.93**	**U**	**ug/Kg**	**1**	2.7	0.93	7/20/2017 14:01	J
Trichlorofluoromethane	**0.83**	**U**	**ug/Kg**	**1**	2.7	0.83	7/20/2017 14:01	J
Vinyl Chloride	**1.1**	**U**	**ug/Kg**	**1**	2.7	1.1	7/20/2017 14:01	J
Xylene (Total)	**3.5**	**U**	**ug/Kg**	**1**	8.2	3.5	7/20/2017 14:01	J
cis-1,2-Dichloroethylene	**1.3**	**U**	**ug/Kg**	**1**	2.7	1.3	7/20/2017 14:01	J
cis-1,3-Dichloropropene	**0.97**	**U**	**ug/Kg**	**1**	2.7	0.97	7/20/2017 14:01	J
trans-1,2-Dichloroethylene	**0.89**	**U**	**ug/Kg**	**1**	2.7	0.89	7/20/2017 14:01	J
trans-1,3-Dichloropropylene	**0.68**	**U**	**ug/Kg**	**1**	2.7	0.68	7/20/2017 14:01	J
1,2-Dichloroethane-d4 (S)	**118**		**%**	**1**	69-134		7/20/2017 14:01	
Toluene-d8 (S)	**102**		**%**	**1**	72-122		7/20/2017 14:01	
Bromofluorobenzene (S)	**114**		**%**	**1**	79-126		7/20/2017 14:01	

VOLATILES

Analysis Desc: Percent Solids,SM2540G,Soil — Analytical Method: SM 2540G

Percent Moisture	**16**		**%**	**1**			7/20/2017 09:15	J

Lab ID: **J1707141006** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-1 at 4** Date Collected: 07/17/17 13:05
Results for sample J1707141006 are reported on a dry weight basis.
Sample Description: Location:

METALS

Analysis Desc: SW846 6010B Analysis,Soils — Preparation Method: SW-846 3050B; Analytical Method: SW-846 6010

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Arsenic	**0.24**	**U**	**mg/Kg**	**1**	0.26	0.24	7/20/2017 18:07	J
Cadmium	**0.033**	**U**	**mg/Kg**	**1**	0.16	0.033	7/20/2017 18:07	J
Chromium	**2.2**		**mg/Kg**	**1**	0.10	0.062	7/20/2017 18:07	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141006** Date Received: 07/18/17 08:55 Matrix: Soil

Sample ID: **SB-1 at 4** Date Collected: 07/17/17 13:05

Results for sample J1707141006 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Lead	**1.6**		**mg/Kg**	**1**	0.18	0.052	7/20/2017 18:07	J
SEMIVOLATILES								
Analysis Desc: 8081B Pesticide Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: EPA 8081							
4,4`-DDD	**2.8**	**U**	**ug/Kg**	**5**	17	2.8	7/19/2017 21:05	J
4,4`-DDE	**2.2**	**U**	**ug/Kg**	**5**	17	2.2	7/19/2017 21:05	J
4,4`-DDT	**4.8**	**U**	**ug/Kg**	**5**	17	4.8	7/19/2017 21:05	J
Aldrin	**2.5**	**U**	**ug/Kg**	**5**	17	2.5	7/19/2017 21:05	J
Chlordane (technical)	**69**	**U**	**ug/Kg**	**5**	170	69	7/19/2017 21:05	J
Dieldrin	**2.2**	**U**	**ug/Kg**	**5**	17	2.2	7/19/2017 21:05	J
Endosulfan I	**2.7**	**U**	**ug/Kg**	**5**	17	2.7	7/19/2017 21:05	J
Endosulfan II	**1.8**	**U**	**ug/Kg**	**5**	17	1.8	7/19/2017 21:05	J
Endosulfan Sulfate	**3.1**	**U**	**ug/Kg**	**5**	17	3.1	7/19/2017 21:05	J
Endrin	**4.7**	**U**	**ug/Kg**	**5**	17	4.7	7/19/2017 21:05	J
Endrin Aldehyde	**2.8**	**U**	**ug/Kg**	**5**	17	2.8	7/19/2017 21:05	J
Heptachlor	**3.2**	**U**	**ug/Kg**	**5**	17	3.2	7/19/2017 21:05	J
Heptachlor Epoxide	**2.4**	**U**	**ug/Kg**	**5**	17	2.4	7/19/2017 21:05	J
Methoxychlor	**3.5**	**U**	**ug/Kg**	**5**	17	3.5	7/19/2017 21:05	J
Toxaphene	**120**	**U**	**ug/Kg**	**5**	170	120	7/19/2017 21:05	J
alpha-BHC	**2.9**	**U**	**ug/Kg**	**5**	17	2.9	7/19/2017 21:05	J
beta-BHC	**2.0**	**U**	**ug/Kg**	**5**	17	2.0	7/19/2017 21:05	J
delta-BHC	**2.0**	**U**	**ug/Kg**	**5**	17	2.0	7/19/2017 21:05	J
gamma-BHC (Lindane)	**3.0**	**U**	**ug/Kg**	**5**	17	3.0	7/19/2017 21:05	J
Tetrachloro-m-xylene (S)	**0**	**1**	**%**	**5**	42-129		7/19/2017 21:05	
Decachlorobiphenyl (S)	**0**	**1**	**%**	**5**	63-130		7/19/2017 21:05	
Analysis Desc: FL-PRO Analysis, Soil	Preparation Method: FL-PRO Analytical Method: FL-PRO							
TPH	**20**		**mg/Kg**	**1**	18	10	7/25/2017 11:13	J
o-Terphenyl (S)	**96**		**%**	**1**	62-109		7/25/2017 11:13	
Nonatricontane-C39 (S)	**59**	**J4**	**%**	**1**	60-118		7/25/2017 11:13	
Analysis Desc: 8082A PCB Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8082A							
Aroclor 1016 (PCB-1016)	**32**	**U**	**ug/Kg**	**5**	170	32	7/19/2017 21:05	J
Aroclor 1221 (PCB-1221)	**62**	**U**	**ug/Kg**	**5**	170	62	7/19/2017 21:05	J
Aroclor 1232 (PCB-1232)	**150**	**U**	**ug/Kg**	**5**	170	150	7/19/2017 21:05	J
Aroclor 1242 (PCB-1242)	**41**	**U**	**ug/Kg**	**5**	170	41	7/19/2017 21:05	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID:	**J1707141006**	Date Received: 07/18/17 08:55	Matrix: Soil
Sample ID:	**SB-1 at 4**	Date Collected: 07/17/17 13:05	

Results for sample J1707141006 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Aroclor 1248 (PCB-1248)	**110**	**U**	**ug/Kg**	**5**	170	110	7/19/2017 21:05	J
Aroclor 1254 (PCB-1254)	**72**	**U**	**ug/Kg**	**5**	170	72	7/19/2017 21:05	J
Aroclor 1260 (PCB-1260)	**36**	**U**	**ug/Kg**	**5**	170	36	7/19/2017 21:05	J
Tetrachloro-m-xylene (S)	**0**	**1**	**%**	**5**	44-130		7/19/2017 21:05	
Decachlorobiphenyl (S)	**0**	**1**	**%**	**5**	61-147		7/19/2017 21:05	
Analysis Desc: 8270C Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C							
1,2,4-Trichlorobenzene	**0.061**	**U**	**mg/Kg**	**1**	0.17	0.061	7/19/2017 16:50	J
1,2-Dichlorobenzene	**0.064**	**U**	**mg/Kg**	**1**	0.17	0.064	7/19/2017 16:50	J
1,2-Diphenylhydrazine	**0.066**	**U**	**mg/Kg**	**1**	0.17	0.066	7/19/2017 16:50	J
1,3-Dichlorobenzene	**0.060**	**U**	**mg/Kg**	**1**	0.17	0.060	7/19/2017 16:50	J
1,4-Dichlorobenzene	**0.059**	**U**	**mg/Kg**	**1**	0.17	0.059	7/19/2017 16:50	J
2,4,6-Trichlorophenol	**0.021**	**U**	**mg/Kg**	**1**	0.17	0.021	7/19/2017 16:50	J
2,4-Dichlorophenol	**0.020**	**U**	**mg/Kg**	**1**	0.17	0.020	7/19/2017 16:50	J
2,4-Dimethylphenol	**0.012**	**U**	**mg/Kg**	**1**	0.17	0.012	7/19/2017 16:50	J
2,4-Dinitrophenol	**0.31**	**U**	**mg/Kg**	**1**	0.35	0.31	7/19/2017 16:50	J
2,4-Dinitrotoluene (2,4-DNT)	**0.064**	**U**	**mg/Kg**	**1**	0.17	0.064	7/19/2017 16:50	J
2,6-Dinitrotoluene (2,6-DNT)	**0.056**	**U**	**mg/Kg**	**1**	0.17	0.056	7/19/2017 16:50	J
2-Chloronaphthalene	**0.065**	**U**	**mg/Kg**	**1**	0.17	0.065	7/19/2017 16:50	J
2-Chlorophenol	**0.014**	**U**	**mg/Kg**	**1**	0.17	0.014	7/19/2017 16:50	J
2-Methyl-4,6-dinitrophenol	**0.32**	**U**	**mg/Kg**	**1**	0.35	0.32	7/19/2017 16:50	J
2-Nitrophenol	**0.025**	**U**	**mg/Kg**	**1**	0.17	0.025	7/19/2017 16:50	J
3,3`-Dichlorobenzidine	**0.071**	**U**	**mg/Kg**	**1**	0.17	0.071	7/19/2017 16:50	J
4-Bromophenyl Phenyl Ether	**0.064**	**U**	**mg/Kg**	**1**	0.17	0.064	7/19/2017 16:50	J
4-Chloro-3-methylphenol	**0.021**	**U**	**mg/Kg**	**1**	0.17	0.021	7/19/2017 16:50	J
4-Chlorophenyl Phenyl Ether	**0.077**	**U**	**mg/Kg**	**1**	0.17	0.077	7/19/2017 16:50	J
4-Nitrophenol	**0.029**	**U**	**mg/Kg**	**1**	0.17	0.029	7/19/2017 16:50	J
Acenaphthene	**0.0027**	**U**	**mg/Kg**	**1**	0.0069	0.0027	7/19/2017 16:50	J
Acenaphthylene	**0.0035**	**U**	**mg/Kg**	**1**	0.0069	0.0035	7/19/2017 16:50	J
Anthracene	**0.0037**	**U**	**mg/Kg**	**1**	0.0069	0.0037	7/19/2017 16:50	J
Benzidine	**0.028**	**U**	**mg/Kg**	**1**	0.17	0.028	7/19/2017 16:50	J
Benzo[a]anthracene	**0.0029**	**U**	**mg/Kg**	**1**	0.0069	0.0029	7/19/2017 16:50	J
Benzo[a]pyrene	**0.0061**	**U**	**mg/Kg**	**1**	0.0069	0.0061	7/19/2017 16:50	J
Benzo[b]fluoranthene	**0.0044**	**U**	**mg/Kg**	**1**	0.0069	0.0044	7/19/2017 16:50	J
Benzo[g,h,i]perylene	**0.0049**	**U**	**mg/Kg**	**1**	0.0069	0.0049	7/19/2017 16:50	J
Benzo[k]fluoranthene	**0.0045**	**U**	**mg/Kg**	**1**	0.0069	0.0045	7/19/2017 16:50	J
Butyl benzyl phthalate	**0.073**	**U**	**mg/Kg**	**1**	0.17	0.073	7/19/2017 16:50	J
Chrysene	**0.0036**	**U**	**mg/Kg**	**1**	0.0069	0.0036	7/19/2017 16:50	J
Di-n-Butyl Phthalate	**0.077**	**U**	**mg/Kg**	**1**	0.17	0.077	7/19/2017 16:50	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141006** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-1 at 4** Date Collected: 07/17/17 13:05
Results for sample J1707141006 are reported on a dry weight basis.
Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Di-n-octyl Phthalate	**0.082**	**U**	**mg/Kg**	**1**	0.17	0.082	7/19/2017 16:50	J
Dibenzo[a,h]anthracene	**0.0033**	**U**	**mg/Kg**	**1**	0.17	0.0033	7/19/2017 16:50	J
Diethyl phthalate	**0.076**	**U**	**mg/Kg**	**1**	0.17	0.076	7/19/2017 16:50	J
Dimethyl phthalate	**0.34**	**U**	**mg/Kg**	**1**	0.35	0.34	7/19/2017 16:50	J
Fluoranthene	**0.0046**	**U**	**mg/Kg**	**1**	0.0069	0.0046	7/19/2017 16:50	J
Fluorene	**0.0031**	**U**	**mg/Kg**	**1**	0.0069	0.0031	7/19/2017 16:50	J
Hexachlorobenzene	**0.063**	**U**	**mg/Kg**	**1**	0.17	0.063	7/19/2017 16:50	J
Hexachlorobutadiene	**0.052**	**U**	**mg/Kg**	**1**	0.17	0.052	7/19/2017 16:50	J
Hexachlorocyclopentadiene	**0.062**	**U**	**mg/Kg**	**1**	0.17	0.062	7/19/2017 16:50	J
Hexachloroethane	**0.069**	**U**	**mg/Kg**	**1**	0.17	0.069	7/19/2017 16:50	J
Indeno(1,2,3-cd)pyrene	**0.0036**	**U**	**mg/Kg**	**1**	0.0069	0.0036	7/19/2017 16:50	J
Isophorone	**0.068**	**U**	**mg/Kg**	**1**	0.17	0.068	7/19/2017 16:50	J
N-Nitrosodi-n-propylamine	**0.077**	**U**	**mg/Kg**	**1**	0.17	0.077	7/19/2017 16:50	J
N-Nitrosodimethylamine	**0.059**	**U**	**mg/Kg**	**1**	0.17	0.059	7/19/2017 16:50	J
N-Nitrosodiphenylamine	**0.072**	**U**	**mg/Kg**	**1**	0.17	0.072	7/19/2017 16:50	J
Naphthalene	**0.0022**	**U**	**mg/Kg**	**1**	0.0069	0.0022	7/19/2017 16:50	J
Nitrobenzene	**0.074**	**U**	**mg/Kg**	**1**	0.17	0.074	7/19/2017 16:50	J
Pentachlorophenol	**0.073**	**U**	**mg/Kg**	**1**	0.17	0.073	7/19/2017 16:50	J
Phenanthrene	**0.0029**	**U**	**mg/Kg**	**1**	0.0069	0.0029	7/19/2017 16:50	J
Phenol	**0.018**	**U**	**mg/Kg**	**1**	0.17	0.018	7/19/2017 16:50	J
Pyrene	**0.0025**	**U**	**mg/Kg**	**1**	0.0069	0.0025	7/19/2017 16:50	J
bis(2-Chloroethoxy)methane	**0.068**	**U**	**mg/Kg**	**1**	0.17	0.068	7/19/2017 16:50	J
bis(2-Chloroethyl)Ether	**0.066**	**U**	**mg/Kg**	**1**	0.17	0.066	7/19/2017 16:50	J
bis(2-Chloroisopropyl) Ether	**0.068**	**U**	**mg/Kg**	**1**	0.17	0.068	7/19/2017 16:50	J
bis(2-Ethylhexyl) phthalate	**0.080**	**U**	**mg/Kg**	**1**	0.17	0.080	7/19/2017 16:50	J
2-Fluorophenol (S)	**95**		**%**	**1**	59-122		7/19/2017 16:50	
Phenol-d6 (S)	**94**		**%**	**1**	54-124		7/19/2017 16:50	
Nitrobenzene-d5 (S)	**91**		**%**	**1**	46-118		7/19/2017 16:50	
2-Fluorobiphenyl (S)	**96**		**%**	**1**	54-134		7/19/2017 16:50	
2,4,6-Tribromophenol (S)	**108**		**%**	**1**	38-141		7/19/2017 16:50	
p-Terphenyl-d14 (S)	**124**		**%**	**1**	60-143		7/19/2017 16:50	

VOLATILES

Analysis Desc: 8260B Analysis, Soil Preparation Method: SW-846 5035
Analytical Method: SW-846 8260B

1,1,1-Trichloroethane	**1.1**	**U**	**ug/Kg**	**1**	2.4	1.1	7/20/2017 14:32	J
1,1,2,2-Tetrachloroethane	**1.5**	**U**	**ug/Kg**	**1**	2.4	1.5	7/20/2017 14:32	J
1,1,2-Trichloroethane	**1.1**	**U**	**ug/Kg**	**1**	2.4	1.1	7/20/2017 14:32	J
1,1-Dichloroethane	**1.0**	**U**	**ug/Kg**	**1**	2.4	1.0	7/20/2017 14:32	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141006** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-1 at 4** Date Collected: 07/17/17 13:05
Results for sample J1707141006 are reported on a dry weight basis.
Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
1,1-Dichloroethylene	**0.95**	**U**	**ug/Kg**	**1**	2.4	0.95	7/20/2017 14:32	J
1,2-Dichlorobenzene	**1.0**	**U**	**ug/Kg**	**1**	2.4	1.0	7/20/2017 14:32	J
1,2-Dichloroethane	**1.1**	**U**	**ug/Kg**	**1**	2.4	1.1	7/20/2017 14:32	J
1,2-Dichloropropane	**0.97**	**U**	**ug/Kg**	**1**	2.4	0.97	7/20/2017 14:32	J
1,3-Dichlorobenzene	**1.0**	**U**	**ug/Kg**	**1**	2.4	1.0	7/20/2017 14:32	J
1,4-Dichlorobenzene	**0.90**	**U**	**ug/Kg**	**1**	2.4	0.90	7/20/2017 14:32	J
2-Chloroethyl Vinyl Ether	**0.60**	**U**	**ug/Kg**	**1**	3.9	0.60	7/20/2017 14:32	J
Acrolein (Propenal)	**3.2**	**U**	**ug/Kg**	**1**	12	3.2	7/20/2017 14:32	J
Acrylonitrile	**4.1**	**U**	**ug/Kg**	**1**	12	4.1	7/20/2017 14:32	J
Benzene	**0.96**	**U**	**ug/Kg**	**1**	2.4	0.96	7/20/2017 14:32	J
Bromodichloromethane	**1.0**	**U**	**ug/Kg**	**1**	2.4	1.0	7/20/2017 14:32	J
Bromoform	**1.5**	**U**	**ug/Kg**	**1**	3.9	1.5	7/20/2017 14:32	J
Bromomethane	**1.0**	**U**	**ug/Kg**	**1**	2.4	1.0	7/20/2017 14:32	J
Carbon Tetrachloride	**1.1**	**U**	**ug/Kg**	**1**	2.4	1.1	7/20/2017 14:32	J
Chlorobenzene	**1.1**	**U**	**ug/Kg**	**1**	2.4	1.1	7/20/2017 14:32	J
Chloroethane	**0.79**	**U**	**ug/Kg**	**1**	2.4	0.79	7/20/2017 14:32	J
Chloroform	**1.0**	**U**	**ug/Kg**	**1**	2.4	1.0	7/20/2017 14:32	J
Chloromethane	**0.80**	**U**	**ug/Kg**	**1**	2.4	0.80	7/20/2017 14:32	J
Dibromochloromethane	**1.0**	**U**	**ug/Kg**	**1**	2.4	1.0	7/20/2017 14:32	J
Dichlorodifluoromethane	**0.66**	**U**	**ug/Kg**	**1**	2.4	0.66	7/20/2017 14:32	J
Ethylbenzene	**0.86**	**U**	**ug/Kg**	**1**	2.4	0.86	7/20/2017 14:32	J
Methylene Chloride	**2.2**	**U**	**ug/Kg**	**1**	7.9	2.2	7/20/2017 14:32	J
Tetrachloroethylene (PCE)	**0.96**	**U**	**ug/Kg**	**1**	2.4	0.96	7/20/2017 14:32	J
Toluene	**1.1**	**U**	**ug/Kg**	**1**	2.4	1.1	7/20/2017 14:32	J
Trichloroethene	**0.80**	**U**	**ug/Kg**	**1**	2.4	0.80	7/20/2017 14:32	J
Trichlorofluoromethane	**0.72**	**U**	**ug/Kg**	**1**	2.4	0.72	7/20/2017 14:32	J
Vinyl Chloride	**0.96**	**U**	**ug/Kg**	**1**	2.4	0.96	7/20/2017 14:32	J
Xylene (Total)	**3.0**	**U**	**ug/Kg**	**1**	7.1	3.0	7/20/2017 14:32	J
cis-1,2-Dichloroethylene	**1.1**	**U**	**ug/Kg**	**1**	2.4	1.1	7/20/2017 14:32	J
cis-1,3-Dichloropropene	**0.84**	**U**	**ug/Kg**	**1**	2.4	0.84	7/20/2017 14:32	J
trans-1,2-Dichloroethylene	**0.77**	**U**	**ug/Kg**	**1**	2.4	0.77	7/20/2017 14:32	J
trans-1,3-Dichloropropylene	**0.59**	**U**	**ug/Kg**	**1**	2.4	0.59	7/20/2017 14:32	J
1,2-Dichloroethane-d4 (S)	**116**		**%**	**1**	69-134		7/20/2017 14:32	
Toluene-d8 (S)	**99**		**%**	**1**	72-122		7/20/2017 14:32	
Bromofluorobenzene (S)	**111**		**%**	**1**	79-126		7/20/2017 14:32	

VOLATILES

Analysis Desc: Percent Solids,SM2540G,Soil — Analytical Method: SM 2540G

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Percent Moisture	**4.0**		**%**	**1**			7/20/2017 09:15	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141007** Date Received: 07/18/17 08:55 Matrix: Water
Sample ID: **SW-1** Date Collected: 07/17/17 13:57

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B Analysis,Water	Preparation Method: SW-846 3010A Analytical Method: SW-846 6010							
Arsenic	**0.0085**	**U**	**mg/L**	**1**	0.010	0.0085	7/20/2017 13:23	J
Cadmium	**0.00055**	**I**	**mg/L**	**1**	0.00060	0.00032	7/20/2017 13:23	J
Chromium	**0.0061**		**mg/L**	**1**	0.0010	0.00050	7/20/2017 13:23	J
Lead	**0.0061**	**I**	**mg/L**	**1**	0.0070	0.0013	7/20/2017 13:23	J
SEMIVOLATILES								
Analysis Desc: 8081B Pesticide Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: EPA 8081							
4,4`-DDD	**0.0016**	**U**	**ug/L**	**1**	0.020	0.0016	7/21/2017 03:36	J
4,4`-DDE	**0.0037**	**U**	**ug/L**	**1**	0.020	0.0037	7/21/2017 03:36	J
4,4`-DDT	**0.043**	**U**	**ug/L**	**20**	0.40	0.043	7/24/2017 15:40	J
Aldrin	**0.0019**	**U**	**ug/L**	**1**	0.020	0.0019	7/21/2017 03:36	J
Chlordane (technical)	**0.053**	**U**	**ug/L**	**1**	0.20	0.053	7/21/2017 03:36	J
Dieldrin	**0.0011**	**U**	**ug/L**	**1**	0.020	0.0011	7/21/2017 03:36	J
Endosulfan I	**0.061**	**U**	**ug/L**	**20**	0.40	0.061	7/24/2017 15:40	J
Endosulfan II	**0.0026**	**U**	**ug/L**	**1**	0.020	0.0026	7/21/2017 03:36	J
Endosulfan Sulfate	**0.0032**	**U**	**ug/L**	**1**	0.020	0.0032	7/21/2017 03:36	J
Endrin	**0.0017**	**U**	**ug/L**	**1**	0.020	0.0017	7/21/2017 03:36	J
Endrin Aldehyde	**0.0025**	**U**	**ug/L**	**1**	0.020	0.0025	7/21/2017 03:36	J
Heptachlor	**0.069**	**U**	**ug/L**	**20**	0.40	0.069	7/24/2017 15:40	J
Heptachlor Epoxide	**0.0017**	**U**	**ug/L**	**1**	0.020	0.0017	7/21/2017 03:36	J
Methoxychlor	**0.12**	**U**	**ug/L**	**20**	0.40	0.12	7/24/2017 15:40	J
Toxaphene	**2.4**	**U**	**ug/L**	**20**	4.0	2.4	7/24/2017 15:40	J
alpha-BHC	**0.0030**	**U**	**ug/L**	**1**	0.020	0.0030	7/21/2017 03:36	J
beta-BHC	**0.0019**	**U**	**ug/L**	**1**	0.020	0.0019	7/21/2017 03:36	J
delta-BHC	**0.00086**	**U**	**ug/L**	**1**	0.020	0.00086	7/21/2017 03:36	J
gamma-BHC (Lindane)	**0.0018**	**U**	**ug/L**	**1**	0.020	0.0018	7/21/2017 03:36	J
Tetrachloro-m-xylene (S)	**66**		**%**	**1**	44-124		7/21/2017 03:36	
Decachlorobiphenyl (S)	**67**		**%**	**1**	48-137		7/21/2017 03:36	
Analysis Desc: FL-PRO Analysis, Water	Preparation Method: FL-PRO Analytical Method: FL-PRO							
TPH	**1300**		**ug/L**	**1**	680	600	7/24/2017 15:02	J
o-Terphenyl (S)	**83**		**%**	**1**	82-142		7/24/2017 15:02	
Nonatricontane-C39 (S)	**88**		**%**	**1**	42-193		7/24/2017 15:02	

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141007** Date Received: 07/18/17 08:55 Matrix: Water
Sample ID: **SW-1** Date Collected: 07/17/17 13:57

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: 8082A PCB Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: SW-846 8082A							
Aroclor 1016 (PCB-1016)	**0.065**	**U**	**ug/L**	**1**	0.20	0.065	7/21/2017 03:36	J
Aroclor 1221 (PCB-1221)	**0.11**	**U**	**ug/L**	**1**	0.20	0.11	7/21/2017 03:36	J
Aroclor 1232 (PCB-1232)	**0.097**	**U**	**ug/L**	**1**	0.20	0.097	7/21/2017 03:36	J
Aroclor 1242 (PCB-1242)	**0.096**	**U**	**ug/L**	**1**	0.20	0.096	7/21/2017 03:36	J
Aroclor 1248 (PCB-1248)	**0.067**	**U**	**ug/L**	**1**	0.20	0.067	7/21/2017 03:36	J
Aroclor 1254 (PCB-1254)	**0.051**	**U**	**ug/L**	**1**	0.20	0.051	7/21/2017 03:36	J
Aroclor 1260 (PCB-1260)	**0.080**	**U**	**ug/L**	**1**	0.20	0.080	7/21/2017 03:36	J
Tetrachloro-m-xylene (S)	**66**		**%**	**1**	61-119		7/21/2017 03:36	
Decachlorobiphenyl (S)	**67**		**%**	**1**	44-136		7/21/2017 03:36	
Analysis Desc: 8270C Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: SW-846 8270C							
1,2,4-Trichlorobenzene	**0.69**	**U**	**ug/L**	**1**	5.0	0.69	7/21/2017 01:03	J
1,2-Dichlorobenzene	**1.4**	**U**	**ug/L**	**1**	5.0	1.4	7/21/2017 01:03	J
1,2-Diphenylhydrazine	**0.96**	**U**	**ug/L**	**1**	5.0	0.96	7/21/2017 01:03	J
1,3-Dichlorobenzene	**1.0**	**U**	**ug/L**	**1**	5.0	1.0	7/21/2017 01:03	J
1,4-Dichlorobenzene	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/21/2017 01:03	J
2,4,6-Trichlorophenol	**0.93**	**U**	**ug/L**	**1**	5.0	0.93	7/21/2017 01:03	J
2,4-Dichlorophenol	**0.90**	**U**	**ug/L**	**1**	5.0	0.90	7/21/2017 01:03	J
2,4-Dimethylphenol	**2.6**	**U**	**ug/L**	**1**	5.0	2.6	7/21/2017 01:03	J
2,4-Dinitrophenol	**0.62**	**U**	**ug/L**	**1**	10	0.62	7/21/2017 01:03	J
2,4-Dinitrotoluene (2,4-DNT)	**0.60**	**U**	**ug/L**	**1**	5.0	0.60	7/21/2017 01:03	J
2,6-Dinitrotoluene (2,6-DNT)	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/21/2017 01:03	J
2-Chloronaphthalene	**0.97**	**U**	**ug/L**	**1**	5.0	0.97	7/21/2017 01:03	J
2-Chlorophenol	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/21/2017 01:03	J
2-Methyl-4,6-dinitrophenol	**0.77**	**U**	**ug/L**	**1**	5.0	0.77	7/21/2017 01:03	J
2-Nitrophenol	**0.63**	**U**	**ug/L**	**1**	5.0	0.63	7/21/2017 01:03	J
3,3`-Dichlorobenzidine	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	7/21/2017 01:03	J
4-Bromophenyl Phenyl Ether	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/21/2017 01:03	J
4-Chloro-3-methylphenol	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	7/21/2017 01:03	J
4-Chlorophenyl Phenyl Ether	**0.69**	**U**	**ug/L**	**1**	5.0	0.69	7/21/2017 01:03	J
4-Nitrophenol	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	7/21/2017 01:03	J
Benzidine	**0.74**	**U**	**ug/L**	**1**	5.0	0.74	7/21/2017 01:03	J
Butyl benzyl phthalate	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/21/2017 01:03	J
Di-n-Butyl Phthalate	**0.88**	**U**	**ug/L**	**1**	5.0	0.88	7/21/2017 01:03	J
Di-n-octyl Phthalate	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/21/2017 01:03	J
Diethyl phthalate	**0.98**	**U**	**ug/L**	**1**	5.0	0.98	7/21/2017 01:03	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141007** Date Received: 07/18/17 08:55 Matrix: Water

Sample ID: **SW-1** Date Collected: 07/17/17 13:57

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Dimethyl phthalate	**9.9**	**U**	**ug/L**	**1**	10	9.9	7/21/2017 01:03	J
Hexachlorobenzene	**0.99**	**U**	**ug/L**	**1**	5.0	0.99	7/21/2017 01:03	J
Hexachlorobutadiene	**0.87**	**U**	**ug/L**	**1**	5.0	0.87	7/21/2017 01:03	J
Hexachlorocyclopentadiene	**0.99**	**U**	**ug/L**	**1**	5.0	0.99	7/21/2017 01:03	J
Hexachloroethane	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/21/2017 01:03	J
Isophorone	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/21/2017 01:03	J
N-Nitrosodi-n-propylamine	**2.2**	**U**	**ug/L**	**1**	5.0	2.2	7/21/2017 01:03	J
N-Nitrosodimethylamine	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	7/21/2017 01:03	J
N-Nitrosodiphenylamine	**0.59**	**U**	**ug/L**	**1**	5.0	0.59	7/21/2017 01:03	J
Nitrobenzene	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/21/2017 01:03	J
Pentachlorophenol	**0.95**	**U**	**ug/L**	**1**	5.0	0.95	7/21/2017 01:03	J
Phenol	**0.54**	**U**	**ug/L**	**1**	5.0	0.54	7/21/2017 01:03	J
bis(2-Chloroethoxy)methane	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/21/2017 01:03	J
bis(2-Chloroethyl)Ether	**1.5**	**U**	**ug/L**	**1**	5.0	1.5	7/21/2017 01:03	J
bis(2-Chloroisopropyl) Ether	**1.4**	**U**	**ug/L**	**1**	5.0	1.4	7/21/2017 01:03	J
bis(2-Ethylhexyl) phthalate	**3.1**	**I**	**ug/L**	**1**	5.0	2.0	7/21/2017 01:03	J
2-Fluorophenol (S)	**30**	**J4**	**%**	**1**	31-134		7/21/2017 01:03	
Phenol-d6 (S)	**27**		**%**	**1**	24-120		7/21/2017 01:03	
Nitrobenzene-d5 (S)	**56**		**%**	**1**	38-139		7/21/2017 01:03	
2-Fluorobiphenyl (S)	**59**		**%**	**1**	42-138		7/21/2017 01:03	
2,4,6-Tribromophenol (S)	**105**		**%**	**1**	48-147		7/21/2017 01:03	
p-Terphenyl-d14 (S)	**88**		**%**	**1**	61-154		7/21/2017 01:03	

Analysis Desc: 8270C-SIM Analysis, Water

Preparation Method: SW-846 3510C

Analytical Method: SW-846 8270C (SIM)

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
1-Methylnaphthalene	**0.050**	**U**	**ug/L**	**1**	0.050	0.050	7/21/2017 01:03	J
2-Methylnaphthalene	**0.049**	**U**	**ug/L**	**1**	0.050	0.049	7/21/2017 01:03	J
Acenaphthene	**0.040**	**U**	**ug/L**	**1**	0.050	0.040	7/21/2017 01:03	J
Acenaphthylene	**0.042**	**U**	**ug/L**	**1**	0.050	0.042	7/21/2017 01:03	J
Anthracene	**0.035**	**U**	**ug/L**	**1**	0.050	0.035	7/21/2017 01:03	J
Benzo[a]anthracene	**0.012**	**U**	**ug/L**	**1**	0.050	0.012	7/21/2017 01:03	J
Benzo[a]pyrene	**0.037**	**U**	**ug/L**	**1**	0.050	0.037	7/21/2017 01:03	J
Benzo[b]fluoranthene	**0.012**	**U**	**ug/L**	**1**	0.025	0.012	7/21/2017 01:03	J
Benzo[g,h,i]perylene	**0.048**	**U**	**ug/L**	**1**	0.050	0.048	7/21/2017 01:03	J
Benzo[k]fluoranthene	**0.048**	**U**	**ug/L**	**1**	0.050	0.048	7/21/2017 01:03	J
Chrysene	**0.033**	**U**	**ug/L**	**1**	0.050	0.033	7/21/2017 01:03	J
Dibenzo[a,h]anthracene	**0.024**	**U**	**ug/L**	**1**	0.050	0.024	7/21/2017 01:03	J
Fluoranthene	**0.037**	**U**	**ug/L**	**1**	0.050	0.037	7/21/2017 01:03	J
Fluorene	**0.20**		**ug/L**	**1**	0.050	0.038	7/21/2017 01:03	J
Indeno(1,2,3-cd)pyrene	**0.011**	**U**	**ug/L**	**1**	0.050	0.011	7/21/2017 01:03	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141007** Date Received: 07/18/17 08:55 Matrix: Water
Sample ID: **SW-1** Date Collected: 07/17/17 13:57

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Naphthalene	**0.048**	**U**	**ug/L**	**1**	0.050	0.048	7/21/2017 01:03	J
Phenanthrene	**0.040**	**U**	**ug/L**	**1**	0.050	0.040	7/21/2017 01:03	J
Pyrene	**0.036**	**U**	**ug/L**	**1**	0.050	0.036	7/21/2017 01:03	J
Nitrobenzene-d5 (S)	**56**		**%**	**1**	34-139		7/21/2017 01:03	
2-Fluorobiphenyl (S)	**59**		**%**	**1**	36-125		7/21/2017 01:03	
p-Terphenyl-d14 (S)	**88**		**%**	**1**	41-138		7/21/2017 01:03	

VOLATILES

Analysis Desc: 8260B Analysis, Water — Preparation Method: SW-846 5030B — Analytical Method: SW-846 8260B

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
1,1,1-Trichloroethane	**0.22**	**U**	**ug/L**	**1**	1.0	0.22	7/22/2017 06:58	J
1,1,2,2-Tetrachloroethane	**0.20**	**U**	**ug/L**	**1**	1.0	0.20	7/22/2017 06:58	J
1,1,2-Trichloroethane	**0.30**	**U**	**ug/L**	**1**	1.0	0.30	7/22/2017 06:58	J
1,1-Dichloroethane	**0.14**	**U**	**ug/L**	**1**	1.0	0.14	7/22/2017 06:58	J
1,1-Dichloroethylene	**0.18**	**U**	**ug/L**	**1**	1.0	0.18	7/22/2017 06:58	J
1,2-Dichlorobenzene	**0.18**	**U**	**ug/L**	**1**	1.0	0.18	7/22/2017 06:58	J
1,2-Dichloroethane	**0.23**	**U**	**ug/L**	**1**	1.0	0.23	7/22/2017 06:58	J
1,2-Dichloropropane	**0.20**	**U**	**ug/L**	**1**	1.0	0.20	7/22/2017 06:58	J
1,3-Dichlorobenzene	**0.19**	**U**	**ug/L**	**1**	1.0	0.19	7/22/2017 06:58	J
1,4-Dichlorobenzene	**0.22**	**U**	**ug/L**	**1**	1.0	0.22	7/22/2017 06:58	J
2-Chloroethyl Vinyl Ether	**0.20**	**U**	**ug/L**	**1**	5.0	0.20	7/22/2017 06:58	J
Acrolein (Propenal)	**1.6**	**U**	**ug/L**	**1**	10	1.6	7/22/2017 06:58	J
Acrylonitrile	**1.1**	**U**	**ug/L**	**1**	10	1.1	7/22/2017 06:58	J
Benzene	**0.16**	**U**	**ug/L**	**1**	1.0	0.16	7/22/2017 06:58	J
Bromodichloromethane	**0.25**	**U**	**ug/L**	**1**	1.0	0.25	7/22/2017 06:58	J
Bromoform	**0.43**	**U**	**ug/L**	**1**	1.0	0.43	7/22/2017 06:58	J
Bromomethane	**0.24**	**U**	**ug/L**	**1**	1.0	0.24	7/22/2017 06:58	J
Carbon Tetrachloride	**0.36**	**U**	**ug/L**	**1**	1.0	0.36	7/22/2017 06:58	J
Chlorobenzene	**0.21**	**U**	**ug/L**	**1**	1.0	0.21	7/22/2017 06:58	J
Chloroethane	**0.33**	**U**	**ug/L**	**1**	1.0	0.33	7/22/2017 06:58	J
Chloroform	**0.18**	**U**	**ug/L**	**1**	1.0	0.18	7/22/2017 06:58	J
Chloromethane	**0.21**	**U**	**ug/L**	**1**	1.0	0.21	7/22/2017 06:58	J
Dibromochloromethane	**0.33**	**U**	**ug/L**	**1**	1.0	0.33	7/22/2017 06:58	J
Dichlorodifluoromethane	**0.15**	**U**	**ug/L**	**1**	1.0	0.15	7/22/2017 06:58	J
Ethylbenzene	**0.24**	**U**	**ug/L**	**1**	1.0	0.24	7/22/2017 06:58	J
Methylene Chloride	**2.5**	**U**	**ug/L**	**1**	5.0	2.5	7/22/2017 06:58	J
Tetrachloroethylene (PCE)	**0.36**	**U**	**ug/L**	**1**	1.0	0.36	7/22/2017 06:58	J
Toluene	**0.23**	**U**	**ug/L**	**1**	1.0	0.23	7/22/2017 06:58	J
Trichloroethene	**0.29**	**U**	**ug/L**	**1**	1.0	0.29	7/22/2017 06:58	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141007** Date Received: 07/18/17 08:55 Matrix: Water
Sample ID: **SW-1** Date Collected: 07/17/17 13:57

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Trichlorofluoromethane	**0.32**	**U**	**ug/L**	**1**	1.0	0.32	7/22/2017 06:58	J
Vinyl Chloride	**0.20**	**U**	**ug/L**	**1**	1.0	0.20	7/22/2017 06:58	J
Xylene (Total)	**0.53**	**U**	**ug/L**	**1**	2.0	0.53	7/22/2017 06:58	J
cis-1,2-Dichloroethylene	**0.24**	**U**	**ug/L**	**1**	1.0	0.24	7/22/2017 06:58	J
cis-1,3-Dichloropropene	**0.16**	**U**	**ug/L**	**1**	1.0	0.16	7/22/2017 06:58	J
trans-1,2-Dichloroethylene	**0.20**	**U**	**ug/L**	**1**	1.0	0.20	7/22/2017 06:58	J
trans-1,3-Dichloropropylene	**0.18**	**U**	**ug/L**	**1**	1.0	0.18	7/22/2017 06:58	J
1,2-Dichloroethane-d4 (S)	**83**		**%**	**1**	70-128		7/22/2017 06:58	
Toluene-d8 (S)	**91**		**%**	**1**	77-119		7/22/2017 06:58	
Bromofluorobenzene (S)	**117**		**%**	**1**	86-123		7/22/2017 06:58	

Lab ID: **J1707141008** Date Received: 07/18/17 08:55 Matrix: Water
Sample ID: **SW-2** Date Collected: 07/17/17 14:04

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B Analysis,Water	Preparation Method: SW-846 3010A; Analytical Method: SW-846 6010							
Arsenic	**0.0085**	**U**	**mg/L**	**1**	0.010	0.0085	7/20/2017 13:26	J
Cadmium	**0.0015**		**mg/L**	**1**	0.00060	0.00032	7/20/2017 13:26	J
Chromium	**0.024**		**mg/L**	**1**	0.0010	0.00050	7/20/2017 13:26	J
Lead	**0.030**		**mg/L**	**1**	0.0070	0.0013	7/20/2017 13:26	J
SEMIVOLATILES								
Analysis Desc: 8081B Pesticide Analysis, Water	Preparation Method: SW-846 3510C; Analytical Method: EPA 8081							
4,4`-DDD	**0.0020**	**U**	**ug/L**	**1**	0.025	0.0020	7/21/2017 03:56	J
4,4`-DDE	**0.0046**	**U**	**ug/L**	**1**	0.025	0.0046	7/21/2017 03:56	J
4,4`-DDT	**0.054**	**U**	**ug/L**	**20**	0.50	0.054	7/24/2017 16:00	J
Aldrin	**0.0024**	**U**	**ug/L**	**1**	0.025	0.0024	7/21/2017 03:56	J
Chlordane (technical)	**0.066**	**U**	**ug/L**	**1**	0.25	0.066	7/21/2017 03:56	J
Dieldrin	**0.0014**	**U**	**ug/L**	**1**	0.025	0.0014	7/21/2017 03:56	J
Endosulfan I	**0.0038**	**U**	**ug/L**	**1**	0.025	0.0038	7/21/2017 03:56	J
Endosulfan II	**0.0033**	**U**	**ug/L**	**1**	0.025	0.0033	7/21/2017 03:56	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141008** Date Received: 07/18/17 08:55 Matrix: Water
Sample ID: **SW-2** Date Collected: 07/17/17 14:04

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Endosulfan Sulfate	**0.0040**	U	ug/L	1	0.025	0.0040	7/21/2017 03:56	J
Endrin	**0.0021**	U	ug/L	1	0.025	0.0021	7/21/2017 03:56	J
Endrin Aldehyde	**0.0032**	U	ug/L	1	0.025	0.0032	7/21/2017 03:56	J
Heptachlor	**0.0043**	U	ug/L	1	0.025	0.0043	7/21/2017 03:56	J
Heptachlor Epoxide	**0.0021**	U	ug/L	1	0.025	0.0021	7/21/2017 03:56	J
Methoxychlor	**0.15**	U	ug/L	20	0.50	0.15	7/24/2017 16:00	J
Toxaphene	**3.0**	U	ug/L	20	5.0	3.0	7/24/2017 16:00	J
alpha-BHC	**0.0038**	U	ug/L	1	0.025	0.0038	7/21/2017 03:56	J
beta-BHC	**0.0024**	U	ug/L	1	0.025	0.0024	7/21/2017 03:56	J
delta-BHC	**0.0011**	U	ug/L	1	0.025	0.0011	7/21/2017 03:56	J
gamma-BHC (Lindane)	**0.0023**	U	ug/L	1	0.025	0.0023	7/21/2017 03:56	J
Tetrachloro-m-xylene (S)	**60**		%	1	44-124		7/21/2017 03:56	
Decachlorobiphenyl (S)	**60**		%	1	48-137		7/21/2017 03:56	
Analysis Desc: FL-PRO Analysis, Water	Preparation Method: FL-PRO Analytical Method: FL-PRO							
TPH	**2800**		ug/L	1	680	600	7/24/2017 15:30	J
o-Terphenyl (S)	**150**	J4	%	1	82-142		7/24/2017 15:30	
Nonatricontane-C39 (S)	**95**		%	1	42-193		7/24/2017 15:30	
Analysis Desc: 8082A PCB Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: SW-846 8082A							
Aroclor 1016 (PCB-1016)	**0.081**	U	ug/L	1	0.25	0.081	7/21/2017 03:56	J
Aroclor 1221 (PCB-1221)	**0.14**	U	ug/L	1	0.25	0.14	7/21/2017 03:56	J
Aroclor 1232 (PCB-1232)	**0.12**	U	ug/L	1	0.25	0.12	7/21/2017 03:56	J
Aroclor 1242 (PCB-1242)	**0.12**	U	ug/L	1	0.25	0.12	7/21/2017 03:56	J
Aroclor 1248 (PCB-1248)	**0.084**	U	ug/L	1	0.25	0.084	7/21/2017 03:56	J
Aroclor 1254 (PCB-1254)	**0.064**	U	ug/L	1	0.25	0.064	7/21/2017 03:56	J
Aroclor 1260 (PCB-1260)	**0.10**	U	ug/L	1	0.25	0.10	7/21/2017 03:56	J
Tetrachloro-m-xylene (S)	**60**	J4	%	1	61-119		7/21/2017 03:56	
Decachlorobiphenyl (S)	**60**		%	1	44-136		7/21/2017 03:56	
Analysis Desc: 8270C Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: SW-846 8270C							
1,2,4-Trichlorobenzene	**0.69**	U	ug/L	1	5.0	0.69	7/21/2017 01:44	J
1,2-Dichlorobenzene	**1.4**	U	ug/L	1	5.0	1.4	7/21/2017 01:44	J
1,2-Diphenylhydrazine	**0.96**	U	ug/L	1	5.0	0.96	7/21/2017 01:44	J
1,3-Dichlorobenzene	**1.0**	U	ug/L	1	5.0	1.0	7/21/2017 01:44	J
1,4-Dichlorobenzene	**1.2**	U	ug/L	1	5.0	1.2	7/21/2017 01:44	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141008** Date Received: 07/18/17 08:55 Matrix: Water
Sample ID: **SW-2** Date Collected: 07/17/17 14:04

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
2,4,6-Trichlorophenol	**0.93**	**U**	**ug/L**	**1**	5.0	0.93	7/21/2017 01:44	J
2,4-Dichlorophenol	**0.90**	**U**	**ug/L**	**1**	5.0	0.90	7/21/2017 01:44	J
2,4-Dimethylphenol	**2.6**	**U**	**ug/L**	**1**	5.0	2.6	7/21/2017 01:44	J
2,4-Dinitrophenol	**0.62**	**U**	**ug/L**	**1**	10	0.62	7/21/2017 01:44	J
2,4-Dinitrotoluene (2,4-DNT)	**0.60**	**U**	**ug/L**	**1**	5.0	0.60	7/21/2017 01:44	J
2,6-Dinitrotoluene (2,6-DNT)	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/21/2017 01:44	J
2-Chloronaphthalene	**0.97**	**U**	**ug/L**	**1**	5.0	0.97	7/21/2017 01:44	J
2-Chlorophenol	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/21/2017 01:44	J
2-Methyl-4,6-dinitrophenol	**0.77**	**U**	**ug/L**	**1**	5.0	0.77	7/21/2017 01:44	J
2-Nitrophenol	**0.63**	**U**	**ug/L**	**1**	5.0	0.63	7/21/2017 01:44	J
3,3`-Dichlorobenzidine	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	7/21/2017 01:44	J
4-Bromophenyl Phenyl Ether	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/21/2017 01:44	J
4-Chloro-3-methylphenol	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	7/21/2017 01:44	J
4-Chlorophenyl Phenyl Ether	**0.69**	**U**	**ug/L**	**1**	5.0	0.69	7/21/2017 01:44	J
4-Nitrophenol	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	7/21/2017 01:44	J
Benzidine	**0.74**	**U**	**ug/L**	**1**	5.0	0.74	7/21/2017 01:44	J
Butyl benzyl phthalate	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/21/2017 01:44	J
Di-n-Butyl Phthalate	**0.88**	**U**	**ug/L**	**1**	5.0	0.88	7/21/2017 01:44	J
Di-n-octyl Phthalate	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/21/2017 01:44	J
Diethyl phthalate	**0.98**	**U**	**ug/L**	**1**	5.0	0.98	7/21/2017 01:44	J
Dimethyl phthalate	**9.9**	**U**	**ug/L**	**1**	10	9.9	7/21/2017 01:44	J
Hexachlorobenzene	**0.99**	**U**	**ug/L**	**1**	5.0	0.99	7/21/2017 01:44	J
Hexachlorobutadiene	**0.87**	**U**	**ug/L**	**1**	5.0	0.87	7/21/2017 01:44	J
Hexachlorocyclopentadiene	**0.99**	**U**	**ug/L**	**1**	5.0	0.99	7/21/2017 01:44	J
Hexachloroethane	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/21/2017 01:44	J
Isophorone	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/21/2017 01:44	J
N-Nitrosodi-n-propylamine	**2.2**	**U**	**ug/L**	**1**	5.0	2.2	7/21/2017 01:44	J
N-Nitrosodimethylamine	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	7/21/2017 01:44	J
N-Nitrosodiphenylamine	**0.59**	**U**	**ug/L**	**1**	5.0	0.59	7/21/2017 01:44	J
Nitrobenzene	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/21/2017 01:44	J
Pentachlorophenol	**0.95**	**U**	**ug/L**	**1**	5.0	0.95	7/21/2017 01:44	J
Phenol	**0.54**	**U**	**ug/L**	**1**	5.0	0.54	7/21/2017 01:44	J
bis(2-Chloroethoxy)methane	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/21/2017 01:44	J
bis(2-Chloroethyl)Ether	**1.5**	**U**	**ug/L**	**1**	5.0	1.5	7/21/2017 01:44	J
bis(2-Chloroisopropyl) Ether	**1.4**	**U**	**ug/L**	**1**	5.0	1.4	7/21/2017 01:44	J
bis(2-Ethylhexyl) phthalate	**2.2**	**I**	**ug/L**	**1**	5.0	2.0	7/21/2017 01:44	J
2-Fluorophenol (S)	**21**	**J4**	**%**	**1**	31-134		7/21/2017 01:44	
Phenol-d6 (S)	**16**	**J4**	**%**	**1**	24-120		7/21/2017 01:44	
Nitrobenzene-d5 (S)	**55**		**%**	**1**	38-139		7/21/2017 01:44	
2-Fluorobiphenyl (S)	**57**		**%**	**1**	42-138		7/21/2017 01:44	

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141008** Date Received: 07/18/17 08:55 Matrix: Water
Sample ID: **SW-2** Date Collected: 07/17/17 14:04

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
2,4,6-Tribromophenol (S)	**79**		**%**	**1**	48-147		7/21/2017 01:44	
p-Terphenyl-d14 (S)	**89**		**%**	**1**	61-154		7/21/2017 01:44	
Analysis Desc: 8270C-SIM Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.050**	**U**	**ug/L**	**1**	0.050	0.050	7/21/2017 01:44	J
2-Methylnaphthalene	**0.049**	**U**	**ug/L**	**1**	0.050	0.049	7/21/2017 01:44	J
Acenaphthene	**0.040**	**U**	**ug/L**	**1**	0.050	0.040	7/21/2017 01:44	J
Acenaphthylene	**0.042**	**U**	**ug/L**	**1**	0.050	0.042	7/21/2017 01:44	J
Anthracene	**0.035**	**U**	**ug/L**	**1**	0.050	0.035	7/21/2017 01:44	J
Benzo[a]anthracene	**1.6**		**ug/L**	**1**	0.050	0.012	7/21/2017 01:44	J
Benzo[a]pyrene	**2.0**		**ug/L**	**1**	0.050	0.037	7/21/2017 01:44	J
Benzo[b]fluoranthene	**3.8**		**ug/L**	**1**	0.025	0.012	7/21/2017 01:44	J
Benzo[g,h,i]perylene	**2.5**		**ug/L**	**1**	0.050	0.048	7/21/2017 01:44	J
Benzo[k]fluoranthene	**1.5**		**ug/L**	**1**	0.050	0.048	7/21/2017 01:44	J
Chrysene	**2.6**		**ug/L**	**1**	0.050	0.033	7/21/2017 01:44	J
Dibenzo[a,h]anthracene	**0.54**		**ug/L**	**1**	0.050	0.024	7/21/2017 01:44	J
Fluoranthene	**2.8**		**ug/L**	**1**	0.050	0.037	7/21/2017 01:44	J
Fluorene	**0.038**	**U**	**ug/L**	**1**	0.050	0.038	7/21/2017 01:44	J
Indeno(1,2,3-cd)pyrene	**2.2**		**ug/L**	**1**	0.050	0.011	7/21/2017 01:44	J
Naphthalene	**0.048**	**U**	**ug/L**	**1**	0.050	0.048	7/21/2017 01:44	J
Phenanthrene	**0.53**		**ug/L**	**1**	0.050	0.040	7/21/2017 01:44	J
Pyrene	**2.4**		**ug/L**	**1**	0.050	0.036	7/21/2017 01:44	J
Nitrobenzene-d5 (S)	**55**		**%**	**1**	34-139		7/21/2017 01:44	
2-Fluorobiphenyl (S)	**57**		**%**	**1**	36-125		7/21/2017 01:44	
p-Terphenyl-d14 (S)	**89**		**%**	**1**	41-138		7/21/2017 01:44	
VOLATILES								
Analysis Desc: 8260B Analysis, Water	Preparation Method: SW-846 5030B Analytical Method: SW-846 8260B							
1,1,1-Trichloroethane	**0.22**	**U**	**ug/L**	**1**	1.0	0.22	7/22/2017 07:23	J
1,1,2,2-Tetrachloroethane	**0.20**	**U**	**ug/L**	**1**	1.0	0.20	7/22/2017 07:23	J
1,1,2-Trichloroethane	**0.30**	**U**	**ug/L**	**1**	1.0	0.30	7/22/2017 07:23	J
1,1-Dichloroethane	**0.14**	**U**	**ug/L**	**1**	1.0	0.14	7/22/2017 07:23	J
1,1-Dichloroethylene	**0.18**	**U**	**ug/L**	**1**	1.0	0.18	7/22/2017 07:23	J
1,2-Dichlorobenzene	**0.18**	**U**	**ug/L**	**1**	1.0	0.18	7/22/2017 07:23	J
1,2-Dichloroethane	**0.23**	**U**	**ug/L**	**1**	1.0	0.23	7/22/2017 07:23	J
1,2-Dichloropropane	**0.20**	**U**	**ug/L**	**1**	1.0	0.20	7/22/2017 07:23	J
1,3-Dichlorobenzene	**0.19**	**U**	**ug/L**	**1**	1.0	0.19	7/22/2017 07:23	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141008** Date Received: 07/18/17 08:55 Matrix: Water
Sample ID: **SW-2** Date Collected: 07/17/17 14:04

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
1,4-Dichlorobenzene	**0.22**	**U**	**ug/L**	**1**	1.0	0.22	7/22/2017 07:23	J
2-Chloroethyl Vinyl Ether	**0.20**	**U**	**ug/L**	**1**	5.0	0.20	7/22/2017 07:23	J
Acrolein (Propenal)	**1.6**	**U**	**ug/L**	**1**	10	1.6	7/22/2017 07:23	J
Acrylonitrile	**1.1**	**U**	**ug/L**	**1**	10	1.1	7/22/2017 07:23	J
Benzene	**0.16**	**U**	**ug/L**	**1**	1.0	0.16	7/22/2017 07:23	J
Bromodichloromethane	**0.25**	**U**	**ug/L**	**1**	1.0	0.25	7/22/2017 07:23	J
Bromoform	**0.43**	**U**	**ug/L**	**1**	1.0	0.43	7/22/2017 07:23	J
Bromomethane	**0.24**	**U**	**ug/L**	**1**	1.0	0.24	7/22/2017 07:23	J
Carbon Tetrachloride	**0.36**	**U**	**ug/L**	**1**	1.0	0.36	7/22/2017 07:23	J
Chlorobenzene	**0.21**	**U**	**ug/L**	**1**	1.0	0.21	7/22/2017 07:23	J
Chloroethane	**0.33**	**U**	**ug/L**	**1**	1.0	0.33	7/22/2017 07:23	J
Chloroform	**0.18**	**U**	**ug/L**	**1**	1.0	0.18	7/22/2017 07:23	J
Chloromethane	**0.21**	**U**	**ug/L**	**1**	1.0	0.21	7/22/2017 07:23	J
Dibromochloromethane	**0.33**	**U**	**ug/L**	**1**	1.0	0.33	7/22/2017 07:23	J
Dichlorodifluoromethane	**0.15**	**U**	**ug/L**	**1**	1.0	0.15	7/22/2017 07:23	J
Ethylbenzene	**0.24**	**U**	**ug/L**	**1**	1.0	0.24	7/22/2017 07:23	J
Methylene Chloride	**2.5**	**U**	**ug/L**	**1**	5.0	2.5	7/22/2017 07:23	J
Tetrachloroethylene (PCE)	**0.36**	**U**	**ug/L**	**1**	1.0	0.36	7/22/2017 07:23	J
Toluene	**0.23**	**U**	**ug/L**	**1**	1.0	0.23	7/22/2017 07:23	J
Trichloroethene	**0.29**	**U**	**ug/L**	**1**	1.0	0.29	7/22/2017 07:23	J
Trichlorofluoromethane	**0.32**	**U**	**ug/L**	**1**	1.0	0.32	7/22/2017 07:23	J
Vinyl Chloride	**0.20**	**U**	**ug/L**	**1**	1.0	0.20	7/22/2017 07:23	J
Xylene (Total)	**0.53**	**U**	**ug/L**	**1**	2.0	0.53	7/22/2017 07:23	J
cis-1,2-Dichloroethylene	**0.24**	**U**	**ug/L**	**1**	1.0	0.24	7/22/2017 07:23	J
cis-1,3-Dichloropropene	**0.16**	**U**	**ug/L**	**1**	1.0	0.16	7/22/2017 07:23	J
trans-1,2-Dichloroethylene	**0.20**	**U**	**ug/L**	**1**	1.0	0.20	7/22/2017 07:23	J
trans-1,3-Dichloropropylene	**0.18**	**U**	**ug/L**	**1**	1.0	0.18	7/22/2017 07:23	J
1,2-Dichloroethane-d4 (S)	**81**		**%**	**1**	70-128		7/22/2017 07:23	
Toluene-d8 (S)	**91**		**%**	**1**	77-119		7/22/2017 07:23	
Bromofluorobenzene (S)	**118**		**%**	**1**	86-123		7/22/2017 07:23	

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141009** Date Received: 07/18/17 08:55 Matrix: Water
Sample ID: **SW-3** Date Collected: 07/17/17 14:32

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B Analysis,Water	Preparation Method: SW-846 3010A Analytical Method: SW-846 6010							
Arsenic	**0.0085**	**U**	**mg/L**	**1**	0.010	0.0085	7/20/2017 13:30	J
Cadmium	**0.00032**	**U**	**mg/L**	**1**	0.00060	0.00032	7/20/2017 13:30	J
Chromium	**0.0014**		**mg/L**	**1**	0.0010	0.00050	7/20/2017 13:30	J
Lead	**0.0013**	**U**	**mg/L**	**1**	0.0070	0.0013	7/20/2017 13:30	J
SEMIVOLATILES								
Analysis Desc: 8081B Pesticide Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: EPA 8081							
4,4`-DDD	**0.0016**	**U**	**ug/L**	**1**	0.020	0.0016	7/21/2017 04:17	J
4,4`-DDE	**0.0037**	**U**	**ug/L**	**1**	0.020	0.0037	7/21/2017 04:17	J
4,4`-DDT	**0.043**	**U**	**ug/L**	**20**	0.40	0.043	7/24/2017 16:21	J
Aldrin	**0.0019**	**U**	**ug/L**	**1**	0.020	0.0019	7/21/2017 04:17	J
Chlordane (technical)	**0.053**	**U**	**ug/L**	**1**	0.20	0.053	7/21/2017 04:17	J
Dieldrin	**0.0011**	**U**	**ug/L**	**1**	0.020	0.0011	7/21/2017 04:17	J
Endosulfan I	**0.0031**	**U**	**ug/L**	**1**	0.020	0.0031	7/21/2017 04:17	J
Endosulfan II	**0.0026**	**U**	**ug/L**	**1**	0.020	0.0026	7/21/2017 04:17	J
Endosulfan Sulfate	**0.0032**	**U**	**ug/L**	**1**	0.020	0.0032	7/21/2017 04:17	J
Endrin	**0.0017**	**U**	**ug/L**	**1**	0.020	0.0017	7/21/2017 04:17	J
Endrin Aldehyde	**0.0025**	**U**	**ug/L**	**1**	0.020	0.0025	7/21/2017 04:17	J
Heptachlor	**0.0035**	**U**	**ug/L**	**1**	0.020	0.0035	7/21/2017 04:17	J
Heptachlor Epoxide	**0.0017**	**U**	**ug/L**	**1**	0.020	0.0017	7/21/2017 04:17	J
Methoxychlor	**0.12**	**U**	**ug/L**	**20**	0.40	0.12	7/24/2017 16:21	J
Toxaphene	**2.4**	**U**	**ug/L**	**20**	4.0	2.4	7/24/2017 16:21	J
alpha-BHC	**0.0030**	**U**	**ug/L**	**1**	0.020	0.0030	7/21/2017 04:17	J
beta-BHC	**0.0019**	**U**	**ug/L**	**1**	0.020	0.0019	7/21/2017 04:17	J
delta-BHC	**0.00086**	**U**	**ug/L**	**1**	0.020	0.00086	7/21/2017 04:17	J
gamma-BHC (Lindane)	**0.0018**	**U**	**ug/L**	**1**	0.020	0.0018	7/21/2017 04:17	J
Tetrachloro-m-xylene (S)	**55**		**%**	**1**	44-124		7/21/2017 04:17	
Decachlorobiphenyl (S)	**58**		**%**	**1**	48-137		7/21/2017 04:17	
Analysis Desc: FL-PRO Analysis, Water	Preparation Method: FL-PRO Analytical Method: FL-PRO							
TPH	**1500**		**ug/L**	**1**	680	600	7/24/2017 15:58	J
o-Terphenyl (S)	**120**		**%**	**1**	82-142		7/24/2017 15:58	
Nonatricontane-C39 (S)	**82**		**%**	**1**	42-193		7/24/2017 15:58	

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID:	**J1707141009**	Date Received:	07/18/17 08:55	Matrix:	Water
Sample ID:	**SW-3**	Date Collected:	07/17/17 14:32		

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: 8082A PCB Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: SW-846 8082A							
Aroclor 1016 (PCB-1016)	**0.065**	**U**	**ug/L**	**1**	0.20	0.065	7/21/2017 04:17	J
Aroclor 1221 (PCB-1221)	**0.11**	**U**	**ug/L**	**1**	0.20	0.11	7/21/2017 04:17	J
Aroclor 1232 (PCB-1232)	**0.097**	**U**	**ug/L**	**1**	0.20	0.097	7/21/2017 04:17	J
Aroclor 1242 (PCB-1242)	**0.096**	**U**	**ug/L**	**1**	0.20	0.096	7/21/2017 04:17	J
Aroclor 1248 (PCB-1248)	**0.067**	**U**	**ug/L**	**1**	0.20	0.067	7/21/2017 04:17	J
Aroclor 1254 (PCB-1254)	**0.051**	**U**	**ug/L**	**1**	0.20	0.051	7/21/2017 04:17	J
Aroclor 1260 (PCB-1260)	**0.080**	**U**	**ug/L**	**1**	0.20	0.080	7/21/2017 04:17	J
Tetrachloro-m-xylene (S)	**55**	**J4**	**%**	**1**	61-119		7/21/2017 04:17	
Decachlorobiphenyl (S)	**58**		**%**	**1**	44-136		7/21/2017 04:17	
Analysis Desc: 8270C Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: SW-846 8270C							
1,2,4-Trichlorobenzene	**0.69**	**U**	**ug/L**	**1**	5.0	0.69	7/21/2017 02:24	J
1,2-Dichlorobenzene	**1.4**	**U**	**ug/L**	**1**	5.0	1.4	7/21/2017 02:24	J
1,2-Diphenylhydrazine	**0.96**	**U**	**ug/L**	**1**	5.0	0.96	7/21/2017 02:24	J
1,3-Dichlorobenzene	**1.0**	**U**	**ug/L**	**1**	5.0	1.0	7/21/2017 02:24	J
1,4-Dichlorobenzene	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/21/2017 02:24	J
2,4,6-Trichlorophenol	**0.93**	**U**	**ug/L**	**1**	5.0	0.93	7/21/2017 02:24	J
2,4-Dichlorophenol	**0.90**	**U**	**ug/L**	**1**	5.0	0.90	7/21/2017 02:24	J
2,4-Dimethylphenol	**2.6**	**U**	**ug/L**	**1**	5.0	2.6	7/21/2017 02:24	J
2,4-Dinitrophenol	**0.62**	**U**	**ug/L**	**1**	10	0.62	7/21/2017 02:24	J
2,4-Dinitrotoluene (2,4-DNT)	**0.60**	**U**	**ug/L**	**1**	5.0	0.60	7/21/2017 02:24	J
2,6-Dinitrotoluene (2,6-DNT)	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/21/2017 02:24	J
2-Chloronaphthalene	**0.97**	**U**	**ug/L**	**1**	5.0	0.97	7/21/2017 02:24	J
2-Chlorophenol	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/21/2017 02:24	J
2-Methyl-4,6-dinitrophenol	**0.77**	**U**	**ug/L**	**1**	5.0	0.77	7/21/2017 02:24	J
2-Nitrophenol	**0.63**	**U**	**ug/L**	**1**	5.0	0.63	7/21/2017 02:24	J
3,3`-Dichlorobenzidine	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	7/21/2017 02:24	J
4-Bromophenyl Phenyl Ether	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/21/2017 02:24	J
4-Chloro-3-methylphenol	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	7/21/2017 02:24	J
4-Chlorophenyl Phenyl Ether	**0.69**	**U**	**ug/L**	**1**	5.0	0.69	7/21/2017 02:24	J
4-Nitrophenol	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	7/21/2017 02:24	J
Benzidine	**0.74**	**U**	**ug/L**	**1**	5.0	0.74	7/21/2017 02:24	J
Butyl benzyl phthalate	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/21/2017 02:24	J
Di-n-Butyl Phthalate	**0.88**	**U**	**ug/L**	**1**	5.0	0.88	7/21/2017 02:24	J
Di-n-octyl Phthalate	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/21/2017 02:24	J
Diethyl phthalate	**0.98**	**U**	**ug/L**	**1**	5.0	0.98	7/21/2017 02:24	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141009** Date Received: 07/18/17 08:55 Matrix: Water
Sample ID: **SW-3** Date Collected: 07/17/17 14:32

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Dimethyl phthalate	**9.9**	**U**	**ug/L**	**1**	10	9.9	7/21/2017 02:24	J
Hexachlorobenzene	**0.99**	**U**	**ug/L**	**1**	5.0	0.99	7/21/2017 02:24	J
Hexachlorobutadiene	**0.87**	**U**	**ug/L**	**1**	5.0	0.87	7/21/2017 02:24	J
Hexachlorocyclopentadiene	**0.99**	**U**	**ug/L**	**1**	5.0	0.99	7/21/2017 02:24	J
Hexachloroethane	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/21/2017 02:24	J
Isophorone	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/21/2017 02:24	J
N-Nitrosodi-n-propylamine	**2.2**	**U**	**ug/L**	**1**	5.0	2.2	7/21/2017 02:24	J
N-Nitrosodimethylamine	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	7/21/2017 02:24	J
N-Nitrosodiphenylamine	**0.59**	**U**	**ug/L**	**1**	5.0	0.59	7/21/2017 02:24	J
Nitrobenzene	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/21/2017 02:24	J
Pentachlorophenol	**0.95**	**U**	**ug/L**	**1**	5.0	0.95	7/21/2017 02:24	J
Phenol	**0.54**	**U**	**ug/L**	**1**	5.0	0.54	7/21/2017 02:24	J
bis(2-Chloroethoxy)methane	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/21/2017 02:24	J
bis(2-Chloroethyl)Ether	**1.5**	**U**	**ug/L**	**1**	5.0	1.5	7/21/2017 02:24	J
bis(2-Chloroisopropyl) Ether	**1.4**	**U**	**ug/L**	**1**	5.0	1.4	7/21/2017 02:24	J
bis(2-Ethylhexyl) phthalate	**2.0**	**U**	**ug/L**	**1**	5.0	2.0	7/21/2017 02:24	J
2-Fluorophenol (S)	**24**	**J4**	**%**	**1**	31-134		7/21/2017 02:24	
Phenol-d6 (S)	**19**	**J4**	**%**	**1**	24-120		7/21/2017 02:24	
Nitrobenzene-d5 (S)	**60**		**%**	**1**	38-139		7/21/2017 02:24	
2-Fluorobiphenyl (S)	**62**		**%**	**1**	42-138		7/21/2017 02:24	
2,4,6-Tribromophenol (S)	**86**		**%**	**1**	48-147		7/21/2017 02:24	
p-Terphenyl-d14 (S)	**107**		**%**	**1**	61-154		7/21/2017 02:24	

Analysis Desc: 8270C-SIM Analysis, Water
Preparation Method: SW-846 3510C
Analytical Method: SW-846 8270C (SIM)

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
1-Methylnaphthalene	**0.050**	**U**	**ug/L**	**1**	0.050	0.050	7/21/2017 02:24	J
2-Methylnaphthalene	**0.049**	**U**	**ug/L**	**1**	0.050	0.049	7/21/2017 02:24	J
Acenaphthene	**0.040**	**U**	**ug/L**	**1**	0.050	0.040	7/21/2017 02:24	J
Acenaphthylene	**0.042**	**U**	**ug/L**	**1**	0.050	0.042	7/21/2017 02:24	J
Anthracene	**0.035**	**U**	**ug/L**	**1**	0.050	0.035	7/21/2017 02:24	J
Benzo[a]anthracene	**0.012**	**U**	**ug/L**	**1**	0.050	0.012	7/21/2017 02:24	J
Benzo[a]pyrene	**0.037**	**U**	**ug/L**	**1**	0.050	0.037	7/21/2017 02:24	J
Benzo[b]fluoranthene	**0.012**	**U**	**ug/L**	**1**	0.025	0.012	7/21/2017 02:24	J
Benzo[g,h,i]perylene	**0.048**	**U**	**ug/L**	**1**	0.050	0.048	7/21/2017 02:24	J
Benzo[k]fluoranthene	**0.048**	**U**	**ug/L**	**1**	0.050	0.048	7/21/2017 02:24	J
Chrysene	**0.033**	**U**	**ug/L**	**1**	0.050	0.033	7/21/2017 02:24	J
Dibenzo[a,h]anthracene	**0.024**	**U**	**ug/L**	**1**	0.050	0.024	7/21/2017 02:24	J
Fluoranthene	**0.037**	**U**	**ug/L**	**1**	0.050	0.037	7/21/2017 02:24	J
Fluorene	**0.038**	**U**	**ug/L**	**1**	0.050	0.038	7/21/2017 02:24	J
Indeno(1,2,3-cd)pyrene	**0.011**	**U**	**ug/L**	**1**	0.050	0.011	7/21/2017 02:24	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141009**
Sample ID: **SW-3**
Date Received: 07/18/17 08:55 Matrix: Water
Date Collected: 07/17/17 14:32

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Naphthalene	**0.048**	**U**	**ug/L**	**1**	0.050	0.048	7/21/2017 02:24	J
Phenanthrene	**0.040**	**U**	**ug/L**	**1**	0.050	0.040	7/21/2017 02:24	J
Pyrene	**0.036**	**U**	**ug/L**	**1**	0.050	0.036	7/21/2017 02:24	J
Nitrobenzene-d5 (S)	**60**		**%**	**1**	34-139		7/21/2017 02:24	
2-Fluorobiphenyl (S)	**62**		**%**	**1**	36-125		7/21/2017 02:24	
p-Terphenyl-d14 (S)	**107**		**%**	**1**	41-138		7/21/2017 02:24	

VOLATILES

Analysis Desc: 8260B Analysis, Water Preparation Method: SW-846 5030B
Analytical Method: SW-846 8260B

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
1,1,1-Trichloroethane	**0.22**	**U**	**ug/L**	**1**	1.0	0.22	7/22/2017 07:49	J
1,1,2,2-Tetrachloroethane	**0.20**	**U**	**ug/L**	**1**	1.0	0.20	7/22/2017 07:49	J
1,1,2-Trichloroethane	**0.30**	**U**	**ug/L**	**1**	1.0	0.30	7/22/2017 07:49	J
1,1-Dichloroethane	**0.14**	**U**	**ug/L**	**1**	1.0	0.14	7/22/2017 07:49	J
1,1-Dichloroethylene	**0.18**	**U**	**ug/L**	**1**	1.0	0.18	7/22/2017 07:49	J
1,2-Dichlorobenzene	**0.18**	**U**	**ug/L**	**1**	1.0	0.18	7/22/2017 07:49	J
1,2-Dichloroethane	**0.23**	**U**	**ug/L**	**1**	1.0	0.23	7/22/2017 07:49	J
1,2-Dichloropropane	**0.20**	**U**	**ug/L**	**1**	1.0	0.20	7/22/2017 07:49	J
1,3-Dichlorobenzene	**0.19**	**U**	**ug/L**	**1**	1.0	0.19	7/22/2017 07:49	J
1,4-Dichlorobenzene	**0.22**	**U**	**ug/L**	**1**	1.0	0.22	7/22/2017 07:49	J
2-Chloroethyl Vinyl Ether	**0.20**	**U**	**ug/L**	**1**	5.0	0.20	7/22/2017 07:49	J
Acrolein (Propenal)	**1.6**	**U**	**ug/L**	**1**	10	1.6	7/22/2017 07:49	J
Acrylonitrile	**1.1**	**U**	**ug/L**	**1**	10	1.1	7/22/2017 07:49	J
Benzene	**0.16**	**U**	**ug/L**	**1**	1.0	0.16	7/22/2017 07:49	J
Bromodichloromethane	**0.25**	**U**	**ug/L**	**1**	1.0	0.25	7/22/2017 07:49	J
Bromoform	**0.43**	**U**	**ug/L**	**1**	1.0	0.43	7/22/2017 07:49	J
Bromomethane	**0.24**	**U**	**ug/L**	**1**	1.0	0.24	7/22/2017 07:49	J
Carbon Tetrachloride	**0.36**	**U**	**ug/L**	**1**	1.0	0.36	7/22/2017 07:49	J
Chlorobenzene	**0.21**	**U**	**ug/L**	**1**	1.0	0.21	7/22/2017 07:49	J
Chloroethane	**0.33**	**U**	**ug/L**	**1**	1.0	0.33	7/22/2017 07:49	J
Chloroform	**0.18**	**U**	**ug/L**	**1**	1.0	0.18	7/22/2017 07:49	J
Chloromethane	**0.21**	**U**	**ug/L**	**1**	1.0	0.21	7/22/2017 07:49	J
Dibromochloromethane	**0.33**	**U**	**ug/L**	**1**	1.0	0.33	7/22/2017 07:49	J
Dichlorodifluoromethane	**0.15**	**U**	**ug/L**	**1**	1.0	0.15	7/22/2017 07:49	J
Ethylbenzene	**0.24**	**U**	**ug/L**	**1**	1.0	0.24	7/22/2017 07:49	J
Methylene Chloride	**2.5**	**U**	**ug/L**	**1**	5.0	2.5	7/22/2017 07:49	J
Tetrachloroethylene (PCE)	**0.36**	**U**	**ug/L**	**1**	1.0	0.36	7/22/2017 07:49	J
Toluene	**0.23**	**U**	**ug/L**	**1**	1.0	0.23	7/22/2017 07:49	J
Trichloroethene	**0.29**	**U**	**ug/L**	**1**	1.0	0.29	7/22/2017 07:49	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141009** Date Received: 07/18/17 08:55 Matrix: Water
Sample ID: **SW-3** Date Collected: 07/17/17 14:32

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Trichlorofluoromethane	**0.32**	**U**	**ug/L**	**1**	1.0	0.32	7/22/2017 07:49	J
Vinyl Chloride	**0.20**	**U**	**ug/L**	**1**	1.0	0.20	7/22/2017 07:49	J
Xylene (Total)	**0.53**	**U**	**ug/L**	**1**	2.0	0.53	7/22/2017 07:49	J
cis-1,2-Dichloroethylene	**0.24**	**U**	**ug/L**	**1**	1.0	0.24	7/22/2017 07:49	J
cis-1,3-Dichloropropene	**0.16**	**U**	**ug/L**	**1**	1.0	0.16	7/22/2017 07:49	J
trans-1,2-Dichloroethylene	**0.20**	**U**	**ug/L**	**1**	1.0	0.20	7/22/2017 07:49	J
trans-1,3-Dichloropropylene	**0.18**	**U**	**ug/L**	**1**	1.0	0.18	7/22/2017 07:49	J
1,2-Dichloroethane-d4 (S)	**85**		**%**	**1**	70-128		7/22/2017 07:49	
Toluene-d8 (S)	**90**		**%**	**1**	77-119		7/22/2017 07:49	
Bromofluorobenzene (S)	**115**		**%**	**1**	86-123		7/22/2017 07:49	

Lab ID: **J1707141010** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-6 at 6** Date Collected: 07/17/17 09:08
Results for sample J1707141010 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B Analysis,Soils	Preparation Method: SW-846 3050B Analytical Method: SW-846 6010							
Arsenic	**0.26**	**U**	**mg/Kg**	**1**	0.28	0.26	7/31/2017 16:43	J
Cadmium	**0.26**		**mg/Kg**	**1**	0.17	0.036	7/31/2017 16:43	J
Chromium	**34**		**mg/Kg**	**1**	0.11	0.067	7/31/2017 16:43	J
Lead	**11**		**mg/Kg**	**1**	0.20	0.057	7/31/2017 16:43	J
SEMIVOLATILES								
Analysis Desc: FL-PRO Analysis, Soil	Preparation Method: FL-PRO Analytical Method: FL-PRO							
TPH	**110**	**U**	**mg/Kg**	**10**	190	110	7/29/2017 03:44	J
o-Terphenyl (S)	**0**	**1**	**%**	**10**	62-109		7/29/2017 03:44	
Nonatricontane-C39 (S)	**0**	**1**	**%**	**10**	60-118		7/29/2017 03:44	
Analysis Desc: 8270C-SIM Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.026**	**U**	**mg/Kg**	**10**	0.091	0.026	7/29/2017 05:30	J
2-Methylnaphthalene	**0.037**	**U**	**mg/Kg**	**10**	0.091	0.037	7/29/2017 05:30	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141010** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-6 at 6** Date Collected: 07/17/17 09:08

Results for sample J1707141010 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Acenaphthene	**0.035**	**U**	**mg/Kg**	**10**	0.091	0.035	7/29/2017 05:30	J
Acenaphthylene	**0.047**	**U**	**mg/Kg**	**10**	0.091	0.047	7/29/2017 05:30	J
Anthracene	**0.049**	**U**	**mg/Kg**	**10**	0.091	0.049	7/29/2017 05:30	J
Benzo[a]anthracene	**0.057**	**I**	**mg/Kg**	**10**	0.091	0.039	7/29/2017 05:30	J
Benzo[a]pyrene	**0.080**	**U**	**mg/Kg**	**10**	0.091	0.080	7/29/2017 05:30	J
Benzo[b]fluoranthene	**0.12**		**mg/Kg**	**10**	0.091	0.058	7/29/2017 05:30	J
Benzo[g,h,i]perylene	**0.084**	**I**	**mg/Kg**	**10**	0.091	0.065	7/29/2017 05:30	J
Benzo[k]fluoranthene	**0.059**	**U**	**mg/Kg**	**10**	0.091	0.059	7/29/2017 05:30	J
Chrysene	**0.089**	**I**	**mg/Kg**	**10**	0.091	0.048	7/29/2017 05:30	J
Dibenzo[a,h]anthracene	**0.044**	**U**	**mg/Kg**	**10**	0.091	0.044	7/29/2017 05:30	J
Fluoranthene	**0.097**		**mg/Kg**	**10**	0.091	0.060	7/29/2017 05:30	J
Fluorene	**0.040**	**U**	**mg/Kg**	**10**	0.091	0.040	7/29/2017 05:30	J
Indeno(1,2,3-cd)pyrene	**0.080**	**I**	**mg/Kg**	**10**	0.091	0.048	7/29/2017 05:30	J
Naphthalene	**0.029**	**U**	**mg/Kg**	**10**	0.091	0.029	7/29/2017 05:30	J
Phenanthrene	**0.038**	**U**	**mg/Kg**	**10**	0.091	0.038	7/29/2017 05:30	J
Pyrene	**0.11**		**mg/Kg**	**10**	0.091	0.033	7/29/2017 05:30	J
Nitrobenzene-d5 (S)	**0**	**1**	**%**	**10**	33-134		7/29/2017 05:30	
2-Fluorobiphenyl (S)	**0**	**1**	**%**	**10**	37-127		7/29/2017 05:30	
p-Terphenyl-d14 (S)	**0**	**1**	**%**	**10**	42-141		7/29/2017 05:30	

SEMIVOLATILES

Analysis Desc: Percent Solids,SM2540G,Soil — Analytical Method: SM 2540G

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Percent Moisture	**13**		**%**	**1**			7/31/2017 10:00	J

Lab ID: **J1707141011** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-6 at 4** Date Collected: 07/17/17 09:15

Results for sample J1707141011 are reported on a dry weight basis.

Sample Description: Location:

METALS

Analysis Desc: SW846 6010B Analysis,Soils — Preparation Method: SW-846 3050B — Analytical Method: SW-846 6010

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Arsenic	**0.27**	**U**	**mg/Kg**	**1**	0.30	0.27	7/31/2017 16:47	J
Cadmium	**0.037**	**U**	**mg/Kg**	**1**	0.18	0.037	7/31/2017 16:47	J
Chromium	**0.73**		**mg/Kg**	**1**	0.12	0.071	7/31/2017 16:47	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID:	**J1707141011**	Date Received:	07/18/17 08:55
Sample ID:	**SB-6 at 4**	Date Collected:	07/17/17 09:15

Matrix: Soil

Results for sample J1707141011 are reported on a dry weight basis.

Sample Description:

Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Lead	**0.54**		**mg/Kg**	**1**	0.21	0.060	7/31/2017 16:47	J

SEMIVOLATILES

Analysis Desc: FL-PRO Analysis, Soil — Preparation Method: FL-PRO — Analytical Method: FL-PRO

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
TPH	**13**	**I**	**mg/Kg**	**1**	20	12	7/28/2017 21:08	J
o-Terphenyl (S)	**76**		**%**	**1**	62-109		7/28/2017 21:08	
Nonatricontane-C39 (S)	**76**		**%**	**1**	60-118		7/28/2017 21:08	

Analysis Desc: 8270C-SIM Analysis, Soil — Preparation Method: SW-846 3550B — Analytical Method: SW-846 8270C (SIM)

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
1-Methylnaphthalene	**0.0028**	**U**	**mg/Kg**	**1**	0.0096	0.0028	7/28/2017 22:12	J
2-Methylnaphthalene	**0.0039**	**U**	**mg/Kg**	**1**	0.0096	0.0039	7/28/2017 22:12	J
Acenaphthene	**0.0037**	**U**	**mg/Kg**	**1**	0.0096	0.0037	7/28/2017 22:12	J
Acenaphthylene	**0.0049**	**U**	**mg/Kg**	**1**	0.0096	0.0049	7/28/2017 22:12	J
Anthracene	**0.0051**	**U**	**mg/Kg**	**1**	0.0096	0.0051	7/28/2017 22:12	J
Benzo[a]anthracene	**0.0041**	**U**	**mg/Kg**	**1**	0.0096	0.0041	7/28/2017 22:12	J
Benzo[a]pyrene	**0.0084**	**U**	**mg/Kg**	**1**	0.0096	0.0084	7/28/2017 22:12	J
Benzo[b]fluoranthene	**0.0061**	**U**	**mg/Kg**	**1**	0.0096	0.0061	7/28/2017 22:12	J
Benzo[g,h,i]perylene	**0.0068**	**U**	**mg/Kg**	**1**	0.0096	0.0068	7/28/2017 22:12	J
Benzo[k]fluoranthene	**0.0062**	**U**	**mg/Kg**	**1**	0.0096	0.0062	7/28/2017 22:12	J
Chrysene	**0.0050**	**U**	**mg/Kg**	**1**	0.0096	0.0050	7/28/2017 22:12	J
Dibenzo[a,h]anthracene	**0.0046**	**U**	**mg/Kg**	**1**	0.0096	0.0046	7/28/2017 22:12	J
Fluoranthene	**0.0063**	**U**	**mg/Kg**	**1**	0.0096	0.0063	7/28/2017 22:12	J
Fluorene	**0.0042**	**U**	**mg/Kg**	**1**	0.0096	0.0042	7/28/2017 22:12	J
Indeno(1,2,3-cd)pyrene	**0.0050**	**U**	**mg/Kg**	**1**	0.0096	0.0050	7/28/2017 22:12	J
Naphthalene	**0.0030**	**U**	**mg/Kg**	**1**	0.0096	0.0030	7/28/2017 22:12	J
Phenanthrene	**0.0039**	**U**	**mg/Kg**	**1**	0.0096	0.0039	7/28/2017 22:12	J
Pyrene	**0.0034**	**U**	**mg/Kg**	**1**	0.0096	0.0034	7/28/2017 22:12	J
Nitrobenzene-d5 (S)	**68**		**%**	**1**	33-134		7/28/2017 22:12	
2-Fluorobiphenyl (S)	**65**		**%**	**1**	37-127		7/28/2017 22:12	
p-Terphenyl-d14 (S)	**79**		**%**	**1**	42-141		7/28/2017 22:12	

SEMIVOLATILES

Analysis Desc: Percent Solids,SM2540G,Soil — Analytical Method: SM 2540G

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Percent Moisture	**17**		**%**	**1**			7/31/2017 10:00	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141012** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-5 at 6** Date Collected: 07/17/17 09:18
Results for sample J1707141012 are reported on a dry weight basis.
Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B Analysis,Soils	Preparation Method: SW-846 3050B; Analytical Method: SW-846 6010							
Arsenic	**0.24**	**U**	**mg/Kg**	**1**	0.27	0.24	7/31/2017 16:51	J
Cadmium	**0.27**		**mg/Kg**	**1**	0.16	0.034	7/31/2017 16:51	J
Chromium	**33**		**mg/Kg**	**1**	0.11	0.064	7/31/2017 16:51	J
Lead	**13**		**mg/Kg**	**1**	0.19	0.054	7/31/2017 16:51	J
SEMIVOLATILES								
Analysis Desc: FL-PRO Analysis, Soil	Preparation Method: FL-PRO; Analytical Method: FL-PRO							
TPH	**110**	**U**	**mg/Kg**	**10**	180	110	7/29/2017 04:10	J
o-Terphenyl (S)	**0**	**1**	**%**	**10**	62-109		7/29/2017 04:10	
Nonatricontane-C39 (S)	**0**	**1**	**%**	**10**	60-118		7/29/2017 04:10	
Analysis Desc: 8270C-SIM Analysis, Soil	Preparation Method: SW-846 3550B; Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.025**	**U**	**mg/Kg**	**10**	0.086	0.025	7/29/2017 05:58	J
2-Methylnaphthalene	**0.035**	**U**	**mg/Kg**	**10**	0.086	0.035	7/29/2017 05:58	J
Acenaphthene	**0.033**	**U**	**mg/Kg**	**10**	0.086	0.033	7/29/2017 05:58	J
Acenaphthylene	**0.044**	**U**	**mg/Kg**	**10**	0.086	0.044	7/29/2017 05:58	J
Anthracene	**0.046**	**U**	**mg/Kg**	**10**	0.086	0.046	7/29/2017 05:58	J
Benzo[a]anthracene	**0.12**		**mg/Kg**	**10**	0.086	0.037	7/29/2017 05:58	J
Benzo[a]pyrene	**0.14**		**mg/Kg**	**10**	0.086	0.075	7/29/2017 05:58	J
Benzo[b]fluoranthene	**0.19**		**mg/Kg**	**10**	0.086	0.055	7/29/2017 05:58	J
Benzo[g,h,i]perylene	**0.14**		**mg/Kg**	**10**	0.086	0.061	7/29/2017 05:58	J
Benzo[k]fluoranthene	**0.076**	**I**	**mg/Kg**	**10**	0.086	0.056	7/29/2017 05:58	J
Chrysene	**0.16**		**mg/Kg**	**10**	0.086	0.045	7/29/2017 05:58	J
Dibenzo[a,h]anthracene	**0.041**	**U**	**mg/Kg**	**10**	0.086	0.041	7/29/2017 05:58	J
Fluoranthene	**0.20**		**mg/Kg**	**10**	0.086	0.057	7/29/2017 05:58	J
Fluorene	**0.038**	**U**	**mg/Kg**	**10**	0.086	0.038	7/29/2017 05:58	J
Indeno(1,2,3-cd)pyrene	**0.14**		**mg/Kg**	**10**	0.086	0.045	7/29/2017 05:58	J
Naphthalene	**0.027**	**U**	**mg/Kg**	**10**	0.086	0.027	7/29/2017 05:58	J
Phenanthrene	**0.080**	**I**	**mg/Kg**	**10**	0.086	0.035	7/29/2017 05:58	J
Pyrene	**0.28**		**mg/Kg**	**10**	0.086	0.031	7/29/2017 05:58	J
Nitrobenzene-d5 (S)	**0**	**1**	**%**	**10**	33-134		7/29/2017 05:58	
2-Fluorobiphenyl (S)	**0**	**1**	**%**	**10**	37-127		7/29/2017 05:58	
p-Terphenyl-d14 (S)	**0**	**1**	**%**	**10**	42-141		7/29/2017 05:58	

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141012** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-5 at 6** Date Collected: 07/17/17 09:18
Results for sample J1707141012 are reported on a dry weight basis.
Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**7.8**		**%**	**1**			7/31/2017 10:00	J

Lab ID: **J1707141013** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-5 at 4** Date Collected: 07/17/17 09:22
Results for sample J1707141013 are reported on a dry weight basis.
Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B Analysis,Soils	Preparation Method: SW-846 3050B Analytical Method: SW-846 6010							
Arsenic	**0.27**	**U**	**mg/Kg**	**1**	0.30	0.27	7/31/2017 16:57	J
Cadmium	**0.038**	**U**	**mg/Kg**	**1**	0.18	0.038	7/31/2017 16:57	J
Chromium	**1.4**		**mg/Kg**	**1**	0.12	0.072	7/31/2017 16:57	J
Lead	**0.87**		**mg/Kg**	**1**	0.21	0.061	7/31/2017 16:57	J
SEMIVOLATILES								
Analysis Desc: FL-PRO Analysis, Soil	Preparation Method: FL-PRO Analytical Method: FL-PRO							
TPH	**12**	**U**	**mg/Kg**	**1**	21	12	7/28/2017 21:34	J
o-Terphenyl (S)	**83**		**%**	**1**	62-109		7/28/2017 21:34	
Nonatricontane-C39 (S)	**80**		**%**	**1**	60-118		7/28/2017 21:34	
Analysis Desc: 8270C-SIM Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.0028**	**U**	**mg/Kg**	**1**	0.0097	0.0028	7/28/2017 22:39	J
2-Methylnaphthalene	**0.0039**	**U**	**mg/Kg**	**1**	0.0097	0.0039	7/28/2017 22:39	J
Acenaphthene	**0.0038**	**U**	**mg/Kg**	**1**	0.0097	0.0038	7/28/2017 22:39	J
Acenaphthylene	**0.0050**	**U**	**mg/Kg**	**1**	0.0097	0.0050	7/28/2017 22:39	J
Anthracene	**0.0051**	**U**	**mg/Kg**	**1**	0.0097	0.0051	7/28/2017 22:39	J
Benzo[a]anthracene	**0.0041**	**U**	**mg/Kg**	**1**	0.0097	0.0041	7/28/2017 22:39	J
Benzo[a]pyrene	**0.0085**	**U**	**mg/Kg**	**1**	0.0097	0.0085	7/28/2017 22:39	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141013** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-5 at 4** Date Collected: 07/17/17 09:22
Results for sample J1707141013 are reported on a dry weight basis.
Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Benzo[b]fluoranthene	**0.0062**	**U**	**mg/Kg**	**1**	0.0097	0.0062	7/28/2017 22:39	J
Benzo[g,h,i]perylene	**0.0069**	**U**	**mg/Kg**	**1**	0.0097	0.0069	7/28/2017 22:39	J
Benzo[k]fluoranthene	**0.0063**	**U**	**mg/Kg**	**1**	0.0097	0.0063	7/28/2017 22:39	J
Chrysene	**0.0051**	**U**	**mg/Kg**	**1**	0.0097	0.0051	7/28/2017 22:39	J
Dibenzo[a,h]anthracene	**0.0046**	**U**	**mg/Kg**	**1**	0.0097	0.0046	7/28/2017 22:39	J
Fluoranthene	**0.0064**	**U**	**mg/Kg**	**1**	0.0097	0.0064	7/28/2017 22:39	J
Fluorene	**0.0043**	**U**	**mg/Kg**	**1**	0.0097	0.0043	7/28/2017 22:39	J
Indeno(1,2,3-cd)pyrene	**0.0051**	**U**	**mg/Kg**	**1**	0.0097	0.0051	7/28/2017 22:39	J
Naphthalene	**0.0030**	**U**	**mg/Kg**	**1**	0.0097	0.0030	7/28/2017 22:39	J
Phenanthrene	**0.0040**	**U**	**mg/Kg**	**1**	0.0097	0.0040	7/28/2017 22:39	J
Pyrene	**0.0035**	**U**	**mg/Kg**	**1**	0.0097	0.0035	7/28/2017 22:39	J
Nitrobenzene-d5 (S)	**69**		**%**	**1**	33-134		7/28/2017 22:39	
2-Fluorobiphenyl (S)	**68**		**%**	**1**	37-127		7/28/2017 22:39	
p-Terphenyl-d14 (S)	**79**		**%**	**1**	42-141		7/28/2017 22:39	

SEMIVOLATILES

Analysis Desc: Percent Solids,SM2540G,Soil — Analytical Method: SM 2540G

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Percent Moisture	**18**		**%**	**1**			7/31/2017 10:00	J

Lab ID: **J1707141014** Date Received: 07/18/17 08:55 Matrix: Soil
Sample ID: **SB-4 at 6** Date Collected: 07/17/17 09:41
Results for sample J1707141014 are reported on a dry weight basis.
Sample Description: Location:

METALS

Analysis Desc: SW846 6010B Analysis,Soils — Preparation Method: SW-846 3050B; Analytical Method: SW-846 6010

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Arsenic	**0.26**	**U**	**mg/Kg**	**1**	0.28	0.26	7/31/2017 17:01	J
Cadmium	**0.23**		**mg/Kg**	**1**	0.17	0.036	7/31/2017 17:01	J
Chromium	**29**		**mg/Kg**	**1**	0.11	0.068	7/31/2017 17:01	J
Lead	**12**		**mg/Kg**	**1**	0.20	0.057	7/31/2017 17:01	J

SEMIVOLATILES

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141014** Date Received: 07/18/17 08:55 Matrix: Soil

Sample ID: **SB-4 at 6** Date Collected: 07/17/17 09:41

Results for sample J1707141014 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: FL-PRO Analysis, Soil	Preparation Method: FL-PRO Analytical Method: FL-PRO							
TPH	**110**	**U**	**mg/Kg**	**10**	190	110	7/29/2017 04:37	J
o-Terphenyl (S)	**0**	**1**	**%**	**10**	62-109		7/29/2017 04:37	
Nonatricontane-C39 (S)	**0**	**1**	**%**	**10**	60-118		7/29/2017 04:37	
Analysis Desc: 8270C-SIM Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.026**	**U**	**mg/Kg**	**10**	0.090	0.026	7/29/2017 06:25	J
2-Methylnaphthalene	**0.036**	**U**	**mg/Kg**	**10**	0.090	0.036	7/29/2017 06:25	J
Acenaphthene	**0.035**	**U**	**mg/Kg**	**10**	0.090	0.035	7/29/2017 06:25	J
Acenaphthylene	**0.046**	**U**	**mg/Kg**	**10**	0.090	0.046	7/29/2017 06:25	J
Anthracene	**0.048**	**U**	**mg/Kg**	**10**	0.090	0.048	7/29/2017 06:25	J
Benzo[a]anthracene	**0.081**	**I**	**mg/Kg**	**10**	0.090	0.038	7/29/2017 06:25	J
Benzo[a]pyrene	**0.094**		**mg/Kg**	**10**	0.090	0.079	7/29/2017 06:25	J
Benzo[b]fluoranthene	**0.14**		**mg/Kg**	**10**	0.090	0.057	7/29/2017 06:25	J
Benzo[g,h,i]perylene	**0.093**		**mg/Kg**	**10**	0.090	0.064	7/29/2017 06:25	J
Benzo[k]fluoranthene	**0.058**	**U**	**mg/Kg**	**10**	0.090	0.058	7/29/2017 06:25	J
Chrysene	**0.11**		**mg/Kg**	**10**	0.090	0.047	7/29/2017 06:25	J
Dibenzo[a,h]anthracene	**0.043**	**U**	**mg/Kg**	**10**	0.090	0.043	7/29/2017 06:25	J
Fluoranthene	**0.13**		**mg/Kg**	**10**	0.090	0.060	7/29/2017 06:25	J
Fluorene	**0.040**	**U**	**mg/Kg**	**10**	0.090	0.040	7/29/2017 06:25	J
Indeno(1,2,3-cd)pyrene	**0.094**		**mg/Kg**	**10**	0.090	0.047	7/29/2017 06:25	J
Naphthalene	**0.028**	**U**	**mg/Kg**	**10**	0.090	0.028	7/29/2017 06:25	J
Phenanthrene	**0.049**	**I**	**mg/Kg**	**10**	0.090	0.037	7/29/2017 06:25	J
Pyrene	**0.15**		**mg/Kg**	**10**	0.090	0.032	7/29/2017 06:25	J
Nitrobenzene-d5 (S)	**0**	**1**	**%**	**10**	33-134		7/29/2017 06:25	
2-Fluorobiphenyl (S)	**0**	**1**	**%**	**10**	37-127		7/29/2017 06:25	
p-Terphenyl-d14 (S)	**0**	**1**	**%**	**10**	42-141		7/29/2017 06:25	

SEMIVOLATILES

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**12**		**%**	**1**			7/31/2017 10:00	J

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141015** Date Received: 07/18/17 08:55 Matrix: Soil

Sample ID: **SB-4 at 4** Date Collected: 07/17/17 09:42

Results for sample J1707141015 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B Analysis,Soils	Preparation Method: SW-846 3050B Analytical Method: SW-846 6010							
Arsenic	**0.28**	**U**	**mg/Kg**	**1**	0.31	0.28	7/31/2017 17:27	J
Cadmium	**0.039**	**U**	**mg/Kg**	**1**	0.19	0.039	7/31/2017 17:27	J
Chromium	**1.1**		**mg/Kg**	**1**	0.12	0.074	7/31/2017 17:27	J
Lead	**0.76**		**mg/Kg**	**1**	0.22	0.063	7/31/2017 17:27	J
SEMIVOLATILES								
Analysis Desc: FL-PRO Analysis, Soil	Preparation Method: FL-PRO Analytical Method: FL-PRO							
TPH	**12**	**U**	**mg/Kg**	**1**	21	12	7/28/2017 22:00	J
o-Terphenyl (S)	**80**		**%**	**1**	62-109		7/28/2017 22:00	
Nonatricontane-C39 (S)	**74**		**%**	**1**	60-118		7/28/2017 22:00	
Analysis Desc: 8270C-SIM Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.0028**	**U**	**mg/Kg**	**1**	0.0098	0.0028	7/28/2017 23:07	J
2-Methylnaphthalene	**0.0040**	**U**	**mg/Kg**	**1**	0.0098	0.0040	7/28/2017 23:07	J
Acenaphthene	**0.0038**	**U**	**mg/Kg**	**1**	0.0098	0.0038	7/28/2017 23:07	J
Acenaphthylene	**0.0050**	**U**	**mg/Kg**	**1**	0.0098	0.0050	7/28/2017 23:07	J
Anthracene	**0.0052**	**U**	**mg/Kg**	**1**	0.0098	0.0052	7/28/2017 23:07	J
Benzo[a]anthracene	**0.0042**	**U**	**mg/Kg**	**1**	0.0098	0.0042	7/28/2017 23:07	J
Benzo[a]pyrene	**0.0086**	**U**	**mg/Kg**	**1**	0.0098	0.0086	7/28/2017 23:07	J
Benzo[b]fluoranthene	**0.0062**	**U**	**mg/Kg**	**1**	0.0098	0.0062	7/28/2017 23:07	J
Benzo[g,h,i]perylene	**0.0070**	**U**	**mg/Kg**	**1**	0.0098	0.0070	7/28/2017 23:07	J
Benzo[k]fluoranthene	**0.0064**	**U**	**mg/Kg**	**1**	0.0098	0.0064	7/28/2017 23:07	J
Chrysene	**0.0051**	**U**	**mg/Kg**	**1**	0.0098	0.0051	7/28/2017 23:07	J
Dibenzo[a,h]anthracene	**0.0047**	**U**	**mg/Kg**	**1**	0.0098	0.0047	7/28/2017 23:07	J
Fluoranthene	**0.0065**	**U**	**mg/Kg**	**1**	0.0098	0.0065	7/28/2017 23:07	J
Fluorene	**0.0043**	**U**	**mg/Kg**	**1**	0.0098	0.0043	7/28/2017 23:07	J
Indeno(1,2,3-cd)pyrene	**0.0051**	**U**	**mg/Kg**	**1**	0.0098	0.0051	7/28/2017 23:07	J
Naphthalene	**0.0031**	**U**	**mg/Kg**	**1**	0.0098	0.0031	7/28/2017 23:07	J
Phenanthrene	**0.0040**	**U**	**mg/Kg**	**1**	0.0098	0.0040	7/28/2017 23:07	J
Pyrene	**0.0035**	**U**	**mg/Kg**	**1**	0.0098	0.0035	7/28/2017 23:07	J
Nitrobenzene-d5 (S)	**77**		**%**	**1**	33-134		7/28/2017 23:07	
2-Fluorobiphenyl (S)	**75**		**%**	**1**	37-127		7/28/2017 23:07	
p-Terphenyl-d14 (S)	**85**		**%**	**1**	42-141		7/28/2017 23:07	

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ANALYTICAL RESULTS

Workorder: J1707141 Perma-Fix

Lab ID: **J1707141015** Date Received: 07/18/17 08:55 Matrix: Soil

Sample ID: **SB-4 at 4** Date Collected: 07/17/17 09:42

Results for sample J1707141015 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**20**		**%**	**1**			7/31/2017 10:00	J

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ANALYTICAL RESULTS QUALIFIERS

Workorder: J1707141 Perma-Fix

PARAMETER QUALIFIERS

U	The compound was analyzed for but not detected.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
[1]	Surrogate diluted out.
J4	Estimated Result

LAB QUALIFIERS

J	DOH Certification #E82574(AEL-JAX)(FL NELAC Certification)

Amended to include results from samples taken off hold by client.

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QUALITY CONTROL DATA

Workorder: J1707141 Perma-Fix

QC Batch: DGMj/3263 Analysis Method: SW-846 6010
QC Batch Method: SW-846 3010A Prepared: 07/19/2017 09:20
Associated Lab Samples: J1707141007, J1707141008, J1707141009

METHOD BLANK: 2411742

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
METALS				
Arsenic	mg/L	0.0085	0.0085	U
Cadmium	mg/L	0.00032	0.00032	U
Chromium	mg/L	0.00050	0.00050	U
Lead	mg/L	0.0013	0.0013	U

QC Batch: EXTj/3968 Analysis Method: SW-846 8270C
QC Batch Method: SW-846 3550B Prepared: 07/19/2017 11:00
Associated Lab Samples: J1707141001, J1707141002, J1707141003, J1707141004, J1707141005, J1707141006

METHOD BLANK: 2412131

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
Phenol	mg/Kg	0.018	0.018	U
2-Chlorophenol	mg/Kg	0.014	0.014	U
2-Nitrophenol	mg/Kg	0.024	0.024	U
2,4-Dimethylphenol	mg/Kg	0.011	0.011	U
2,4-Dichlorophenol	mg/Kg	0.019	0.019	U
4-Chloro-3-methylphenol	mg/Kg	0.020	0.020	U
2,4,6-Trichlorophenol	mg/Kg	0.020	0.020	U
2,4-Dinitrophenol	mg/Kg	0.30	0.30	U
4-Nitrophenol	mg/Kg	0.028	0.028	U
2-Methyl-4,6-dinitrophenol	mg/Kg	0.31	0.31	U
Pentachlorophenol	mg/Kg	0.070	0.070	U
N-Nitrosodimethylamine	mg/Kg	0.057	0.057	U
bis(2-Chloroethyl)Ether	mg/Kg	0.063	0.063	U
1,3-Dichlorobenzene	mg/Kg	0.058	0.058	U
1,4-Dichlorobenzene	mg/Kg	0.057	0.057	U
1,2-Dichlorobenzene	mg/Kg	0.062	0.062	U
bis(2-Chloroisopropyl) Ether	mg/Kg	0.065	0.065	U
N-Nitrosodi-n-propylamine	mg/Kg	0.074	0.074	U
Hexachloroethane	mg/Kg	0.067	0.067	U
Nitrobenzene	mg/Kg	0.072	0.072	U
Isophorone	mg/Kg	0.065	0.065	U
bis(2-Chloroethoxy)methane	mg/Kg	0.065	0.065	U
1,2,4-Trichlorobenzene	mg/Kg	0.059	0.059	U

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QUALITY CONTROL DATA

Workorder: J1707141 Perma-Fix

METHOD BLANK: 2412131

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Naphthalene	mg/Kg	0.0021	0.0021	U
Hexachlorobutadiene	mg/Kg	0.050	0.050	U
Hexachlorocyclopentadiene	mg/Kg	0.060	0.060	U
2-Chloronaphthalene	mg/Kg	0.062	0.062	U
Dimethyl phthalate	mg/Kg	0.33	0.33	U
2,6-Dinitrotoluene (2,6-DNT)	mg/Kg	0.054	0.054	U
Acenaphthylene	mg/Kg	0.0034	0.0034	U
Acenaphthene	mg/Kg	0.0026	0.0026	U
2,4-Dinitrotoluene (2,4-DNT)	mg/Kg	0.062	0.062	U
Diethyl phthalate	mg/Kg	0.073	0.073	U
Fluorene	mg/Kg	0.0029	0.0029	U
4-Chlorophenyl Phenyl Ether	mg/Kg	0.074	0.074	U
1,2-Diphenylhydrazine	mg/Kg	0.064	0.064	U
4-Bromophenyl Phenyl Ether	mg/Kg	0.062	0.062	U
Hexachlorobenzene	mg/Kg	0.061	0.061	U
Phenanthrene	mg/Kg	0.0028	0.0028	U
Anthracene	mg/Kg	0.0035	0.0035	U
Di-n-Butyl Phthalate	mg/Kg	0.074	0.074	U
Fluoranthene	mg/Kg	0.0044	0.0044	U
Benzidine	mg/Kg	0.027	0.027	U
Pyrene	mg/Kg	0.0024	0.0024	U
Butyl benzyl phthalate	mg/Kg	0.070	0.070	U
Benzo[a]anthracene	mg/Kg	0.0028	0.0028	U
3,3`-Dichlorobenzidine	mg/Kg	0.068	0.068	U
Chrysene	mg/Kg	0.0035	0.0035	U
bis(2-Ethylhexyl) phthalate	mg/Kg	0.077	0.077	U
Di-n-octyl Phthalate	mg/Kg	0.079	0.079	U
Benzo[b]fluoranthene	mg/Kg	0.0042	0.0042	U
Benzo[k]fluoranthene	mg/Kg	0.0043	0.0043	U
Benzo[a]pyrene	mg/Kg	0.0059	0.0059	U
Indeno(1,2,3-cd)pyrene	mg/Kg	0.0035	0.0035	U
Dibenzo[a,h]anthracene	mg/Kg	0.0032	0.0032	U
Benzo[g,h,i]perylene	mg/Kg	0.0047	0.0047	U
N-Nitrosodiphenylamine	mg/Kg	0.070	0.070	U
2-Fluorophenol (S)	%	91	59-122	
Phenol-d6 (S)	%	92	54-124	
Nitrobenzene-d5 (S)	%	93	46-118	
2-Fluorobiphenyl (S)	%	93	54-134	
2,4,6-Tribromophenol (S)	%	102	38-141	
p-Terphenyl-d14 (S)	%	126	60-143	

QC Batch:	EXTj/3974	Analysis Method:	EPA 8081
QC Batch Method:	SW-846 3550B	Prepared:	07/19/2017 12:00

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QUALITY CONTROL DATA

Workorder: J1707141 Perma-Fix

Associated Lab Samples: J1707141001, J1707141002, J1707141003, J1707141004, J1707141005, J1707141006

METHOD BLANK: 2412994

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
alpha-BHC	ug/Kg	0.56	0.56	U
gamma-BHC (Lindane)	ug/Kg	0.58	0.58	U
beta-BHC	ug/Kg	0.38	0.38	U
delta-BHC	ug/Kg	0.39	0.39	U
Heptachlor	ug/Kg	0.62	0.62	U
Aldrin	ug/Kg	0.49	0.49	U
Heptachlor Epoxide	ug/Kg	0.45	0.45	U
Endosulfan I	ug/Kg	0.52	0.52	U
4,4`-DDE	ug/Kg	0.41	0.41	U
Dieldrin	ug/Kg	0.42	0.42	U
Endrin	ug/Kg	0.91	0.91	U
4,4`-DDD	ug/Kg	0.54	0.54	U
Endosulfan II	ug/Kg	0.35	0.35	U
Endrin Aldehyde	ug/Kg	0.55	0.55	U
4,4`-DDT	ug/Kg	0.92	0.92	U
Endosulfan Sulfate	ug/Kg	0.60	0.60	U
Methoxychlor	ug/Kg	0.67	0.67	U
Chlordane (technical)	ug/Kg	13	13	U
Toxaphene	ug/Kg	23	23	U
Tetrachloro-m-xylene (S)	%	81	42-129	
Decachlorobiphenyl (S)	%	72	63-130	

QC Batch: EXTj/3975 Analysis Method: SW-846 8082A

QC Batch Method: SW-846 3550B Prepared: 07/19/2017 12:00

Associated Lab Samples: J1707141001, J1707141002, J1707141003, J1707141004, J1707141005, J1707141006

METHOD BLANK: 2413021

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
Aroclor 1016 (PCB-1016)	ug/Kg	6.1	6.1	U
Aroclor 1221 (PCB-1221)	ug/Kg	12	12	U
Aroclor 1232 (PCB-1232)	ug/Kg	29	29	U
Aroclor 1242 (PCB-1242)	ug/Kg	7.8	7.8	U
Aroclor 1248 (PCB-1248)	ug/Kg	21	21	U
Aroclor 1254 (PCB-1254)	ug/Kg	14	14	U
Aroclor 1260 (PCB-1260)	ug/Kg	7.0	7.0	U
Tetrachloro-m-xylene (S)	%	81	44-130	
Decachlorobiphenyl (S)	%	72	61-147	

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QUALITY CONTROL DATA

Workorder: J1707141 Perma-Fix

METHOD BLANK: 2413021

QC Batch: DGMj/3265 Analysis Method: SW-846 6010
QC Batch Method: SW-846 3050B Prepared: 07/20/2017 08:38
Associated Lab Samples: J1707141001, J1707141002, J1707141003, J1707141004, J1707141005, J1707141006

METHOD BLANK: 2413085

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
METALS				
Arsenic	mg/Kg	0.23	0.23	U
Cadmium	mg/Kg	0.031	0.031	U
Chromium	mg/Kg	0.059	0.059	U
Lead	mg/Kg	0.050	0.050	U

QC Batch: EXTj/3981 Analysis Method: SW-846 8270C
QC Batch Method: SW-846 3510C Prepared: 07/20/2017 13:00
Associated Lab Samples: J1707141007, J1707141008, J1707141009

METHOD BLANK: 2414095

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
Phenol	ug/L	0.54	0.54	U
2-Chlorophenol	ug/L	1.2	1.2	U
2-Nitrophenol	ug/L	0.63	0.63	U
2,4-Dimethylphenol	ug/L	2.6	2.6	U
2,4-Dichlorophenol	ug/L	0.90	0.90	U
4-Chloro-3-methylphenol	ug/L	0.62	0.62	U
2,4,6-Trichlorophenol	ug/L	0.93	0.93	U
2,4-Dinitrophenol	ug/L	0.62	0.62	U
4-Nitrophenol	ug/L	0.62	0.62	U
2-Methyl-4,6-dinitrophenol	ug/L	0.77	0.77	U
Pentachlorophenol	ug/L	0.95	0.95	U
N-Nitrosodimethylamine	ug/L	0.62	0.62	U
bis(2-Chloroethyl)Ether	ug/L	1.5	1.5	U
1,3-Dichlorobenzene	ug/L	1.0	1.0	U
1,4-Dichlorobenzene	ug/L	1.2	1.2	U
1,2-Dichlorobenzene	ug/L	1.4	1.4	U
bis(2-Chloroisopropyl) Ether	ug/L	1.4	1.4	U
N-Nitrosodi-n-propylamine	ug/L	2.2	2.2	U
Hexachloroethane	ug/L	1.2	1.2	U
Nitrobenzene	ug/L	1.1	1.1	U

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QUALITY CONTROL DATA

Workorder: J1707141 Perma-Fix

METHOD BLANK: 2414095

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Isophorone	ug/L	1.1	1.1	U
bis(2-Chloroethoxy)methane	ug/L	1.2	1.2	U
1,2,4-Trichlorobenzene	ug/L	0.69	0.69	U
Hexachlorobutadiene	ug/L	0.87	0.87	U
Hexachlorocyclopentadiene	ug/L	0.99	0.99	U
2-Chloronaphthalene	ug/L	0.97	0.97	U
Dimethyl phthalate	ug/L	9.9	9.9	U
2,6-Dinitrotoluene (2,6-DNT)	ug/L	1.1	1.1	U
2,4-Dinitrotoluene (2,4-DNT)	ug/L	0.60	0.60	U
Diethyl phthalate	ug/L	0.98	0.98	U
4-Chlorophenyl Phenyl Ether	ug/L	0.69	0.69	U
1,2-Diphenylhydrazine	ug/L	0.96	0.96	U
4-Bromophenyl Phenyl Ether	ug/L	1.1	1.1	U
Hexachlorobenzene	ug/L	0.99	0.99	U
Di-n-Butyl Phthalate	ug/L	0.88	0.88	U
Benzidine	ug/L	0.74	0.74	U
Butyl benzyl phthalate	ug/L	1.1	1.1	U
3,3`-Dichlorobenzidine	ug/L	1.3	1.3	U
bis(2-Ethylhexyl) phthalate	ug/L	2.0	2.0	U
Di-n-octyl Phthalate	ug/L	1.2	1.2	U
N-Nitrosodiphenylamine	ug/L	0.59	0.59	U
2-Fluorophenol (S)	%	63	31-134	
Phenol-d6 (S)	%	56	24-120	
Nitrobenzene-d5 (S)	%	77	38-139	
2-Fluorobiphenyl (S)	%	78	42-138	
2,4,6-Tribromophenol (S)	%	105	48-147	
p-Terphenyl-d14 (S)	%	116	61-154	

QC Batch: EXTj/3985 Analysis Method: SW-846 8082A

QC Batch Method: SW-846 3510C Prepared: 07/19/2017 14:00

Associated Lab Samples: J1707141007, J1707141008, J1707141009

METHOD BLANK: 2414194

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
Aroclor 1016 (PCB-1016)	ug/L	0.065	0.065	U
Aroclor 1221 (PCB-1221)	ug/L	0.11	0.11	U
Aroclor 1232 (PCB-1232)	ug/L	0.097	0.097	U
Aroclor 1242 (PCB-1242)	ug/L	0.096	0.096	U
Aroclor 1248 (PCB-1248)	ug/L	0.067	0.067	U
Aroclor 1254 (PCB-1254)	ug/L	0.051	0.051	U

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QUALITY CONTROL DATA

Workorder: J1707141 Perma-Fix

METHOD BLANK: 2414194

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Aroclor 1260 (PCB-1260)	ug/L	0.080	0.080	U
Tetrachloro-m-xylene (S)	%	98	61-119	
Decachlorobiphenyl (S)	%	94	44-136	

QC Batch: EXTj/3986 Analysis Method: EPA 8081

QC Batch Method: SW-846 3510C Prepared: 07/19/2017 14:00

Associated Lab Samples: J1707141007, J1707141008, J1707141009

METHOD BLANK: 2414197

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
alpha-BHC	ug/L	0.0030	0.0030	U
gamma-BHC (Lindane)	ug/L	0.0018	0.0018	U
beta-BHC	ug/L	0.0019	0.0019	U
delta-BHC	ug/L	0.00086	0.00086	U
Heptachlor	ug/L	0.0035	0.0035	U
Aldrin	ug/L	0.0019	0.0019	U
Heptachlor Epoxide	ug/L	0.0017	0.0017	U
Endosulfan I	ug/L	0.0031	0.0031	U
4,4`-DDE	ug/L	0.0037	0.0037	U
Dieldrin	ug/L	0.0011	0.0011	U
Endrin	ug/L	0.0017	0.0017	U
4,4`-DDD	ug/L	0.0016	0.0016	U
Endosulfan II	ug/L	0.0026	0.0026	U
Endrin Aldehyde	ug/L	0.0025	0.0025	U
4,4`-DDT	ug/L	0.0021	0.0021	U
Endosulfan Sulfate	ug/L	0.0032	0.0032	U
Methoxychlor	ug/L	0.0058	0.0058	U
Chlordane (technical)	ug/L	0.053	0.053	U
Toxaphene	ug/L	0.12	0.12	U
Tetrachloro-m-xylene (S)	%	98	44-124	
Decachlorobiphenyl (S)	%	94	48-137	

QC Batch: MSVj/4403 Analysis Method: SW-846 8260B

QC Batch Method: SW-846 5035 Prepared: 07/20/2017 10:24

Associated Lab Samples: J1707141001, J1707141002, J1707141003, J1707141004, J1707141005, J1707141006

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QUALITY CONTROL DATA

Workorder: J1707141 Perma-Fix

METHOD BLANK: 2414209

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
VOLATILES				
Dichlorodifluoromethane	ug/Kg	0.84	0.84	U
Chloromethane	ug/Kg	1.0	1.0	U
Vinyl Chloride	ug/Kg	1.2	1.2	U
Bromomethane	ug/Kg	1.3	1.3	U
Chloroethane	ug/Kg	1.0	1.0	U
Trichlorofluoromethane	ug/Kg	0.91	0.91	U
Acrolein (Propenal)	ug/Kg	4.1	4.1	U
1,1-Dichloroethylene	ug/Kg	1.2	1.2	U
Acrylonitrile	ug/Kg	5.2	5.2	U
Methylene Chloride	ug/Kg	2.8	2.8	U
trans-1,2-Dichloroethylene	ug/Kg	0.98	0.98	U
1,1-Dichloroethane	ug/Kg	1.3	1.3	U
cis-1,2-Dichloroethylene	ug/Kg	1.4	1.4	U
Chloroform	ug/Kg	1.3	1.3	U
1,2-Dichloroethane	ug/Kg	1.4	1.4	U
1,1,1-Trichloroethane	ug/Kg	1.4	1.4	U
Carbon Tetrachloride	ug/Kg	1.4	1.4	U
Benzene	ug/Kg	1.2	1.2	U
1,2-Dichloropropane	ug/Kg	1.2	1.2	U
Trichloroethene	ug/Kg	1.0	1.0	U
Bromodichloromethane	ug/Kg	1.3	1.3	U
2-Chloroethyl Vinyl Ether	ug/Kg	0.76	0.76	U
cis-1,3-Dichloropropene	ug/Kg	1.1	1.1	U
trans-1,3-Dichloropropylene	ug/Kg	0.75	0.75	U
1,1,2-Trichloroethane	ug/Kg	1.3	1.3	U
Toluene	ug/Kg	1.4	1.4	U
Dibromochloromethane	ug/Kg	1.3	1.3	U
Tetrachloroethylene (PCE)	ug/Kg	1.2	1.2	U
Chlorobenzene	ug/Kg	1.4	1.4	U
Ethylbenzene	ug/Kg	1.1	1.1	U
Bromoform	ug/Kg	1.9	1.9	U
1,1,2,2-Tetrachloroethane	ug/Kg	2.0	2.0	U
1,3-Dichlorobenzene	ug/Kg	1.3	1.3	U
1,4-Dichlorobenzene	ug/Kg	1.1	1.1	U
1,2-Dichlorobenzene	ug/Kg	1.3	1.3	U
Xylene (Total)	ug/Kg	3.8	3.8	U
1,2-Dichloroethane-d4 (S)	%	99	69-134	
Toluene-d8 (S)	%	95	72-122	
Bromofluorobenzene (S)	%	105	79-126	

QC Batch:	EXTj/3989	Analysis Method:	FL-PRO
QC Batch Method:	FL-PRO	Prepared:	07/21/2017 14:00

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QUALITY CONTROL DATA

Workorder: J1707141 Perma-Fix

Associated Lab Samples: J1707141001, J1707141002, J1707141003, J1707141004

METHOD BLANK: 2414998

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
TPH	mg/Kg	9.8	9.8	U
o-Terphenyl (S)	%	75	62-109	
Nonatricontane-C39 (S)	%	81	60-118	

QC Batch: EXTj/3991 Analysis Method: SW-846 8270C (SIM)

QC Batch Method: SW-846 3510C Prepared: 07/20/2017 13:00

Associated Lab Samples: J1707141007, J1707141008, J1707141009

METHOD BLANK: 2415435

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
Naphthalene	ug/L	0.048	0.048	U
2-Methylnaphthalene	ug/L	0.049	0.049	U
1-Methylnaphthalene	ug/L	0.050	0.050	U
Acenaphthylene	ug/L	0.042	0.042	U
Acenaphthene	ug/L	0.040	0.040	U
Fluorene	ug/L	0.038	0.038	U
Phenanthrene	ug/L	0.040	0.040	U
Anthracene	ug/L	0.035	0.035	U
Fluoranthene	ug/L	0.037	0.037	U
Pyrene	ug/L	0.036	0.036	U
Benzo[a]anthracene	ug/L	0.012	0.012	U
Chrysene	ug/L	0.033	0.033	U
Benzo[b]fluoranthene	ug/L	0.012	0.012	U
Benzo[k]fluoranthene	ug/L	0.048	0.048	U
Benzo[a]pyrene	ug/L	0.037	0.037	U
Indeno(1,2,3-cd)pyrene	ug/L	0.011	0.011	U
Dibenzo[a,h]anthracene	ug/L	0.024	0.024	U
Benzo[g,h,i]perylene	ug/L	0.048	0.048	U
Nitrobenzene-d5 (S)	%	77	34-139	
2-Fluorobiphenyl (S)	%	78	36-125	
p-Terphenyl-d14 (S)	%	116	41-138	

QC Batch: EXTj/3992 Analysis Method: FL-PRO

QC Batch Method: FL-PRO Prepared: 07/21/2017 17:30

Associated Lab Samples: J1707141007, J1707141008, J1707141009

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QUALITY CONTROL DATA

Workorder: J1707141 Perma-Fix

METHOD BLANK: 2415439

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
TPH	ug/L	600	600	U
o-Terphenyl (S)	%	101	82-142	
Nonatricontane-C39 (S)	%	78	42-193	

QC Batch: EXTj/3996 Analysis Method: FL-PRO
QC Batch Method: FL-PRO Prepared: 07/23/2017 13:00
Associated Lab Samples: J1707141005, J1707141006

METHOD BLANK: 2415455

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
TPH	mg/Kg	9.8	9.8	U
o-Terphenyl (S)	%	93	62-109	
Nonatricontane-C39 (S)	%	69	60-118	

QC Batch: MSVj/4422 Analysis Method: SW-846 8260B
QC Batch Method: SW-846 5030B Prepared: 07/21/2017 11:06
Associated Lab Samples: J1707141007, J1707141008, J1707141009

METHOD BLANK: 2415489

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
VOLATILES				
Dichlorodifluoromethane	ug/L	0.15	0.15	U
Chloromethane	ug/L	0.21	0.21	U
Vinyl Chloride	ug/L	0.20	0.20	U
Bromomethane	ug/L	0.24	0.24	U
Chloroethane	ug/L	0.33	0.33	U
Trichlorofluoromethane	ug/L	0.32	0.32	U
Acrolein (Propenal)	ug/L	1.6	1.6	U
1,1-Dichloroethylene	ug/L	0.18	0.18	U
Acrylonitrile	ug/L	1.1	1.1	U
Methylene Chloride	ug/L	2.5	2.5	U
trans-1,2-Dichloroethylene	ug/L	0.20	0.20	U
1,1-Dichloroethane	ug/L	0.14	0.14	U
cis-1,2-Dichloroethylene	ug/L	0.24	0.24	U

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QUALITY CONTROL DATA

Workorder: J1707141 Perma-Fix

METHOD BLANK: 2415489

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloroform	ug/L	0.18	0.18	U
1,2-Dichloroethane	ug/L	0.23	0.23	U
1,1,1-Trichloroethane	ug/L	0.22	0.22	U
Carbon Tetrachloride	ug/L	0.36	0.36	U
Benzene	ug/L	0.16	0.16	U
1,2-Dichloropropane	ug/L	0.20	0.20	U
Trichloroethene	ug/L	0.29	0.29	U
Bromodichloromethane	ug/L	0.25	0.25	U
2-Chloroethyl Vinyl Ether	ug/L	0.20	0.20	U
cis-1,3-Dichloropropene	ug/L	0.16	0.16	U
trans-1,3-Dichloropropylene	ug/L	0.18	0.18	U
1,1,2-Trichloroethane	ug/L	0.30	0.30	U
Toluene	ug/L	0.23	0.23	U
Dibromochloromethane	ug/L	0.33	0.33	U
Tetrachloroethylene (PCE)	ug/L	0.36	0.36	U
Chlorobenzene	ug/L	0.21	0.21	U
Ethylbenzene	ug/L	0.24	0.24	U
Bromoform	ug/L	0.43	0.43	U
1,1,2,2-Tetrachloroethane	ug/L	0.20	0.20	U
1,3-Dichlorobenzene	ug/L	0.19	0.19	U
1,4-Dichlorobenzene	ug/L	0.22	0.22	U
1,2-Dichlorobenzene	ug/L	0.18	0.18	U
Xylene (Total)	ug/L	0.53	0.53	U
1,2-Dichloroethane-d4 (S)	%	90	70-128	
Toluene-d8 (S)	%	95	77-119	
Bromofluorobenzene (S)	%	111	86-123	

QC Batch: EXTj/4022 Analysis Method: FL-PRO

QC Batch Method: FL-PRO Prepared: 07/27/2017 17:30

Associated Lab Samples: J1707141010, J1707141011, J1707141012, J1707141013, J1707141014, J1707141015

METHOD BLANK: 2420450

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
TPH	mg/Kg	9.7	9.7	U
o-Terphenyl (S)	%	90	62-109	
Nonatricontane-C39 (S)	%	88	60-118	

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QUALITY CONTROL DATA

Workorder: J1707141 Perma-Fix

QC Batch:	EXTj/4023	Analysis Method:	SW-846 8270C (SIM)
QC Batch Method:	SW-846 3550B	Prepared:	07/27/2017 17:30

Associated Lab Samples: J1707141010, J1707141011, J1707141012, J1707141013, J1707141014, J1707141015

METHOD BLANK: 2420454

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
Naphthalene	mg/Kg	0.0021	0.0021	U
2-Methylnaphthalene	mg/Kg	0.0027	0.0027	U
1-Methylnaphthalene	mg/Kg	0.0019	0.0019	U
Acenaphthylene	mg/Kg	0.0034	0.0034	U
Acenaphthene	mg/Kg	0.0026	0.0026	U
Fluorene	mg/Kg	0.0029	0.0029	U
Phenanthrene	mg/Kg	0.0027	0.0027	U
Anthracene	mg/Kg	0.0035	0.0035	U
Fluoranthene	mg/Kg	0.0044	0.0044	U
Pyrene	mg/Kg	0.0024	0.0024	U
Benzo[a]anthracene	mg/Kg	0.0028	0.0028	U
Chrysene	mg/Kg	0.0035	0.0035	U
Benzo[b]fluoranthene	mg/Kg	0.0042	0.0042	U
Benzo[k]fluoranthene	mg/Kg	0.0043	0.0043	U
Benzo[a]pyrene	mg/Kg	0.0058	0.0058	U
Indeno(1,2,3-cd)pyrene	mg/Kg	0.0035	0.0035	U
Dibenzo[a,h]anthracene	mg/Kg	0.0032	0.0032	U
Benzo[g,h,i]perylene	mg/Kg	0.0047	0.0047	U
Nitrobenzene-d5 (S)	%	63	33-134	
2-Fluorobiphenyl (S)	%	61	37-127	
p-Terphenyl-d14 (S)	%	77	42-141	

QC Batch:	DGMj/3306	Analysis Method:	SW-846 6010
QC Batch Method:	SW-846 3050B	Prepared:	07/28/2017 09:30

Associated Lab Samples: J1707141010, J1707141011, J1707141012, J1707141013, J1707141014, J1707141015

METHOD BLANK: 2420467

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
METALS				
Arsenic	mg/Kg	0.23	0.23	U
Cadmium	mg/Kg	0.031	0.031	U
Chromium	mg/Kg	0.059	0.059	U

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QUALITY CONTROL DATA

Workorder: J1707141 Perma-Fix

METHOD BLANK: 2420467

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
METALS				
Lead	mg/Kg	0.050	0.050	U

QUALITY CONTROL DATA QUALIFIERS

Workorder: J1707141 Perma-Fix

QUALITY CONTROL PARAMETER QUALIFIERS

U The compound was analyzed for but not detected.

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J1 Surrogate Failure

J4 Estimated Result

[1] Surrogate diluted out.

[2] Surrogated diluted out.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J1707141 Perma-Fix

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
J1707141007	SW-1	SW-846 3010A	DGMj/3263	SW-846 6010	ICPj/2125
J1707141008	SW-2	SW-846 3010A	DGMj/3263	SW-846 6010	ICPj/2125
J1707141009	SW-3	SW-846 3010A	DGMj/3263	SW-846 6010	ICPj/2125
J1707141001	SB-3 at 6	SW-846 3550B	EXTj/3968	SW-846 8270C	MSSj/2281
J1707141002	SB-3 at 4	SW-846 3550B	EXTj/3968	SW-846 8270C	MSSj/2281
J1707141003	SB-2 at 1.5	SW-846 3550B	EXTj/3968	SW-846 8270C	MSSj/2281
J1707141004	SB-2 at 4	SW-846 3550B	EXTj/3968	SW-846 8270C	MSSj/2281
J1707141005	SB-1 at 1	SW-846 3550B	EXTj/3968	SW-846 8270C	MSSj/2281
J1707141006	SB-1 at 4	SW-846 3550B	EXTj/3968	SW-846 8270C	MSSj/2281
J1707141001	SB-3 at 6	SW-846 3550B	EXTj/3974	EPA 8081	GCSj/3028
J1707141002	SB-3 at 4	SW-846 3550B	EXTj/3974	EPA 8081	GCSj/3028
J1707141003	SB-2 at 1.5	SW-846 3550B	EXTj/3974	EPA 8081	GCSj/3028
J1707141004	SB-2 at 4	SW-846 3550B	EXTj/3974	EPA 8081	GCSj/3028
J1707141005	SB-1 at 1	SW-846 3550B	EXTj/3974	EPA 8081	GCSj/3028
J1707141006	SB-1 at 4	SW-846 3550B	EXTj/3974	EPA 8081	GCSj/3028
J1707141001	SB-3 at 6	SW-846 3550B	EXTj/3975	SW-846 8082A	GCSj/3029
J1707141002	SB-3 at 4	SW-846 3550B	EXTj/3975	SW-846 8082A	GCSj/3029
J1707141003	SB-2 at 1.5	SW-846 3550B	EXTj/3975	SW-846 8082A	GCSj/3029
J1707141004	SB-2 at 4	SW-846 3550B	EXTj/3975	SW-846 8082A	GCSj/3029
J1707141005	SB-1 at 1	SW-846 3550B	EXTj/3975	SW-846 8082A	GCSj/3029
J1707141006	SB-1 at 4	SW-846 3550B	EXTj/3975	SW-846 8082A	GCSj/3029
J1707141001	SB-3 at 6	SW-846 3050B	DGMj/3265	SW-846 6010	ICPj/2127
J1707141002	SB-3 at 4	SW-846 3050B	DGMj/3265	SW-846 6010	ICPj/2127
J1707141003	SB-2 at 1.5	SW-846 3050B	DGMj/3265	SW-846 6010	ICPj/2127
J1707141004	SB-2 at 4	SW-846 3050B	DGMj/3265	SW-846 6010	ICPj/2127
J1707141005	SB-1 at 1	SW-846 3050B	DGMj/3265	SW-846 6010	ICPj/2127
J1707141006	SB-1 at 4	SW-846 3050B	DGMj/3265	SW-846 6010	ICPj/2127
J1707141001	SB-3 at 6			SM 2540G	WCAj/4644

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J1707141 Perma-Fix

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
J1707141002	SB-3 at 4			SM 2540G	WCAj/4644
J1707141003	SB-2 at 1.5			SM 2540G	WCAj/4644
J1707141004	SB-2 at 4			SM 2540G	WCAj/4644
J1707141005	SB-1 at 1			SM 2540G	WCAj/4644
J1707141006	SB-1 at 4			SM 2540G	WCAj/4644
J1707141007	SW-1	SW-846 3510C	EXTj/3981	SW-846 8270C	MSSj/2279
J1707141008	SW-2	SW-846 3510C	EXTj/3981	SW-846 8270C	MSSj/2279
J1707141009	SW-3	SW-846 3510C	EXTj/3981	SW-846 8270C	MSSj/2279
J1707141007	SW-1	SW-846 3510C	EXTj/3985	SW-846 8082A	GCSj/3031
J1707141008	SW-2	SW-846 3510C	EXTj/3985	SW-846 8082A	GCSj/3031
J1707141009	SW-3	SW-846 3510C	EXTj/3985	SW-846 8082A	GCSj/3031
J1707141007	SW-1	SW-846 3510C	EXTj/3986	EPA 8081	GCSj/3030
J1707141008	SW-2	SW-846 3510C	EXTj/3986	EPA 8081	GCSj/3030
J1707141009	SW-3	SW-846 3510C	EXTj/3986	EPA 8081	GCSj/3030
J1707141001	SB-3 at 6	SW-846 5035	MSVj/4403	SW-846 8260B	MSVj/4404
J1707141002	SB-3 at 4	SW-846 5035	MSVj/4403	SW-846 8260B	MSVj/4404
J1707141003	SB-2 at 1.5	SW-846 5035	MSVj/4403	SW-846 8260B	MSVj/4404
J1707141004	SB-2 at 4	SW-846 5035	MSVj/4403	SW-846 8260B	MSVj/4404
J1707141005	SB-1 at 1	SW-846 5035	MSVj/4403	SW-846 8260B	MSVj/4404
J1707141006	SB-1 at 4	SW-846 5035	MSVj/4403	SW-846 8260B	MSVj/4404
J1707141001	SB-3 at 6	FL-PRO	EXTj/3989	FL-PRO	GCSj/3039
J1707141002	SB-3 at 4	FL-PRO	EXTj/3989	FL-PRO	GCSj/3039
J1707141003	SB-2 at 1.5	FL-PRO	EXTj/3989	FL-PRO	GCSj/3039
J1707141004	SB-2 at 4	FL-PRO	EXTj/3989	FL-PRO	GCSj/3039
J1707141007	SW-1	SW-846 3510C	EXTj/3991	SW-846 8270C (SIM)	MSSj/2282
J1707141008	SW-2	SW-846 3510C	EXTj/3991	SW-846 8270C (SIM)	MSSj/2282
J1707141009	SW-3	SW-846 3510C	EXTj/3991	SW-846 8270C (SIM)	MSSj/2282

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J1707141 Perma-Fix

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
J1707141007	SW-1	FL-PRO	EXTj/3992	FL-PRO	GCSj/3037
J1707141008	SW-2	FL-PRO	EXTj/3992	FL-PRO	GCSj/3037
J1707141009	SW-3	FL-PRO	EXTj/3992	FL-PRO	GCSj/3037
J1707141005	SB-1 at 1	FL-PRO	EXTj/3996	FL-PRO	GCSj/3049
J1707141006	SB-1 at 4	FL-PRO	EXTj/3996	FL-PRO	GCSj/3049
J1707141007	SW-1	SW-846 5030B	MSVj/4422	SW-846 8260B	MSVj/4423
J1707141008	SW-2	SW-846 5030B	MSVj/4422	SW-846 8260B	MSVj/4423
J1707141009	SW-3	SW-846 5030B	MSVj/4422	SW-846 8260B	MSVj/4423
J1707141010	SB-6 at 6	FL-PRO	EXTj/4022	FL-PRO	GCSj/3063
J1707141011	SB-6 at 4	FL-PRO	EXTj/4022	FL-PRO	GCSj/3063
J1707141012	SB-5 at 6	FL-PRO	EXTj/4022	FL-PRO	GCSj/3063
J1707141013	SB-5 at 4	FL-PRO	EXTj/4022	FL-PRO	GCSj/3063
J1707141014	SB-4 at 6	FL-PRO	EXTj/4022	FL-PRO	GCSj/3063
J1707141015	SB-4 at 4	FL-PRO	EXTj/4022	FL-PRO	GCSj/3063
J1707141010	SB-6 at 6	SW-846 3550B	EXTj/4023	SW-846 8270C (SIM)	MSSj/2296
J1707141011	SB-6 at 4	SW-846 3550B	EXTj/4023	SW-846 8270C (SIM)	MSSj/2296
J1707141012	SB-5 at 6	SW-846 3550B	EXTj/4023	SW-846 8270C (SIM)	MSSj/2296
J1707141013	SB-5 at 4	SW-846 3550B	EXTj/4023	SW-846 8270C (SIM)	MSSj/2296
J1707141014	SB-4 at 6	SW-846 3550B	EXTj/4023	SW-846 8270C (SIM)	MSSj/2296
J1707141015	SB-4 at 4	SW-846 3550B	EXTj/4023	SW-846 8270C (SIM)	MSSj/2296
J1707141010	SB-6 at 6	SW-846 3050B	DGMj/3306	SW-846 6010	ICPj/2146
J1707141011	SB-6 at 4	SW-846 3050B	DGMj/3306	SW-846 6010	ICPj/2146
J1707141012	SB-5 at 6	SW-846 3050B	DGMj/3306	SW-846 6010	ICPj/2146
J1707141013	SB-5 at 4	SW-846 3050B	DGMj/3306	SW-846 6010	ICPj/2146
J1707141014	SB-4 at 6	SW-846 3050B	DGMj/3306	SW-846 6010	ICPj/2146
J1707141015	SB-4 at 4	SW-846 3050B	DGMj/3306	SW-846 6010	ICPj/2146
J1707141010	SB-6 at 6			SM 2540G	WCAj/4710

Advanced Environmental Laboratories, Inc
6681 Southpoint Pkwy Jacksonville, FL 32216
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
Phone: (904)363-9350
Fax: (904)363-9354

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J1707141 Perma-Fix

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
J1707141011	SB-6 at 4			SM 2540G	WCAj/4710
J1707141012	SB-5 at 6			SM 2540G	WCAj/4710
J1707141013	SB-5 at 4			SM 2540G	WCAj/4710
J1707141014	SB-4 at 6			SM 2540G	WCAj/4710
J1707141015	SB-4 at 4			SM 2540G	WCAj/4710

CERTIFICATE OF ANALYSIS

Advanced Environmental Laboratories, Inc.
Florida's Largest Laboratory Network
☐ Altamonte Springs: 380 Northlake Blvd., Ste. 1048 • Altamonte Springs, FL 32701 • 407.937.1594 • F
☒ Jacksonville: 6681 Southpoint Pkwy. • Jacksonville, FL 32216 • 904.363.9350 • Fax 904.363.9354
☐ Tallahassee: 2639 North Monroe St., Suite D, Tallahassee, FL 32303 • 850.219.6274 • Fax 850.219.6277
2608 • 352.377.2349 • Fax 352.395.6639
5 • 954.889.2288 • Fax 954.889.2281
• 813.630.9616 • Fax 813.630.4327

J1707141

Client Name: AECOM
Address: 4168 Southpoint PKWY, Jacksonville, Florida 32216
Phone:
FAX:
Contact: Bill Kelly
Sampled By: Bobby Fleming
Turn Around Time: ☒ STANDARD ☐ RUSH
AEL Profile #:

Project Name: Perma-Fix
Project Number: 60541241
PO Number:
FDEP Facility No:
FDEP Facility Address: 1940 NW 67th Place, Gainesville, Florida
Special Instructions: Jax Hotline: 32705
HOLD SB-6at6"; SB-6at4'; SB-5at6"; SB-5at4'; SB-4at4'; SB-4at6"
☐ ADaPT ☐ EQuIS ☐ Other

BOTTLE SIZE & TYPE

ANALYSIS REQUIRED: PPVOC 8260 | PBVOC 8270 | Non PP Organics (TICs) | PCB/Pest 8082/8081 | TPH FL-Pro | 4RCRA Metals 6010 | PAH 8270 | PAH/FL-PRO | RCRA 14

SAMPLE ID	SAMPLE DESCRIPTION	Grab/Comp	DATE	TIME	MATRIX	NO. COUNT	Preservation / Field-Filtered?	PPVOC 8260	PBVOC 8270	Non PP Organics (TICs)	PCB/Pest 8082/8081	TPH FL-Pro	4RCRA Metals 6010	PAH 8270	PAH/FL-PRO	RCRA 14	LABORATORY I.D. NUMBER
SB-6at6"	HOLD	Grab	7/17/17	0908	Soil	6		X	X		X	X	X	X	X	X	-10
SB-6at4'				0915													-11
SB-5at6"				0918													-12
SB-5at4'				0922													-13
SB-4at6"				0941													-14
SB-4at4'				0942													-15
SB-3at6"				1006													-01
SB-3at4'				1010													-02
SB-2at1.5'				1140													-03
SB-2at4'				1145													-04

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge
Preservation Code: I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice ☑ Yes ☐ No ☑ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked
Temp. when received (observed) 4 °C Temp. when received (corrected) 5 °C
DCN: AD-051 Form last revised 11/17/16
Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Robert M. [signature]	7-18-17	0855	[signature]	7-18-17	0855
2						
3						
4						

FOR DRINKING WATER USE:
(When PWS Information not otherwise supplied) PWS ID:
Contact Person: Phone:
Supplier of Water:
Site-Address:

Advanced Environmental Laboratories, Inc.
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☐ **Altamonte Springs:** 380 Northlake Blvd., Ste. 1048 • Altamonte Springs, FL 32701 • 407.937.1594 • Fa
☒ **Jacksonville:** 6681 Southpoint Pkwy. • Jacksonville, FL 32216 • 904.363.9350 • Fax 904.363.9354
☐ **Tallahassee:** 2639 North Monroe St., Suite D, Tallahassee, FL 32303 • 850.219.6274 • Fax 850.219.627

J1707141

2608 • 352.377.2349 • Fax 352.395.6639
5 • 954.889.2288 • Fax 954.889.2281
• 813.630.9616 • Fax 813.630.4327

Client Name: AECOM	Project Name: Perma-Fix
Address: 4168 Southpoint PKWY Jacksonville, Florida 32216	Project Number: 60541241
Phone:	PO Number:
FAX:	FDEP Facility No:
Contact: Bill Kelly	FDEP Facility Address: 1940 NW 67th Place Gainesville, Florida
Sampled By: Robby Fleming	Special Instructions: Lik Profile. 52705 HOLD SB-1at10'
Turn Around Time: ☒ STANDARD ☐ RUSH	☐ ADaPT ☐ EQuIS ☐ Other
AEL Profile #:	

ANALYSIS REQUIRED

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	PPVOC 8260	PP SVOC 8270	Non PP organics (TICS)	PCB 8082 / Pest 8081	TPH FL-Pro	4 RCRA Metals 6010	PAH 8270	LABORATORY I.D. NUMBER
SB-1at1'		Grab	7/17/17	1258	Soil	6	X	X		X	X	X	X	-05
SB-1at4'		|	|	1305	|	|	X	X		X	X	X	X	-06
SB-1at10'	HOLD	|	|	1315	|	|	X	X		X	X	X	X	
SW-1		Grab	|	1357	SW	7	X	X	X	X	X	X		-07
SW-2		|	|	1404	|	|	X	X	X	X	X	X		-08
SW-3		|	|	1432	|	|	X	X	X	X	X	X		-09

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge

Preservation Code: I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice ☑ Yes ☐ No ☑ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked

Temp. when received (observed) 4 °C Temp. when received (corrected) 5 °C

DCN: AD-051 Form last revised 11/17/16

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Robert McFlee	7-18-17	0855	[signature]	7/18/17	0855
2						
3						
4						

FOR DRINKING WATER USE:
(When PWS Information not otherwise supplied) PWS ID:
Contact Person: Phone:
Supplier of Water:
Site-Address:

Advanced Environmental Labs Inc

Client: AECOM

Project name: Perma-Fix

Date/Time Rcvd: 7-18-17 8:55

Log-In request number: J1707141

Received by: BY

Completed by: BA

Cooler/Shipping Information:

Courier: ☐ AEL ☒ Client ☐ UPS ☐ Blue Streak ☐ FedEx ☐ AES ☐ ASAP ☐ Other (describe): ______

Type: ☒ Cooler ☐ Box ☐ Other (describe) ______

Cooler temperature: Identify the cooler and document the temperature blank or ice water measurement

Cooler ID					
Temp (°C)	4°C				
Temp taken from	☒ Sample Bottle ☐ Cooler	☐ Sample Bottle ☐ Cooler	☐ Sample Bottle ☐ Cooler	☐ Sample Bottle ☐ Cooler	☐ Sample Bottle ☐ Cooler
Temp measured with	☒ IR gun S/N 9333779 ☐ Thermometer (enter ID):	☐ IR gun S/N 9333779 ☐ Thermometer (enter ID):	☐ IR gun S/N 9333779 ☐ Thermometer (enter ID):	☐ IR gun S/N 9333779 ☐ Thermometer (enter ID):	☐ IR gun S/N 9333779 ☐ Thermometer (enter ID):

Other Information:

Any discrepancies should be explained in the "Comments" section below.

CHECKLIST	YES	NO	NA
1. Were custody seals on shipping container(s) intact?			✓
2. Were custody papers properly included with samples?	✓		
3. Were custody papers properly filled out (ink, signed, match labels)?	✓		
4. Did all bottles arrive in good condition (unbroken)?	✓		
5. Were all bottle labels complete (sample #, date, signed, analysis, preservatives)?	✓		
6. Did the sample labels agree with the chain of custody?	✓		
7. Were correct bottles used for the tests indicated?	✓		
8. Were proper sample preservation techniques indicated on the label?	✓		
9. Were samples received within holding times?	✓		
10. Were all VOA vials free of the presence of air bubbles?	✓	✓	
11. Have all Soil VOA Vials and Encores been placed in a freezer within 48 hours of collection?	✓		
12. Were samples in direct contact with wet ice? If "No," check one: ☐ NO ICE ☐ BLUE ICE	✓		
13. Was the cooler temperature less than 6°C?	✓		
14. Where pH preservation is required, are sample pHs checked and any anomalies recorded by Sample control? Are all <2 or >10? Note: VOA samples are checked by laboratory analysts.	✓		
15. Was sufficient sample volume provided to perform all tests?	✓		
16. If for Bacteriological testing, were containers supplied by AEL? (See QA officer if answer is no)			✓
17. Were all sample containers provided by AEL? (Other than Bacteriological)	✓		
18. Were samples accepted into the laboratory?	✓		
19. When necessary to split samples into other bottles, is it noted in the comments?	✓		

Comments: (Note all sample(s) and container (s)" with a "No" checklist response in this comment section)

-008 the HCl vial had a large air bubble

DCN: AD-D048
Eff date 2/3/10, Last rev 9/6/16

Advanced Environmental Laboratories, Inc.

Queue: GCSj

Batch Number: 3028

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.

Analysis: All holding times were met.

III. Method

Analysis: EPA 8081

Preparation: SW-846 3550B

IV. Preparation

All samples in batch GCSj:3028 were Florisil cleaned as per EPA method 3620C.

V. Analysis

A. Calibration: The upper control criterion was exceeded for several target analytes in the Continuing Calibration Verification (CCV) standard for batch GCSj:3028, indicating increased sensitivity. The client samples reported in this batch did not contain the analytes in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

B. Blanks: All acceptance criteria were met.

C. Surrogates: The control criteria for the following surrogates in 2412996 (MS), 2412997 (MSD), and J1707141001-6 are not applicable: Tetrachloro-m-xylene and Decachlorobiphenyl. The analysis of the samples required dilutions, which resulted in surrogate concentrations below the Practical Quantitation Limit (PQL). No further corrective action was required.

D. Spikes: The control criteria for the spiking analytes in 2412996 (MS) and 2412997 (MSD) for sample J1707141003 are not applicable. The analysis of the samples required dilutions, which resulted in spike concentrations below the Practical Quantitation Limit (PQL). No further corrective action was required.

E. Internal Standard:

F. Samples: The following samples were analyzed at dilution due to sample matrix interference: 2412996 (MS), 2412997 (MSD), and J1707141001-6. As physical evidence of the sample matrix interferences: the extracts were a yellow and/or brown hue, emitted a strong odor, and contained particulates.

G. Other:

I certify that this data package is in compliance with the terms and conditions agreed to by Advanced Environmental Laboratories, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Quality Assurance Officer, or designee, as verified by the following signature, has authorized release of the data contained in this data package:

Advanced Environmental Laboratories, Inc.

Queue: GCSj

Batch Number: 3029

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.

Analysis: All holding times were met.

III. Method

Analysis: SW-846 8082A

Preparation: SW-846 3550B

IV. Preparation

All samples in batch GCSj:3029 were Florisil cleaned as per EPA method 3620C.

V. Analysis

A. Calibration: The upper control criterion was exceeded for target analytes Aroclor 1016 and Aroclor 1260 in the closing bracketing Continuing Calibration Verification (CCV) standard for batch GCSj:3029, indicating increased sensitivity. The client samples reported in this batch did not contain the analytes in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

B. Blanks: All acceptance criteria were met.

C. Surrogates: The control criteria for the following surrogates in 2413023 (MS), 2413024 (MSD), and J1707141001-6 are not applicable: Tetrachloro-m-xylene and Decachlorobiphenyl. The analysis of the samples required dilutions, which resulted in surrogate concentrations below the Practical Quantitation Limit (PQL). No further corrective action was required.

D. Spikes: The control criteria for the spiking analytes in 2413023 (MS) and 2413024 (MSD) for sample J1707141003 are not applicable. The analysis of the samples required dilutions, which resulted in spike concentrations below the Practical Quantitation Limit (PQL). No further corrective action was required.

E. Internal Standard:

F. Samples: The following samples were analyzed at dilution due to sample matrix interference: 2413023 (MS), 2413024 (MSD), and J1707141001-6. As physical evidence of the sample matrix interferences: the extracts were a yellow and/or brown hue, emitted a strong odor, and contained particulates.

G. Other:

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Advanced Environmental Laboratories, Inc.

Queue: GCSj

Batch Number: 3030

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.

Analysis: All holding times were met.

III. Method

Analysis: EPA 8081

Preparation: SW-846 3510C

IV. Preparation

All samples in batch GCSj:3030 were Florisil cleaned as per EPA method 3620C.

V. Analysis

A. Calibration:

The upper control criterion was exceeded for several target analytes in one or more of the Continuing Calibration Verification (CCV) standards for analytical batch GCSj:3030, indicating increased sensitivity. The client samples reported in this batch did not contain the analytes in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

The lower control criterion was not met for the following analytes in the ending bracketing Continuing Calibration Verification (CCV) standard associated with J1707141007-9 due to difficult sample matrix: 4,4-DDT, Methoxychlor, and Toxaphene. The sample matrices caused a low bias for the analytes in question in the original analysis of the samples. The samples were analyzed a second time at a 1:20 dilution to reduce the effects of the sample matrix interferences on the ending bracketing CCV recoveries. The bracketing CCV standard in the 1:20 re-analysis met QC criteria. The 1:20 re-analysis results were reported for 4,4-DDT, Methoxychlor, and Toxaphene.

Samples 2414200 (MS), J1706769001, and J1706769024-26 required a dilution prior to analysis. In historical records/previous analyses, the samples associated with this client project caused significant instrument damage due to difficult sample matrix. The sample matrices caused a low bias in the Continuing Calibration Verification (CCV) standards for multiple target analytes in the original analysis of the samples. The samples were analyzed at a 1:100 dilution to reduce the effects of the sample matrix interferences on the instrumentation. The chromatograms indicated the presence of non-target background components that prevented adequate resolution of the target analytes. Cleanup of the sample extracts was performed as per method criteria, but did not

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Advanced
Environmental Laboratories, Inc.

eliminate enough of the background components to prevent dilution.

B. Blanks: All acceptance criteria were met.

C. Surrogates: The control criteria for the following surrogates in 2414200 (MS), J1706769001, and J1706769024-26 are not applicable: Tetrachloro-m-xylene and Decachlorobiphenyl. The analysis of the samples required a dilution, which resulted in surrogate concentrations below the Practical Quantitation Limit (PQL). No further corrective action was required.

D. Spikes: The control criteria for all spike recoveries in 2414200 (MS) for sample J1706769024 are not applicable. The analysis of the sample required a dilution, which resulted in spike concentrations below the Practical Quantitation Limit (PQL). No further corrective action was required.

E. Internal Standard:

F. Samples: The Method Detection Limit (MDL) is elevated for one or more of the following analytes in J1707141007-9 due to difficult sample matrix: 4,4-DDT, Methoxychlor, Toxaphene, Heptachlor, and Endosulfan I. The sample extracts were diluted prior to instrumental analysis due to the effects of the sample matrix interferences on the recoveries of several analytes in the ending bracketing Continuing Calibration Verification (CCV) standard. As physical evidence of the sample matrix interferences: the extracts were a yellow and/or brown hue, emitted a strong odor, and contained particulates.

The Method Detection Limits for samples 2414200 (MS), J1706769001, and J1706769024-26 were elevated for all analytes due to difficult sample matrix. The samples were extracted at a lower initial volume (instead of the typical 20.0mL initial volume). The extracts were extremely viscous, emitted a strong odor, and were not entirely water miscible.

Samples 2414200 (MS), J1706769001, and J1706769024-26 required a dilution prior to analysis. In historical records/previous analyses, the samples associated with this client project caused significant instrument damage due to difficult sample matrix. The sample matrices caused a low bias in the Continuing Calibration Verification (CCV) standards for multiple target analytes in the original analysis of the samples. The samples were analyzed at a 1:100 dilution to reduce the effects of the sample matrix interferences on the instrumentation. The chromatograms indicated the presence of non-target background components that prevented adequate resolution of the target analytes. Cleanup of the sample extracts was performed as per method criteria, but did not eliminate enough of the background components to prevent dilution.

G. Other:

I certify that this data package is in compliance with the terms and conditions agreed to by Advanced Environmental Laboratories, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Quality Assurance Officer, or designee, as verified by the following signature, has authorized release of the data contained in this data package:

Advanced Environmental Laboratories, Inc.

Queue: GCSj

Batch Number: 3039

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation:	All holding times were met.
Analysis:	All holding times were met.

III. Method

Analysis:	FL-PRO
Preparation:	FL-PRO

IV. Preparation

Sample preparation proceeded normally.

V. Analysis

A. Calibration:	All acceptance criteria were met.
B. Blanks:	All acceptance criteria were met.
C. Surrogates:	The control criteria for all the surrogates in the following samples are not applicable: G1705911001, 002, S1701059001 thru 006, J1707126001, J1707197005, and J1707141001. The analysis of these samples required a dilution, which results in undetected surrogate concentrations. No further corrective action was required. The lower control criterion was exceeded for the following surrogate in sample G1706010006 due to matrix interference: o-Terphenyl. The affected surrogate is qualified to indicate matrix interference.
D. Spikes:	All acceptance criteria were met.
E. Internal Standard:	All acceptance criteria were met.
F. Samples:	The samples G1705911001, 002, S1701059001 thru 006, J1707126001, J1707197005, and J1707141001 were diluted prior to instrumental analysis. The extracts were highly colored and viscous which indicated the need to perform a dilution prior to injection into the instrument.
G. Other:	

I certify that this data package is in compliance with the terms and conditions agreed to by Advanced Environmental Laboratories, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Quality Assurance Officer, or designee, as verified by the following signature, has authorized release of the data contained in this data package:

8270 Water TIC Report
Semi-Volatiles Analysis

Sample ID: J1707141007

	CAS #	Conc. (ug/L)	RT
1,2-Benzenedicarboxylic acid, diisodecyl ester	26761 - 40 - 0	59.48	22.95
Acetic acid, anhydride	108 - 24 - 7	33.50	7.14
n-Hexadecanoic acid	57 - 10 - 3	19.07	18.13
N-Ethyl-O-toluenesulfonamide	0 - 00 - 0	18.87	16.05
Tricyclo[5.2.1.0(2,6)]dec-3-en-8-one	0 - 00 - 0	18.11	12.78
1,2-Benzenedicarboxylic acid, diisodecyl ester	26761 - 40 - 0	17.68	22.73
Phenol, 4,4'-(1-methylethylidene)bis-	80 - 05 - 7	14.91	19.65
Benzenesulfonamide, N-ethyl-4-methyl-	80 - 39 - 7	12.91	16.53
Diethyltoluamide	134 - 62 - 3	12.72	15.354
2(3H)-Furanone, dihydro-4-hydroxy-	5469 - 16 - 9	11.44	11.49
9-Hexadecenoic acid	2091 - 29 - 4	10.22	18.005

8270 Water TIC Report
Semi-Volatiles Analysis

Sample ID: J1707141008

	CAS #	Conc. (ug/L)	RT
Piperidine, 1,1'-(1,2-ethanediyl)bis-	11782.00	25.16	20.07
Piperidine, 1-pentyl-	10324 - 58 - 0	17.47	20.23
1-Propanone, 2,2-dimethyl-1-(4-methylphenyl)-3-(1-piperidyl)-	11782.00	14.63	18.98
Hexadecanamide	629 - 54 - 9	12.60	20.75
n-Hexadecanoic acid	57 - 10 - 3	12.35	18.11

8270 Water TIC Report
Semi-Volatiles Analysis

Sample ID: J1707141009

	CAS #	Conc. (ug/L)	RT
Butanal, 3-hydroxy-	107 - 89 - 1	13.74	12.91
Hexadecanamide	629 - 54 - 9	10.89	20.75
1,3-Dioxolane-4-methanol	5464 - 28 - 8	10.67	11.46
n-Hexadecanoic acid	57 - 10 - 3	10.37	18.11

8260B Water TIC Report
Volatiles Analysis

J1707141007

	CAS #	Conc. (ug/L)	RT
N/A			

J1707141008

N/A

J1707141007

N/A

Advanced Environmental Laboratories, Inc.

6681 Southpoint Parkway
Jacksonville, Florida 32216
Office (904) 363-9350
Fax (904) 363-9354

Queue: MSSj

Batch Number: 2296

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.

Analysis: All holding times were met.

III. Method

Analysis: SW-846 8270C (SIM)

Preparation: SW-846 3550B

IV. Preparation

Sample preparation proceeded normally.

V. Analysis

A. Calibration: All acceptance criteria were met.

B. Blanks: All acceptance criteria were met.

C. Surrogates: The control criteria for all the surrogates in the following samples are not applicable: 2420456MS, 2420457MSD, J1707141010, 012, 014, G1706254002, G1706256001 and G1706258001. The analysis of these samples required a dilution, which results in undetected surrogate concentrations. No further corrective action was required.

D. Spikes: All acceptance criteria were met.

E. Internal Standard: All acceptance criteria were met.

F. Samples: The samples 2420456MS, 2420457MSD, J1707141010, 012, 014, G1706254002, G1706256001 and G1706258001 were diluted prior to instrumental analysis. The extracts were highly colored and viscous which indicated the need to perform a dilution prior to injection into the instrument.

G. Other:

I certify that this data package is in compliance with the terms and conditions agreed to by Advanced Environmental Laboratories, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Quality Assurance Officer, or designee, as verified by the following signature, has authorized release of the data contained in this data package:

Advanced Environmental Laboratories, Inc.

6681 Southpoint Parkway
Jacksonville, Florida 32216
Office (904) 363-9350
Fax (904) 363-9354

Queue: GCSj

Batch Number: 3063

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.

Analysis: All holding times were met.

III. Method

Analysis: FL-PRO

Preparation: FL-PRO

IV. Preparation

Sample preparation proceeded normally.

V. Analysis

A. Calibration: All acceptance criteria were met.

B. Blanks: All acceptance criteria were met.

C. Surrogates: The control criteria for all the surrogates in 2420452MS, 2420453MSD, G1706256001, G1706257001, G1706254002, J1707141010, J1707141012 and J1707141014 are not applicable. The analysis of the sample required a dilution, which results in an undetected surrogate concentration. No further corrective action was required.

D. Spikes: The control criteria for matrix spike recoveries of all the analytes for J1707141010 are not applicable. The analysis of the sample required a dilution such that the added spike concentrations were diluted below the Practical Quantitation Limit (PQL). No further corrective action was required.

E. Internal Standard: All acceptance criteria were met.

F. Samples: The samples 420452MS, 2420453MSD, G1706254002, J1707141010, J1707141012 and J1707141014 were diluted prior to instrumental analysis. The extracts were highly colored and viscous which indicated the need to perform a dilution prior to injection into the instrument.

G. Other:

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Advanced Environmental Laboratories, Inc
6681 Southpoint Pkwy Jacksonville, FL 32216
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
Phone: (904)363-9350
Fax: (904)363-9354

July 28, 2017

William C. Kelly
AECOM
4168 Southpoint Parkway South
Suite 205
Jacksonville, FL 32216

RE: Workorder: J1707273 Perma-Fix

Dear William Kelly:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, July 20, 2017. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Paul Gunsaulies - Project Manager
PGunsaulies@AELLab.com

Enclosures

CERTIFICATE OF ANALYSIS

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SAMPLE SUMMARY

Workorder: J1707273 Perma-Fix

Lab ID	Sample ID	Matrix	Date Collected	Date Received
J1707273001	MW-1	Water	7/19/2017 09:53	7/20/2017 08:05
J1707273002	MW-2	Water	7/19/2017 15:20	7/20/2017 08:05

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ANALYTICAL RESULTS

Workorder: J1707273 Perma-Fix

Lab ID: **J1707273001** Date Received: 07/20/17 08:05 Matrix: Water
Sample ID: **MW-1** Date Collected: 07/19/17 09:53

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B Analysis,Water	Preparation Method: SW-846 3010A Analytical Method: SW-846 6010							
Arsenic	**0.0085**	**U**	**mg/L**	**1**	0.010	0.0085	7/21/2017 16:30	J
Cadmium	**0.00034**	**I**	**mg/L**	**1**	0.00060	0.00032	7/21/2017 16:30	J
Chromium	**0.0088**		**mg/L**	**1**	0.0010	0.00050	7/21/2017 16:30	J
Lead	**0.0013**	**U**	**mg/L**	**1**	0.0070	0.0013	7/21/2017 16:30	J
SEMIVOLATILES								
Analysis Desc: 8081B Pesticide Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: EPA 8081							
4,4`-DDD	**0.0016**	**U**	**ug/L**	**1**	0.020	0.0016	7/27/2017 23:53	J
4,4`-DDE	**0.0037**	**U**	**ug/L**	**1**	0.020	0.0037	7/27/2017 23:53	J
4,4`-DDT	**0.0021**	**U**	**ug/L**	**1**	0.020	0.0021	7/27/2017 23:53	J
Aldrin	**0.0019**	**U**	**ug/L**	**1**	0.020	0.0019	7/27/2017 23:53	J
Chlordane (technical)	**0.053**	**U**	**ug/L**	**1**	0.20	0.053	7/27/2017 23:53	J
Dieldrin	**0.0011**	**U**	**ug/L**	**1**	0.020	0.0011	7/27/2017 23:53	J
Endosulfan I	**0.0031**	**U**	**ug/L**	**1**	0.020	0.0031	7/27/2017 23:53	J
Endosulfan II	**0.0026**	**U**	**ug/L**	**1**	0.020	0.0026	7/27/2017 23:53	J
Endosulfan Sulfate	**0.0032**	**U**	**ug/L**	**1**	0.020	0.0032	7/27/2017 23:53	J
Endrin	**0.0017**	**U**	**ug/L**	**1**	0.020	0.0017	7/27/2017 23:53	J
Endrin Aldehyde	**0.0025**	**U**	**ug/L**	**1**	0.020	0.0025	7/27/2017 23:53	J
Heptachlor	**0.0035**	**U**	**ug/L**	**1**	0.020	0.0035	7/27/2017 23:53	J
Heptachlor Epoxide	**0.0017**	**U**	**ug/L**	**1**	0.020	0.0017	7/27/2017 23:53	J
Methoxychlor	**0.0058**	**U**	**ug/L**	**1**	0.020	0.0058	7/27/2017 23:53	J
Toxaphene	**0.12**	**U**	**ug/L**	**1**	0.20	0.12	7/27/2017 23:53	J
alpha-BHC	**0.0030**	**U**	**ug/L**	**1**	0.020	0.0030	7/27/2017 23:53	J
beta-BHC	**0.0019**	**U**	**ug/L**	**1**	0.020	0.0019	7/27/2017 23:53	J
delta-BHC	**0.00086**	**U**	**ug/L**	**1**	0.020	0.00086	7/27/2017 23:53	J
gamma-BHC (Lindane)	**0.0018**	**U**	**ug/L**	**1**	0.020	0.0018	7/27/2017 23:53	J
Tetrachloro-m-xylene (S)	**91**		**%**	**1**	44-124		7/27/2017 23:53	
Decachlorobiphenyl (S)	**65**		**%**	**1**	48-137		7/27/2017 23:53	
Analysis Desc: FL-PRO Analysis, Water	Preparation Method: FL-PRO Analytical Method: FL-PRO							
TPH	**600**	**U**	**ug/L**	**1**	680	600	7/25/2017 22:31	J
o-Terphenyl (S)	**102**		**%**	**1**	82-142		7/25/2017 22:31	
Nonatricontane-C39 (S)	**81**		**%**	**1**	42-193		7/25/2017 22:31	

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ANALYTICAL RESULTS

Workorder: J1707273 Perma-Fix

Lab ID: **J1707273001** Date Received: 07/20/17 08:05 Matrix: Water
Sample ID: **MW-1** Date Collected: 07/19/17 09:53

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: 8082A PCB Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: SW-846 8082A							
Aroclor 1016 (PCB-1016)	**0.065**	**U**	**ug/L**	**1**	0.20	0.065	7/27/2017 23:53	J
Aroclor 1221 (PCB-1221)	**0.11**	**U**	**ug/L**	**1**	0.20	0.11	7/27/2017 23:53	J
Aroclor 1232 (PCB-1232)	**0.097**	**U**	**ug/L**	**1**	0.20	0.097	7/27/2017 23:53	J
Aroclor 1242 (PCB-1242)	**0.096**	**U**	**ug/L**	**1**	0.20	0.096	7/27/2017 23:53	J
Aroclor 1248 (PCB-1248)	**0.067**	**U**	**ug/L**	**1**	0.20	0.067	7/27/2017 23:53	J
Aroclor 1254 (PCB-1254)	**0.051**	**U**	**ug/L**	**1**	0.20	0.051	7/27/2017 23:53	J
Aroclor 1260 (PCB-1260)	**0.080**	**U**	**ug/L**	**1**	0.20	0.080	7/27/2017 23:53	J
Tetrachloro-m-xylene (S)	**91**		**%**	**1**	61-119		7/27/2017 23:53	
Decachlorobiphenyl (S)	**65**		**%**	**1**	44-136		7/27/2017 23:53	
Analysis Desc: 8270C Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: SW-846 8270C							
1,2,4-Trichlorobenzene	**0.69**	**U**	**ug/L**	**1**	5.0	0.69	7/26/2017 19:20	J
1,2-Dichlorobenzene	**1.4**	**U**	**ug/L**	**1**	5.0	1.4	7/26/2017 19:20	J
1,2-Diphenylhydrazine	**0.96**	**U**	**ug/L**	**1**	5.0	0.96	7/26/2017 19:20	J
1,3-Dichlorobenzene	**1.0**	**U**	**ug/L**	**1**	5.0	1.0	7/26/2017 19:20	J
1,4-Dichlorobenzene	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/26/2017 19:20	J
2,4,6-Trichlorophenol	**0.93**	**U**	**ug/L**	**1**	5.0	0.93	7/26/2017 19:20	J
2,4-Dichlorophenol	**0.90**	**U**	**ug/L**	**1**	5.0	0.90	7/26/2017 19:20	J
2,4-Dimethylphenol	**2.6**	**U**	**ug/L**	**1**	5.0	2.6	7/26/2017 19:20	J
2,4-Dinitrophenol	**0.62**	**U**	**ug/L**	**1**	10	0.62	7/26/2017 19:20	J
2,4-Dinitrotoluene (2,4-DNT)	**0.60**	**U**	**ug/L**	**1**	5.0	0.60	7/26/2017 19:20	J
2,6-Dinitrotoluene (2,6-DNT)	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/26/2017 19:20	J
2-Chloronaphthalene	**0.97**	**U**	**ug/L**	**1**	5.0	0.97	7/26/2017 19:20	J
2-Chlorophenol	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/26/2017 19:20	J
2-Methyl-4,6-dinitrophenol	**0.77**	**U**	**ug/L**	**1**	5.0	0.77	7/26/2017 19:20	J
2-Nitrophenol	**0.63**	**U**	**ug/L**	**1**	5.0	0.63	7/26/2017 19:20	J
3,3`-Dichlorobenzidine	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	7/26/2017 19:20	J
4-Bromophenyl Phenyl Ether	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/26/2017 19:20	J
4-Chloro-3-methylphenol	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	7/26/2017 19:20	J
4-Chlorophenyl Phenyl Ether	**0.69**	**U**	**ug/L**	**1**	5.0	0.69	7/26/2017 19:20	J
4-Nitrophenol	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	7/26/2017 19:20	J
Benzidine	**0.74**	**U**	**ug/L**	**1**	5.0	0.74	7/26/2017 19:20	J
Butyl benzyl phthalate	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/26/2017 19:20	J
Di-n-Butyl Phthalate	**0.88**	**U**	**ug/L**	**1**	5.0	0.88	7/26/2017 19:20	J
Di-n-octyl Phthalate	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/26/2017 19:20	J
Diethyl phthalate	**0.98**	**U**	**ug/L**	**1**	5.0	0.98	7/26/2017 19:20	J

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ANALYTICAL RESULTS

Workorder: J1707273 Perma-Fix

Lab ID: **J1707273001** Date Received: 07/20/17 08:05 Matrix: Water
Sample ID: **MW-1** Date Collected: 07/19/17 09:53

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Dimethyl phthalate	**9.9**	**U**	**ug/L**	**1**	10	9.9	7/26/2017 19:20	J
Hexachlorobenzene	**0.99**	**U**	**ug/L**	**1**	5.0	0.99	7/26/2017 19:20	J
Hexachlorobutadiene	**0.87**	**U**	**ug/L**	**1**	5.0	0.87	7/26/2017 19:20	J
Hexachlorocyclopentadiene	**0.99**	**U**	**ug/L**	**1**	5.0	0.99	7/26/2017 19:20	J
Hexachloroethane	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/26/2017 19:20	J
Isophorone	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/26/2017 19:20	J
N-Nitrosodi-n-propylamine	**2.2**	**U**	**ug/L**	**1**	5.0	2.2	7/26/2017 19:20	J
N-Nitrosodimethylamine	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	7/26/2017 19:20	J
N-Nitrosodiphenylamine	**0.59**	**U**	**ug/L**	**1**	5.0	0.59	7/26/2017 19:20	J
Nitrobenzene	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/26/2017 19:20	J
Pentachlorophenol	**0.95**	**U**	**ug/L**	**1**	5.0	0.95	7/26/2017 19:20	J
Phenol	**0.54**	**U**	**ug/L**	**1**	5.0	0.54	7/26/2017 19:20	J
bis(2-Chloroethoxy)methane	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/26/2017 19:20	J
bis(2-Chloroethyl)Ether	**1.5**	**U**	**ug/L**	**1**	5.0	1.5	7/26/2017 19:20	J
bis(2-Chloroisopropyl) Ether	**1.4**	**U**	**ug/L**	**1**	5.0	1.4	7/26/2017 19:20	J
bis(2-Ethylhexyl) phthalate	**2.0**	**U**	**ug/L**	**1**	5.0	2.0	7/26/2017 19:20	J
2-Fluorophenol (S)	**42**		**%**	**1**	31-134		7/26/2017 19:20	
Phenol-d6 (S)	**23**	**J4**	**%**	**1**	24-120		7/26/2017 19:20	
Nitrobenzene-d5 (S)	**87**		**%**	**1**	38-139		7/26/2017 19:20	
2-Fluorobiphenyl (S)	**85**		**%**	**1**	42-138		7/26/2017 19:20	
2,4,6-Tribromophenol (S)	**109**		**%**	**1**	48-147		7/26/2017 19:20	
p-Terphenyl-d14 (S)	**123**		**%**	**1**	61-154		7/26/2017 19:20	

Analysis Desc: 8270C-SIM Analysis, Water
Preparation Method: SW-846 3510C
Analytical Method: SW-846 8270C (SIM)

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
1-Methylnaphthalene	**0.050**	**U**	**ug/L**	**1**	0.050	0.050	7/26/2017 19:20	J
2-Methylnaphthalene	**0.049**	**U**	**ug/L**	**1**	0.050	0.049	7/26/2017 19:20	J
Acenaphthene	**0.040**	**U**	**ug/L**	**1**	0.050	0.040	7/26/2017 19:20	J
Acenaphthylene	**0.042**	**U**	**ug/L**	**1**	0.050	0.042	7/26/2017 19:20	J
Anthracene	**0.035**	**U**	**ug/L**	**1**	0.050	0.035	7/26/2017 19:20	J
Benzo[a]anthracene	**0.012**	**U**	**ug/L**	**1**	0.050	0.012	7/26/2017 19:20	J
Benzo[a]pyrene	**0.037**	**U**	**ug/L**	**1**	0.050	0.037	7/26/2017 19:20	J
Benzo[b]fluoranthene	**0.012**	**U**	**ug/L**	**1**	0.025	0.012	7/26/2017 19:20	J
Benzo[g,h,i]perylene	**0.048**	**U**	**ug/L**	**1**	0.050	0.048	7/26/2017 19:20	J
Benzo[k]fluoranthene	**0.048**	**U**	**ug/L**	**1**	0.050	0.048	7/26/2017 19:20	J
Chrysene	**0.033**	**U**	**ug/L**	**1**	0.050	0.033	7/26/2017 19:20	J
Dibenzo[a,h]anthracene	**0.024**	**U**	**ug/L**	**1**	0.050	0.024	7/26/2017 19:20	J
Fluoranthene	**0.037**	**U**	**ug/L**	**1**	0.050	0.037	7/26/2017 19:20	J
Fluorene	**0.038**	**U**	**ug/L**	**1**	0.050	0.038	7/26/2017 19:20	J
Indeno(1,2,3-cd)pyrene	**0.011**	**U**	**ug/L**	**1**	0.050	0.011	7/26/2017 19:20	J

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ANALYTICAL RESULTS

Workorder: J1707273 Perma-Fix

Lab ID: **J1707273001** Date Received: 07/20/17 08:05 Matrix: Water
Sample ID: **MW-1** Date Collected: 07/19/17 09:53

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Naphthalene	**0.048**	**U**	**ug/L**	**1**	0.050	0.048	7/26/2017 19:20	J
Phenanthrene	**0.040**	**U**	**ug/L**	**1**	0.050	0.040	7/26/2017 19:20	J
Pyrene	**0.036**	**U**	**ug/L**	**1**	0.050	0.036	7/26/2017 19:20	J
Nitrobenzene-d5 (S)	**88**		**%**	**1**	34-139		7/26/2017 19:20	
2-Fluorobiphenyl (S)	**85**		**%**	**1**	36-125		7/26/2017 19:20	
p-Terphenyl-d14 (S)	**123**		**%**	**1**	41-138		7/26/2017 19:20	

VOLATILES

Analysis Desc: 8260B Analysis, Water — Preparation Method: SW-846 5030B
Analytical Method: SW-846 8260B

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
1,1,1-Trichloroethane	**0.22**	**U**	**ug/L**	**1**	1.0	0.22	7/26/2017 17:58	J
1,1,2,2-Tetrachloroethane	**0.20**	**U**	**ug/L**	**1**	1.0	0.20	7/26/2017 17:58	J
1,1,2-Trichloroethane	**0.30**	**U**	**ug/L**	**1**	1.0	0.30	7/26/2017 17:58	J
1,1-Dichloroethane	**0.14**	**U**	**ug/L**	**1**	1.0	0.14	7/26/2017 17:58	J
1,1-Dichloroethylene	**0.18**	**U**	**ug/L**	**1**	1.0	0.18	7/26/2017 17:58	J
1,2-Dichlorobenzene	**0.18**	**U**	**ug/L**	**1**	1.0	0.18	7/26/2017 17:58	J
1,2-Dichloroethane	**0.23**	**U**	**ug/L**	**1**	1.0	0.23	7/26/2017 17:58	J
1,2-Dichloropropane	**0.20**	**U**	**ug/L**	**1**	1.0	0.20	7/26/2017 17:58	J
1,3-Dichlorobenzene	**0.19**	**U**	**ug/L**	**1**	1.0	0.19	7/26/2017 17:58	J
1,4-Dichlorobenzene	**0.22**	**U**	**ug/L**	**1**	1.0	0.22	7/26/2017 17:58	J
2-Chloroethyl Vinyl Ether	**0.20**	**U**	**ug/L**	**1**	5.0	0.20	7/26/2017 17:58	J
Acrolein (Propenal)	**1.6**	**U**	**ug/L**	**1**	10	1.6	7/26/2017 17:58	J
Acrylonitrile	**1.1**	**U**	**ug/L**	**1**	10	1.1	7/26/2017 17:58	J
Benzene	**0.16**	**U**	**ug/L**	**1**	1.0	0.16	7/26/2017 17:58	J
Bromodichloromethane	**0.25**	**U**	**ug/L**	**1**	1.0	0.25	7/26/2017 17:58	J
Bromoform	**0.43**	**U**	**ug/L**	**1**	1.0	0.43	7/26/2017 17:58	J
Bromomethane	**0.24**	**U**	**ug/L**	**1**	1.0	0.24	7/26/2017 17:58	J
Carbon Tetrachloride	**0.36**	**U**	**ug/L**	**1**	1.0	0.36	7/26/2017 17:58	J
Chlorobenzene	**0.21**	**U**	**ug/L**	**1**	1.0	0.21	7/26/2017 17:58	J
Chloroethane	**0.33**	**U**	**ug/L**	**1**	1.0	0.33	7/26/2017 17:58	J
Chloroform	**0.18**	**U**	**ug/L**	**1**	1.0	0.18	7/26/2017 17:58	J
Chloromethane	**0.21**	**U**	**ug/L**	**1**	1.0	0.21	7/26/2017 17:58	J
Dibromochloromethane	**0.33**	**U**	**ug/L**	**1**	1.0	0.33	7/26/2017 17:58	J
Dichlorodifluoromethane	**0.15**	**U**	**ug/L**	**1**	1.0	0.15	7/26/2017 17:58	J
Ethylbenzene	**0.24**	**U**	**ug/L**	**1**	1.0	0.24	7/26/2017 17:58	J
Methylene Chloride	**2.5**	**U**	**ug/L**	**1**	5.0	2.5	7/26/2017 17:58	J
Tetrachloroethylene (PCE)	**0.36**	**U**	**ug/L**	**1**	1.0	0.36	7/26/2017 17:58	J
Toluene	**0.23**	**U**	**ug/L**	**1**	1.0	0.23	7/26/2017 17:58	J
Trichloroethene	**0.29**	**U**	**ug/L**	**1**	1.0	0.29	7/26/2017 17:58	J

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ANALYTICAL RESULTS

Workorder: J1707273 Perma-Fix

Lab ID: **J1707273001** Date Received: 07/20/17 08:05 Matrix: Water
Sample ID: **MW-1** Date Collected: 07/19/17 09:53

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Trichlorofluoromethane	**0.32**	**U**	**ug/L**	**1**	1.0	0.32	7/26/2017 17:58	J
Vinyl Chloride	**0.20**	**U**	**ug/L**	**1**	1.0	0.20	7/26/2017 17:58	J
Xylene (Total)	**0.53**	**U**	**ug/L**	**1**	2.0	0.53	7/26/2017 17:58	J
cis-1,2-Dichloroethylene	**0.24**	**U**	**ug/L**	**1**	1.0	0.24	7/26/2017 17:58	J
cis-1,3-Dichloropropene	**0.16**	**U**	**ug/L**	**1**	1.0	0.16	7/26/2017 17:58	J
trans-1,2-Dichloroethylene	**0.20**	**U**	**ug/L**	**1**	1.0	0.20	7/26/2017 17:58	J
trans-1,3-Dichloropropylene	**0.18**	**U**	**ug/L**	**1**	1.0	0.18	7/26/2017 17:58	J
1,2-Dichloroethane-d4 (S)	**89**		**%**	**1**	70-128		7/26/2017 17:58	
Toluene-d8 (S)	**101**		**%**	**1**	77-119		7/26/2017 17:58	
Bromofluorobenzene (S)	**107**		**%**	**1**	86-123		7/26/2017 17:58	

Lab ID: **J1707273002** Date Received: 07/20/17 08:05 Matrix: Water
Sample ID: **MW-2** Date Collected: 07/19/17 15:20

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B Analysis,Water	Preparation Method: SW-846 3010A Analytical Method: SW-846 6010							
Arsenic	**0.0085**	**U**	**mg/L**	**1**	0.010	0.0085	7/21/2017 16:34	J
Cadmium	**0.00039**	**I**	**mg/L**	**1**	0.00060	0.00032	7/21/2017 16:34	J
Chromium	**0.00085**	**I**	**mg/L**	**1**	0.0010	0.00050	7/21/2017 16:34	J
Lead	**0.0013**	**U**	**mg/L**	**1**	0.0070	0.0013	7/21/2017 16:34	J
SEMIVOLATILES								
Analysis Desc: FL-PRO Analysis, Water	Preparation Method: FL-PRO Analytical Method: FL-PRO							
TPH	**600**	**U**	**ug/L**	**1**	680	600	7/25/2017 22:43	J
o-Terphenyl (S)	**106**		**%**	**1**	82-142		7/25/2017 22:43	
Nonatricontane-C39 (S)	**92**		**%**	**1**	42-193		7/25/2017 22:43	
Analysis Desc: 8270C Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: SW-846 8270C							
1,2,4-Trichlorobenzene	**0.69**	**U**	**ug/L**	**1**	5.0	0.69	7/27/2017 12:18	J
1,2-Dichlorobenzene	**1.4**	**U**	**ug/L**	**1**	5.0	1.4	7/27/2017 12:18	J

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ANALYTICAL RESULTS

Workorder: J1707273 Perma-Fix

Lab ID: **J1707273002** Date Received: 07/20/17 08:05 Matrix: Water
Sample ID: **MW-2** Date Collected: 07/19/17 15:20

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
1,2-Diphenylhydrazine	**0.96**	**U**	**ug/L**	**1**	5.0	0.96	7/27/2017 12:18	J
1,3-Dichlorobenzene	**1.0**	**U**	**ug/L**	**1**	5.0	1.0	7/27/2017 12:18	J
1,4-Dichlorobenzene	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/27/2017 12:18	J
2,4,6-Trichlorophenol	**0.93**	**U**	**ug/L**	**1**	5.0	0.93	7/27/2017 12:18	J
2,4-Dichlorophenol	**0.90**	**U**	**ug/L**	**1**	5.0	0.90	7/27/2017 12:18	J
2,4-Dimethylphenol	**2.6**	**U**	**ug/L**	**1**	5.0	2.6	7/27/2017 12:18	J
2,4-Dinitrophenol	**0.62**	**U**	**ug/L**	**1**	10	0.62	7/27/2017 12:18	J
2,4-Dinitrotoluene (2,4-DNT)	**0.60**	**U**	**ug/L**	**1**	5.0	0.60	7/27/2017 12:18	J
2,6-Dinitrotoluene (2,6-DNT)	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/27/2017 12:18	J
2-Chloronaphthalene	**0.97**	**U**	**ug/L**	**1**	5.0	0.97	7/27/2017 12:18	J
2-Chlorophenol	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/27/2017 12:18	J
2-Methyl-4,6-dinitrophenol	**0.77**	**U**	**ug/L**	**1**	10	0.77	7/27/2017 12:18	J
2-Nitrophenol	**0.63**	**U**	**ug/L**	**1**	5.0	0.63	7/27/2017 12:18	J
3,3`-Dichlorobenzidine	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	7/27/2017 12:18	J
4-Bromophenyl Phenyl Ether	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/27/2017 12:18	J
4-Chloro-3-methylphenol	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	7/27/2017 12:18	J
4-Chlorophenyl Phenyl Ether	**0.69**	**U**	**ug/L**	**1**	5.0	0.69	7/27/2017 12:18	J
4-Nitrophenol	**0.62**	**U**	**ug/L**	**1**	10	0.62	7/27/2017 12:18	J
Benzidine	**0.74**	**U**	**ug/L**	**1**	5.0	0.74	7/27/2017 12:18	J
Butyl benzyl phthalate	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/27/2017 12:18	J
Di-n-Butyl Phthalate	**6.6**		**ug/L**	**1**	5.0	0.88	7/27/2017 12:18	J
Di-n-octyl Phthalate	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/27/2017 12:18	J
Diethyl phthalate	**0.98**	**U**	**ug/L**	**1**	5.0	0.98	7/27/2017 12:18	J
Dimethyl phthalate	**9.9**	**U**	**ug/L**	**1**	10	9.9	7/27/2017 12:18	J
Hexachlorobenzene	**0.99**	**U**	**ug/L**	**1**	5.0	0.99	7/27/2017 12:18	J
Hexachlorobutadiene	**0.87**	**U**	**ug/L**	**1**	5.0	0.87	7/27/2017 12:18	J
Hexachlorocyclopentadiene	**0.99**	**U**	**ug/L**	**1**	5.0	0.99	7/27/2017 12:18	J
Hexachloroethane	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/27/2017 12:18	J
Isophorone	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/27/2017 12:18	J
N-Nitrosodi-n-propylamine	**2.2**	**U**	**ug/L**	**1**	5.0	2.2	7/27/2017 12:18	J
N-Nitrosodimethylamine	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	7/27/2017 12:18	J
N-Nitrosodiphenylamine	**0.59**	**U**	**ug/L**	**1**	10	0.59	7/27/2017 12:18	J
Nitrobenzene	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	7/27/2017 12:18	J
Pentachlorophenol	**0.95**	**U**	**ug/L**	**1**	5.0	0.95	7/27/2017 12:18	J
Phenol	**0.54**	**U**	**ug/L**	**1**	5.0	0.54	7/27/2017 12:18	J
bis(2-Chloroethoxy)methane	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	7/27/2017 12:18	J
bis(2-Chloroethyl)Ether	**1.5**	**U**	**ug/L**	**1**	5.0	1.5	7/27/2017 12:18	J
bis(2-Chloroisopropyl) Ether	**1.4**	**U**	**ug/L**	**1**	5.0	1.4	7/27/2017 12:18	J
bis(2-Ethylhexyl) phthalate	**2.0**	**U**	**ug/L**	**1**	5.0	2.0	7/27/2017 12:18	J
2-Fluorophenol (S)	**35**		**%**	**1**	31-134		7/27/2017 12:18	

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ANALYTICAL RESULTS

Workorder: J1707273 Perma-Fix

Lab ID:	**J1707273002**	Date Received:	07/20/17 08:05	Matrix:	Water
Sample ID:	**MW-2**	Date Collected:	07/19/17 15:20		

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Phenol-d6 (S)	**20**	**J4**	**%**	**1**	24-120		7/27/2017 12:18	
Nitrobenzene-d5 (S)	**84**		**%**	**1**	38-139		7/27/2017 12:18	
2-Fluorobiphenyl (S)	**86**		**%**	**1**	42-138		7/27/2017 12:18	
2,4,6-Tribromophenol (S)	**111**		**%**	**1**	48-147		7/27/2017 12:18	
p-Terphenyl-d14 (S)	**127**		**%**	**1**	61-154		7/27/2017 12:18	
Analysis Desc: 8270C-SIM Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.20**	**U**	**ug/L**	**1**	0.20	0.20	7/27/2017 12:18	J
2-Methylnaphthalene	**0.20**	**U**	**ug/L**	**1**	0.20	0.20	7/27/2017 12:18	J
Acenaphthene	**0.16**	**U**	**ug/L**	**1**	0.20	0.16	7/27/2017 12:18	J
Acenaphthylene	**0.17**	**U**	**ug/L**	**1**	0.20	0.17	7/27/2017 12:18	J
Anthracene	**0.14**	**U**	**ug/L**	**1**	0.20	0.14	7/27/2017 12:18	J
Benzo[a]anthracene	**0.056**	**I**	**ug/L**	**1**	0.20	0.049	7/27/2017 12:18	J
Benzo[a]pyrene	**0.15**	**U**	**ug/L**	**1**	0.20	0.15	7/27/2017 12:18	J
Benzo[b]fluoranthene	**0.050**	**U**	**ug/L**	**1**	0.10	0.050	7/27/2017 12:18	J
Benzo[g,h,i]perylene	**0.19**	**U**	**ug/L**	**1**	0.20	0.19	7/27/2017 12:18	J
Benzo[k]fluoranthene	**0.19**	**U**	**ug/L**	**1**	0.20	0.19	7/27/2017 12:18	J
Chrysene	**0.13**	**U**	**ug/L**	**1**	0.20	0.13	7/27/2017 12:18	J
Dibenzo[a,h]anthracene	**0.095**	**U**	**ug/L**	**1**	0.20	0.095	7/27/2017 12:18	J
Fluoranthene	**0.15**	**U**	**ug/L**	**1**	0.20	0.15	7/27/2017 12:18	J
Fluorene	**0.15**	**U**	**ug/L**	**1**	0.20	0.15	7/27/2017 12:18	J
Indeno(1,2,3-cd)pyrene	**0.045**	**U**	**ug/L**	**1**	0.20	0.045	7/27/2017 12:18	J
Naphthalene	**0.22**		**ug/L**	**1**	0.20	0.19	7/27/2017 12:18	J
Phenanthrene	**0.16**	**U**	**ug/L**	**1**	0.20	0.16	7/27/2017 12:18	J
Pyrene	**0.14**	**U**	**ug/L**	**1**	0.20	0.14	7/27/2017 12:18	J
Nitrobenzene-d5 (S)	**73**		**%**	**1**	34-139		7/27/2017 12:18	
2-Fluorobiphenyl (S)	**71**		**%**	**1**	36-125		7/27/2017 12:18	
p-Terphenyl-d14 (S)	**82**		**%**	**1**	41-138		7/27/2017 12:18	

VOLATILES

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: 8260B Analysis, Water	Preparation Method: SW-846 5030B Analytical Method: SW-846 8260B							
1,1,1-Trichloroethane	**0.22**	**U**	**ug/L**	**1**	1.0	0.22	7/26/2017 18:27	J
1,1,2,2-Tetrachloroethane	**0.20**	**U**	**ug/L**	**1**	1.0	0.20	7/26/2017 18:27	J
1,1,2-Trichloroethane	**0.30**	**U**	**ug/L**	**1**	1.0	0.30	7/26/2017 18:27	J
1,1-Dichloroethane	**0.14**	**U**	**ug/L**	**1**	1.0	0.14	7/26/2017 18:27	J
1,1-Dichloroethylene	**0.18**	**U**	**ug/L**	**1**	1.0	0.18	7/26/2017 18:27	J
1,2-Dichlorobenzene	**0.18**	**U**	**ug/L**	**1**	1.0	0.18	7/26/2017 18:27	J

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ANALYTICAL RESULTS

Workorder: J1707273 Perma-Fix

Lab ID:	**J1707273002**	Date Received: 07/20/17 08:05	Matrix: Water
Sample ID:	**MW-2**	Date Collected: 07/19/17 15:20	

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
1,2-Dichloroethane	**0.23**	**U**	**ug/L**	**1**	1.0	0.23	7/26/2017 18:27	J
1,2-Dichloropropane	**0.20**	**U**	**ug/L**	**1**	1.0	0.20	7/26/2017 18:27	J
1,3-Dichlorobenzene	**0.19**	**U**	**ug/L**	**1**	1.0	0.19	7/26/2017 18:27	J
1,4-Dichlorobenzene	**0.22**	**U**	**ug/L**	**1**	1.0	0.22	7/26/2017 18:27	J
2-Chloroethyl Vinyl Ether	**0.20**	**U**	**ug/L**	**1**	5.0	0.20	7/26/2017 18:27	J
Acrolein (Propenal)	**1.6**	**U**	**ug/L**	**1**	10	1.6	7/26/2017 18:27	J
Acrylonitrile	**1.1**	**U**	**ug/L**	**1**	10	1.1	7/26/2017 18:27	J
Benzene	**0.16**	**U**	**ug/L**	**1**	1.0	0.16	7/26/2017 18:27	J
Bromodichloromethane	**0.25**	**U**	**ug/L**	**1**	1.0	0.25	7/26/2017 18:27	J
Bromoform	**0.43**	**U**	**ug/L**	**1**	1.0	0.43	7/26/2017 18:27	J
Bromomethane	**0.24**	**U**	**ug/L**	**1**	1.0	0.24	7/26/2017 18:27	J
Carbon Tetrachloride	**0.36**	**U**	**ug/L**	**1**	1.0	0.36	7/26/2017 18:27	J
Chlorobenzene	**0.21**	**U**	**ug/L**	**1**	1.0	0.21	7/26/2017 18:27	J
Chloroethane	**0.33**	**U**	**ug/L**	**1**	1.0	0.33	7/26/2017 18:27	J
Chloroform	**0.50**	**I**	**ug/L**	**1**	1.0	0.18	7/26/2017 18:27	J
Chloromethane	**0.21**	**U**	**ug/L**	**1**	1.0	0.21	7/26/2017 18:27	J
Dibromochloromethane	**0.33**	**U**	**ug/L**	**1**	1.0	0.33	7/26/2017 18:27	J
Dichlorodifluoromethane	**0.15**	**U**	**ug/L**	**1**	1.0	0.15	7/26/2017 18:27	J
Ethylbenzene	**0.24**	**U**	**ug/L**	**1**	1.0	0.24	7/26/2017 18:27	J
Methylene Chloride	**2.5**	**U**	**ug/L**	**1**	5.0	2.5	7/26/2017 18:27	J
Tetrachloroethylene (PCE)	**0.36**	**U**	**ug/L**	**1**	1.0	0.36	7/26/2017 18:27	J
Toluene	**0.23**	**U**	**ug/L**	**1**	1.0	0.23	7/26/2017 18:27	J
Trichloroethene	**0.29**	**U**	**ug/L**	**1**	1.0	0.29	7/26/2017 18:27	J
Trichlorofluoromethane	**0.32**	**U**	**ug/L**	**1**	1.0	0.32	7/26/2017 18:27	J
Vinyl Chloride	**0.20**	**U**	**ug/L**	**1**	1.0	0.20	7/26/2017 18:27	J
Xylene (Total)	**0.53**	**U**	**ug/L**	**1**	2.0	0.53	7/26/2017 18:27	J
cis-1,2-Dichloroethylene	**0.24**	**U**	**ug/L**	**1**	1.0	0.24	7/26/2017 18:27	J
cis-1,3-Dichloropropene	**0.16**	**U**	**ug/L**	**1**	1.0	0.16	7/26/2017 18:27	J
trans-1,2-Dichloroethylene	**0.20**	**U**	**ug/L**	**1**	1.0	0.20	7/26/2017 18:27	J
trans-1,3-Dichloropropylene	**0.18**	**U**	**ug/L**	**1**	1.0	0.18	7/26/2017 18:27	J
1,2-Dichloroethane-d4 (S)	**87**		**%**	**1**	70-128		7/26/2017 18:27	
Toluene-d8 (S)	**99**		**%**	**1**	77-119		7/26/2017 18:27	
Bromofluorobenzene (S)	**112**		**%**	**1**	86-123		7/26/2017 18:27	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: J1707273 Perma-Fix

PARAMETER QUALIFIERS

U	The compound was analyzed for but not detected.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J4	Estimated Result

LAB QUALIFIERS

J	DOH Certification #E82574(AEL-JAX)(FL NELAC Certification)

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QUALITY CONTROL DATA

Workorder: J1707273 Perma-Fix

QC Batch: DGMj/3270 Analysis Method: SW-846 6010
QC Batch Method: SW-846 3010A Prepared: 07/21/2017 03:30
Associated Lab Samples: J1707273001, J1707273002

METHOD BLANK: 2413661

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
METALS				
Arsenic	mg/L	0.0085	0.0085	U
Cadmium	mg/L	0.00032	0.00032	U
Chromium	mg/L	0.00050	0.00050	U
Lead	mg/L	0.0013	0.0013	U

QC Batch: EXTj/3981 Analysis Method: SW-846 8270C
QC Batch Method: SW-846 3510C Prepared: 07/20/2017 13:00
Associated Lab Samples: J1707273001, J1707273002

METHOD BLANK: 2414095

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
Phenol	ug/L	0.54	0.54	U
2-Chlorophenol	ug/L	1.2	1.2	U
2-Nitrophenol	ug/L	0.63	0.63	U
2,4-Dimethylphenol	ug/L	2.6	2.6	U
2,4-Dichlorophenol	ug/L	0.90	0.90	U
4-Chloro-3-methylphenol	ug/L	0.62	0.62	U
2,4,6-Trichlorophenol	ug/L	0.93	0.93	U
2,4-Dinitrophenol	ug/L	0.62	0.62	U
4-Nitrophenol	ug/L	0.62	0.62	U
2-Methyl-4,6-dinitrophenol	ug/L	0.77	0.77	U
Pentachlorophenol	ug/L	0.95	0.95	U
N-Nitrosodimethylamine	ug/L	0.62	0.62	U
bis(2-Chloroethyl)Ether	ug/L	1.5	1.5	U
1,3-Dichlorobenzene	ug/L	1.0	1.0	U
1,4-Dichlorobenzene	ug/L	1.2	1.2	U
1,2-Dichlorobenzene	ug/L	1.4	1.4	U
bis(2-Chloroisopropyl) Ether	ug/L	1.4	1.4	U
N-Nitrosodi-n-propylamine	ug/L	2.2	2.2	U
Hexachloroethane	ug/L	1.2	1.2	U
Nitrobenzene	ug/L	1.1	1.1	U
Isophorone	ug/L	1.1	1.1	U
bis(2-Chloroethoxy)methane	ug/L	1.2	1.2	U
1,2,4-Trichlorobenzene	ug/L	0.69	0.69	U

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QUALITY CONTROL DATA

Workorder: J1707273 Perma-Fix

METHOD BLANK: 2414095

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Hexachlorobutadiene	ug/L	0.87	0.87	U
Hexachlorocyclopentadiene	ug/L	0.99	0.99	U
2-Chloronaphthalene	ug/L	0.97	0.97	U
Dimethyl phthalate	ug/L	9.9	9.9	U
2,6-Dinitrotoluene (2,6-DNT)	ug/L	1.1	1.1	U
2,4-Dinitrotoluene (2,4-DNT)	ug/L	0.60	0.60	U
Diethyl phthalate	ug/L	0.98	0.98	U
4-Chlorophenyl Phenyl Ether	ug/L	0.69	0.69	U
1,2-Diphenylhydrazine	ug/L	0.96	0.96	U
4-Bromophenyl Phenyl Ether	ug/L	1.1	1.1	U
Hexachlorobenzene	ug/L	0.99	0.99	U
Di-n-Butyl Phthalate	ug/L	0.88	0.88	U
Benzidine	ug/L	0.74	0.74	U
Butyl benzyl phthalate	ug/L	1.1	1.1	U
3,3`-Dichlorobenzidine	ug/L	1.3	1.3	U
bis(2-Ethylhexyl) phthalate	ug/L	2.0	2.0	U
Di-n-octyl Phthalate	ug/L	1.2	1.2	U
N-Nitrosodiphenylamine	ug/L	0.59	0.59	U
2-Fluorophenol (S)	%	63	31-134	
Phenol-d6 (S)	%	56	24-120	
Nitrobenzene-d5 (S)	%	77	38-139	
2-Fluorobiphenyl (S)	%	78	42-138	
2,4,6-Tribromophenol (S)	%	105	48-147	
p-Terphenyl-d14 (S)	%	116	61-154	

QC Batch: EXTj/3991 Analysis Method: SW-846 8270C (SIM)

QC Batch Method: SW-846 3510C Prepared: 07/20/2017 13:00

Associated Lab Samples: J1707273001

METHOD BLANK: 2415435

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
Naphthalene	ug/L	0.048	0.048	U
2-Methylnaphthalene	ug/L	0.049	0.049	U
1-Methylnaphthalene	ug/L	0.050	0.050	U
Acenaphthylene	ug/L	0.042	0.042	U
Acenaphthene	ug/L	0.040	0.040	U
Fluorene	ug/L	0.038	0.038	U
Phenanthrene	ug/L	0.040	0.040	U
Anthracene	ug/L	0.035	0.035	U
Fluoranthene	ug/L	0.037	0.037	U

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QUALITY CONTROL DATA

Workorder: J1707273 Perma-Fix

METHOD BLANK: 2415435

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Pyrene	ug/L	0.036	0.036	U
Benzo[a]anthracene	ug/L	0.012	0.012	U
Chrysene	ug/L	0.033	0.033	U
Benzo[b]fluoranthene	ug/L	0.012	0.012	U
Benzo[k]fluoranthene	ug/L	0.048	0.048	U
Benzo[a]pyrene	ug/L	0.037	0.037	U
Indeno(1,2,3-cd)pyrene	ug/L	0.011	0.011	U
Dibenzo[a,h]anthracene	ug/L	0.024	0.024	U
Benzo[g,h,i]perylene	ug/L	0.048	0.048	U
Nitrobenzene-d5 (S)	%	77	34-139	
2-Fluorobiphenyl (S)	%	78	36-125	
p-Terphenyl-d14 (S)	%	116	41-138	

QC Batch: EXTj/4001 Analysis Method: FL-PRO

QC Batch Method: FL-PRO Prepared: 07/24/2017 10:00

Associated Lab Samples: J1707273001

METHOD BLANK: 2416573

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
TPH	ug/L	600	600	U
o-Terphenyl (S)	%	86	82-142	
Nonatricontane-C39 (S)	%	70	42-193	

QC Batch: EXTj/4006 Analysis Method: SW-846 8270C (SIM)

QC Batch Method: SW-846 3510C Prepared: 07/25/2017 14:30

Associated Lab Samples: J1707273002

METHOD BLANK: 2417612

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
Naphthalene	ug/L	0.19	0.19	U
2-Methylnaphthalene	ug/L	0.20	0.20	U
1-Methylnaphthalene	ug/L	0.20	0.20	U
Acenaphthylene	ug/L	0.17	0.17	U
Acenaphthene	ug/L	0.16	0.16	U
Fluorene	ug/L	0.15	0.15	U

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QUALITY CONTROL DATA

Workorder: J1707273 Perma-Fix

METHOD BLANK: 2417612

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Phenanthrene	ug/L	0.16	0.16	U
Anthracene	ug/L	0.14	0.14	U
Fluoranthene	ug/L	0.15	0.15	U
Pyrene	ug/L	0.14	0.14	U
Benzo[a]anthracene	ug/L	0.049	0.049	U
Chrysene	ug/L	0.13	0.13	U
Benzo[b]fluoranthene	ug/L	0.050	0.050	U
Benzo[k]fluoranthene	ug/L	0.19	0.19	U
Benzo[a]pyrene	ug/L	0.15	0.15	U
Indeno(1,2,3-cd)pyrene	ug/L	0.045	0.045	U
Dibenzo[a,h]anthracene	ug/L	0.095	0.095	U
Benzo[g,h,i]perylene	ug/L	0.19	0.19	U
Nitrobenzene-d5 (S)	%	80	34-139	
2-Fluorobiphenyl (S)	%	76	36-125	
p-Terphenyl-d14 (S)	%	80	41-138	

QC Batch: EXTj/4007 Analysis Method: FL-PRO
QC Batch Method: FL-PRO Prepared: 07/25/2017 14:30
Associated Lab Samples: J1707273002

METHOD BLANK: 2417632

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
TPH	ug/L	600	600	U
o-Terphenyl (S)	%	88	82-142	
Nonatricontane-C39 (S)	%	80	42-193	

QC Batch: EXTj/4011 Analysis Method: EPA 8081
QC Batch Method: SW-846 3510C Prepared: 07/26/2017 10:00
Associated Lab Samples: J1707273001

METHOD BLANK: 2418235

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
alpha-BHC	ug/L	0.012	0.012	U
gamma-BHC (Lindane)	ug/L	0.0074	0.0074	U
beta-BHC	ug/L	0.0075	0.0075	U

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QUALITY CONTROL DATA

Workorder: J1707273 Perma-Fix

METHOD BLANK: 2418235

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
delta-BHC	ug/L	0.0034	0.0034	U
Heptachlor	ug/L	0.014	0.014	U
Aldrin	ug/L	0.0076	0.0076	U
Heptachlor Epoxide	ug/L	0.0066	0.0066	U
Endosulfan I	ug/L	0.012	0.012	U
4,4`-DDE	ug/L	0.015	0.015	U
Dieldrin	ug/L	0.0044	0.0044	U
Endrin	ug/L	0.0067	0.0067	U
4,4`-DDD	ug/L	0.0066	0.0066	U
Endosulfan II	ug/L	0.011	0.011	U
Endrin Aldehyde	ug/L	0.010	0.010	U
4,4`-DDT	ug/L	0.0086	0.0086	U
Endosulfan Sulfate	ug/L	0.013	0.013	U
Methoxychlor	ug/L	0.023	0.023	U
Chlordane (technical)	ug/L	0.21	0.21	U
Toxaphene	ug/L	0.48	0.48	U
Tetrachloro-m-xylene (S)	%	91	44-124	
Decachlorobiphenyl (S)	%	58	48-137	

QC Batch: EXTj/4012 Analysis Method: SW-846 8082A

QC Batch Method: SW-846 3510C Prepared: 07/26/2017 10:00

Associated Lab Samples: J1707273001

METHOD BLANK: 2418240

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
Aroclor 1016 (PCB-1016)	ug/L	0.26	0.26	U
Aroclor 1221 (PCB-1221)	ug/L	0.44	0.44	U
Aroclor 1232 (PCB-1232)	ug/L	0.39	0.39	U
Aroclor 1242 (PCB-1242)	ug/L	0.38	0.38	U
Aroclor 1248 (PCB-1248)	ug/L	0.27	0.27	U
Aroclor 1254 (PCB-1254)	ug/L	0.20	0.20	U
Aroclor 1260 (PCB-1260)	ug/L	0.32	0.32	U
Tetrachloro-m-xylene (S)	%	91	61-119	
Decachlorobiphenyl (S)	%	58	44-136	

QC Batch: MSVj/4466 Analysis Method: SW-846 8260B

QC Batch Method: SW-846 5030B Prepared: 07/26/2017 11:15

Associated Lab Samples: J1707273001, J1707273002

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QUALITY CONTROL DATA

Workorder: J1707273 Perma-Fix

METHOD BLANK: 2419244

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
VOLATILES				
Dichlorodifluoromethane	ug/L	0.15	0.15	U
Chloromethane	ug/L	0.21	0.21	U
Vinyl Chloride	ug/L	0.20	0.20	U
Bromomethane	ug/L	0.24	0.24	U
Chloroethane	ug/L	0.33	0.33	U
Trichlorofluoromethane	ug/L	0.32	0.32	U
Acrolein (Propenal)	ug/L	1.6	1.6	U
1,1-Dichloroethylene	ug/L	0.18	0.18	U
Acrylonitrile	ug/L	1.1	1.1	U
Methylene Chloride	ug/L	2.5	2.5	U
trans-1,2-Dichloroethylene	ug/L	0.20	0.20	U
1,1-Dichloroethane	ug/L	0.14	0.14	U
cis-1,2-Dichloroethylene	ug/L	0.24	0.24	U
Chloroform	ug/L	0.18	0.18	U
1,2-Dichloroethane	ug/L	0.23	0.23	U
1,1,1-Trichloroethane	ug/L	0.22	0.22	U
Carbon Tetrachloride	ug/L	0.36	0.36	U
Benzene	ug/L	0.16	0.16	U
1,2-Dichloropropane	ug/L	0.20	0.20	U
Trichloroethene	ug/L	0.29	0.29	U
Bromodichloromethane	ug/L	0.25	0.25	U
2-Chloroethyl Vinyl Ether	ug/L	0.20	0.20	U
cis-1,3-Dichloropropene	ug/L	0.16	0.16	U
trans-1,3-Dichloropropylene	ug/L	0.18	0.18	U
1,1,2-Trichloroethane	ug/L	0.30	0.30	U
Toluene	ug/L	0.23	0.23	U
Dibromochloromethane	ug/L	0.33	0.33	U
Tetrachloroethylene (PCE)	ug/L	0.36	0.36	U
Chlorobenzene	ug/L	0.21	0.21	U
Ethylbenzene	ug/L	0.24	0.24	U
Bromoform	ug/L	0.43	0.43	U
1,1,2,2-Tetrachloroethane	ug/L	0.20	0.20	U
1,3-Dichlorobenzene	ug/L	0.19	0.19	U
1,4-Dichlorobenzene	ug/L	0.22	0.22	U
1,2-Dichlorobenzene	ug/L	0.18	0.18	U
Xylene (Total)	ug/L	0.53	0.53	U
1,2-Dichloroethane-d4 (S)	%	88	70-128	
Toluene-d8 (S)	%	100	77-119	
Bromofluorobenzene (S)	%	111	86-123	

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QUALITY CONTROL DATA QUALIFIERS

Workorder: J1707273 Perma-Fix

QUALITY CONTROL PARAMETER QUALIFIERS

U	The compound was analyzed for but not detected.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J4	Estimated Result

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J1707273 Perma-Fix

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
J1707273001	MW-1	SW-846 3010A	DGMj/3270	SW-846 6010	ICPj/2129
J1707273002	MW-2	SW-846 3010A	DGMj/3270	SW-846 6010	ICPj/2129
J1707273001	MW-1	SW-846 3510C	EXTj/3981	SW-846 8270C	MSSj/2279
J1707273002	MW-2	SW-846 3510C	EXTj/3981	SW-846 8270C	MSSj/2279
J1707273001	MW-1	SW-846 3510C	EXTj/3991	SW-846 8270C (SIM)	MSSj/2282
J1707273001	MW-1	FL-PRO	EXTj/4001	FL-PRO	GCSj/3053
J1707273002	MW-2	SW-846 3510C	EXTj/4006	SW-846 8270C (SIM)	MSSj/2291
J1707273002	MW-2	FL-PRO	EXTj/4007	FL-PRO	GCSj/3054
J1707273001	MW-1	SW-846 3510C	EXTj/4011	EPA 8081	GCSj/3058
J1707273001	MW-1	SW-846 3510C	EXTj/4012	SW-846 8082A	GCSj/3057
J1707273001	MW-1	SW-846 5030B	MSVj/4466	SW-846 8260B	MSVj/4467
J1707273002	MW-2	SW-846 5030B	MSVj/4466	SW-846 8260B	MSVj/4467

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☐ **Gainesville**
☐ **Miramar:**
☐ **Tampa:**

J1707273

Client Name: AECOM	Project Name: Perma-Fix
Address: 4168 Southpoint PKWY	Project Number: 60541241
Jacksonville, FL 32216	PO Number:
Phone: 904-383-3444	FDEP Facility No:
FAX:	FDEP Facility Address: 1940 NW 67th Place Gainesville, Florida
Contact: Bill Kelly	Special Instructions: Jax Profile. 32705
Sampled By: Bobby Fleming	
Turn Around Time: ☒ STANDARD ☐ RUSH	☐ ADaPT ☐ EQuIS ☐ Other
AEL Profile #:	

ANALYSIS REQUIRED: PP VOC 8260; PP SVOC 8270; Non-PP organics; PCB 8082; TPH FL-Pro; Four RCRA Metals 6010

SAMPLE ID	SAMPLE DESCRIPTION	Grab / Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	Preservation / Field-Filtered?	PP VOC 8260	PP SVOC 8270	Non-PP organics	PCB 8082	TPH FL-Pro	Four RCRA Metals 6010	LABORATORY I.D. NUMBER
MW-1		Grab	7/19/17	0953	GW	7 9	7-20-17 BA	X	X	X	X	X	X	001
MW-2		Grab	7/19/17	1520	GW	6		X	X	X		X	X	002

Matrix Code: **WW** = wastewater **SW** = surface water **GW** = ground water **DW** = drinking water **O** = oil **A** = air **SO** = soil **SL** = sludge
Preservation Code: I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice ☒ Yes ☐ No ☒ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked
Temp. when received (observed) 4 °C Temp. when received (corrected) 5 °C

DCN: AD-051 Form last revised 11/17/16
Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Robert M. Fleming	7/20/17	0805	[signature]	7-20-17	8:05
2						
3						
4						

FOR DRINKING WATER USE:
(When PWS Information not otherwise supplied) PWS ID: ____
Contact Person: ____ Phone: ____
Supplier of Water: ____
Site-Address: ____

8270 Water TIC Report
Semi-Volatiles Analysis

Sample ID: J1707273002

	CAS #	Conc. (ug/L)	RT
4-Cyanocyclohexene	100 - 45 - 8	91.57	9.69
9-Octadecenamide, (Z)-	301 - 02 - 0	12.15	22.79

8260B Water TIC Report
Volatiles Analysis

	CAS #	Conc. (ug/L)	RT
J1707273001	N/A	N/A	N/A
J1707273002	N/A	N/A	N/A

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August 16, 2017

William C. Kelly
AECOM
4168 Southpoint Parkway South
Suite 205
Jacksonville, FL 32216

RE: Workorder: J1707934 Perma-Fix Gainesville FL

Dear William Kelly:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, August 08, 2017. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Paul Gunsaulies

Paul Gunsaulies - Project Manager
PGunsaulies@AELLab.com

Enclosures

CERTIFICATE OF ANALYSIS

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SAMPLE SUMMARY

Workorder: J1707934 Perma-Fix Gainesville FL

Lab ID	Sample ID	Matrix	Date Collected	Date Received
J1707934001	MW-2	Water	8/8/2017 10:56	8/8/2017 16:36
J1707934002	SS-1	Soil	8/8/2017 11:25	8/8/2017 16:36
J1707934003	SS-2	Soil	8/8/2017 11:40	8/8/2017 16:36

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ANALYTICAL RESULTS

Workorder: J1707934 Perma-Fix Gainesville FL

Lab ID: **J1707934001** Date Received: 08/08/17 16:36 Matrix: Water

Sample ID: **MW-2** Date Collected: 08/08/17 10:56

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
SEMIVOLATILES								
Analysis Desc: 8081B Pesticide Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: EPA 8081							
4,4`-DDD	**0.0017**	**U**	**ug/L**	**1**	0.020	0.0017	8/14/2017 19:42	J
4,4`-DDE	**0.0038**	**U**	**ug/L**	**1**	0.020	0.0038	8/14/2017 19:42	J
4,4`-DDT	**0.0022**	**U**	**ug/L**	**1**	0.020	0.0022	8/14/2017 19:42	J
Aldrin	**0.0019**	**U**	**ug/L**	**1**	0.020	0.0019	8/14/2017 19:42	J
Chlordane (technical)	**0.054**	**U**	**ug/L**	**1**	0.20	0.054	8/14/2017 19:42	J
Dieldrin	**0.0011**	**U**	**ug/L**	**1**	0.020	0.0011	8/14/2017 19:42	J
Endosulfan I	**0.0031**	**U**	**ug/L**	**1**	0.020	0.0031	8/14/2017 19:42	J
Endosulfan II	**0.0027**	**U**	**ug/L**	**1**	0.020	0.0027	8/14/2017 19:42	J
Endosulfan Sulfate	**0.0032**	**U**	**ug/L**	**1**	0.020	0.0032	8/14/2017 19:42	J
Endrin	**0.0017**	**U**	**ug/L**	**1**	0.020	0.0017	8/14/2017 19:42	J
Endrin Aldehyde	**0.0026**	**U**	**ug/L**	**1**	0.020	0.0026	8/14/2017 19:42	J
Heptachlor	**0.0035**	**U**	**ug/L**	**1**	0.020	0.0035	8/14/2017 19:42	J
Heptachlor Epoxide	**0.0017**	**U**	**ug/L**	**1**	0.020	0.0017	8/14/2017 19:42	J
Methoxychlor	**0.0059**	**U**	**ug/L**	**1**	0.020	0.0059	8/14/2017 19:42	J
Toxaphene	**0.12**	**U**	**ug/L**	**1**	0.20	0.12	8/14/2017 19:42	J
alpha-BHC	**0.0031**	**U**	**ug/L**	**1**	0.020	0.0031	8/14/2017 19:42	J
beta-BHC	**0.0019**	**U**	**ug/L**	**1**	0.020	0.0019	8/14/2017 19:42	J
delta-BHC	**0.00088**	**U**	**ug/L**	**1**	0.020	0.00088	8/14/2017 19:42	J
gamma-BHC (Lindane)	**0.0019**	**U**	**ug/L**	**1**	0.020	0.0019	8/14/2017 19:42	J
Tetrachloro-m-xylene (S)	**77**		**%**	**1**	44-124		8/14/2017 19:42	
Decachlorobiphenyl (S)	**89**		**%**	**1**	48-137		8/14/2017 19:42	
Analysis Desc: 8082A PCB Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: SW-846 8082A							
Aroclor 1016 (PCB-1016)	**0.073**	**U**	**ug/L**	**1**	0.23	0.073	8/14/2017 19:42	J
Aroclor 1221 (PCB-1221)	**0.12**	**U**	**ug/L**	**1**	0.23	0.12	8/14/2017 19:42	J
Aroclor 1232 (PCB-1232)	**0.11**	**U**	**ug/L**	**1**	0.23	0.11	8/14/2017 19:42	J
Aroclor 1242 (PCB-1242)	**0.11**	**U**	**ug/L**	**1**	0.23	0.11	8/14/2017 19:42	J
Aroclor 1248 (PCB-1248)	**0.076**	**U**	**ug/L**	**1**	0.23	0.076	8/14/2017 19:42	J
Aroclor 1254 (PCB-1254)	**0.058**	**U**	**ug/L**	**1**	0.23	0.058	8/14/2017 19:42	J
Aroclor 1260 (PCB-1260)	**0.090**	**U**	**ug/L**	**1**	0.23	0.090	8/14/2017 19:42	J
Tetrachloro-m-xylene (S)	**77**		**%**	**1**	61-119		8/14/2017 19:42	
Decachlorobiphenyl (S)	**89**		**%**	**1**	44-136		8/14/2017 19:42	

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

Workorder: J1707934 Perma-Fix Gainesville FL

Lab ID: **J1707934002** Date Received: 08/08/17 16:36 Matrix: Soil

Sample ID: **SS-1** Date Collected: 08/08/17 11:25

Results for sample J1707934002 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B Analysis,Soils	Preparation Method: SW-846 3050B Analytical Method: SW-846 6010							
Arsenic	**0.28**	**U**	**mg/Kg**	**1**	0.31	0.28	8/11/2017 20:39	J
Cadmium	**0.039**	**U**	**mg/Kg**	**1**	0.19	0.039	8/11/2017 20:39	J
Chromium	**13**		**mg/Kg**	**1**	0.13	0.075	8/11/2017 20:39	J
Lead	**4.9**		**mg/Kg**	**1**	0.22	0.063	8/11/2017 20:39	J
SEMIVOLATILES								
Analysis Desc: 8270C Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C							
1,2,4-Trichlorobenzene	**0.075**	**U**	**mg/Kg**	**1**	0.21	0.075	8/11/2017 16:50	J
1,2-Dichlorobenzene	**0.078**	**U**	**mg/Kg**	**1**	0.21	0.078	8/11/2017 16:50	J
1,2-Diphenylhydrazine	**0.081**	**U**	**mg/Kg**	**1**	0.21	0.081	8/11/2017 16:50	J
1,3-Dichlorobenzene	**0.074**	**U**	**mg/Kg**	**1**	0.21	0.074	8/11/2017 16:50	J
1,4-Dichlorobenzene	**0.072**	**U**	**mg/Kg**	**1**	0.21	0.072	8/11/2017 16:50	J
2,4,6-Trichlorophenol	**0.025**	**U**	**mg/Kg**	**1**	0.21	0.025	8/11/2017 16:50	J
2,4-Dichlorophenol	**0.024**	**U**	**mg/Kg**	**1**	0.21	0.024	8/11/2017 16:50	J
2,4-Dimethylphenol	**0.014**	**U**	**mg/Kg**	**1**	0.21	0.014	8/11/2017 16:50	J
2,4-Dinitrophenol	**0.38**	**U**	**mg/Kg**	**1**	0.42	0.38	8/11/2017 16:50	J
2,4-Dinitrotoluene (2,4-DNT)	**0.078**	**U**	**mg/Kg**	**1**	0.21	0.078	8/11/2017 16:50	J
2,6-Dinitrotoluene (2,6-DNT)	**0.068**	**U**	**mg/Kg**	**1**	0.21	0.068	8/11/2017 16:50	J
2-Chloronaphthalene	**0.079**	**U**	**mg/Kg**	**1**	0.21	0.079	8/11/2017 16:50	J
2-Chlorophenol	**0.017**	**U**	**mg/Kg**	**1**	0.21	0.017	8/11/2017 16:50	J
2-Methyl-4,6-dinitrophenol	**0.39**	**U**	**mg/Kg**	**1**	0.42	0.39	8/11/2017 16:50	J
2-Nitrophenol	**0.031**	**U**	**mg/Kg**	**1**	0.21	0.031	8/11/2017 16:50	J
3,3`-Dichlorobenzidine	**0.086**	**U**	**mg/Kg**	**1**	0.21	0.086	8/11/2017 16:50	J
4-Bromophenyl Phenyl Ether	**0.078**	**U**	**mg/Kg**	**1**	0.21	0.078	8/11/2017 16:50	J
4-Chloro-3-methylphenol	**0.025**	**U**	**mg/Kg**	**1**	0.21	0.025	8/11/2017 16:50	J
4-Chlorophenyl Phenyl Ether	**0.094**	**U**	**mg/Kg**	**1**	0.21	0.094	8/11/2017 16:50	J
4-Nitrophenol	**0.035**	**U**	**mg/Kg**	**1**	0.21	0.035	8/11/2017 16:50	J
Acenaphthene	**0.0033**	**U**	**mg/Kg**	**1**	0.0085	0.0033	8/11/2017 16:50	J
Acenaphthylene	**0.0043**	**U**	**mg/Kg**	**1**	0.0085	0.0043	8/11/2017 16:50	J
Anthracene	**0.0045**	**U**	**mg/Kg**	**1**	0.0085	0.0045	8/11/2017 16:50	J
Benzidine	**0.034**	**U**	**mg/Kg**	**1**	0.21	0.034	8/11/2017 16:50	J
Benzo[a]anthracene	**0.0036**	**U**	**mg/Kg**	**1**	0.0085	0.0036	8/11/2017 16:50	J
Benzo[a]pyrene	**0.0074**	**U**	**mg/Kg**	**1**	0.0085	0.0074	8/11/2017 16:50	J
Benzo[b]fluoranthene	**0.010**		**mg/Kg**	**1**	0.0085	0.0054	8/11/2017 16:50	J
Benzo[g,h,i]perylene	**0.0060**	**I**	**mg/Kg**	**1**	0.0085	0.0060	8/11/2017 16:50	J

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ANALYTICAL RESULTS

Workorder: J1707934 Perma-Fix Gainesville FL

Lab ID: **J1707934002** Date Received: 08/08/17 16:36 Matrix: Soil

Sample ID: **SS-1** Date Collected: 08/08/17 11:25

Results for sample J1707934002 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Benzo[k]fluoranthene	**0.0055**	**U**	**mg/Kg**	**1**	0.0085	0.0055	8/11/2017 16:50	J
Butyl benzyl phthalate	**0.089**	**U**	**mg/Kg**	**1**	0.21	0.089	8/11/2017 16:50	J
Chrysene	**0.0044**	**U**	**mg/Kg**	**1**	0.0085	0.0044	8/11/2017 16:50	J
Di-n-Butyl Phthalate	**0.094**	**U**	**mg/Kg**	**1**	0.21	0.094	8/11/2017 16:50	J
Di-n-octyl Phthalate	**0.10**	**U**	**mg/Kg**	**1**	0.21	0.10	8/11/2017 16:50	J
Dibenzo[a,h]anthracene	**0.0040**	**U**	**mg/Kg**	**1**	0.21	0.0040	8/11/2017 16:50	J
Diethyl phthalate	**0.092**	**U**	**mg/Kg**	**1**	0.21	0.092	8/11/2017 16:50	J
Dimethyl phthalate	**0.42**	**U**	**mg/Kg**	**1**	0.42	0.42	8/11/2017 16:50	J
Fluoranthene	**0.0056**	**U**	**mg/Kg**	**1**	0.0085	0.0056	8/11/2017 16:50	J
Fluorene	**0.0037**	**U**	**mg/Kg**	**1**	0.0085	0.0037	8/11/2017 16:50	J
Hexachlorobenzene	**0.077**	**U**	**mg/Kg**	**1**	0.21	0.077	8/11/2017 16:50	J
Hexachlorobutadiene	**0.064**	**U**	**mg/Kg**	**1**	0.21	0.064	8/11/2017 16:50	J
Hexachlorocyclopentadiene	**0.075**	**U**	**mg/Kg**	**1**	0.21	0.075	8/11/2017 16:50	J
Hexachloroethane	**0.085**	**U**	**mg/Kg**	**1**	0.21	0.085	8/11/2017 16:50	J
Indeno(1,2,3-cd)pyrene	**0.0046**	**I**	**mg/Kg**	**1**	0.0085	0.0044	8/11/2017 16:50	J
Isophorone	**0.083**	**U**	**mg/Kg**	**1**	0.21	0.083	8/11/2017 16:50	J
N-Nitrosodi-n-propylamine	**0.094**	**U**	**mg/Kg**	**1**	0.21	0.094	8/11/2017 16:50	J
N-Nitrosodimethylamine	**0.072**	**U**	**mg/Kg**	**1**	0.21	0.072	8/11/2017 16:50	J
N-Nitrosodiphenylamine	**0.088**	**U**	**mg/Kg**	**1**	0.21	0.088	8/11/2017 16:50	J
Naphthalene	**0.0026**	**U**	**mg/Kg**	**1**	0.0085	0.0026	8/11/2017 16:50	J
Nitrobenzene	**0.091**	**U**	**mg/Kg**	**1**	0.21	0.091	8/11/2017 16:50	J
Pentachlorophenol	**0.089**	**U**	**mg/Kg**	**1**	0.21	0.089	8/11/2017 16:50	J
Phenanthrene	**0.0035**	**U**	**mg/Kg**	**1**	0.0085	0.0035	8/11/2017 16:50	J
Phenol	**0.022**	**U**	**mg/Kg**	**1**	0.21	0.022	8/11/2017 16:50	J
Pyrene	**0.0050**	**I**	**mg/Kg**	**1**	0.0085	0.0030	8/11/2017 16:50	J
bis(2-Chloroethoxy)methane	**0.083**	**U**	**mg/Kg**	**1**	0.21	0.083	8/11/2017 16:50	J
bis(2-Chloroethyl)Ether	**0.080**	**U**	**mg/Kg**	**1**	0.21	0.080	8/11/2017 16:50	J
bis(2-Chloroisopropyl) Ether	**0.083**	**U**	**mg/Kg**	**1**	0.21	0.083	8/11/2017 16:50	J
bis(2-Ethylhexyl) phthalate	**0.098**	**U**	**mg/Kg**	**1**	0.21	0.098	8/11/2017 16:50	J
2-Fluorophenol (S)	**60**		**%**	**1**	59-122		8/11/2017 16:50	
Phenol-d6 (S)	**64**		**%**	**1**	54-124		8/11/2017 16:50	
Nitrobenzene-d5 (S)	**57**		**%**	**1**	46-118		8/11/2017 16:50	
2-Fluorobiphenyl (S)	**54**		**%**	**1**	54-134		8/11/2017 16:50	
2,4,6-Tribromophenol (S)	**76**		**%**	**1**	38-141		8/11/2017 16:50	
p-Terphenyl-d14 (S)	**95**		**%**	**1**	60-143		8/11/2017 16:50	

SEMIVOLATILES

Analysis Desc: Percent Solids,SM2540G,Soil — Analytical Method: SM 2540G

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Percent Moisture	**22**		**%**	**1**			8/15/2017 13:00	J

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ANALYTICAL RESULTS

Workorder: J1707934 Perma-Fix Gainesville FL

Lab ID:	**J1707934003**	Date Received: 08/08/17 16:36	Matrix: Soil
Sample ID:	**SS-2**	Date Collected: 08/08/17 11:40	

Results for sample J1707934003 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B Analysis,Soils	Preparation Method: SW-846 3050B Analytical Method: SW-846 6010							
Arsenic	**0.80**		**mg/Kg**	**1**	0.30	0.28	8/11/2017 21:03	J
Cadmium	**0.038**	**U**	**mg/Kg**	**1**	0.18	0.038	8/11/2017 21:03	J
Chromium	**16**		**mg/Kg**	**1**	0.12	0.072	8/11/2017 21:03	J
Lead	**10**		**mg/Kg**	**1**	0.21	0.062	8/11/2017 21:03	J
SEMIVOLATILES								
Analysis Desc: 8270C Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C							
1,2,4-Trichlorobenzene	**0.073**	**U**	**mg/Kg**	**1**	0.21	0.073	8/11/2017 17:31	J
1,2-Dichlorobenzene	**0.077**	**U**	**mg/Kg**	**1**	0.21	0.077	8/11/2017 17:31	J
1,2-Diphenylhydrazine	**0.079**	**U**	**mg/Kg**	**1**	0.21	0.079	8/11/2017 17:31	J
1,3-Dichlorobenzene	**0.073**	**U**	**mg/Kg**	**1**	0.21	0.073	8/11/2017 17:31	J
1,4-Dichlorobenzene	**0.071**	**U**	**mg/Kg**	**1**	0.21	0.071	8/11/2017 17:31	J
2,4,6-Trichlorophenol	**0.025**	**U**	**mg/Kg**	**1**	0.21	0.025	8/11/2017 17:31	J
2,4-Dichlorophenol	**0.023**	**U**	**mg/Kg**	**1**	0.21	0.023	8/11/2017 17:31	J
2,4-Dimethylphenol	**0.014**	**U**	**mg/Kg**	**1**	0.21	0.014	8/11/2017 17:31	J
2,4-Dinitrophenol	**0.38**	**U**	**mg/Kg**	**1**	0.42	0.38	8/11/2017 17:31	J
2,4-Dinitrotoluene (2,4-DNT)	**0.077**	**U**	**mg/Kg**	**1**	0.21	0.077	8/11/2017 17:31	J
2,6-Dinitrotoluene (2,6-DNT)	**0.067**	**U**	**mg/Kg**	**1**	0.21	0.067	8/11/2017 17:31	J
2-Chloronaphthalene	**0.078**	**U**	**mg/Kg**	**1**	0.21	0.078	8/11/2017 17:31	J
2-Chlorophenol	**0.017**	**U**	**mg/Kg**	**1**	0.21	0.017	8/11/2017 17:31	J
2-Methyl-4,6-dinitrophenol	**0.39**	**U**	**mg/Kg**	**1**	0.42	0.39	8/11/2017 17:31	J
2-Nitrophenol	**0.030**	**U**	**mg/Kg**	**1**	0.21	0.030	8/11/2017 17:31	J
3,3`-Dichlorobenzidine	**0.085**	**U**	**mg/Kg**	**1**	0.21	0.085	8/11/2017 17:31	J
4-Bromophenyl Phenyl Ether	**0.077**	**U**	**mg/Kg**	**1**	0.21	0.077	8/11/2017 17:31	J
4-Chloro-3-methylphenol	**0.025**	**U**	**mg/Kg**	**1**	0.21	0.025	8/11/2017 17:31	J
4-Chlorophenyl Phenyl Ether	**0.093**	**U**	**mg/Kg**	**1**	0.21	0.093	8/11/2017 17:31	J
4-Nitrophenol	**0.035**	**U**	**mg/Kg**	**1**	0.21	0.035	8/11/2017 17:31	J
Acenaphthene	**0.0032**	**U**	**mg/Kg**	**1**	0.0083	0.0032	8/11/2017 17:31	J
Acenaphthylene	**0.0043**	**U**	**mg/Kg**	**1**	0.0083	0.0043	8/11/2017 17:31	J
Anthracene	**0.0044**	**U**	**mg/Kg**	**1**	0.0083	0.0044	8/11/2017 17:31	J
Benzidine	**0.034**	**U**	**mg/Kg**	**1**	0.21	0.034	8/11/2017 17:31	J
Benzo[a]anthracene	**0.0035**	**U**	**mg/Kg**	**1**	0.0083	0.0035	8/11/2017 17:31	J
Benzo[a]pyrene	**0.0073**	**U**	**mg/Kg**	**1**	0.0083	0.0073	8/11/2017 17:31	J
Benzo[b]fluoranthene	**0.0053**	**U**	**mg/Kg**	**1**	0.0083	0.0053	8/11/2017 17:31	J
Benzo[g,h,i]perylene	**0.0059**	**U**	**mg/Kg**	**1**	0.0083	0.0059	8/11/2017 17:31	J

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ANALYTICAL RESULTS

Workorder: J1707934 Perma-Fix Gainesville FL

Lab ID: **J1707934003** Date Received: 08/08/17 16:36 Matrix: Soil
Sample ID: **SS-2** Date Collected: 08/08/17 11:40

Results for sample J1707934003 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Benzo[k]fluoranthene	**0.0054**	**U**	**mg/Kg**	**1**	0.0083	0.0054	8/11/2017 17:31	J
Butyl benzyl phthalate	**0.087**	**U**	**mg/Kg**	**1**	0.21	0.087	8/11/2017 17:31	J
Chrysene	**0.0044**	**U**	**mg/Kg**	**1**	0.0083	0.0044	8/11/2017 17:31	J
Di-n-Butyl Phthalate	**0.092**	**U**	**mg/Kg**	**1**	0.21	0.092	8/11/2017 17:31	J
Di-n-octyl Phthalate	**0.098**	**U**	**mg/Kg**	**1**	0.21	0.098	8/11/2017 17:31	J
Dibenzo[a,h]anthracene	**0.0040**	**U**	**mg/Kg**	**1**	0.21	0.0040	8/11/2017 17:31	J
Diethyl phthalate	**0.091**	**U**	**mg/Kg**	**1**	0.21	0.091	8/11/2017 17:31	J
Dimethyl phthalate	**0.41**	**U**	**mg/Kg**	**1**	0.42	0.41	8/11/2017 17:31	J
Fluoranthene	**0.0055**	**U**	**mg/Kg**	**1**	0.0083	0.0055	8/11/2017 17:31	J
Fluorene	**0.0037**	**U**	**mg/Kg**	**1**	0.0083	0.0037	8/11/2017 17:31	J
Hexachlorobenzene	**0.076**	**U**	**mg/Kg**	**1**	0.21	0.076	8/11/2017 17:31	J
Hexachlorobutadiene	**0.063**	**U**	**mg/Kg**	**1**	0.21	0.063	8/11/2017 17:31	J
Hexachlorocyclopentadiene	**0.074**	**U**	**mg/Kg**	**1**	0.21	0.074	8/11/2017 17:31	J
Hexachloroethane	**0.083**	**U**	**mg/Kg**	**1**	0.21	0.083	8/11/2017 17:31	J
Indeno(1,2,3-cd)pyrene	**0.0043**	**U**	**mg/Kg**	**1**	0.0083	0.0043	8/11/2017 17:31	J
Isophorone	**0.081**	**U**	**mg/Kg**	**1**	0.21	0.081	8/11/2017 17:31	J
N-Nitrosodi-n-propylamine	**0.092**	**U**	**mg/Kg**	**1**	0.21	0.092	8/11/2017 17:31	J
N-Nitrosodimethylamine	**0.071**	**U**	**mg/Kg**	**1**	0.21	0.071	8/11/2017 17:31	J
N-Nitrosodiphenylamine	**0.087**	**U**	**mg/Kg**	**1**	0.21	0.087	8/11/2017 17:31	J
Naphthalene	**0.0026**	**U**	**mg/Kg**	**1**	0.0083	0.0026	8/11/2017 17:31	J
Nitrobenzene	**0.089**	**U**	**mg/Kg**	**1**	0.21	0.089	8/11/2017 17:31	J
Pentachlorophenol	**0.088**	**U**	**mg/Kg**	**1**	0.21	0.088	8/11/2017 17:31	J
Phenanthrene	**0.0034**	**U**	**mg/Kg**	**1**	0.0083	0.0034	8/11/2017 17:31	J
Phenol	**0.022**	**U**	**mg/Kg**	**1**	0.21	0.022	8/11/2017 17:31	J
Pyrene	**0.0030**	**U**	**mg/Kg**	**1**	0.0083	0.0030	8/11/2017 17:31	J
bis(2-Chloroethoxy)methane	**0.082**	**U**	**mg/Kg**	**1**	0.21	0.082	8/11/2017 17:31	J
bis(2-Chloroethyl)Ether	**0.079**	**U**	**mg/Kg**	**1**	0.21	0.079	8/11/2017 17:31	J
bis(2-Chloroisopropyl) Ether	**0.082**	**U**	**mg/Kg**	**1**	0.21	0.082	8/11/2017 17:31	J
bis(2-Ethylhexyl) phthalate	**0.096**	**U**	**mg/Kg**	**1**	0.21	0.096	8/11/2017 17:31	J
2-Fluorophenol (S)	**76**		**%**	**1**	59-122		8/11/2017 17:31	
Phenol-d6 (S)	**81**		**%**	**1**	54-124		8/11/2017 17:31	
Nitrobenzene-d5 (S)	**68**		**%**	**1**	46-118		8/11/2017 17:31	
2-Fluorobiphenyl (S)	**67**		**%**	**1**	54-134		8/11/2017 17:31	
2,4,6-Tribromophenol (S)	**83**		**%**	**1**	38-141		8/11/2017 17:31	
p-Terphenyl-d14 (S)	**103**		**%**	**1**	60-143		8/11/2017 17:31	

SEMIVOLATILES

Analysis Desc: Percent Solids,SM2540G,Soil Analytical Method: SM 2540G

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Percent Moisture	**20**		**%**	**1**			8/15/2017 13:00	J

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ANALYTICAL RESULTS QUALIFIERS

Workorder: J1707934 Perma-Fix Gainesville FL

PARAMETER QUALIFIERS

U The compound was analyzed for but not detected.

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

LAB QUALIFIERS

J DOH Certification #E82574(AEL-JAX)(FL NELAC Certification)

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QUALITY CONTROL DATA

Workorder: J1707934 Perma-Fix Gainesville FL

QC Batch:	DGMj/3366	Analysis Method:	SW-846 6010
QC Batch Method:	SW-846 3050B	Prepared:	08/10/2017 08:53

Associated Lab Samples: J1707934002, J1707934003

METHOD BLANK: 2432064

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
METALS				
Arsenic	mg/Kg	0.23	0.23	U
Cadmium	mg/Kg	0.031	0.031	U
Chromium	mg/Kg	0.059	0.059	U
Lead	mg/Kg	0.050	0.050	U

QC Batch:	EXTj/4087	Analysis Method:	SW-846 8270C
QC Batch Method:	SW-846 3550B	Prepared:	08/10/2017 12:00

Associated Lab Samples: J1707934002, J1707934003

METHOD BLANK: 2433446

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
Phenol	mg/Kg	0.018	0.018	U
2-Chlorophenol	mg/Kg	0.014	0.014	U
2-Nitrophenol	mg/Kg	0.024	0.024	U
2,4-Dimethylphenol	mg/Kg	0.011	0.011	U
2,4-Dichlorophenol	mg/Kg	0.019	0.019	U
4-Chloro-3-methylphenol	mg/Kg	0.020	0.020	U
2,4,6-Trichlorophenol	mg/Kg	0.020	0.020	U
2,4-Dinitrophenol	mg/Kg	0.30	0.30	U
4-Nitrophenol	mg/Kg	0.028	0.028	U
2-Methyl-4,6-dinitrophenol	mg/Kg	0.31	0.31	U
N-Nitrosodimethylamine	mg/Kg	0.057	0.057	U
bis(2-Chloroethyl)Ether	mg/Kg	0.063	0.063	U
1,3-Dichlorobenzene	mg/Kg	0.058	0.058	U
1,4-Dichlorobenzene	mg/Kg	0.057	0.057	U
1,2-Dichlorobenzene	mg/Kg	0.062	0.062	U
bis(2-Chloroisopropyl) Ether	mg/Kg	0.065	0.065	U
N-Nitrosodi-n-propylamine	mg/Kg	0.074	0.074	U
Hexachloroethane	mg/Kg	0.067	0.067	U
Nitrobenzene	mg/Kg	0.072	0.072	U
Isophorone	mg/Kg	0.065	0.065	U
bis(2-Chloroethoxy)methane	mg/Kg	0.065	0.065	U
1,2,4-Trichlorobenzene	mg/Kg	0.059	0.059	U
Naphthalene	mg/Kg	0.0021	0.0021	U

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QUALITY CONTROL DATA

Workorder: J1707934 Perma-Fix Gainesville FL

METHOD BLANK: 2433446

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Hexachlorobutadiene	mg/Kg	0.050	0.050	U
Hexachlorocyclopentadiene	mg/Kg	0.060	0.060	U
2-Chloronaphthalene	mg/Kg	0.062	0.062	U
Dimethyl phthalate	mg/Kg	0.33	0.33	U
2,6-Dinitrotoluene (2,6-DNT)	mg/Kg	0.054	0.054	U
Acenaphthylene	mg/Kg	0.0034	0.0034	U
Acenaphthene	mg/Kg	0.0026	0.0026	U
2,4-Dinitrotoluene (2,4-DNT)	mg/Kg	0.062	0.062	U
Diethyl phthalate	mg/Kg	0.073	0.073	U
Fluorene	mg/Kg	0.0029	0.0029	U
4-Chlorophenyl Phenyl Ether	mg/Kg	0.074	0.074	U
1,2-Diphenylhydrazine	mg/Kg	0.063	0.063	U
4-Bromophenyl Phenyl Ether	mg/Kg	0.061	0.061	U
Hexachlorobenzene	mg/Kg	0.061	0.061	U
Phenanthrene	mg/Kg	0.0027	0.0027	U
Anthracene	mg/Kg	0.0035	0.0035	U
Di-n-Butyl Phthalate	mg/Kg	0.074	0.074	U
Fluoranthene	mg/Kg	0.0044	0.0044	U
Benzidine	mg/Kg	0.027	0.027	U
Pyrene	mg/Kg	0.0024	0.0024	U
Butyl benzyl phthalate	mg/Kg	0.070	0.070	U
Benzo[a]anthracene	mg/Kg	0.0028	0.0028	U
3,3`-Dichlorobenzidine	mg/Kg	0.068	0.068	U
Chrysene	mg/Kg	0.0035	0.0035	U
bis(2-Ethylhexyl) phthalate	mg/Kg	0.077	0.077	U
Di-n-octyl Phthalate	mg/Kg	0.078	0.078	U
Benzo[b]fluoranthene	mg/Kg	0.0042	0.0042	U
Benzo[k]fluoranthene	mg/Kg	0.0043	0.0043	U
Benzo[a]pyrene	mg/Kg	0.0058	0.0058	U
Indeno(1,2,3-cd)pyrene	mg/Kg	0.0035	0.0035	U
Dibenzo[a,h]anthracene	mg/Kg	0.0032	0.0032	U
Benzo[g,h,i]perylene	mg/Kg	0.0047	0.0047	U
N-Nitrosodiphenylamine	mg/Kg	0.070	0.070	U
2-Fluorophenol (S)	%	80	59-122	
Phenol-d6 (S)	%	77	54-124	
Nitrobenzene-d5 (S)	%	76	46-118	
2-Fluorobiphenyl (S)	%	72	54-134	
2,4,6-Tribromophenol (S)	%	74	38-141	
p-Terphenyl-d14 (S)	%	96	60-143	

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
Pentachlorophenol	mg/Kg	0.070	0.070	U

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QUALITY CONTROL DATA

Workorder: J1707934 Perma-Fix Gainesville FL

QC Batch: EXTj/4106 | Analysis Method: EPA 8081
QC Batch Method: SW-846 3510C | Prepared: 08/14/2017 15:00
Associated Lab Samples: J1707934001

METHOD BLANK: 2436637

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
alpha-BHC	ug/L	0.0030	0.0030	U
gamma-BHC (Lindane)	ug/L	0.0018	0.0018	U
beta-BHC	ug/L	0.0019	0.0019	U
delta-BHC	ug/L	0.00086	0.00086	U
Heptachlor	ug/L	0.0035	0.0035	U
Aldrin	ug/L	0.0019	0.0019	U
Heptachlor Epoxide	ug/L	0.0017	0.0017	U
Endosulfan I	ug/L	0.0031	0.0031	U
4,4`-DDE	ug/L	0.0037	0.0037	U
Dieldrin	ug/L	0.0011	0.0011	U
Endrin	ug/L	0.0017	0.0017	U
4,4`-DDD	ug/L	0.0016	0.0016	U
Endosulfan II	ug/L	0.0026	0.0026	U
Endrin Aldehyde	ug/L	0.0025	0.0025	U
4,4`-DDT	ug/L	0.0021	0.0021	U
Endosulfan Sulfate	ug/L	0.0032	0.0032	U
Methoxychlor	ug/L	0.0058	0.0058	U
Chlordane (technical)	ug/L	0.053	0.053	U
Toxaphene	ug/L	0.12	0.12	U
Tetrachloro-m-xylene (S)	%	67	44-124	
Decachlorobiphenyl (S)	%	93	48-137	

QC Batch: EXTj/4107 | Analysis Method: SW-846 8082A
QC Batch Method: SW-846 3510C | Prepared: 08/14/2017 15:00
Associated Lab Samples: J1707934001

METHOD BLANK: 2436641

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
Aroclor 1016 (PCB-1016)	ug/L	0.065	0.065	U
Aroclor 1221 (PCB-1221)	ug/L	0.11	0.11	U
Aroclor 1232 (PCB-1232)	ug/L	0.097	0.097	U
Aroclor 1242 (PCB-1242)	ug/L	0.096	0.096	U
Aroclor 1248 (PCB-1248)	ug/L	0.067	0.067	U
Aroclor 1254 (PCB-1254)	ug/L	0.051	0.051	U

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QUALITY CONTROL DATA

Workorder: J1707934 Perma-Fix Gainesville FL

METHOD BLANK: 2436641

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Aroclor 1260 (PCB-1260)	ug/L	0.080	0.080	U
Tetrachloro-m-xylene (S)	%	67	61-119	
Decachlorobiphenyl (S)	%	93	44-136	

QUALITY CONTROL DATA QUALIFIERS

Workorder: J1707934 Perma-Fix Gainesville FL

QUALITY CONTROL PARAMETER QUALIFIERS

U The compound was analyzed for but not detected.

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J4 Estimated Result

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J1707934 Perma-Fix Gainesville FL

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
J1707934002	SS-1	SW-846 3050B	DGMj/3366	SW-846 6010	ICPj/2181
J1707934003	SS-2	SW-846 3050B	DGMj/3366	SW-846 6010	ICPj/2181
J1707934002	SS-1	SW-846 3550B	EXTj/4087	SW-846 8270C	MSSj/2326
J1707934003	SS-2	SW-846 3550B	EXTj/4087	SW-846 8270C	MSSj/2326
J1707934001	MW-2	SW-846 3510C	EXTj/4106	EPA 8081	GCSj/3114
J1707934001	MW-2	SW-846 3510C	EXTj/4107	SW-846 8082A	GCSj/3115
J1707934002	SS-1			SM 2540G	WCAj/4820
J1707934003	SS-2			SM 2540G	WCAj/4820

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• Fax 954.889.2281
Fax 813.630.4327

J1707934

_ of 1

Client Name: AECOM	Project Name: Perma-Fix, Gainesville, FL
Address: 4160 Southpoint Pkwy	Project Number:
	PO Number:
Phone: (904) 563-7252	FDEP Facility No:
FAX:	FDEP Facility Address: 1740 N.W. 67th Place Gainesville, FL
Contact: Victor Caparros	
Sampled By: Brett Wilkert	Special Instructions: 32705
Turn Around Time: [x] STANDARD [ ] RUSH	
AEL Profile #: 30705	[ ] ADaPT [ ] EQuIS [ ] Other

BOTTLE SIZE & TYPE	1L Amber	1L Amber	250mL Jar	250mL Jar
ANALYSIS REQUIRED	PCB 8082	Pesticides 8081	Cadmium, Chromium, Lead (Cd, Cr, Pb)	SVOCs 8270
Preservation	None	None	None	None
Field-Filtered?	N	N	NA	NA

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	PCB 8082	Pesticides 8081	Cadmium, Chromium, Lead	SVOCs 8270	LABORATORY I.D. NUMBER
MW-2		G	8/8/17	10:56	GW	2	X	X			001
SS-1		G	8/8/17	11:25	SO	2			X	X	002
SS-2		G	8/8/17	11:40	SO	2			X	X	003

Matrix Code: **WW** = wastewater **SW** = surface water **GW** = ground water **DW** = drinking water **O** = oil **A** = air **SO** = soil **SL** = sludge
Preservation Code: I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice [x] Yes [ ] No [x] Temp taken from sample [ ] Temp from blank [ ] Where required, pH checked
Temp. when received (observed) 4 °C Temp. when received (corrected) 5 °C

DCN: AD-051 Form last revised 06/19/2017
Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

	Relinquished by:	Date	Time	Received by:	Date	Time
1	[signature]	8/8/17	16:36	[signature]	8-8-17	1636
2						
3						
4						

FOR DRINKING WATER USE:
(When PWS Information not otherwise supplied) PWS ID:
Contact Person: Phone :
Supplier of Water:
Site-Address:

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September 25, 2017

Victor Caparros
AECOM
4168 Southpoint Parkway South
Suite 205
Jacksonville, FL 32216

RE: Workorder: J1709207 Perma Fix Gainesville

Dear Victor Caparros:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, September 15, 2017. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Paul Gunsaulies - Project Manager
PGunsaulies@AELLab.com

Enclosures

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SAMPLE SUMMARY

Workorder: J1709207 Perma Fix Gainesville

Lab ID	Sample ID	Matrix	Date Collected	Date Received
J1709207001	~~SW-3~~ SW-5	Water	9/15/2017 10:45	9/15/2017 14:25
J1709207002	SW-4	Water	9/15/2017 11:25	9/15/2017 14:25

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ANALYTICAL RESULTS

Workorder: J1709207 Perma Fix Gainesville

Lab ID:	**J1709207001**	Date Received:	09/15/17 14:25
Sample ID:	~~SW-3~~ SW-5	Date Collected:	09/15/17 10:45

Matrix: Water

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B Analysis,Water	Preparation Method: SW-846 3010A Analytical Method: SW-846 6010							
Arsenic	**0.0085**	**U**	**mg/L**	**1**	0.010	0.0085	9/19/2017 15:14	J
Cadmium	**0.00032**	**U**	**mg/L**	**1**	0.00060	0.00032	9/19/2017 15:14	J
Chromium	**0.0012**	**V**	**mg/L**	**1**	0.0010	0.00050	9/19/2017 15:14	J
Lead	**0.0013**	**U**	**mg/L**	**1**	0.0070	0.0013	9/19/2017 15:14	J
SEMIVOLATILES								
Analysis Desc: FL-PRO Analysis, Water	Preparation Method: FL-PRO Analytical Method: FL-PRO							
TPH	**770**		**ug/L**	**1**	680	600	9/18/2017 18:39	J
o-Terphenyl (S)	**92**		**%**	**1**	82-142		9/18/2017 18:39	
Nonatricontane-C39 (S)	**72**		**%**	**1**	42-193		9/18/2017 18:39	
Analysis Desc: 8270C Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: SW-846 8270C							
1,2,4,5-Tetrachlorobenzene	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	9/24/2017 23:06	J
1,2,4-Trichlorobenzene	**0.69**	**U**	**ug/L**	**1**	5.0	0.69	9/24/2017 23:06	J
1,2-Dichlorobenzene	**1.4**	**U**	**ug/L**	**1**	5.0	1.4	9/24/2017 23:06	J
1,2-Diphenylhydrazine	**0.96**	**U**	**ug/L**	**1**	5.0	0.96	9/24/2017 23:06	J
1,3-Dichlorobenzene	**1.0**	**U**	**ug/L**	**1**	5.0	1.0	9/24/2017 23:06	J
1,4-Dichlorobenzene	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	9/24/2017 23:06	J
1-Methylnaphthalene	**0.050**	**U**	**ug/L**	**1**	0.20	0.050	9/24/2017 23:06	J
1-Naphthylamine	**0.68**	**U**	**ug/L**	**1**	5.0	0.68	9/24/2017 23:06	J
2,3,4,6-Tetrachlorophenol	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	9/24/2017 23:06	J
2,4,5-Trichlorophenol	**0.96**	**U**	**ug/L**	**1**	5.0	0.96	9/24/2017 23:06	J
2,4,6-Trichlorophenol	**0.93**	**U**	**ug/L**	**1**	5.0	0.93	9/24/2017 23:06	J
2,4-Dichlorophenol	**0.90**	**U**	**ug/L**	**1**	5.0	0.90	9/24/2017 23:06	J
2,4-Dimethylphenol	**2.6**	**U**	**ug/L**	**1**	5.0	2.6	9/24/2017 23:06	J
2,4-Dinitrophenol	**0.62**	**U**	**ug/L**	**1**	10	0.62	9/24/2017 23:06	J
2,4-Dinitrotoluene (2,4-DNT)	**0.60**	**U**	**ug/L**	**1**	5.0	0.60	9/24/2017 23:06	J
2,6-Dichlorophenol	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	9/24/2017 23:06	J
2,6-Dinitrotoluene (2,6-DNT)	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	9/24/2017 23:06	J
2-Chloronaphthalene	**0.97**	**U**	**ug/L**	**1**	5.0	0.97	9/24/2017 23:06	J
2-Chlorophenol	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	9/24/2017 23:06	J
2-Methyl-4,6-dinitrophenol	**0.77**	**U**	**ug/L**	**1**	5.0	0.77	9/24/2017 23:06	J
2-Methylnaphthalene	**0.049**	**U**	**ug/L**	**1**	0.20	0.049	9/24/2017 23:06	J

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ANALYTICAL RESULTS

Workorder: J1709207 Perma Fix Gainesville

Lab ID: **J1709207001** Date Received: 09/15/17 14:25 Matrix: Water

Sample ID: ~~**SW-3**~~ SW-5 Date Collected: 09/15/17 10:45

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
2-Methylphenol (o-Cresol)	**0.88**	**U**	**ug/L**	**1**	5.0	0.88	9/24/2017 23:06	J
2-Naphthylamine	**0.77**	**U**	**ug/L**	**1**	5.0	0.77	9/24/2017 23:06	J
2-Nitroaniline	**0.83**	**U**	**ug/L**	**1**	5.0	0.83	9/24/2017 23:06	J
2-Nitrophenol	**0.63**	**U**	**ug/L**	**1**	5.0	0.63	9/24/2017 23:06	J
2-Picoline (2-Methylpyridine)	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	9/24/2017 23:06	J
3+4-Methylphenol(mp-Cresol)	**0.70**	**U**	**ug/L**	**1**	5.0	0.70	9/24/2017 23:06	J
3,3`-Dichlorobenzidine	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	9/24/2017 23:06	J
3-Methylcholanthrene	**0.57**	**U**	**ug/L**	**1**	5.0	0.57	9/24/2017 23:06	J
3-Nitroaniline	**0.67**	**U**	**ug/L**	**1**	5.0	0.67	9/24/2017 23:06	J
4-Aminobiphenyl	**0.53**	**U**	**ug/L**	**1**	5.0	0.53	9/24/2017 23:06	J
4-Bromophenyl Phenyl Ether	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	9/24/2017 23:06	J
4-Chloro-3-methylphenol	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	9/24/2017 23:06	J
4-Chloroaniline	**0.90**	**U**	**ug/L**	**1**	5.0	0.90	9/24/2017 23:06	J
4-Chlorophenyl Phenyl Ether	**0.69**	**U**	**ug/L**	**1**	5.0	0.69	9/24/2017 23:06	J
4-Dimethyl aminoazobenzene	**0.73**	**U**	**ug/L**	**1**	5.0	0.73	9/24/2017 23:06	J
4-Nitroaniline	**0.71**	**U**	**ug/L**	**1**	5.0	0.71	9/24/2017 23:06	J
4-Nitrophenol	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	9/24/2017 23:06	J
7,12-Dimethylbenz[a]anthracene	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	9/24/2017 23:06	J
Acenaphthene	**0.040**	**U**	**ug/L**	**1**	0.20	0.040	9/24/2017 23:06	J
Acenaphthylene	**0.042**	**U**	**ug/L**	**1**	0.20	0.042	9/24/2017 23:06	J
Acetophenone	**1.6**	**U**	**ug/L**	**1**	5.0	1.6	9/24/2017 23:06	J
Aniline	**0.75**	**U**	**ug/L**	**1**	5.0	0.75	9/24/2017 23:06	J
Anthracene	**0.035**	**U**	**ug/L**	**1**	0.20	0.035	9/24/2017 23:06	J
Benzidine	**0.74**	**U**	**ug/L**	**1**	5.0	0.74	9/24/2017 23:06	J
Benzo[a]anthracene	**0.012**	**U**	**ug/L**	**1**	0.20	0.012	9/24/2017 23:06	J
Benzo[a]pyrene	**0.037**	**U**	**ug/L**	**1**	0.20	0.037	9/24/2017 23:06	J
Benzo[b]fluoranthene	**0.012**	**U**	**ug/L**	**1**	0.10	0.012	9/24/2017 23:06	J
Benzo[g,h,i]perylene	**0.048**	**U**	**ug/L**	**1**	0.20	0.048	9/24/2017 23:06	J
Benzo[k]fluoranthene	**0.048**	**U**	**ug/L**	**1**	0.20	0.048	9/24/2017 23:06	J
Benzoic Acid	**0.78**	**U**	**ug/L**	**1**	10	0.78	9/24/2017 23:06	J
Benzyl Alcohol	**0.99**	**U**	**ug/L**	**1**	5.0	0.99	9/24/2017 23:06	J
Butyl benzyl phthalate	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	9/24/2017 23:06	J
Carbazole	**0.020**	**U**	**ug/L**	**1**	5.0	0.020	9/24/2017 23:06	J
Chrysene	**0.033**	**U**	**ug/L**	**1**	0.20	0.033	9/24/2017 23:06	J
Di-n-Butyl Phthalate	**0.88**	**U**	**ug/L**	**1**	5.0	0.88	9/24/2017 23:06	J
Di-n-octyl Phthalate	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	9/24/2017 23:06	J
Dibenzo[a,h]anthracene	**0.024**	**U**	**ug/L**	**1**	0.20	0.024	9/24/2017 23:06	J
Dibenzofuran	**0.0069**	**U**	**ug/L**	**1**	5.0	0.0069	9/24/2017 23:06	J
Diethyl phthalate	**0.98**	**U**	**ug/L**	**1**	5.0	0.98	9/24/2017 23:06	J
Dimethyl phthalate	**9.9**	**U**	**ug/L**	**1**	10	9.9	9/24/2017 23:06	J

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ANALYTICAL RESULTS

Workorder: J1709207 Perma Fix Gainesville

Lab ID: **J1709207001**
Sample ID: ~~SW-3~~ SW-5

Date Received: 09/15/17 14:25
Date Collected: 09/15/17 10:45
Matrix: Water

Sample Description:
Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Ethyl methanesulfonate	**0.91**	**U**	**ug/L**	**1**	5.0	0.91	9/24/2017 23:06	J
Fluoranthene	**0.037**	**U**	**ug/L**	**1**	0.20	0.037	9/24/2017 23:06	J
Fluorene	**0.038**	**U**	**ug/L**	**1**	0.20	0.038	9/24/2017 23:06	J
Hexachlorobenzene	**0.99**	**U**	**ug/L**	**1**	5.0	0.99	9/24/2017 23:06	J
Hexachlorobutadiene	**0.87**	**U**	**ug/L**	**1**	5.0	0.87	9/24/2017 23:06	J
Hexachlorocyclopentadiene	**0.99**	**U**	**ug/L**	**1**	5.0	0.99	9/24/2017 23:06	J
Hexachloroethane	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	9/24/2017 23:06	J
Indeno(1,2,3-cd)pyrene	**0.011**	**U**	**ug/L**	**1**	0.20	0.011	9/24/2017 23:06	J
Isophorone	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	9/24/2017 23:06	J
Methyl Methanesulfonate	**0.57**	**U**	**ug/L**	**1**	5.0	0.57	9/24/2017 23:06	J
N-Nitrosodi-n-butylamine	**1.5**	**U**	**ug/L**	**1**	5.0	1.5	9/24/2017 23:06	J
N-Nitrosodi-n-propylamine	**2.2**	**U**	**ug/L**	**1**	5.0	2.2	9/24/2017 23:06	J
N-Nitrosodimethylamine	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	9/24/2017 23:06	J
N-Nitrosodiphenylamine	**0.59**	**U**	**ug/L**	**1**	5.0	0.59	9/24/2017 23:06	J
N-Nitrosopiperidine	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	9/24/2017 23:06	J
Naphthalene	**0.048**	**U**	**ug/L**	**1**	0.20	0.048	9/24/2017 23:06	J
Nitrobenzene	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	9/24/2017 23:06	J
Pentachlorobenzene	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	9/24/2017 23:06	J
Pentachloronitrobenzene	**1.6**	**U**	**ug/L**	**1**	5.0	1.6	9/24/2017 23:06	J
Pentachlorophenol	**0.95**	**U**	**ug/L**	**1**	5.0	0.95	9/24/2017 23:06	J
Phenacetin	**0.79**	**U**	**ug/L**	**1**	5.0	0.79	9/24/2017 23:06	J
Phenanthrene	**0.040**	**U**	**ug/L**	**1**	0.20	0.040	9/24/2017 23:06	J
Phenol	**0.54**	**U**	**ug/L**	**1**	5.0	0.54	9/24/2017 23:06	J
Pronamide (Kerb)	**0.96**	**U**	**ug/L**	**1**	5.0	0.96	9/24/2017 23:06	J
Pyrene	**0.036**	**U**	**ug/L**	**1**	0.20	0.036	9/24/2017 23:06	J
a,a-Dimethylphenethylamine	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	9/24/2017 23:06	J
bis(2-Chloroethoxy)methane	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	9/24/2017 23:06	J
bis(2-Chloroethyl)Ether	**1.5**	**U**	**ug/L**	**1**	5.0	1.5	9/24/2017 23:06	J
bis(2-Chloroisopropyl) Ether	**1.4**	**U**	**ug/L**	**1**	5.0	1.4	9/24/2017 23:06	J
bis(2-Ethylhexyl) phthalate	**2.0**	**U**	**ug/L**	**1**	5.0	2.0	9/24/2017 23:06	J
2-Fluorophenol (S)	**37**		**%**	**1**	31-134		9/24/2017 23:06	
Phenol-d6 (S)	**25**		**%**	**1**	24-120		9/24/2017 23:06	
Nitrobenzene-d5 (S)	**79**		**%**	**1**	38-139		9/24/2017 23:06	
2-Fluorobiphenyl (S)	**74**		**%**	**1**	42-138		9/24/2017 23:06	
2,4,6-Tribromophenol (S)	**94**		**%**	**1**	48-147		9/24/2017 23:06	
p-Terphenyl-d14 (S)	**91**		**%**	**1**	61-154		9/24/2017 23:06	

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ANALYTICAL RESULTS

Workorder: J1709207 Perma Fix Gainesville

Lab ID: **J1709207002** Date Received: 09/15/17 14:25 Matrix: Water
Sample ID: **SW-4** Date Collected: 09/15/17 11:25

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B Analysis,Water	Preparation Method: SW-846 3010A Analytical Method: SW-846 6010							
Arsenic	**0.0085**	**U**	**mg/L**	**1**	0.010	0.0085	9/19/2017 15:18	J
Cadmium	**0.00032**	**U**	**mg/L**	**1**	0.00060	0.00032	9/19/2017 15:18	J
Chromium	**0.0011**	**V**	**mg/L**	**1**	0.0010	0.00050	9/19/2017 15:18	J
Lead	**0.0013**	**U**	**mg/L**	**1**	0.0070	0.0013	9/19/2017 15:18	J
SEMIVOLATILES								
Analysis Desc: FL-PRO Analysis, Water	Preparation Method: FL-PRO Analytical Method: FL-PRO							
TPH	**910**		**ug/L**	**1**	680	600	9/18/2017 19:07	J
o-Terphenyl (S)	**99**		**%**	**1**	82-142		9/18/2017 19:07	
Nonatricontane-C39 (S)	**73**		**%**	**1**	42-193		9/18/2017 19:07	
Analysis Desc: 8270C Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: SW-846 8270C							
1,2,4,5-Tetrachlorobenzene	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	9/24/2017 23:51	J
1,2,4-Trichlorobenzene	**0.69**	**U**	**ug/L**	**1**	5.0	0.69	9/24/2017 23:51	J
1,2-Dichlorobenzene	**1.4**	**U**	**ug/L**	**1**	5.0	1.4	9/24/2017 23:51	J
1,2-Diphenylhydrazine	**0.96**	**U**	**ug/L**	**1**	5.0	0.96	9/24/2017 23:51	J
1,3-Dichlorobenzene	**1.0**	**U**	**ug/L**	**1**	5.0	1.0	9/24/2017 23:51	J
1,4-Dichlorobenzene	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	9/24/2017 23:51	J
1-Methylnaphthalene	**0.050**	**U**	**ug/L**	**1**	0.20	0.050	9/24/2017 23:51	J
1-Naphthylamine	**0.68**	**U**	**ug/L**	**1**	5.0	0.68	9/24/2017 23:51	J
2,3,4,6-Tetrachlorophenol	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	9/24/2017 23:51	J
2,4,5-Trichlorophenol	**0.96**	**U**	**ug/L**	**1**	5.0	0.96	9/24/2017 23:51	J
2,4,6-Trichlorophenol	**0.93**	**U**	**ug/L**	**1**	5.0	0.93	9/24/2017 23:51	J
2,4-Dichlorophenol	**0.90**	**U**	**ug/L**	**1**	5.0	0.90	9/24/2017 23:51	J
2,4-Dimethylphenol	**2.6**	**U**	**ug/L**	**1**	5.0	2.6	9/24/2017 23:51	J
2,4-Dinitrophenol	**0.62**	**U**	**ug/L**	**1**	10	0.62	9/24/2017 23:51	J
2,4-Dinitrotoluene (2,4-DNT)	**0.60**	**U**	**ug/L**	**1**	5.0	0.60	9/24/2017 23:51	J
2,6-Dichlorophenol	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	9/24/2017 23:51	J
2,6-Dinitrotoluene (2,6-DNT)	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	9/24/2017 23:51	J
2-Chloronaphthalene	**0.97**	**U**	**ug/L**	**1**	5.0	0.97	9/24/2017 23:51	J
2-Chlorophenol	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	9/24/2017 23:51	J
2-Methyl-4,6-dinitrophenol	**0.77**	**U**	**ug/L**	**1**	5.0	0.77	9/24/2017 23:51	J
2-Methylnaphthalene	**0.049**	**U**	**ug/L**	**1**	0.20	0.049	9/24/2017 23:51	J

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ANALYTICAL RESULTS

Workorder: J1709207 Perma Fix Gainesville

Lab ID: **J1709207002** Date Received: 09/15/17 14:25 Matrix: Water
Sample ID: **SW-4** Date Collected: 09/15/17 11:25

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
2-Methylphenol (o-Cresol)	**0.88**	**U**	**ug/L**	**1**	5.0	0.88	9/24/2017 23:51	J
2-Naphthylamine	**0.77**	**U**	**ug/L**	**1**	5.0	0.77	9/24/2017 23:51	J
2-Nitroaniline	**0.83**	**U**	**ug/L**	**1**	5.0	0.83	9/24/2017 23:51	J
2-Nitrophenol	**0.63**	**U**	**ug/L**	**1**	5.0	0.63	9/24/2017 23:51	J
2-Picoline (2-Methylpyridine)	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	9/24/2017 23:51	J
3+4-Methylphenol(mp-Cresol)	**0.70**	**U**	**ug/L**	**1**	5.0	0.70	9/24/2017 23:51	J
3,3`-Dichlorobenzidine	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	9/24/2017 23:51	J
3-Methylcholanthrene	**0.57**	**U**	**ug/L**	**1**	5.0	0.57	9/24/2017 23:51	J
3-Nitroaniline	**0.67**	**U**	**ug/L**	**1**	5.0	0.67	9/24/2017 23:51	J
4-Aminobiphenyl	**0.53**	**U**	**ug/L**	**1**	5.0	0.53	9/24/2017 23:51	J
4-Bromophenyl Phenyl Ether	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	9/24/2017 23:51	J
4-Chloro-3-methylphenol	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	9/24/2017 23:51	J
4-Chloroaniline	**0.90**	**U**	**ug/L**	**1**	5.0	0.90	9/24/2017 23:51	J
4-Chlorophenyl Phenyl Ether	**0.69**	**U**	**ug/L**	**1**	5.0	0.69	9/24/2017 23:51	J
4-Dimethyl aminoazobenzene	**0.73**	**U**	**ug/L**	**1**	5.0	0.73	9/24/2017 23:51	J
4-Nitroaniline	**0.71**	**U**	**ug/L**	**1**	5.0	0.71	9/24/2017 23:51	J
4-Nitrophenol	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	9/24/2017 23:51	J
7,12-Dimethylbenz[a]anthracene	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	9/24/2017 23:51	J
Acenaphthene	**0.040**	**U**	**ug/L**	**1**	0.20	0.040	9/24/2017 23:51	J
Acenaphthylene	**0.042**	**U**	**ug/L**	**1**	0.20	0.042	9/24/2017 23:51	J
Acetophenone	**1.6**	**U**	**ug/L**	**1**	5.0	1.6	9/24/2017 23:51	J
Aniline	**0.75**	**U**	**ug/L**	**1**	5.0	0.75	9/24/2017 23:51	J
Anthracene	**0.035**	**U**	**ug/L**	**1**	0.20	0.035	9/24/2017 23:51	J
Benzidine	**0.74**	**U**	**ug/L**	**1**	5.0	0.74	9/24/2017 23:51	J
Benzo[a]anthracene	**0.012**	**U**	**ug/L**	**1**	0.20	0.012	9/24/2017 23:51	J
Benzo[a]pyrene	**0.037**	**U**	**ug/L**	**1**	0.20	0.037	9/24/2017 23:51	J
Benzo[b]fluoranthene	**0.012**	**U**	**ug/L**	**1**	0.10	0.012	9/24/2017 23:51	J
Benzo[g,h,i]perylene	**0.048**	**U**	**ug/L**	**1**	0.20	0.048	9/24/2017 23:51	J
Benzo[k]fluoranthene	**0.048**	**U**	**ug/L**	**1**	0.20	0.048	9/24/2017 23:51	J
Benzoic Acid	**0.78**	**U**	**ug/L**	**1**	10	0.78	9/24/2017 23:51	J
Benzyl Alcohol	**0.99**	**U**	**ug/L**	**1**	5.0	0.99	9/24/2017 23:51	J
Butyl benzyl phthalate	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	9/24/2017 23:51	J
Carbazole	**0.020**	**U**	**ug/L**	**1**	5.0	0.020	9/24/2017 23:51	J
Chrysene	**0.033**	**U**	**ug/L**	**1**	0.20	0.033	9/24/2017 23:51	J
Di-n-Butyl Phthalate	**0.88**	**U**	**ug/L**	**1**	5.0	0.88	9/24/2017 23:51	J
Di-n-octyl Phthalate	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	9/24/2017 23:51	J
Dibenzo[a,h]anthracene	**0.024**	**U**	**ug/L**	**1**	0.20	0.024	9/24/2017 23:51	J
Dibenzofuran	**0.0069**	**U**	**ug/L**	**1**	5.0	0.0069	9/24/2017 23:51	J
Diethyl phthalate	**0.98**	**U**	**ug/L**	**1**	5.0	0.98	9/24/2017 23:51	J
Dimethyl phthalate	**9.9**	**U**	**ug/L**	**1**	10	9.9	9/24/2017 23:51	J

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ANALYTICAL RESULTS

Workorder: J1709207 Perma Fix Gainesville

Lab ID: **J1709207002** Date Received: 09/15/17 14:25 Matrix: Water

Sample ID: **SW-4** Date Collected: 09/15/17 11:25

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Ethyl methanesulfonate	**0.91**	**U**	**ug/L**	**1**	5.0	0.91	9/24/2017 23:51	J
Fluoranthene	**0.037**	**U**	**ug/L**	**1**	0.20	0.037	9/24/2017 23:51	J
Fluorene	**0.038**	**U**	**ug/L**	**1**	0.20	0.038	9/24/2017 23:51	J
Hexachlorobenzene	**0.99**	**U**	**ug/L**	**1**	5.0	0.99	9/24/2017 23:51	J
Hexachlorobutadiene	**0.87**	**U**	**ug/L**	**1**	5.0	0.87	9/24/2017 23:51	J
Hexachlorocyclopentadiene	**0.99**	**U**	**ug/L**	**1**	5.0	0.99	9/24/2017 23:51	J
Hexachloroethane	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	9/24/2017 23:51	J
Indeno(1,2,3-cd)pyrene	**0.011**	**U**	**ug/L**	**1**	0.20	0.011	9/24/2017 23:51	J
Isophorone	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	9/24/2017 23:51	J
Methyl Methanesulfonate	**0.57**	**U**	**ug/L**	**1**	5.0	0.57	9/24/2017 23:51	J
N-Nitrosodi-n-butylamine	**1.5**	**U**	**ug/L**	**1**	5.0	1.5	9/24/2017 23:51	J
N-Nitrosodi-n-propylamine	**2.2**	**U**	**ug/L**	**1**	5.0	2.2	9/24/2017 23:51	J
N-Nitrosodimethylamine	**0.62**	**U**	**ug/L**	**1**	5.0	0.62	9/24/2017 23:51	J
N-Nitrosodiphenylamine	**0.59**	**U**	**ug/L**	**1**	5.0	0.59	9/24/2017 23:51	J
N-Nitrosopiperidine	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	9/24/2017 23:51	J
Naphthalene	**0.048**	**U**	**ug/L**	**1**	0.20	0.048	9/24/2017 23:51	J
Nitrobenzene	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	9/24/2017 23:51	J
Pentachlorobenzene	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	9/24/2017 23:51	J
Pentachloronitrobenzene	**1.6**	**U**	**ug/L**	**1**	5.0	1.6	9/24/2017 23:51	J
Pentachlorophenol	**0.95**	**U**	**ug/L**	**1**	5.0	0.95	9/24/2017 23:51	J
Phenacetin	**0.79**	**U**	**ug/L**	**1**	5.0	0.79	9/24/2017 23:51	J
Phenanthrene	**0.040**	**U**	**ug/L**	**1**	0.20	0.040	9/24/2017 23:51	J
Phenol	**0.54**	**U**	**ug/L**	**1**	5.0	0.54	9/24/2017 23:51	J
Pronamide (Kerb)	**0.96**	**U**	**ug/L**	**1**	5.0	0.96	9/24/2017 23:51	J
Pyrene	**0.036**	**U**	**ug/L**	**1**	0.20	0.036	9/24/2017 23:51	J
a,a-Dimethylphenethylamine	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	9/24/2017 23:51	J
bis(2-Chloroethoxy)methane	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	9/24/2017 23:51	J
bis(2-Chloroethyl)Ether	**1.5**	**U**	**ug/L**	**1**	5.0	1.5	9/24/2017 23:51	J
bis(2-Chloroisopropyl) Ether	**1.4**	**U**	**ug/L**	**1**	5.0	1.4	9/24/2017 23:51	J
bis(2-Ethylhexyl) phthalate	**2.0**	**U**	**ug/L**	**1**	5.0	2.0	9/24/2017 23:51	J
2-Fluorophenol (S)	**42**		**%**	**1**	31-134		9/24/2017 23:51	
Phenol-d6 (S)	**29**		**%**	**1**	24-120		9/24/2017 23:51	
Nitrobenzene-d5 (S)	**78**		**%**	**1**	38-139		9/24/2017 23:51	
2-Fluorobiphenyl (S)	**72**		**%**	**1**	42-138		9/24/2017 23:51	
2,4,6-Tribromophenol (S)	**90**		**%**	**1**	48-147		9/24/2017 23:51	
p-Terphenyl-d14 (S)	**92**		**%**	**1**	61-154		9/24/2017 23:51	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: J1709207 Perma Fix Gainesville

PARAMETER QUALIFIERS

U	The compound was analyzed for but not detected.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
V	Method Blank Contamination

LAB QUALIFIERS

J	DOH Certification #E82574(AEL-JAX)(FL NELAC Certification)

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QUALITY CONTROL DATA

Workorder: J1709207 Perma Fix Gainesville

QC Batch: DGMj/3540 Analysis Method: SW-846 6010
QC Batch Method: SW-846 3010A Prepared: 09/19/2017 03:30
Associated Lab Samples: J1709207001, J1709207002

METHOD BLANK: 2466858

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
METALS				
Arsenic	mg/L	0.0090	0.0085	I
Cadmium	mg/L	0.00032	0.00032	U
Chromium	mg/L	0.00068	0.00050	I
Lead	mg/L	0.0013	0.0013	U

QC Batch: EXTj/4268 Analysis Method: FL-PRO
QC Batch Method: FL-PRO Prepared: 09/18/2017 12:00
Associated Lab Samples: J1709207001, J1709207002

METHOD BLANK: 2467159

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
TPH	ug/L	600	600	U
o-Terphenyl (S)	%	85	82-142	
Nonatricontane-C39 (S)	%	84	42-193	

QC Batch: EXTj/4277 Analysis Method: SW-846 8270C
QC Batch Method: SW-846 3510C Prepared: 09/20/2017 12:00
Associated Lab Samples: J1709207001, J1709207002

METHOD BLANK: 2471193

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
Phenol	ug/L	0.54	0.54	U
2-Chlorophenol	ug/L	1.2	1.2	U
2-Methylphenol (o-Cresol)	ug/L	0.88	0.88	U
3+4-Methylphenol(mp-Cresol)	ug/L	0.70	0.70	U
2-Nitrophenol	ug/L	0.63	0.63	U
2,4-Dimethylphenol	ug/L	2.6	2.6	U
Benzoic Acid	ug/L	0.78	0.78	U
2,4-Dichlorophenol	ug/L	0.90	0.90	U

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QUALITY CONTROL DATA

Workorder: J1709207 Perma Fix Gainesville

METHOD BLANK: 2471193

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
2,6-Dichlorophenol	ug/L	0.62	0.62	U
4-Chloro-3-methylphenol	ug/L	0.62	0.62	U
2,4,6-Trichlorophenol	ug/L	0.93	0.93	U
2,4,5-Trichlorophenol	ug/L	0.96	0.96	U
2,4-Dinitrophenol	ug/L	0.62	0.62	U
4-Nitrophenol	ug/L	0.62	0.62	U
2,3,4,6-Tetrachlorophenol	ug/L	1.1	1.1	U
2-Methyl-4,6-dinitrophenol	ug/L	0.77	0.77	U
Pentachlorophenol	ug/L	0.95	0.95	U
N-Nitrosodimethylamine	ug/L	0.62	0.62	U
2-Picoline (2-Methylpyridine)	ug/L	1.2	1.2	U
Methyl Methanesulfonate	ug/L	0.57	0.57	U
Ethyl methanesulfonate	ug/L	0.91	0.91	U
Aniline	ug/L	0.75	0.75	U
bis(2-Chloroethyl)Ether	ug/L	1.5	1.5	U
1,3-Dichlorobenzene	ug/L	1.0	1.0	U
1,4-Dichlorobenzene	ug/L	1.2	1.2	U
1,2-Dichlorobenzene	ug/L	1.4	1.4	U
Benzyl Alcohol	ug/L	0.99	0.99	U
bis(2-Chloroisopropyl) Ether	ug/L	1.4	1.4	U
Acetophenone	ug/L	1.6	1.6	U
N-Nitrosodi-n-propylamine	ug/L	2.2	2.2	U
Hexachloroethane	ug/L	1.2	1.2	U
Nitrobenzene	ug/L	1.1	1.1	U
N-Nitrosopiperidine	ug/L	1.3	1.3	U
Isophorone	ug/L	1.1	1.1	U
bis(2-Chloroethoxy)methane	ug/L	1.2	1.2	U
1,2,4-Trichlorobenzene	ug/L	0.69	0.69	U
Naphthalene	ug/L	0.048	0.048	U
a,a-Dimethylphenethylamine	ug/L	1.2	1.2	U
4-Chloroaniline	ug/L	0.90	0.90	U
Hexachlorobutadiene	ug/L	0.87	0.87	U
N-Nitrosodi-n-butylamine	ug/L	1.5	1.5	U
2-Methylnaphthalene	ug/L	0.049	0.049	U
1-Methylnaphthalene	ug/L	0.050	0.050	U
Hexachlorocyclopentadiene	ug/L	0.99	0.99	U
1,2,4,5-Tetrachlorobenzene	ug/L	1.3	1.3	U
2-Chloronaphthalene	ug/L	0.97	0.97	U
2-Nitroaniline	ug/L	0.83	0.83	U
Dimethyl phthalate	ug/L	9.9	9.9	U
2,6-Dinitrotoluene (2,6-DNT)	ug/L	1.1	1.1	U
Acenaphthylene	ug/L	0.042	0.042	U
3-Nitroaniline	ug/L	0.67	0.67	U
Acenaphthene	ug/L	0.040	0.040	U
Pentachlorobenzene	ug/L	1.3	1.3	U

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QUALITY CONTROL DATA

Workorder: J1709207 Perma Fix Gainesville

METHOD BLANK: 2471193

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Dibenzofuran	ug/L	0.0069	0.0069	U
2,4-Dinitrotoluene (2,4-DNT)	ug/L	0.60	0.60	U
1-Naphthylamine	ug/L	0.68	0.68	U
2-Naphthylamine	ug/L	0.77	0.77	U
Diethyl phthalate	ug/L	0.98	0.98	U
Fluorene	ug/L	0.038	0.038	U
4-Chlorophenyl Phenyl Ether	ug/L	0.69	0.69	U
4-Nitroaniline	ug/L	0.71	0.71	U
1,2-Diphenylhydrazine	ug/L	0.96	0.96	U
Phenacetin	ug/L	0.79	0.79	U
4-Bromophenyl Phenyl Ether	ug/L	1.1	1.1	U
Hexachlorobenzene	ug/L	0.99	0.99	U
Pentachloronitrobenzene	ug/L	1.6	1.6	U
4-Aminobiphenyl	ug/L	0.53	0.53	U
Pronamide (Kerb)	ug/L	0.96	0.96	U
Phenanthrene	ug/L	0.040	0.040	U
Anthracene	ug/L	0.035	0.035	U
Carbazole	ug/L	0.020	0.020	U
Di-n-Butyl Phthalate	ug/L	0.88	0.88	U
Fluoranthene	ug/L	0.037	0.037	U
Benzidine	ug/L	0.74	0.74	U
Pyrene	ug/L	0.036	0.036	U
4-Dimethyl aminoazobenzene	ug/L	0.73	0.73	U
Butyl benzyl phthalate	ug/L	1.1	1.1	U
Benzo[a]anthracene	ug/L	0.012	0.012	U
3,3`-Dichlorobenzidine	ug/L	1.3	1.3	U
Chrysene	ug/L	0.033	0.033	U
bis(2-Ethylhexyl) phthalate	ug/L	2.0	2.0	U
Di-n-octyl Phthalate	ug/L	1.2	1.2	U
Benzo[b]fluoranthene	ug/L	0.012	0.012	U
7,12-Dimethylbenz[a]anthracene	ug/L	1.1	1.1	U
Benzo[k]fluoranthene	ug/L	0.048	0.048	U
Benzo[a]pyrene	ug/L	0.037	0.037	U
3-Methylcholanthrene	ug/L	0.57	0.57	U
Indeno(1,2,3-cd)pyrene	ug/L	0.011	0.011	U
Dibenzo[a,h]anthracene	ug/L	0.024	0.024	U
Benzo[g,h,i]perylene	ug/L	0.048	0.048	U
N-Nitrosodiphenylamine	ug/L	0.59	0.59	U
2-Fluorophenol (S)	%	82	31-134	
Phenol-d6 (S)	%	73	24-120	
Nitrobenzene-d5 (S)	%	92	38-139	
2-Fluorobiphenyl (S)	%	92	42-138	
2,4,6-Tribromophenol (S)	%	100	48-147	
p-Terphenyl-d14 (S)	%	103	61-154	

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QUALITY CONTROL DATA QUALIFIERS

Workorder: J1709207 Perma Fix Gainesville

QUALITY CONTROL PARAMETER QUALIFIERS

U	The compound was analyzed for but not detected.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J4	Estimated Result
V	Method Blank Contamination
[1]	Surrogate diluted out.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J1709207 Perma Fix Gainesville

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
J1709207001	~~SW-3~~ SW-5	SW-846 3010A	DGMj/3540	SW-846 6010	ICPj/2255
J1709207002	SW-4	SW-846 3010A	DGMj/3540	SW-846 6010	ICPj/2255
J1709207001	~~SW-3~~ SW-5	FL-PRO	EXTj/4268	FL-PRO	GCSj/3225
J1709207002	SW-4	FL-PRO	EXTj/4268	FL-PRO	GCSj/3225
J1709207001	~~SW-3~~ SW-5	SW-846 3510C	EXTj/4277	SW-846 8270C	MSSj/2418
J1709207002	SW-4	SW-846 3510C	EXTj/4277	SW-846 8270C	MSSj/2418

Advanced Environmental Laboratories, Inc.

- ☐ **Altamonte Springs:** 528 S. Northlake Blvd., Ste. 1016 • Altar
- ☐ **Gainesville:** 4965 SW 41st Blvd. • Gainesville, FL 32608 • 352.
- ☒ **Jacksonville:** 6681 Southpoint Pkwy. • Jacksonville, FL 32216
- ☐ **Miramar:** 10200 USA Today Way • Miramar, FL 33025 • 954.88
- ☐ **Tallahassee:** 2639 North Monroe Street, Suite D • Tallahassee
- ☐ **Tampa:** 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.

J1709207

Client Name: AECOM
Address: 4168 Southpoint Pkw. S
Suite 205 Jax, FL 32216
Phone: 904 281-9251
FAX: 904 296-1289
Contact: Victor Caparros
Sampled By: Allen Griffin / William Kelly
Turn Around Time: ☒ STANDARD ☐ RUSH
Page 1 of 1

Project Name: Perma Fix Gainesville.
P.O. Number/Project Number: 60541241.
Project Location: Gainesville, FL
FDEP Facility No: N/A
Project Name and Address: Perma Fix 1940 NW 67th Place, Gainesville, FL 32653
Special Instructions: ☐ ADaPT ☐ EQuIS

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	PRESERVATION	8270 (Full list) 250mL AG	TRPH (FL-PRO) 250mL AG	6010 (As, Cd, Cr, Pb) 250mL HDPE								LABORATORY I.D. NUMBER
~~SW-3~~ SW-5	(includes MS/MSD)	X	9/15/17	1045	SW	5		X	X	X								001
SW-4		X	9/15/17	1125	SW	3		X	X	X								002

Matrix Code: **WW** = wastewater **SW** = surface water **GW** = ground water **DW** = drinking water **O** = oil **A** = air **SO** = soil **SL** = sludge

Preservation Code: I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice ☒ Yes ☐ No ☑ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked Temperature when received 4 (in degrees celcius)

DCN: AD-051 Form last revised 08/18/2014

Device used for measuring Temp by unique identifier (circle IR temp gun used) J:9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V

	Relinquished by:	Date	Time	Received by:	Date	Time
1	[signature]	9-15-17	14:25	[signature]	9-15-17	14:25
2						
3						
4						

FOR DRINKING WATER USE:
(When PWS information not otherwise supplied) PWS ID: ______
Contact Person: ______ Phone: ______
Supplier of Water: ______
Site-Address: ______

APPENDIX D

GROUNDWATER SAMPLING LOGS

NOTE: THIS LOG DOES NOT SUBSTITUTE FIELD BOOK LOG ENTRIES

AECOM

EQUIPMENT CALIBRATION / VERIFICATION LOG

DATE/TIME COMPLETE: 07/19/2017 0740
(MM/DD/YY, HH:MM)

PROJECT: Perma-Fix

TASK: Groundwater Sampling

FIELD PERSONNEL: Bobby Fleming — NAME (PRINT)

Robert M. Fleming — (SIGNATURE)

GROUNDWATER PRE-SAMPLING EVENT EQUIPMENT: YSI 556MPS Hanna Turbidity Meter
(i.e., YSI 556, Oakton, etc)

	pH (std units)			D.O.* (%)	Conductivity (umho/cm)	Turbidity (NTUs, minimum of two standards)			
STANDARDS (If blank, specify):	4.00	7.00	10.00	100% in air	1409.00	0.1	15.0	100	750
INITIAL READING	3.81	7.41	9.53		1405.00	0.04	15.0	101	743
FINAL READING	4.00	7.00	10.00		1407.00	—	—	—	—
TEMPERATURE	23.67	24.01	23.67		23.62	—	—	—	—
CALIBRATED / VERIFIED	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER

OVA/FID/PID/LEL EQUIPMENT (Specify): ______
(i.e., PortaFID, PhotoVac PID, Q RAE II, etc.)

	Methane (use for PortaFID or DP-4)	Isobutylene (use for PhotoVAC 2020)	LEL Meter Bump	LEL Meter Calibrated Y / N
STANDARDS (If blank, specify):	100 ppm	100 ppm	2.5% Methane (50% LEL)	Multiple Concentrations
INITIAL READING				
FINAL READING				
CALIBRATED / VERIFIED	CAL / VER	CAL / VER	CAL / VER	

DATE/TIME COMPLETE: 07/19/2017 1540
(MM/DD/YY, HH:MM)

GROUNDWATER POST-SAMPLING EVENT EQUIPMENT: YSI 556 MPS Hanna Turbidity Meter
(i.e., YSI 556, Oakton, etc)

	pH (std units)			D.O.* (%)	Conductivity (umho/cm)	Turbidity (NTUs, minimum of two standards)			
STANDARDS (If blank, specify):	4.00	7.00	10.00	100% in air	1409.00	0.1	15.0	100	750
INITIAL READING	3.78	6.91	9.73		1436	0.04	15.1	~~[illegible]~~ RMF	749
FINAL READING	4.00	7.00	10.00		1409	—	—	95.9	—
TEMPERATURE	42.49	41.31	42.70		43.35	—	—	—	—
CALIBRATED / VERIFIED	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER

* - Although dissolved oxygen is typically calibrated in percent (%) saturation in air, stabilization readings should be recorded in milligrams per liter (mg/l)

Verification Acceptance Criteria:

pH +/- 0.2 pH Units
Conductivity +/- 5%
D.O. +/- 0.3 mg/L
Turb. 0.1-10 NTU

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Perma-Fix	SITE LOCATION:

WELL NO: MW-1	SAMPLE ID: MW-1	DATE: 7/17/2017

PURGING DATA

WELL DIAMETER (inches): 1	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 6 feet to 16 feet	STATIC DEPTH TO WATER (feet): 8.12	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (16 feet – 8.12 feet) X 0.04 gallons/foot = 0.3152 gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 9.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 10.5	PURGING INITIATED AT: 0928	PURGING ENDED AT: 0952	TOTAL VOLUME PURGED (gallons): 2.4

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	ORP
0932	0.4	0.4	0.1	9.33	8.18	28.18	266	2.22	2.35	Cloudy	None	-14
0936	0.4	0.8	0.1	9.33	8.17	28.08	260	2.07	25.8	Clear	None	-112
0940	0.4	1.2	0.1	9.33	7.91	27.98	257	2.02	54.1	Clear	None	-97
0944	0.4	1.6	0.1	9.33	7.21	28.00	261	2.64	18.9	Clear	None	-76
0948	0.4	2.0	0.1	9.33	6.93	28.12	252	2.54	10.0	Clear	None	
0952	0.4	2.4	0.1	9.33	6.94	28.18	253	2.58	7.57	Clear	None	

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: Bobby Fleming / AECOM	SAMPLER(S) SIGNATURE(S): Robert M. Fleming	SAMPLING INITIATED AT: 0953	SAMPLING ENDED AT: 1000
PUMP OR TUBING DEPTH IN WELL (feet): 10.5	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y N (N circled) Filtration Equipment Type:	FILTER SIZE: ____ μm
FIELD DECONTAMINATION: PUMP Y N (N circled)	TUBING Y N (replaced) (N circled)	DUPLICATE: Y N (Y circled)	

SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-1	3	AG/CG	~~250 mL~~ 40 mL	HCL	—	—	PP VOC 8260	APP	<100
MW-1	1	AG	250 mL	—	—	—	8270, TPH	APP	<100
MW-1	1	AG	1 Liter	~~HNO3~~ None	—	—	PCB 8082	APP	<100
MW-1	1	PE	250 mL	HNO3	—	—	6010	APP	<100
MW-1	1	AG	1 Liter	~~H2SO4~~ None	—	—	PP SVOCs	APP	<100

REMARKS: MSD 1000

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After 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)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	SITE LOCATION:	
WELL NO: MW-2	SAMPLE ID: MW-2	DATE: 7/19/17

PURGING DATA

WELL DIAMETER (inches): 1	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 4 feet to 14 feet	STATIC DEPTH TO WATER (feet): 6.01	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (14 feet – 6.01 feet) X 0.04 gallons/foot = 0.3196 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 7.50	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 13.5	PURGING INITIATED AT: 0834	PURGING ENDED AT: 0854	TOTAL VOLUME PURGED (gallons): 2.0

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	OR
0838	0.4	0.4	0.1	9.01	6.79	25.20	277	2.33	17.2	Clear	None	4.
0842	0.4	0.8	0.1	10.00	6.55	25.24	227	2.55	8.49	Clear	None	6.
0846	0.4	1.2	0.1	11.30	6.35	25.21	195	2.11	8.17	Clear	None	0.
0850	0.4	1.6	0.1	12.20	6.16	25.00	184	1.88	14.0	Clear	None	-2
0854	0.4	2.0	0.1	13.70	6.08	24.97	175	1.74	16.3	Clear	None	

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: Bobby Fleming / AECOM	SAMPLER(S) SIGNATURE(S): Robert M. Fleming	SAMPLING INITIATED AT: 1304	SAMPLING ENDED AT: 1520
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ μm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N (replaced))	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			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			
MW-2	3	AG/CG	250 mL	HCL	—	—	PPVOC 8260	APP	400
MW-2	1	AG	250 mL	—	—	—	8270/FLPRO	APP	400
MW-2	1	PE	250 mL	HNO3	—	—	6010	APP	400
MW-2	1	AG	1 liter	none	—	—	PP SVOCS	APP	400

REMARKS: 0854 well Purged Dry
1304 well Purged Dry

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After 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)

Revision Date: February 12, 2009

NOTE: THIS LOG DOES NOT SUBSTITUTE FIELD BOOK LOG ENTRIES

AECOM

EQUIPMENT CALIBRATION / VERIFICATION LOG

DATE/TIME COMPLETE: 8/8/17 09:50
(MM/DD/YY, HH:MM)

PROJECT: Perma-Fix / UF Structures + materials Lab

TASK: Groundwater Sampling

FIELD PERSONNEL: Brett McKee
NAME (PRINT)

(SIGNATURE)

GROUNDWATER PRE-SAMPLING EVENT EQUIPMENT: YSI 556 / HANA Turbidity
(i.e., YSI 556, Oakton, etc)

	pH (std units)			D.O.* (%)	Conductivity (umho/cm)	Turbidity (NTUs, minimum of two standards)			
STANDARDS (If blank, specify):	4.00	7.00	10.00	100% in air	1409.00	15.0	100		
INITIAL READING	3.99	7.56	10.32	98.3	1412	14.8	99		
FINAL READING	4.00	7.00	10.00	100%	1409	15.0	100		
TEMPERATURE	23.51	23.46	23.44	24.86	25.11	–	–		
CALIBRATED / VERIFIED	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER

OVA/FID/PID/LEL EQUIPMENT (Specify):
(i.e., PortaFID, PhotoVac PID, Q RAE II, etc.)

	Methane (use for PortaFID or DP-4)	Isobutylene (use for PhotoVAC 2020)	LEL Meter Bump	LEL Meter Calibrated Y / N
STANDARDS (If blank, specify):	100 ppm	100 ppm	2.5% Methane (50% LEL)	Multiple Concentrations
INITIAL READING				
FINAL READING				
CALIBRATED / VERIFIED	CAL / VER	CAL / VER	CAL / VER	

DATE/TIME COMPLETE: 8/8/17 13:55
(MM/DD/YY, HH:MM)

GROUNDWATER POST-SAMPLING EVENT EQUIPMENT: YSI 556 / HANA Turbidimeter
(i.e., YSI 556, Oakton, etc)

	pH (std units)			D.O.* (%)	Conductivity (umho/cm)	Turbidity (NTUs, minimum of two standards)			
STANDARDS (If blank, specify):	4.00	7.00	10.00	100% in air	1409.00	15.0	100		
INITIAL READING	4.03	7.00	10.12	98.7	1418	14.9	100		
FINAL READING	–	–	–	–	–	–	–		
TEMPERATURE	22.11	23.56	22.78	23.41	22.66	–	–		
CALIBRATED / VERIFIED	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER	CAL / VER

* - Although dissolved oxygen is typically calibrated in percent (%) saturation in air, stabilization readings should be recorded in milligrams per liter (mg/l)

Verification Acceptance Criteria: pH +/- 0.2 pH Units
Conductivity +/- 5%
D.O. +/- 0.3 mg/L
Turb. 0.1-10 NTU

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Permafix Gainesville, FL	SITE LOCATION: 1940 NW 67th Place, Gainesville FL
WELL NO: MW-2	SAMPLE ID: MW-2
DATE: 8/8/17	

PURGING DATA

WELL DIAMETER (inches): 1 | TUBING DIAMETER (inches): 1/4 | WELL SCREEN INTERVAL DEPTH: 4 ft btoc to 14 ft btoc | STATIC DEPTH TO WATER (feet): 4.63 | PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (14 feet – 4.63 feet) X 0.04 gallons/foot = 0.37 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 13 | PURGING INITIATED AT: 10:19 | PURGING ENDED AT: 10:55 | TOTAL VOLUME PURGED (gallons): 0.652

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)	Oxidation / Reduction Potential (mV)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
10:46	0.49	0.49	0.018	12.51	6.13	28.41	110	1.87	-6.5	5.97	none	none
10:49	0.054	0.544	0.018	12.60	6.20	28.76	115	1.57	-5.0	5.03	none	none
10:52	0.054	0.598	0.018	12.63	6.21	28.79	116	1.51	-6.2	5.00	none	none
10:55	0.054	0.652	0.018	12.81	6.22	28.83	116	1.47	-6.8	5.01	none	none

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: Brett McKee /AECOM | SAMPLER(S) SIGNATURE(S): [signature] | SAMPLING INITIATED AT: 10:56 | SAMPLING ENDED AT: 12:30

PUMP OR TUBING DEPTH IN WELL (feet): 13 | TUBING MATERIAL CODE: HDPE | FIELD-FILTERED: Y N | Filtration Equipment Type: | FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP Y N (NA) | TUBING Y N (replaced) | DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			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			
MW-2	1	AG	1L	none	–	–	PCB 8082	APP	<100
MW-2	1	AG	1L	none	–	–	Pest 8081	APP	<100

REMARKS: well purged dry while filling second 1L Amber. allowed time for recharge to fill Amber glass. Finished Sampling @ 12:30

Total Depth (ft btoc):

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After 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)

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