



November 5, 2019

Sent via electronic mail

Mr. Bradley Buselli  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Subject: Source Removal Report and No Further Action Request  
Perma-Fix of Florida, Inc.  
1940 NW 67<sup>th</sup> Place  
Gainesville, FL 32653  
FLD 980 711 071  
Operating Permit Number: 17680-011-HO  
Discharge Incident: January 5, 2017

Dear Mr. Buselli,

In a letter dated March 29, 2019, the Florida Department of Environmental Protection (FDEP) approved a Site Assessment Report (SAR) Addendum, dated March 29, 2019, prepared by Trihydro Corporation (Tribydro) for the subject property. The SAR Addendum identified an area of petroleum impacts in shallow soils on the property and recommended a source removal as a limited-scope remediation effort to remove these impacts from the property and justify submittal a petition for no further action for this facility. On behalf of Perma-Fix of Florida, Inc. (Perma-Fix), Trihydro Corporation, Inc. (Tribydro) has prepared the following Source Removal Report and No Further Action Request, presenting a summary of activities and results of a limited-scope remediation effort recently performed that this facility.

## 1. Introduction

This Source Soil Removal Report presents a summary of activities recently completed to remediate soil impacts identified in the northern portion of the Perma-Fix facility located at 1940 NW 67<sup>th</sup> Place in Gainesville, FL (Site). Previous site assessment efforts completed by AECOM Technical Services, Inc. (AECOM) and Tribydro, were performed to investigate potential soil and/or groundwater impacts associated with a roll-off dumpster fire incident that occurred on January 5, 2017. The assessment findings concluded that no environmental impacts had occurred related to the dumpster incident.

However, petroleum soil impacts were detected in an unpaved approximately 1,000 square foot (SF) area located near in the northern boundary of the developed portion of the Site, and adjacent to the North Drainage Ditch (SWMU 23) as referenced in the Resource Conservation and Recovery Act (RCRA) Permit (FLD 980 711 071) for this facility. Shallow soils in this area were determined to be impacted with polycyclic aromatic hydrocarbons (PAH) from an unknown source. No groundwater or surface water impacts were detected in this vicinity. A Site Map is provided as **Figure 1**.

## 2. Project Background

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



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approximately 10 cubic yards (CY) of hazardous waste solids that included spent vapor-phase granular activated carbon (GAC) impacted with tetrachloroethylene (PCE) 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 (connected to Outfall #3). Under authorization from Perma-Fix, AECOM completed a site assessment to investigate potential environmental impacts related to this fire incident. A Site Assessment Report, dated May 3, 2018, prepared by AECOM concluded that PCE and acetone originally contained in the roll-off box had not impacted that Site. Following receipt of report review comments from the FDEP, under authorization from Perma-Fix, a supplemental investigation was performed by Trihydro to further investigate the Site. SAR Addendum, dated March 29, 2019, prepared by Trihydro, identified an area of shallow soils impacted by PAHs measuring approximately 28 feet north-south by 38 feet east-west and extending to an average depth of 1 foot (ft) in a grassed area located immediately north of the paved boundary of the Site. A map depicting the distribution of benzo(a)pyrene (BaP), the primary PAH analyte identified in the SAR Addendum is provided as **Figure 2**. Soil, groundwater, and surface water summary tables from the SAR Addendum are provided as **Tables 1 through 3**. The SAR Addendum recommended removal of an estimated 50 cubic yards (CY) of PAH-impacted shallow soil as a limited-scope remediation effort to achieve site cleanup and justify submittal a petition for no further action for this Site. As noted above, in a letter dated March 29, 2019, the FDEP approved the recommended source removal plan as a viable cleanup strategy for this Site.

### **3. Backfill Material Sampling**

On September 9, 2019 Trihydro collected a representative soil sample from the O'Steen Bros., Inc. borrow pit at 20125 SW Archer Road in Archer, FL. This borrow pit was the intended supplier of clean fill material for the planned excavation restoration associated with the source removal effort for the Perma-Fix Site. The clean fill sample was transported by Trihydro under chain of custody to Advanced Environmental Laboratories (AEL) in Jacksonville for testing. The sample was analyzed for Volatile Organic Compounds (VOC) by EPA Method 8260, for Semivolatile Organic Compounds (SVOC) by EPA Method 8270, for Organochlorine Pesticides by EPA Method 8081, for Total Petroleum Hydrocarbons (TPH) by the Florida Petroleum Residual Organics (FL-PRO) Method, for Polychlorinated Biphenyls (PCB) by EPA Method 8082, and for 8 RCRA metals by EPA Methods 6010 and 7471A. The results of analyses indicated no tested analyte concentrations exceeding corresponding Soil Cleanup Target Levels (SCTL) as provided on Table II of Chapter 62-777, Florida Administrative Code (FAC). The laboratory report of analyses is provided in **Appendix A**.

### **4. Excavation Activities**

Prior to commencement of intrusive efforts, the boundaries of the proposed source removal effort were marked with flags and white paint, then Sunshine State One Call of Florida, Inc. (Sunshine 811) was contacted to review the work area and mark out public utilities as applicable. Sunshine 811 confirmed that no underground public utilities were present in the proposed work area. Trihydro also subcontracted Ground Penetrating Radar Systems, Inc. (GPRS) to screen the work area for potential underground



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private utilities or other structures using ground-penetrating radar and electro-magnetic remote-sensing tools. GPRS confirmed the location of an existing storm drain pipe (Outfall #3 pipe) and a concrete slab in the work area.

On September 18, 2019, Trihydro and subcontractor RC Development, Inc. (a Florida-licensed pollutant storage system contractor) mobilized to the Site and commenced source removal efforts. The excavation effort was initiated, first excavating the planned 28x38-ft rectangle to a depth of 1 ft below land surface (bls). As outlined in the source removal work plan provided in the SAR Addendum, a 10x10-ft area in the northeast corner of the excavation was further advanced to a total depth of 4 ft bls. These boundaries were determined based on the findings presented in the SAR Addendum and are depicted on **Figure 3**. A sampling grid was established across the excavation and soils were screened for petroleum vapors using a calibrated MiniRae 2000 organic vapor analyzer (OVA) equipped with a photoionization detector. The FDEP generally considers OVA readings of 10 part per million (ppm) or less to represent natural (background) conditions. Therefore, 10 ppm was used as a field reference for OVA screening of soils during excavation, to be confirmed through subsequent laboratory sample testing. The OVA screening results are summarized on **Table 4**.

Upon reaching the planned excavation extents, two western boundary screening samples (OVA 20-1 and OVA 21-1 collected at the 1-ft depth interval yielded OVA readings of 21.0 and 20.5 ppm, respectively. These were the only soil-screening locations that yielded OVA readings in excess of 10 ppm. Therefore, the excavation was expanded approximately 2 ft to the west and to a total depth of 2 ft bls in this approximately 6x12-ft (72 SF) subset area. Additional western boundary screening samples collected at the 2-ft bls depth (OVA 20-2 and OVA 21-2) yielded OVA readings below 10 ppm. Soil samples were collected from six locations at the boundaries of the excavation. Four of the samples were then collected from the lateral extents of the excavation (SS-2-4E, SS-3-4N, SS-5-2W, and SS-6-1S). Two of the samples were collected from the base of the excavation (SS-1-4C and SS-4-1C). The final extents of the excavation and the confirmation sample locations are depicted on **Figure 3**.

The excavated soils were placed into six lined roll-off boxes provided by Perma-Fix. These materials were subsequently manifested by Perma-Fix, then transported by Action Resources and disposed at Clean Earth of Georgia located at 5815 Highway 17 N in Kingsland, GA. A total of 58.63 tons (approximately 42 CY) of petroleum-impacted soil was removed from the area of concern during this limited remediation effort. Transport and disposal facility receipt documents are provided in **Appendix B**.

The six sets of boundary samples were analyzed for PAHs by EPA Method 8270-SIM. The results of analyses indicated no analyte concentrations above corresponding Residential Direct Exposure or Groundwater Leachability SCTLs as provided on Table II of Chapter 62-777, FAC. A summary of the post-excavation sampling results is provided on **Table 5**. A calculated BaP equivalent summary table for PAH analytes is provided in **Appendix C**. The laboratory reports of analyses are provided in **Appendix D**.



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## 5. Excavation Restoration

Backfilling and sodding activities took place during September 24-26, 2019. Approximately 14 CY of clean backfill was delivered to the Site from the O'Steen Bros. borrow pit and used to restore the excavation area. Following backfilling and grading, sod was placed across the area to cover the former excavation area. Site photographs are included as **Appendix E**.

## 6. Conclusions

Previous site assessment efforts determined that groundwater and surface water were not impacted at this Site, but that shallow soils impacted with PAH at concentrations exceeding SCTLs were present in an approximately 1,000 SF unpaved area in the northern portion of the Site. During September 18-26, 2019, approximately 42 CY of previously-assessed PAH-impacted soil was removed from the subsurface immediately north of the paved extent of the subject Site and the work area was restored with clean fill. The excavated soils were transported off site and properly disposed. Post-excavation soil samples recovered from native sediments at the excavation boundaries were tested for PAH and the results confirmed that remaining native soils were below Residential Direct Exposure and Groundwater Leachability SCTLs. These findings confirmed that the previously-identified soil impacts have been successfully removed from the subject Site.

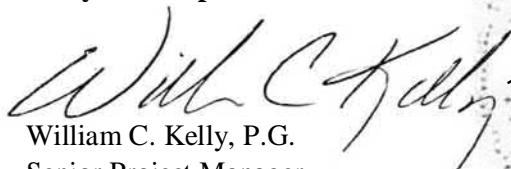
Based upon the above evidence, Trihydro concludes that soil cleanup has been achieved and that no further actions are necessary related to the January 5, 2017 incident at this Site.

## 7. Recommendations

Trihydro respectfully requests that the FDEP approve our request for No Further Action Without Conditions and issue a Site Rehabilitation Completion Order for this Site.

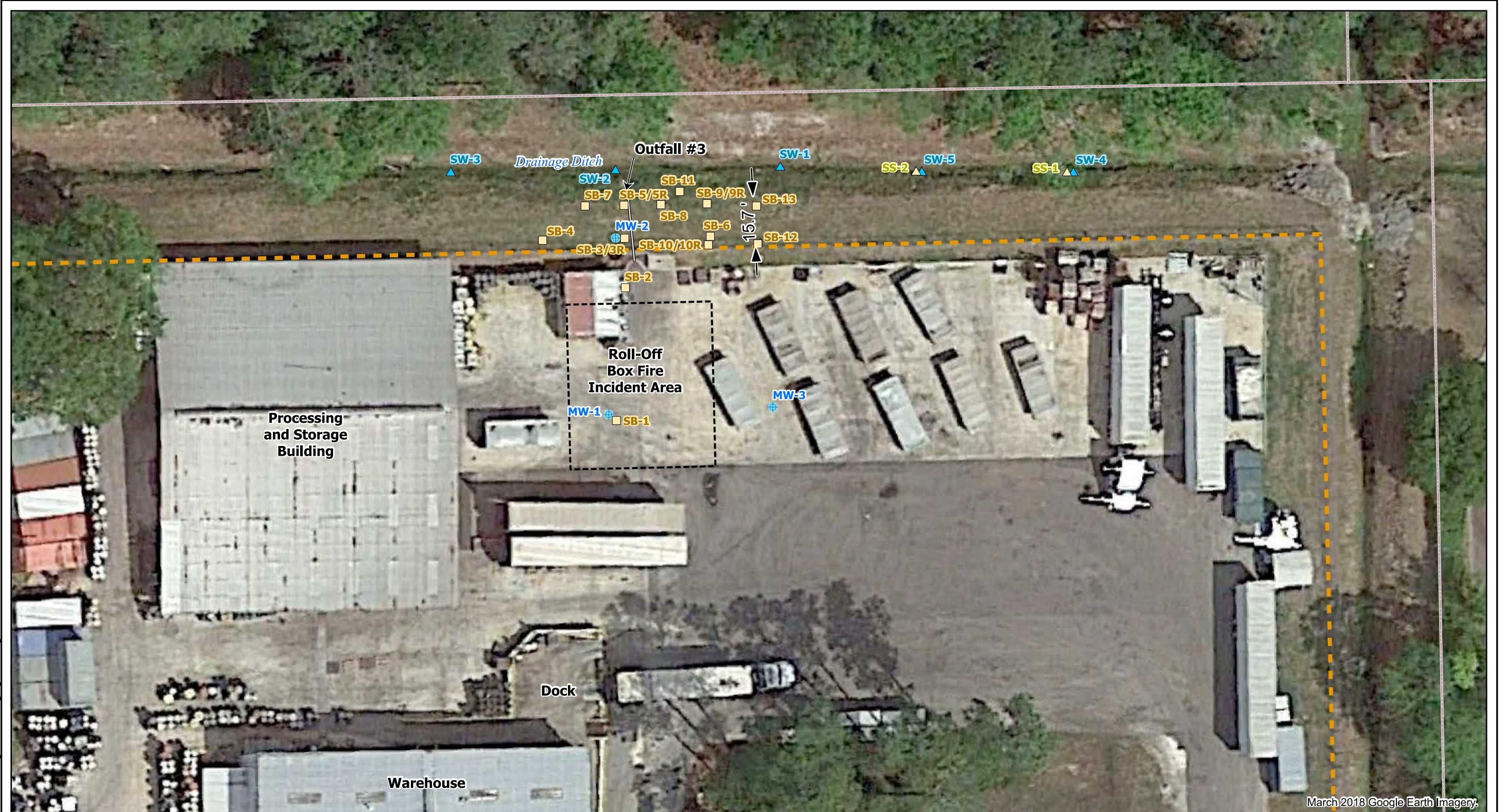
If you have any questions, or require additional information, please do not hesitate to contact William Kelly at (904) 513-9742 or via email at [bkelly@Trihydro.com](mailto:bkelly@Trihydro.com).

Respectfully submitted,  
**Trihydro Corporation**

  
William C. Kelly, P.G.  
Senior Project Manager  
Florida Professional Geologist No. 1345

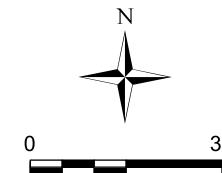
11/5/19

ec: Mr. Raymond Whittle, Perma-Fix of Florida, Inc.  
Brian Bastek, EPA Region 4



#### EXPLANATION

- ▲ SURFACE WATER SAMPLE
- OUTFALL PIPE
- ◆ MONITORING WELL
- ◆ SEDIMENT SAMPLE
- SOIL BORING
- PARCEL BOUNDARY



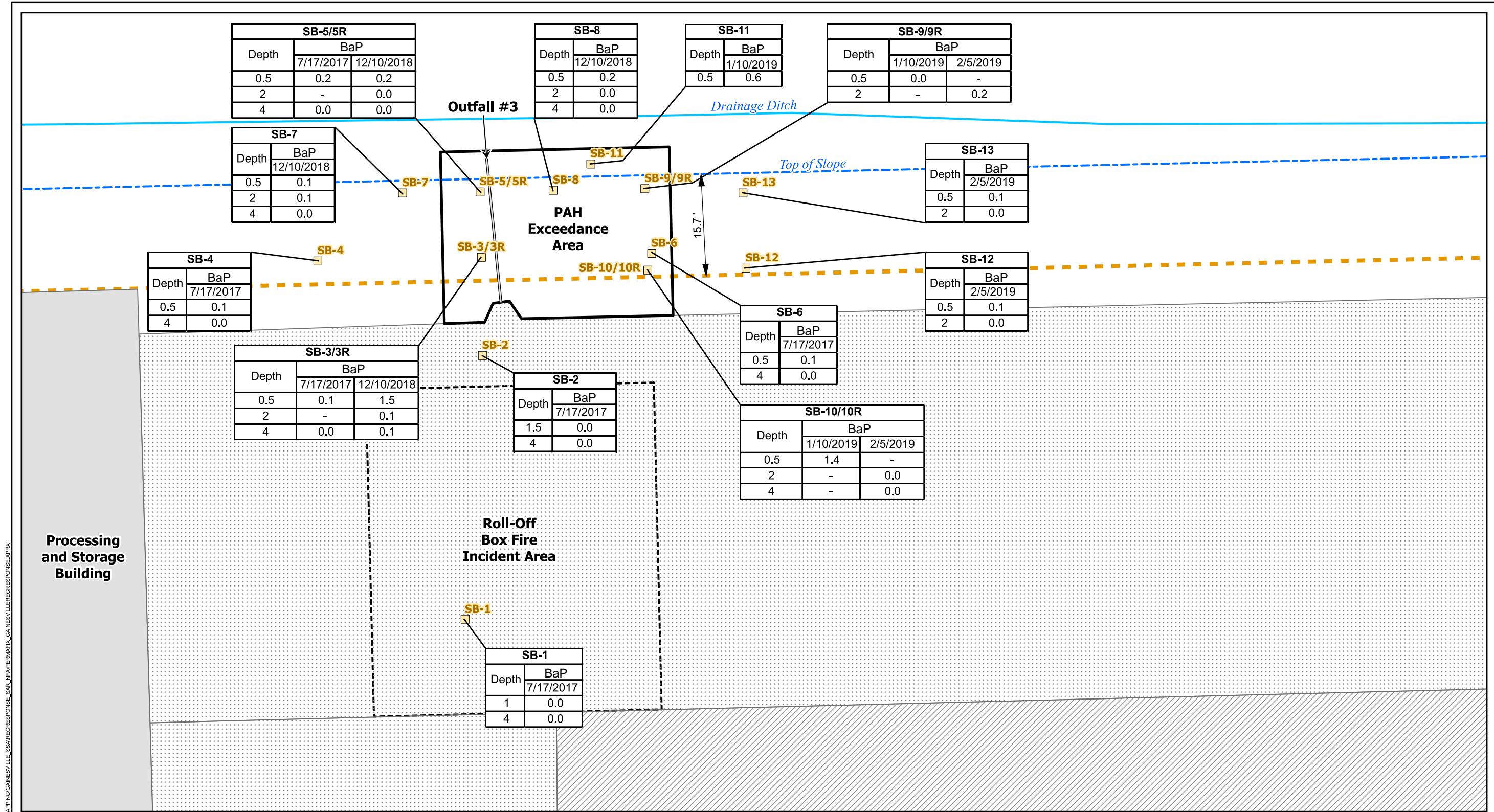
1252 Commerce Drive  
Laramie, WY 82070  
[www.trihydro.com](http://www.trihydro.com)  
(P) 307/745.7474 (F) 307/745.7729

FIGURE 1

#### SITE MAP

PERMA-FIX OF FLORIDA  
GAINESVILLE, FLORIDA

Drawn By: BR Checked By: BK Scale: 1" = 30' Date: 3/6/19 File: Fig1\_SiteLoc

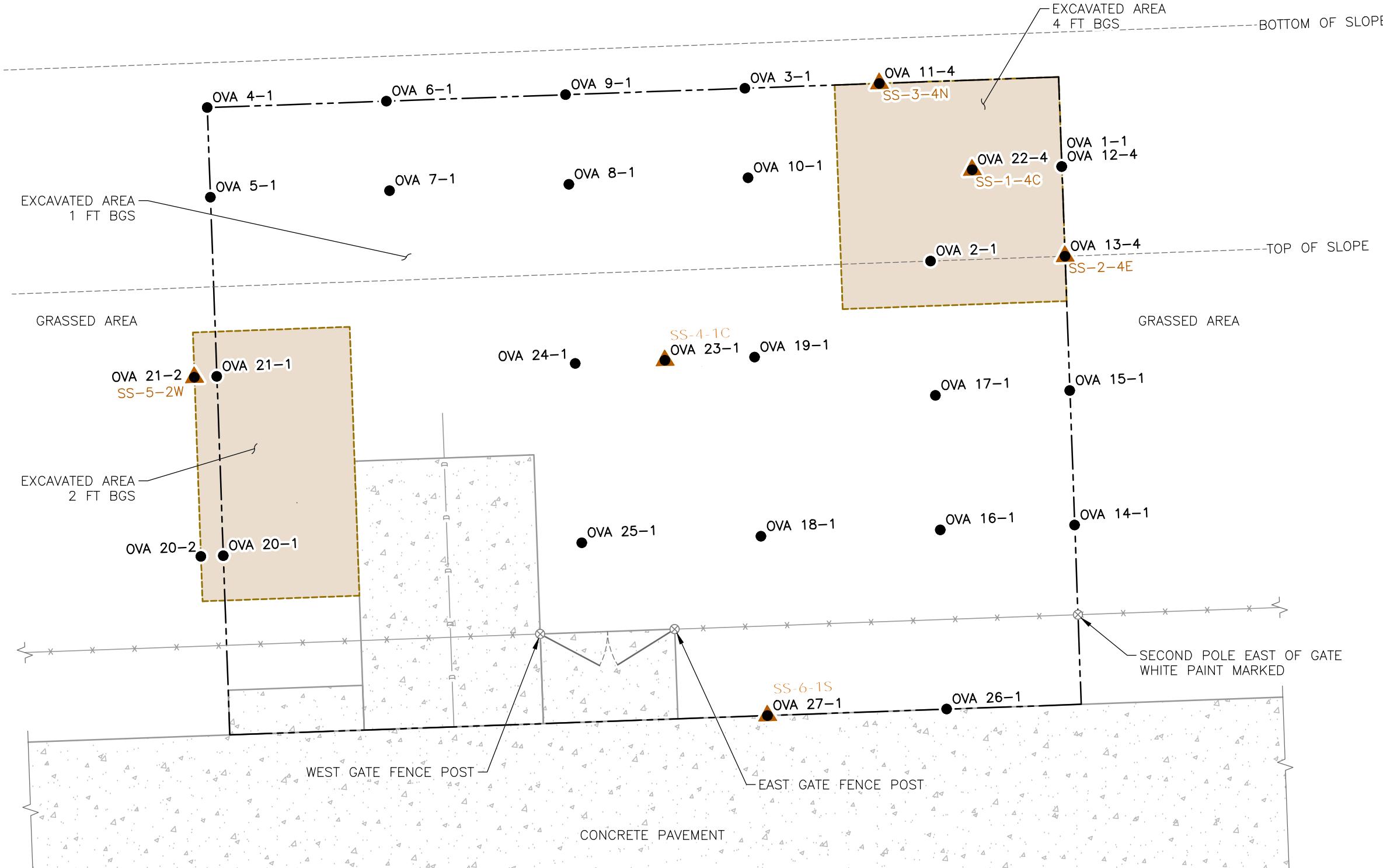


**FIGURE 2**

**DISTRIBUTION OF BaP IN SOIL**

**PERMA-FIX OF FLORIDA  
GAINESVILLE, FLORIDA**

Drawn By: BR Checked By: BK Scale: 1" = 15' Date: 3/7/19 File: Fig3\_PAH



#### EXPLANATION

●	OVA 25-1	OVA READING
▲	SS-4-16	SOIL SAMPLE
⊗		FENCE POST
—x—		FENCE
—D—		PVC DRAIN PIPE
[Shaded Box]		CONCRETE PAD
[Dashed Box]		EXCAVATED AREA (APPROXIMATE)
FT AMSL		FEET ABOVE MEAN SEA LEVEL
FT BGS		FEET BELOW GROUND SURFACE



**Trihydro**  
CORPORATION  
1252 Commerce Drive  
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**FIGURE 3**

#### EXCAVATION AREA

**PERMA-FIX OF FLORIDA**  
**GAINESVILLE, FLORIDA**

TABLE 1: SUMMARY OF SOIL ANALYTICAL RESULTS  
1940 NW 67th Place, Gainesville, Florida

Facility Name: Perma-Fix of Florida, Inc.										Facility ID: FLD 980 711 071					
Sample				EPA 6010B Laboratory Analysis				EPA 8270C SIM Laboratory Analysis							
Boring ID	Date Collected	Sampling Depth (ft bgs)	Petroleum Vapor (ppm)	Arsenic (mg/Kg)	Cadmium (mg/Kg)	Chromium (mg/Kg)	Lead (mg/Kg)	Acenaphthene (mg/Kg)	Acenaphthylene (mg/Kg)	Anthracene (mg/Kg)	Benzo(a) Anthracene (mg/Kg)	Benzo(a) Pyrene (mg/Kg)	Benzo(b) Fluoranthene (mg/Kg)	Benzo(g,h,i) Perylene (mg/Kg)	Benzo(k) Fluoranthene (mg/Kg)
<i>Residential Direct Exposure SCTL</i>				2	82	210	400	2,400	1,800	21,000	1 #	0.1	1 #	2,500	10 #
<i>Industrial Direct Exposure SCTL</i>				12	1,700	470	1,400	20,000	20,000	300,000	#	0.7	#	52,000	#
<i>Soil to Groundwater Leachability SCTL</i>				*	7.5	38.0	*	2.1	27	2,500	0.8	8	2.4	32,000	24
SB-1	7/17/2017	1	ND	0.27 U	0.090 I	3.1	1.1	0.0030 U	0.0040 U	0.0042 U	0.0033U	0.0069 U	0.0050 U	0.0056U	0.0051 U
SB-1	7/17/2017	4	ND	0.24 U	0.033 U	2.2	1.6	0.0027 U	0.0035 U	0.0037 U	0.0029 U	0.0061 U	0.0044 U	0.0049 U	0.0045 U
SB-2	7/17/2017	1.5	ND	0.24 U	0.034 I	1.5	0.88	0.0027 U	0.0036 U	0.0037 U	0.0030 U	0.0061 U	0.0044 U	0.0050 U	0.0045 U
SB-2	7/17/2017	4	ND	0.24 U	0.059 I	2.0	0.77	0.0027 U	0.0036 U	0.0038 U	0.0030 U	0.0062 U	0.0045 U	0.0050 U	0.0046 U
SB-3	7/17/2017	0.5	ND	0.25 U	0.20	29	7.4	0.0029 U	0.0038 U	0.0039 U	0.053	0.040	0.065	0.037	0.023
SB-3	7/17/2017	4	ND	0.30	0.033 U	1.5	0.99	0.0027 U	0.0035 U	0.0036 U	0.017	0.0060 U	0.0049 I	0.0049 U	0.0044 U
SB-4	7/17/2017	0.5	ND	0.26 U	0.23 U	29	12	0.035 U	0.046 U	0.048 U	0.081 I	0.094	0.14	0.093	0.058 U
SB-4	7/17/2017	4	ND	0.28 U	0.039 U	1.1	0.76	0.0038 U	0.0050 U	0.0052 U	0.0042 U	0.0086 U	0.0062 U	0.0070 U	0.0064 U
SB-5	7/17/2017	0.5	ND	0.24 U	0.27	33	13	0.033 U	0.044 U	0.046 U	0.12	0.14	0.19	0.14	0.076 I
SB-5	7/17/2017	4	ND	0.27 U	0.038 U	1.4	0.87	0.0038 U	0.0050 U	0.0051 U	0.0041 U	0.0085 U	0.0062 U	0.0069 U	0.0063 U
SB-6	7/17/2017	0.5	ND	0.26 U	0.26	34	11	0.035 U	0.047 U	0.049 U	0.057 I	0.080 U	0.12	0.084 I	0.059 U
SB-6	7/17/2017	4	ND	0.27 U	0.037 U	0.73	0.54	0.0037 U	0.0049 U	0.0051 U	0.0041 U	0.0084 U	0.0061 U	0.0068 U	0.0062 U
SB3R.05	12/10/2018	0.5	0	NS	NS	NS	NS	0.014 U	0.018 U	0.030 I	0.6	0.92	1.5	0.89	0.54
SB3R.2	12/10/2018	2	0	NS	NS	NS	NS	0.013 U	0.018 U	0.018 U	0.054	0.069	0.12	0.058	0.043
SB3R.4	12/10/2018	4	0	NS	NS	NS	NS	0.013 U	0.018 U	0.018 U	0.073	0.093	0.16	0.081	0.057
SB5R.05	12/10/2018	0.5	0	NS	NS	NS	NS	0.014 U	0.033 I	0.019 U	0.070	0.14	0.14	0.14	0.054
SB5R.2	12/10/2018	2	0	NS	NS	NS	NS	0.013 U	0.018 U	0.018 U	0.022 U	0.030 U	0.022 U	0.025 U	0.021 U
SB5R.4	12/10/2018	4	0	NS	NS	NS	NS	0.013 U	0.018 U	0.018 U	0.021 U	0.030 U	0.022 U	0.024 U	0.021 U
SB7.05	12/10/2018	0.5	0	NS	NS	NS	NS	0.014 U	0.018 U	0.019 U	0.053	0.081	0.11	0.074	0.041
SB7.2	12/10/2018	2	0	NS	NS	NS	NS	0.014 U	0.030 I	0.019 U	0.041	0.082	0.11	0.086	0.039
SB7.4	12/10/2018	4	0	NS	NS	NS	NS	0.013 U	0.017 U	0.018 U	0.021 U	0.030 U	0.022 U	0.024 U	0.021 U
SB8.05	12/10/2018	0.5	0	NS	NS	NS	NS	0.014 U	0.088	0.031 I	0.072	0.13	0.13	0.17	0.047
SB8.2	12/10/2018	2	0	NS	NS	NS	NS	0.013 U	0.018 U	0.018 U	0.022 U	0.030 U	0.036	0.025 U	0.021 U
SB8.4	12/10/2018	4	0	NS	NS	NS	NS	0.014 U	0.018 U	0.019 U	0.022 U	0.031 U	0.025 I	0.025 U	0.021 U
SB9.05	1/10/2019	0.5	0	NS	NS	NS	NS	0.0034 U	0.0054 I	0.0046 U	0.024	0.029	0.042	0.028	0.016
SB9.2	2/5/2019	2	0	NS	NS	NS	NS	0.0034 U	0.027	0.019	0.052	0.10	0.12	0.13	0.054
SB10.05	1/10/2019	0.5	0	NS	NS	NS	NS	0.0036 U	0.090	0.070	0.86	0.96	1.1	0.91	0.35
SB10.2	2/5/2019	2	0	NS	NS	NS	NS	0.0032 U	0.0043 U	0.0045 U	0.0052 U	0.0074 U	0.0053 U	0.0060 U	0.0051 U
SB10.4	2/5/2019	4	0	NS	NS	NS	NS	0.0033 U	0.0043 U	0.0045 U	0.0053 U	0.0074 U	0.0054 U	0.0060 U	0.0052 U
SB11.05	1/10/2019	0.5	0	NS	NS	NS	NS	0.0034 U	0.10	0.067	0.24	0.36	0.70	0.40	0.23
SB12.05	2/5/2019	0.5	0	NS	NS	NS	NS	0.0034 U	0.0045 U	0.0060 I	0.022	0.039	0.061	0.043	0.029
SB12.2	2/5/2019	2	0	NS	NS	NS	NS	0.0034 U	0.0045 U	0.0047 U	0.0055 U	0.0077 U	0.0056 U	0.0063 U	0.0054 U
SB13.05	2/5/2019	0.5	0	NS	NS	NS	NS	0.0061 I	0.0044 U	0.024	0.040	0.043	0.056	0.038	0.026
SB13.2	2/5/2019	2	0	NS	NS	NS	NS	0.0033 U	0.0043 U	0.0045 U	0.0053 U	0.0074 U	0.0060 U	0.0052 U	

TABLE 1: SUMMARY OF SOIL ANALYTICAL RESULTS  
1940 NW 67th Place, Gainesville, Florida

EPA 8270C SIM Laboratory Analysis												Facility ID: FLD 980 711 071	FLPRO		
Boring ID	Date Collected	Sampling Depth (ft bgs)	Petroleum Vapor (ppm)	Chrysene (mg/Kg)	Dibenzo(a,h) Antracene (mg/Kg)	Fluoranthene (mg/Kg)	Fluorene (mg/Kg)	Indeno(1,2,3-CD) Pyrene (mg/Kg)	1-Methyl-naphthalene (mg/Kg)	2-Methyl-naphthalene (mg/Kg)	Naphthalene (mg/Kg)	Phenanthrene (mg/Kg)	Pyrene (mg/Kg)	B(a)P Equivalents	TPH (mg/kg)
<i>Residential Direct Exposure SCTL</i>				100 #	0.1 #	3,200	2,600	1 #	200	210	55	2,200	2,400	0.1	460
<i>Industrial Direct Exposure SCTL</i>				#	#	59,000	33,000	#	1,800	2,100	300	36,000	45,000	0.7	2,700
<i>Soil to Groundwater Leachability SCTL</i>				77	0.7	1,200	160	6.6	3.1	8.5	1.2	250	880	--	340
SB-1	7/17/2017	1	ND	0.0041 U	0.0038 U	0.0052 U	0.0035 U	0.0041 U	NS	NS	0.0025 U	0.0032 U	0.0028 U	0.0	14 I
SB-1	7/17/2017	4	ND	0.0036 U	0.0033 U	0.0046 U	0.0031 U	0.0036 U	NS	NS	0.0022 U	0.0029 U	0.0025 U	0.0	20
SB-2	7/17/2017	1.5	ND	0.0037 U	0.0033 U	0.0046 U	0.0031 U	0.0036 U	NS	NS	0.0022 U	0.0029 U	0.0025 U	0.0	10 U
SB-2	7/17/2017	4	ND	0.0037 U	0.0034 U	0.0047 U	0.0031 U	0.0037 U	NS	NS	0.0022 U	0.0029 U	0.0025 U	0.0	11 U
SB-3	7/17/2017	0.5	ND	0.052	0.0097 I	0.067	0.0032 U	0.034	NS	NS	0.0023 U	0.013	0.063	0.1	55
SB-3	7/17/2017	4	ND	0.0036 U	0.0033 U	0.0045 U	0.0030 U	0.0036 U	NS	NS	0.0021 U	0.0028 U	0.0025 U	0.0	10 U
SB-4	7/17/2017	0.5	ND	0.11	0.043 U	0.13	0.040 U	0.094	NS	NS	0.028 U	0.049 I	0.15	0.1	110 U
SB-4	7/17/2017	4	ND	0.0051 U	0.0047 U	0.0065 U	0.0043 U	0.0051 U	NS	NS	0.0031 U	0.0040 U	0.0035 U	0.0	12 U
SB-5	7/17/2017	0.5	ND	0.16	0.041 U	0.20	0.038 U	0.14	NS	NS	0.027 U	0.080 I	0.28	0.2	110 U
SB-5	7/17/2017	4	ND	0.0051 U	0.0046 U	0.0064 U	0.0043 U	0.0051 U	NS	NS	0.0030 U	0.0040 U	0.0035 U	0.0	12 U
SB-6	7/17/2017	0.5	ND	0.089 I	0.044 U	0.097	0.040 U	0.080 I	NS	NS	0.029 U	0.038 U	0.11	0.1	110 U
SB-6	7/17/2017	4	ND	0.0050 U	0.0016 U	0.0063 U	0.0042 U	0.0050 U	NS	NS	0.0030 U	0.0039 U	0.0034 U	0.0	13 I
SB3R.05	12/10/2018	0.5	0	0.86	0.23	1.1	0.015 U	0.94	0.012 U	0.012 U	0.013 U	0.15	0.81	1.5	NS
SB3R.2	12/10/2018	2	0	0.084	0.018 U	0.12	0.015 U	0.061	0.012 U	0.012 U	0.012 U	0.025 I	0.086	0.1	NS
SB3R.4	12/10/2018	4	0	0.11	0.023 I	0.11	0.015 U	0.088	0.012 U	0.012 U	0.012 U	0.016 U	0.085	0.1	NS
SB5R.05	12/10/2018	0.5	0	0.094	0.023 I	0.097	0.016 U	0.13	0.013 U	0.012 U	0.013 U	0.032 I	0.13	0.2	NS
SB5R.2	12/10/2018	2	0	0.023 U	0.018 U	0.020 U	0.015 U	0.020 U	0.012 U	0.012 U	0.012 U	0.016 U	0.021 U	0.0	NS
SB5R.4	12/10/2018	4	0	0.022 U	0.018 U	0.019 U	0.015 U	0.019 U	0.012 U	0.012 U	0.012 U	0.016 U	0.021 U	0.0	NS
SB7.05	12/10/2018	0.5	0	0.073	0.019 U	0.10	0.016 U	0.076	0.013 U	0.012 U	0.013 U	0.032 I	0.092	0.1	NS
SB7.2	12/10/2018	2	0	0.063	0.020 I	0.065	0.015 U	0.080	0.012 U	0.012 U	0.023 I	0.018 I	0.064	0.1	NS
SB7.4	12/10/2018	4	0	0.022 U	0.018 U	0.019 U	0.015 U	0.019 U	0.012 U	0.012 U	0.012 U	0.016 U	0.021 U	0.0	NS
SB8.05	12/10/2018	0.5	0	0.095	0.027 I	0.092	0.016 U	0.12	0.012 U	0.012 U	0.013 U	0.042	0.14	0.2	NS
SB8.2	12/10/2018	2	0	0.023 I	0.018 U	0.026 I	0.015 U	0.023 I	0.012 U	0.012 U	0.012 U	0.016 U	0.023 I	0.0	NS
SB8.4	12/10/2018	4	0	0.023 U	0.018 U	0.020 U	0.015 U	0.020 U	0.012 U	0.012 U	0.013 U	0.016 U	0.021 U	0.0	NS
SB9.05	1/10/2019	0.5	0	0.033	0.0071 I	0.051	0.0038 U	0.028	0.0031 U	0.0030 U	0.0031 U	0.014	0.045	0.0	NS
SB9.2	2/5/2019	2	0	0.096	0.030	0.13	0.0039 U	0.10	0.0031 U	0.0067 I	0.0078 I	0.057	0.12	0.2	NS
SB10.05	1/10/2019	0.5	0	0.94	0.18	1.7	0.011	0.90	0.0033 U	0.0074 I	0.017	0.43	2.1	1.4	NS
SB10.2	2/5/2019	2	0	0.0055 U	0.0044 U	0.0048 U	0.0037 U	0.0048 U	0.0029 U	0.0029 U	0.0030 U	0.0039 U	0.0051 U	0.0	NS
SB10.4	2/5/2019	4	0	0.0055 U	0.0044 U	0.0048 U	0.0037 U	0.0048 U	0.0030 U	0.0029 U	0.0030 U	0.0039 U	0.0052 U	0.0	NS
SB11.05	1/10/2019	0.5	0	0.39	0.11	0.32	0.0038 U	0.41	0.0063 I	0.0090	0.0094	0.032	0.33	0.6	NS
SB12.05	2/5/2019	0.5	0	0.038	0.012	0.043	0.0039 U	0.042	0.0031 U	0.0030 U	0.0032 U	0.0058 I	0.034	0.1	NS
SB12.2	2/5/2019	2	0	0.0058 U	0.0046 U	0.0050 U	0.0039 U	0.0050 U	0.0031 U	0.0030 U	0.0032 U	0.0041 U	0.0054 U	0.0	NS
SB13.05	2/5/2019	0.5	0	0.048	0.011	0.11	0.0058 I	0.037	0.0030 U	0.0029 U	0.0031 U	0.065	0.065	0.1	NS
SB13.2	2/5/2019	2	0	0.0055 U	0.0044 U	0.0048 U	0.0037 U	0.0048 U	0.0030 U	0.0029 U	0.0031 U	0.0039 U	0.0052 U	0.0	NS

\* 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.

# Compund referenced to sum Benzo(a)pyrene equivalent values

SCTL Soil Cleanup Target Level, Table II, Chapter 62-777, Florida Administrative Code

**Bold values indicate exceedences of an FDEP SCTL**

NS Not sampled

U Concentration is below the laboratory method detection limit

I Concentration is estimate and below the practical quantitation limit, but above the method detection limit

TABLE 2: SUMMARY OF GROUNDWATER ANALYTICAL  
RESULTS 1940 NW 67th Place, Gainesville, Florida

Facility ID: Perma-Fix of Florida, Inc.

Facility ID: FLD 980 711 071

Sample		6010B Laboratory Analysis				8270C Laboratory Analysis							
Boring ID	Date Collected	Arsenic	Cadmium	Chromium	Lead	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) Anthracene	Benzo(a) Pyrene	Benzo(b) Fluoranthene	Benzo(g,h,i) Perylene	Benzo(k) Fluoranthene
<i>Ch 62-777, FAC Table I GCTL</i>		10	5	100	15	20	210	2,100	0.05	0.2	0.05	210	0.5
<i>Ch 62-777, FAC Table V NADSC</i>		100	50	1,100	150	200	2,100	21,000	5	20	5	2,100	50
MW-1	7/19/2017	8.5 U	0.34 I	8.8	1.3 U	0.040 U	0.042 U	0.035 U	0.012 U	0.037 U	0.012 U	0.048 U	0.048 U
	12/11/2018	NS	NS	NS	NS	0.17 U	0.18 U	0.15 U	0.051 U	0.15 U	0.052 U	0.20 U	0.20 U
MW-2	7/19/2017	8.5 U	0.39 I	0.85 I	1.3 U	0.16 U	0.17 U	0.14 U	0.056 I	0.15 U	0.050 U	0.19 U	0.19 U
	12/11/2018	NS	NS	NS	NS	0.16 U	0.17 U	0.14 U	0.049 U	0.15 U	0.050 U	0.19 U	0.19 U
MW-3	12/11/2018	NS	NS	NS	NS	0.16 U	0.17 U	0.14 U	0.049 U	0.15 U	0.050 U	0.19 U	0.19 U

Sample		8270C Laboratory Analysis										FLPRO	8270C
Boring ID	Date Collected	Chrysene	Dibenzo(a,h) Antracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd) Pyrene	1-Methyl-naphthalene	2-Methyl-naphthalene	Naphthalene	Phenanthrene	Pyrene	TPH	bis(2-Ethylhexyl) phthalate
<i>Ch 62-777, FAC Table I GCTL</i>		0.48	0.005	280	280	0.05	28	28	14	210	210	50,000	6
<i>Ch 62-777, FAC Table V NADSC</i>		480	0.5	2,800	2800	5	280	280	140	2,100	2,100	5,000	600
MW-1	7/19/2017	0.033 U	0.024 U	0.037 U	0.038 U	0.011 U	0.050 U	0.049 U	0.048 U	0.040 U	0.036 U	600	2.0 U
	12/11/2018	0.14 U	0.099 U	0.15 U	0.16 U	0.047 U	0.21 U	0.20 U	0.20 U	0.17 U	0.15 U	NS	NS
MW-2	7/19/2017	0.13 U	0.095 U	0.15 U	0.15U	0.045 U	0.20 U	0.20 U	0.22	0.16 U	0.14 U	600 U	2.0 U
	12/11/2018	0.13 U	0.095 U	0.15 U	0.15 U	0.045 U	1.1	1.7	0.73	0.16 U	0.14 U	NS	NS
MW-3	12/11/2018	0.13 U	0.095 U	0.15 U	0.15 U	0.045 U	0.20 U	0.20 U	0.19 U	0.16 U	0.14 U	NS	NS

NOTES:

Table I GCTLs = Chapter 62-777, FAC, Table I Groundwater Cleanup Target Levels  
 Table V NASDC = Chapter 62-777, FAC, Table V Natural Attenuation Default Source Concentrations  
 NS = Not Sampled  
 Analytical Results = mg/L or ppb  
 TPH = Total Petroleum Hydrocarbons  
 Bold = Above Groundwater Target Cleanup Levels  
 U = Analyte concentration below method detection limits  
 I = Analyte detected below quantitation limits

TABLE 3: SUMMARY OF SURFACE WATER ANALYTICAL RESULTS  
1940 NW 67th Place, Gainesville, Florida

Facility Name: Perma-Fix of Florida, Inc.

Facility ID: FLD 980 711 071

Sample		6010B Laboratory Analysis				8270C Laboratory Analysis						
Boring ID	Date Collected	Arsenic	Cadmium	Chromium	Lead	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) Anthracene	Benzo(a) Pyrene	Benzo(b) Fluoranthene	Benzo(g,h,i) Perylene
<b>SW Quality Classification Criteria</b>		<b>50</b>	<b>8.8</b>	<b>11</b>	<b>8.5</b>	<b>3</b>	*	<b>0.3</b>	*	*	*	*
SW-1	7/27/2017	8.5 U	0.55 I	6.1	6.1 I	0.040 U	0.042 U	0.035 U	0.012 U	0.037 U	0.012 U	0.048 U
	12/11/2018	NS	NS	0.18 I	0.40 I	0.044 U	0.044 U	0.037 U	0.013 U	0.039 U	0.013 U	0.050 U
SW-2	7/27/2017	8.5 U	1.5	<b>24</b>	<b>30</b>	0.040 U	0.042 U	0.035 U	1.6	2.0	3.8	2.5
	12/11/2018	NS	NS	0.47 I	2.5	0.040 U	0.042 U	0.035 U	0.012 U	0.037 U	0.012 U	0.048 U
SW-3	7/27/2017	8.5 U	0.32 U	1.4	1.3 U	0.040 U	0.042 U	0.035 U	0.012 U	0.037 U	0.012 U	0.048 U
	12/11/2018	NS	NS	0.15 I	0.26 I	0.040 U	0.042 U	0.035 U	0.012 U	0.037 U	0.012 U	0.048 U
SW-4	7/27/2017	8.5 U	0.32 U	1.1 V	1.3 U	0.040 U	0.042 U	0.035 U	0.012 U	0.037 U	0.012 U	0.048 U
SW-5	7/27/2017	8.5 U	0.32 U	1.2 V	1.3 U	0.040 U	0.042 U	0.035 U	0.012 U	0.037 U	0.012 U	0.048 U

Sample		8270C Laboratory Analysis							FLPRO	8270 C		
Boring ID	Date Collected	Benzo(k) Fluoranthene	Chrysene	Dibenzo(a,h) Antracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene	TPH	bis (2-Ethylhexyl) phthalate
<b>SW Quality Classification Criteria</b>		*	*	*	<b>0.3</b>	<b>30</b>	*	<b>26</b>	*	<b>0.3</b>	<b>5,000</b>	<b>2.2</b>
SW-1	7/27/2017	0.048 U	0.033 U	0.024 U	0.037 U	0.20	0.011 U	0.048 U	0.040 U	0.036 U	1,300	<b>3.1 I</b>
	12/11/2018	0.051 U	0.035 U	0.025 U	0.039 U	0.041 U	0.012 U	0.050 U	0.042 U	0.038 U	NS	2.1 U
SW-2	7/27/2017	1.5	2.6	0.54	<b>2.8</b>	0.038 U	2.2	0.048 U	0.53	<b>2.4</b>	2,800	<b>2.2 I</b>
	12/11/2018	0.048 U	0.033 U	0.024 U	0.037 U	0.038 U	0.011 U	0.048 U	0.040 U	0.036 U	NS	2.0 U
SW-3	7/27/2017	0.048 U	0.033 U	0.024 U	0.037 U	0.038 U	0.011 U	0.048 U	0.040 U	0.036 U	1,500	2.0 U
	12/11/2018	0.048 U	0.033 U	0.024 U	0.037 U	0.038 U	0.011 U	0.048 U	0.040 U	0.036 U	NS	2.0 U
SW-4	7/27/2017	0.048 U	0.033 U	0.024 U	0.037 U	0.038 U	0.11 U	0.048 U	0.040 U	0.036 U	910	2.0 U
SW-5	7/27/2017	0.048 U	0.033 U	0.024 U	0.037 U	0.038 U	0.11 U	0.048 U	0.040 U	0.036 U	770	2.0 U

NOTES:

SW Quality Classification Criteria: Chapter 62-302, FAC Surface Water Quality Standards

Analytical Results = mg/L or ppb

Bold = Above Groundwater Target Cleanup Levels

NS = Not sampled

U = Analyte concentration below method detection limits

I = Analyte detected below quantitation limits

V = Method blank contamination

\* = Annual average 0.031 (Chapter 62-302 Class III Surface Water)

**TABLE 4**  
**SOIL SCREENING SUMMARY**  
**Table 4**  
**1940 NW 67th Place**  
**Gainesville, FL**

BORING ID	DATE	LOCATION	DEPTH	Petroleum Vapor Concentration	COMMENTS
				(feet)	
OVA1-1	9/18/2019	East wall of excavation	1	0.0	PID
OVA2-1	9/18/2019	Dispenser Sump	1	0.0	PID
OVA3-1	9/18/2019	North wall of excavation	1	0.1	PID
OVA4-1	9/18/2019	Northwest corner of excavation	1	0.2	PID
OVA5-1	9/18/2019	West wall of excavation	1	0.1	PID
OVA6-1	9/18/2019	North wall of excavation	1	0.2	PID
OVA7-1	9/18/2019	4 feet south of OVA6-1	1	0.1	PID
OVA8-1	9/18/2019	4 feet south of OVA9-1	1	0.1	PID
OVA9-1	9/18/2019	North wall of excavation	1	0.1	PID
OVA10-1	9/18/2019	4 feet south of OVA3-1	1	0.1	PID
OVA11-4	9/19/2019	3 feet south of north boundary, same location as sample SS-3-4N	4	1.8	PID; Lab Sample
OVA12-4	9/19/2019	Same location as OVA1-1, depth change	4	3.0	PID
OVA13-4	9/19/2019	East wall of excavation, same location as sample SS-2-4E	4	7.7	PID; Lab Sample
OVA14-1	9/19/2019	East wall of excavation	1	1.2	PID
OVA15-1	9/19/2019	East wall of excavation	1	0.6	PID
OVA16-1	9/19/2019	6 feet west of OVA14-1	1	1.2	PID
OVA17-1	9/19/2019	6 feet west of OVA15-1	1	0.7	PID
OVA18-1	9/19/2019	8 feet west of OVA16-1	1	1.0	PID
OVA19-1	9/19/2019	4 feet east of OVA23-1/SS-4-1C	1	1.2	PID
OVA20-1	9/19/2019	West wall of excavation	1	21.0	PID
OVA20-2	9/19/2019	Same location as OVA 20-1, depth change	2	1.1	PID
OVA21-1	9/19/2019	West wall of excavation	1	20.5	PID
OVA21-2	9/19/2019	Same location as OVA 21-1 and sample SS-5-2W, depth change	2	1.2	PID; Lab Sample
OVA22-4	9/19/2019	4 feet west of OVA1-1/OVA12-4, same location as sample SS-1-4C	4	3.5	PID; Lab Sample
OVA23-1	9/19/2019	Center of excavation, same location as sample SS-4-1C	1	1.0	PID; Lab Sample
OVA24-1	9/19/2019	4 feet west of OVA23-1/SS-4-1C	1	1.6	PID
OVA25-1	9/19/2019	8 feet south of OVA 24-1	1	2.0	PID
OVA26-1	9/19/2019	South wall of excavation	1	1.0	PID
OVA27-1	9/19/2019	South wall of excavation, same location as sample SS-6-15	1	0.7	PID; Lab Sample

PID = OVA equipped with Photoionization Detector

**TABLE 5**  
**SOIL ANALYTICAL SUMMARY**  
**Perma-Fix of Florida**  
**1940 NW 67th Place**  
**Gainesville, FL**

Sample			EPA 8270/PAH Low Level Laboratory Analyses											
Boring ID	Date Collected	Petroleum Vapor (ppm)	Acenaphthylene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)	Fluorene (mg/kg)	Fluoranthene (mg/kg)	Naphthalene (mg/kg)	1-Methyl-naphthalene (mg/kg)	2-Methyl-naphthalene (mg/kg)	Anthracene (mg/kg)	Acenaphthene (mg/kg)	Benzo(g,h,i) Perylene (mg/kg)	Benzo(b) Fluoranthene (mg/kg)
<b>Residential Direct Exposure SCTL</b>			<b>1,800</b>	<b>2,200</b>	<b>2,400</b>	<b>2,600</b>	<b>3,200</b>	<b>55</b>	<b>200</b>	<b>210</b>	<b>21,000</b>	<b>2,400</b>	<b>2,500</b>	<b>1 #</b>
<b>Soil to Groundwater Leachability SCTL</b>			<b>27</b>	<b>250</b>	<b>880</b>	<b>160</b>	<b>1,200</b>	<b>1.2</b>	<b>3.1</b>	<b>8.5</b>	<b>2,500</b>	<b>2.1</b>	<b>32,000</b>	<b>2.4</b>
SS-1-4C (Center bottom of 10x10ft deeper excavation, 4ft)	9/19/2019	3.5	0.0045 U	0.0041 U	0.0054 U	0.0039 U	0.0050 U	0.0032 U	0.0031 U	0.0030 U	0.0047 U	0.0034 U	0.0063 U	0.0056 U
SS-2-4E (East boundary, 4ft)	9/19/2019	7.7	0.0044 U	0.0039 U	0.0052 U	0.0038 U	0.0049 U	0.0031 U	0.0030 U	0.0029 U	0.0045 U	0.0033 U	0.0061 U	0.0054 U
SS-3-4N (North boundary, 4ft)	9/19/2019	1.8	0.0048 U	0.0043 U	0.0057 U	0.0041 U	0.0053 U	0.0033 U	0.0033 U	0.0032 U	0.0049 U	0.0036 U	0.0066 U	0.0059 U
SS-4-1C (Center bottom of main excavation, 1ft)	9/19/2019	1.0	0.0043 U	0.0039 U	0.0051 U	0.0037 U	0.0048 U	0.0030 U	0.0029 U	0.0029 U	0.0044 U	0.0032 U	0.0059 U	0.0053 U
SS-5-2W (West boundary, 2ft)	9/19/2019	1.2	0.0043 U	0.0038 U	0.0051 U	0.0037 U	0.0047 U	0.0030 U	0.0029 U	0.0029 U	0.0044 U	0.0032 U	0.0059 U	0.0053 U
SS-6-15 (South boundary, 1ft)	9/19/2019	0.7	0.0044 U	0.0039 U	0.0092	0.0038 U	0.010	0.0031 U	0.0030 U	0.0029 U	0.0045 U	0.0033 U	0.0092	0.017

Sample			EPA 8270/PAH Low Level Laboratory Analyses						
Boring ID	Date Collected	Petroleum Vapor (ppm)	Benzo(a)Pyrene (mg/kg)	Benzo(a)anthracene (mg/kg)	Benzo(k)fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(a,h)antracene (mg/kg)	Indeno(1,2,3-CD)pyrene (mg/kg)	Total Benzo(a)pyrene Equivalents (mg/kg)
<b>Residential Direct Exposure SCTL</b>			<b>0.1</b>	<b>1 #</b>	<b>10 #</b>	<b>100 #</b>	<b>0.1 #</b>	<b>1 #</b>	<b>0.1 #</b>
<b>Soil to Groundwater Leachability SCTL</b>			<b>8</b>	<b>0.8</b>	<b>24</b>	<b>77</b>	<b>0.7</b>	<b>6.6</b>	<b>-</b>
SS-1-4C 10x10ft deeper	9/19/2019	3.5	0.0077 U	0.0055 U	0.0054 U	0.0058 U	0.0046 U	0.0050 U	0.0
SS-2-4E (East boundary, 4ft)	9/19/2019	7.7	0.0075 U	0.005 U	0.005 U	0.006 U	0.004 U	0.005 U	0.0
SS-3-4N (North boundary, 4ft)	9/19/2019	1.8	0.0082 U	0.006 U	0.006 U	0.006 U	0.005 U	0.005 U	0.0
SS-4-1C excavation, 1ft)	9/19/2019	1.0	0.0073 U	0.005 U	0.005 U	0.006 U	0.004 U	0.005 U	0.0
SS-5-2W (West boundary, 2ft)	9/19/2019	1.2	0.0073 U	0.005 U	0.005 U	0.005 U	0.004 U	0.005 U	0.0
SS-6-15 (South boundary, 1ft)	9/19/2019	0.7	0.010	0.0071 I	0.0062 I	0.0096	0.0044 U	0.010	0.0

Notes:

# = Carcinogenic PAH constituents converted to benzo(a)pyrene equivalent for SCTL

U = Below Detection Limits

I = Analyte Detected Below Quantitation Limits

**APPENDIX A**

**BACKFILL MATERIAL**

**LABORATORY REPORT OF ANALYSES**



Advanced  
Environmental Laboratories, Inc.

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

September 17, 2019

William C. Kelly  
Trihydro  
3740 Saint Johns Bluff Road S  
Suite 14  
Jacksonville, FL 32224

RE: Workorder: J1911609 PFFL

Dear William Kelly:

Enclosed are the analytical results for sample(s) received by the laboratory on Monday, September 09, 2019. 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,

A handwritten signature in black ink that reads "Paul Gunsaulies".

Paul Gunsaulies - Project Manager  
PGunsaulies@AELLab.com

Enclosures

## CERTIFICATE OF ANALYSIS

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## SAMPLE SUMMARY

Workorder: J1911609 PFFL

Lab ID	Sample ID	Matrix	Date Collected	Date Received
J1911609001	Borrow Pit	Soil	9/9/2019 13:13	9/9/2019 16:20

Report ID: 903151 - 1394986

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## ANALYTICAL RESULTS

Workorder: J1911609 PFFL

Lab ID:	<b>J1911609001</b>			Date Received:	09/09/19 16:20	Matrix:	Soil						
Sample ID:	<b>Borrow Pit</b>			Date Collected:	09/09/19 13:13								
Results for sample J1911609001 are reported on a dry weight basis.													
Sample Description:				Location:									
Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab					
<b>METALS</b>													
Analysis Desc: SW846 6010B Analysis,Soils				Preparation Method: SW-846 3050B Analytical Method: SW-846 6010									
Arsenic	<b>0.71</b>	I	mg/Kg	1	2.0	0.50	9/11/2019 14:06	J					
Barium	11		mg/Kg	1	0.20	0.050	9/11/2019 14:06	J					
Cadmium	<b>0.050</b>	U	mg/Kg	1	0.20	0.050	9/11/2019 14:06	J					
Chromium	1.9		mg/Kg	1	0.40	0.10	9/11/2019 14:06	J					
Lead	<b>1.0</b>		mg/Kg	1	0.80	0.20	9/11/2019 14:06	J					
Selenium	1.0	U	mg/Kg	1	4.0	1.0	9/11/2019 14:06	J					
Silver	<b>0.20</b>	U	mg/Kg	1	0.80	0.20	9/11/2019 14:06	J					
Analysis Desc: SW846 7471A Analysis, Soil				Preparation Method: SW-846 7471A Analytical Method: SW-846 7471A									
Mercury	<b>0.00070</b>	U	mg/Kg	1	0.0050	0.00070	9/11/2019 14:31	J					
<b>SEMOVOLATILES</b>													
Analysis Desc: 8081B Pesticide Analysis, Soil				Preparation Method: SW-846 3550B Analytical Method: EPA 8081									
4,4'-DDD	<b>0.00054</b>	U	mg/Kg	1	0.0033	0.00054	9/13/2019 22:43	J					
4,4'-DDE	<b>0.00041</b>	U	mg/Kg	1	0.0033	0.00041	9/13/2019 22:43	J					
4,4'-DDT	<b>0.00091</b>	U	mg/Kg	1	0.0033	0.00091	9/13/2019 22:43	J					
Aldrin	<b>0.00049</b>	U	mg/Kg	1	0.0033	0.00049	9/13/2019 22:43	J					
Chlordane (technical)	0.013	U	mg/Kg	1	0.033	0.013	9/13/2019 22:43	J					
Dieldrin	<b>0.00042</b>	U	mg/Kg	1	0.0033	0.00042	9/13/2019 22:43	J					
Endosulfan I	<b>0.00052</b>	U	mg/Kg	1	0.0033	0.00052	9/13/2019 22:43	J					
Endosulfan II	<b>0.00035</b>	U	mg/Kg	1	0.0033	0.00035	9/13/2019 22:43	J					
Endosulfan Sulfate	<b>0.00060</b>	U	mg/Kg	1	0.0033	0.00060	9/13/2019 22:43	J					
Endrin	<b>0.00091</b>	U	mg/Kg	1	0.0033	0.00091	9/13/2019 22:43	J					
Endrin Aldehyde	<b>0.00054</b>	U	mg/Kg	1	0.0033	0.00054	9/13/2019 22:43	J					
Heptachlor	<b>0.00061</b>	U	mg/Kg	1	0.0033	0.00061	9/13/2019 22:43	J					
Heptachlor Epoxide	<b>0.00045</b>	U	mg/Kg	1	0.0033	0.00045	9/13/2019 22:43	J					
Methoxychlor	<b>0.00067</b>	U	mg/Kg	1	0.0033	0.00067	9/13/2019 22:43	J					
Toxaphene	0.023	U	mg/Kg	1	0.033	0.023	9/13/2019 22:43	J					
alpha-BHC	<b>0.00055</b>	U	mg/Kg	1	0.0033	0.00055	9/13/2019 22:43	J					
beta-BHC	<b>0.00038</b>	U	mg/Kg	1	0.0033	0.00038	9/13/2019 22:43	J					
delta-BHC	<b>0.00039</b>	U	mg/Kg	1	0.0033	0.00039	9/13/2019 22:43	J					
gamma-BHC (Lindane)	<b>0.00058</b>	U	mg/Kg	1	0.0033	0.00058	9/13/2019 22:43	J					
Tetrachloro-m-xylene (S)	88		%	1	42-129		9/13/2019 22:43						

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## ANALYTICAL RESULTS

Workorder: J1911609 PFFL

Lab ID: **J1911609001** Date Received: 09/09/19 16:20 Matrix: Soil

Sample ID: **Borrow Pit** Date Collected: 09/09/19 13:13

Results for sample J1911609001 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Decachlorobiphenyl (S)	<b>107</b>		%	1	63-130		9/13/2019 22:43	
Analysis Desc: FL-PRO Analysis, Soil		Preparation Method: FL-PRO						
		Analytical Method: FL-PRO						
TPH	<b>9.9</b>	<b>U</b>	<b>mg/Kg</b>	1	17	9.9	9/12/2019 08:32	J
o-Terphenyl (S)	<b>110</b>		%	1	66-136		9/12/2019 08:32	
Nonatricontane-C39 (S)	<b>100</b>		%	1	36-132		9/12/2019 08:32	
Analysis Desc: 8082A PCB Analysis, Soil		Preparation Method: SW-846 3550B						
		Analytical Method: SW-846 8082A						
Aroclor 1016 (PCB-1016)	<b>0.0061</b>	<b>U</b>	<b>mg/Kg</b>	1	0.033	0.0061	9/13/2019 22:43	J
Aroclor 1221 (PCB-1221)	<b>0.012</b>	<b>U</b>	<b>mg/Kg</b>	1	0.033	0.012	9/13/2019 22:43	J
Aroclor 1232 (PCB-1232)	<b>0.029</b>	<b>U</b>	<b>mg/Kg</b>	1	0.033	0.029	9/13/2019 22:43	J
Aroclor 1242 (PCB-1242)	<b>0.0078</b>	<b>U</b>	<b>mg/Kg</b>	1	0.033	0.0078	9/13/2019 22:43	J
Aroclor 1248 (PCB-1248)	<b>0.021</b>	<b>U</b>	<b>mg/Kg</b>	1	0.033	0.021	9/13/2019 22:43	J
Aroclor 1254 (PCB-1254)	<b>0.014</b>	<b>U</b>	<b>mg/Kg</b>	1	0.033	0.014	9/13/2019 22:43	J
Aroclor 1260 (PCB-1260)	<b>0.0070</b>	<b>U</b>	<b>mg/Kg</b>	1	0.033	0.0070	9/13/2019 22:43	J
Tetrachloro-m-xylene (S)	<b>88</b>		%	1	44-130		9/13/2019 22:43	
Decachlorobiphenyl (S)	<b>107</b>		%	1	61-147		9/13/2019 22:43	
Analysis Desc: 8270C Analysis, Soil		Preparation Method: SW-846 3550B						
		Analytical Method: SW-846 8270C						
1,2,4,5-Tetrachlorobenzene	<b>0.079</b>	<b>U</b>	<b>mg/Kg</b>	1	0.17	0.079	9/11/2019 03:15	J
1,2,4-Trichlorobenzene	<b>0.060</b>	<b>U</b>	<b>mg/Kg</b>	1	0.17	0.060	9/11/2019 03:15	J
1,2-Dichlorobenzene	<b>0.10</b>	<b>U</b>	<b>mg/Kg</b>	1	0.17	0.10	9/11/2019 03:15	J
1,2-Diphenylhydrazine	<b>0.15</b>	<b>U</b>	<b>mg/Kg</b>	1	0.17	0.15	9/11/2019 03:15	J
1,3-Dichlorobenzene	<b>0.097</b>	<b>U</b>	<b>mg/Kg</b>	1	0.17	0.097	9/11/2019 03:15	J
1,4-Dichlorobenzene	<b>0.096</b>	<b>U</b>	<b>mg/Kg</b>	1	0.17	0.096	9/11/2019 03:15	J
1-Methylnaphthalene	<b>0.0024</b>	<b>U</b>	<b>mg/Kg</b>	1	0.0068	0.0024	9/11/2019 03:15	J
1-Naphthylamine	<b>0.11</b>	<b>U</b>	<b>mg/Kg</b>	1	0.17	0.11	9/11/2019 03:15	J
2,3,4,6-Tetrachlorophenol	<b>0.095</b>	<b>U</b>	<b>mg/Kg</b>	1	0.17	0.095	9/11/2019 03:15	J
2,4,5-Trichlorophenol	<b>0.093</b>	<b>U</b>	<b>mg/Kg</b>	1	0.17	0.093	9/11/2019 03:15	J
2,4,6-Trichlorophenol	<b>0.090</b>	<b>U</b>	<b>mg/Kg</b>	1	0.17	0.090	9/11/2019 03:15	J
2,4-Dichlorophenol	<b>0.063</b>	<b>U</b>	<b>mg/Kg</b>	1	0.17	0.063	9/11/2019 03:15	J
2,4-Dimethylphenol	<b>0.10</b>	<b>U</b>	<b>mg/Kg</b>	1	0.17	0.10	9/11/2019 03:15	J
2,4-Dinitrophenol	<b>0.063</b>	<b>U</b>	<b>mg/Kg</b>	1	0.34	0.063	9/11/2019 03:15	J
2,4-Dinitrotoluene (2,4-DNT)	<b>0.079</b>	<b>U</b>	<b>mg/Kg</b>	1	0.17	0.079	9/11/2019 03:15	J
2,6-Dichlorophenol	<b>0.069</b>	<b>U</b>	<b>mg/Kg</b>	1	0.17	0.069	9/11/2019 03:15	J
2,6-Dinitrotoluene (2,6-DNT)	<b>0.081</b>	<b>U</b>	<b>mg/Kg</b>	1	0.17	0.081	9/11/2019 03:15	J

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## ANALYTICAL RESULTS

Workorder: J1911609 PFFL

Lab ID: **J1911609001** Date Received: 09/09/19 16:20 Matrix: Soil

Sample ID: **Borrow Pit** Date Collected: 09/09/19 13:13

Results for sample J1911609001 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted	Adjusted	Analyzed	Lab
					PQL	MDL		
2-Chloronaphthalene	<b>0.12</b>	U	mg/Kg	1	0.17	0.12	9/11/2019 03:15	J
2-Chlorophenol	<b>0.092</b>	U	mg/Kg	1	0.17	0.092	9/11/2019 03:15	J
2-Methyl-4,6-dinitrophenol	<b>0.069</b>	U	mg/Kg	1	0.34	0.069	9/11/2019 03:15	J
2-Methylnaphthalene	<b>0.0024</b>	U	mg/Kg	1	0.0068	0.0024	9/11/2019 03:15	J
2-Methylphenol (o-Cresol)	<b>0.12</b>	U	mg/Kg	1	0.17	0.12	9/11/2019 03:15	J
2-Naphthylamine	<b>0.097</b>	U	mg/Kg	1	0.17	0.097	9/11/2019 03:15	J
2-Nitroaniline	<b>0.082</b>	U	mg/Kg	1	0.17	0.082	9/11/2019 03:15	J
2-Nitrophenol	<b>0.065</b>	U	mg/Kg	1	0.17	0.065	9/11/2019 03:15	J
2-Picoline (2-Methylpyridine)	<b>0.14</b>	U	mg/Kg	1	0.17	0.14	9/11/2019 03:15	J
3+4-Methylphenol(mp-Cresol)	<b>0.085</b>	U	mg/Kg	1	0.17	0.085	9/11/2019 03:15	J
3,3'-Dichlorobenzidine	<b>0.094</b>	U	mg/Kg	1	0.17	0.094	9/11/2019 03:15	J
3-Methylcholanthrene	<b>0.12</b>	U	mg/Kg	1	0.17	0.12	9/11/2019 03:15	J
3-Nitroaniline	<b>0.12</b>	U	mg/Kg	1	0.17	0.12	9/11/2019 03:15	J
4-Aminobiphenyl	<b>0.069</b>	U	mg/Kg	1	0.17	0.069	9/11/2019 03:15	J
4-Bromophenyl Phenyl Ether	<b>0.082</b>	U	mg/Kg	1	0.17	0.082	9/11/2019 03:15	J
4-Chloro-3-methylphenol	<b>0.088</b>	U	mg/Kg	1	0.17	0.088	9/11/2019 03:15	J
4-Chloroaniline	<b>0.057</b>	U	mg/Kg	1	0.17	0.057	9/11/2019 03:15	J
4-Chlorophenyl Phenyl Ether	<b>0.096</b>	U	mg/Kg	1	0.17	0.096	9/11/2019 03:15	J
4-Dimethyl aminoazobenzene	<b>0.18</b>	U	mg/Kg	1	0.34	0.18	9/11/2019 03:15	J
4-Nitroaniline	<b>0.11</b>	U	mg/Kg	1	0.17	0.11	9/11/2019 03:15	J
4-Nitrophenol	<b>0.15</b>	U	mg/Kg	1	0.17	0.15	9/11/2019 03:15	J
7,12-Dimethylbenz[a]anthracene	<b>0.063</b>	U	mg/Kg	1	0.17	0.063	9/11/2019 03:15	J
Acenaphthene	<b>0.0026</b>	U	mg/Kg	1	0.0068	0.0026	9/11/2019 03:15	J
Acenaphthylene	<b>0.0035</b>	U	mg/Kg	1	0.0068	0.0035	9/11/2019 03:15	J
Acetophenone	<b>0.11</b>	U	mg/Kg	1	0.17	0.11	9/11/2019 03:15	J
Aniline	<b>0.11</b>	U	mg/Kg	1	0.17	0.11	9/11/2019 03:15	J
Anthracene	<b>0.0036</b>	U	mg/Kg	1	0.0068	0.0036	9/11/2019 03:15	J
Benzidine	<b>0.036</b>	U	mg/Kg	1	0.17	0.036	9/11/2019 03:15	J
Benzo[a]anthracene	<b>0.0043</b>	U	mg/Kg	1	0.0068	0.0043	9/11/2019 03:15	J
Benzo[a]pyrene	<b>0.0060</b>	U	mg/Kg	1	0.0068	0.0060	9/11/2019 03:15	J
Benzo[b]fluoranthene	<b>0.0043</b>	U	mg/Kg	1	0.0068	0.0043	9/11/2019 03:15	J
Benzo[g,h,i]perylene	<b>0.0049</b>	U	mg/Kg	1	0.0068	0.0049	9/11/2019 03:15	J
Benzo[k]fluoranthene	<b>0.0042</b>	U	mg/Kg	1	0.0068	0.0042	9/11/2019 03:15	J
Benzoic Acid	<b>0.058</b>	U	mg/Kg	1	0.34	0.058	9/11/2019 03:15	J
Benzyl Alcohol	<b>0.11</b>	U	mg/Kg	1	0.17	0.11	9/11/2019 03:15	J
Butyl benzyl phthalate	<b>0.14</b>	U	mg/Kg	1	0.17	0.14	9/11/2019 03:15	J
Carbazole	<b>0.0044</b>	U	mg/Kg	1	0.0068	0.0044	9/11/2019 03:15	J
Chrysene	<b>0.0045</b>	U	mg/Kg	1	0.0068	0.0045	9/11/2019 03:15	J
Di-n-Butyl Phthalate	<b>0.16</b>	U	mg/Kg	1	0.17	0.16	9/11/2019 03:15	J
Di-n-octyl Phthalate	<b>0.14</b>	U	mg/Kg	1	0.17	0.14	9/11/2019 03:15	J

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## ANALYTICAL RESULTS

Workorder: J1911609 PFFL

Lab ID: **J1911609001** Date Received: 09/09/19 16:20 Matrix: Soil  
 Sample ID: **Borrow Pit** Date Collected: 09/09/19 13:13

Results for sample J1911609001 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted	Adjusted	Analyzed	Lab
					PQL	MDL		
Dibenzo[a,h]anthracene	<b>0.0035</b>	U	mg/Kg	1	0.17	0.0035	9/11/2019 03:15	J
Dibenzofuran	<b>0.0023</b>	U	mg/Kg	1	0.0068	0.0023	9/11/2019 03:15	J
Diethyl phthalate	<b>0.12</b>	U	mg/Kg	1	0.17	0.12	9/11/2019 03:15	J
Dimethyl phthalate	<b>0.11</b>	U	mg/Kg	1	0.34	0.11	9/11/2019 03:15	J
Ethyl methanesulfonate	<b>0.10</b>	U	mg/Kg	1	0.17	0.10	9/11/2019 03:15	J
Fluoranthene	<b>0.0039</b>	U	mg/Kg	1	0.0068	0.0039	9/11/2019 03:15	J
Fluorene	<b>0.0030</b>	U	mg/Kg	1	0.0068	0.0030	9/11/2019 03:15	J
Hexachlorobenzene	<b>0.084</b>	U	mg/Kg	1	0.17	0.084	9/11/2019 03:15	J
Hexachlorobutadiene	<b>0.058</b>	U	mg/Kg	1	0.17	0.058	9/11/2019 03:15	J
Hexachlorocyclopentadiene	<b>0.057</b>	U	mg/Kg	1	0.17	0.057	9/16/2019 05:50	J
Hexachloroethane	<b>0.097</b>	U	mg/Kg	1	0.17	0.097	9/11/2019 03:15	J
Indeno(1,2,3-cd)pyrene	<b>0.0039</b>	U	mg/Kg	1	0.0068	0.0039	9/11/2019 03:15	J
Isophorone	<b>0.093</b>	U	mg/Kg	1	0.17	0.093	9/11/2019 03:15	J
Methyl Methanesulfonate	<b>0.10</b>	U	mg/Kg	1	0.17	0.10	9/11/2019 03:15	J
N-Nitrosodi-n-butylamine	<b>0.042</b>	U	mg/Kg	1	0.17	0.042	9/11/2019 03:15	J
N-Nitrosodi-n-propylamine	<b>0.027</b>	U	mg/Kg	1	0.17	0.027	9/11/2019 03:15	J
N-Nitrosodimethylamine	<b>0.12</b>	U	mg/Kg	1	0.17	0.12	9/11/2019 03:15	J
N-Nitrosodiphenylamine	<b>0.090</b>	U	mg/Kg	1	0.17	0.090	9/11/2019 03:15	J
N-Nitrosopiperidine	<b>0.099</b>	U	mg/Kg	1	0.17	0.099	9/11/2019 03:15	J
Naphthalene	<b>0.0025</b>	U	mg/Kg	1	0.0068	0.0025	9/11/2019 03:15	J
Nitrobenzene	<b>0.14</b>	U	mg/Kg	1	0.17	0.14	9/11/2019 03:15	J
Pentachlorobenzene	<b>0.085</b>	U	mg/Kg	1	0.17	0.085	9/11/2019 03:15	J
Pentachloronitrobenzene	<b>0.078</b>	U	mg/Kg	1	0.17	0.078	9/11/2019 03:15	J
Pentachlorophenol	<b>0.059</b>	U	mg/Kg	1	0.17	0.059	9/11/2019 03:15	J
Phenacetin	<b>0.13</b>	U	mg/Kg	1	0.17	0.13	9/11/2019 03:15	J
Phenanthrene	<b>0.0032</b>	U	mg/Kg	1	0.0068	0.0032	9/11/2019 03:15	J
Phenol	<b>0.12</b>	U	mg/Kg	1	0.17	0.12	9/11/2019 03:15	J
Pronamide (Kerb)	<b>0.13</b>	U	mg/Kg	1	0.17	0.13	9/11/2019 03:15	J
Pyrene	<b>0.0042</b>	U	mg/Kg	1	0.0068	0.0042	9/11/2019 03:15	J
a,a-Dimethylphenethylamine	<b>0.034</b>	U	mg/Kg	1	0.17	0.034	9/11/2019 03:15	J
bis(2-Chloroethoxy)methane	<b>0.13</b>	U	mg/Kg	1	0.17	0.13	9/11/2019 03:15	J
bis(2-Chloroethyl)Ether	<b>0.10</b>	U	mg/Kg	1	0.17	0.10	9/11/2019 03:15	J
bis(2-Chloroisopropyl) Ether	<b>0.11</b>	U	mg/Kg	1	0.17	0.11	9/11/2019 03:15	J
bis(2-Ethylhexyl) phthalate	<b>0.14</b>	U	mg/Kg	1	0.17	0.14	9/11/2019 03:15	J
2-Fluorophenol (S)	<b>83</b>	%	1		35-115		9/11/2019 03:15	
Phenol-d6 (S)	<b>90</b>	%	1		33-122		9/11/2019 03:15	
Nitrobenzene-d5 (S)	<b>96</b>	%	1		37-122		9/11/2019 03:15	
2-Fluorobiphenyl (S)	<b>85</b>	%	1		44-115		9/11/2019 03:15	
2,4,6-Tribromophenol (S)	<b>98</b>	%	1		39-132		9/11/2019 03:15	
p-Terphenyl-d14 (S)	<b>108</b>	%	1		54-127		9/11/2019 03:15	

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## ANALYTICAL RESULTS

Workorder: J1911609 PFFL

Lab ID:	<b>J1911609001</b>			Date Received:	09/09/19 16:20	Matrix:	Soil						
Sample ID:	<b>Borrow Pit</b>			Date Collected:	09/09/19 13:13								
Results for sample J1911609001 are reported on a dry weight basis.													
Sample Description:				Location:									
Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab					
<b>VOLATILES</b>													
Analysis Desc: 8260B VOCs Analysis, Soil				Preparation Method: SW-846 5035									
				Analytical Method: SW-846 8260B									
1,1,1,2-Tetrachloroethane	<b>0.0018</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0018	9/11/2019 08:49	J					
1,1,1-Trichloroethane	<b>0.0016</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0016	9/11/2019 08:49	J					
1,1,2,2-Tetrachloroethane	<b>0.0023</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0023	9/11/2019 08:49	J					
1,1,2-Trichloroethane	<b>0.0015</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0015	9/11/2019 08:49	J					
1,1-Dichloroethane	<b>0.0015</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0015	9/11/2019 08:49	J					
1,1-Dichloroethylene	<b>0.0014</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0014	9/11/2019 08:49	J					
1,1-Dichloropropene	<b>0.0012</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0012	9/11/2019 08:49	J					
1,2,3-Trichlorobenzene	<b>0.0016</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0016	9/11/2019 08:49	J					
1,2,3-Trichloropropane	<b>0.0016</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0016	9/11/2019 08:49	J					
1,2,4-Trichlorobenzene	<b>0.0016</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0016	9/11/2019 08:49	J					
1,2,4-Trimethylbenzene	<b>0.0012</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0012	9/11/2019 08:49	J					
1,2-Dibromo-3-Chloropropane	<b>0.0045</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0057	0.0045	9/11/2019 08:49	J					
1,2-Dichlorobenzene	<b>0.0015</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0015	9/11/2019 08:49	J					
1,2-Dichloroethane	<b>0.0016</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0016	9/11/2019 08:49	J					
1,2-Dichloropropane	<b>0.0014</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0014	9/11/2019 08:49	J					
1,3,5-Trimethylbenzene	<b>0.0011</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0011	9/11/2019 08:49	J					
1,3-Dichlorobenzene	<b>0.0015</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0015	9/11/2019 08:49	J					
1,3-Dichloropropane	<b>0.0019</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0019	9/11/2019 08:49	J					
1,4-Dichlorobenzene	<b>0.0013</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0013	9/11/2019 08:49	J					
2,2-Dichloropropane	<b>0.0011</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0057	0.0011	9/11/2019 08:49	J					
2-Butanone (MEK)	<b>0.0024</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0057	0.0024	9/11/2019 08:49	J					
2-Chloroethyl Vinyl Ether	<b>0.00087</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0057	0.00087	9/11/2019 08:49	J					
2-Chlorotoluene	<b>0.0012</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0012	9/11/2019 08:49	J					
2-Hexanone	<b>0.0021</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0057	0.0021	9/11/2019 08:49	J					
4-Chlorotoluene	<b>0.0014</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0014	9/11/2019 08:49	J					
4-Methyl-2-pentanone (MIBK)	<b>0.0012</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0057	0.0012	9/11/2019 08:49	J					
Acetone	<b>0.0029</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.011	0.0029	9/11/2019 08:49	J					
Acrolein (Propenal)	<b>0.0075</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.017	0.0075	9/11/2019 08:49	J					
Acrylonitrile	<b>0.0059</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.017	0.0059	9/11/2019 08:49	J					
Benzene	<b>0.0014</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0014	9/11/2019 08:49	J					
Bromobenzene	<b>0.0014</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0014	9/11/2019 08:49	J					
Bromochloromethane	<b>0.0016</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0016	9/11/2019 08:49	J					
Bromodichloromethane	<b>0.0015</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0015	9/11/2019 08:49	J					
Bromoform	<b>0.0022</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0057	0.0022	9/11/2019 08:49	J					
Bromomethane	<b>0.0015</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0034	0.0015	9/11/2019 08:49	J					
Carbon Disulfide	<b>0.0014</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0057	0.0014	9/11/2019 08:49	J					

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## ANALYTICAL RESULTS

Workorder: J1911609 PFFL

Lab ID:	<b>J1911609001</b>	Date Received:	09/09/19 16:20	Matrix:	Soil
Sample ID:	<b>Borrow Pit</b>	Date Collected:	09/09/19 13:13		

Results for sample J1911609001 are reported on a dry weight basis.

Sample Description:	Location:
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Parameters	Results	Qual	Units	DF	Adjusted	Adjusted	Lab
					PQL	MDL	
Carbon Tetrachloride	<b>0.0016</b>	U	mg/Kg	1	0.0034	0.0016	9/11/2019 08:49 J
Chlorobenzene	<b>0.0017</b>	U	mg/Kg	1	0.0034	0.0017	9/11/2019 08:49 J
Chloroethane	<b>0.0011</b>	U	mg/Kg	1	0.0034	0.0011	9/11/2019 08:49 J
Chloroform	<b>0.0015</b>	U	mg/Kg	1	0.0034	0.0015	9/11/2019 08:49 J
Chloromethane	<b>0.0012</b>	U	mg/Kg	1	0.0034	0.0012	9/11/2019 08:49 J
Dibromochloromethane	<b>0.0015</b>	U	mg/Kg	1	0.0034	0.0015	9/11/2019 08:49 J
Dibromomethane	<b>0.0014</b>	U	mg/Kg	1	0.0034	0.0014	9/11/2019 08:49 J
Dichlorodifluoromethane	<b>0.00097</b>	U	mg/Kg	1	0.0034	0.00097	9/11/2019 08:49 J
Ethylbenzene	<b>0.0013</b>	U	mg/Kg	1	0.0034	0.0013	9/11/2019 08:49 J
Ethylene Dibromide (EDB)	<b>0.0016</b>	U	mg/Kg	1	0.0034	0.0016	9/11/2019 08:49 J
Hexachlorobutadiene	<b>0.0019</b>	U	mg/Kg	1	0.0034	0.0019	9/11/2019 08:49 J
Iodomethane (Methyl Iodide)	<b>0.0015</b>	U	mg/Kg	1	0.0034	0.0015	9/11/2019 08:49 J
Isopropylbenzene	<b>0.0014</b>	U	mg/Kg	1	0.0034	0.0014	9/11/2019 08:49 J
Methyl tert-butyl Ether (MTBE)	<b>0.0013</b>	U	mg/Kg	1	0.0034	0.0013	9/11/2019 08:49 J
Methylene Chloride	<b>0.0032</b>	U	mg/Kg	1	0.011	0.0032	9/11/2019 08:49 J
Naphthalene	<b>0.0020</b>	U	mg/Kg	1	0.0034	0.0020	9/11/2019 08:49 J
Styrene	<b>0.0011</b>	U	mg/Kg	1	0.0034	0.0011	9/11/2019 08:49 J
Tetrachloroethylene (PCE)	<b>0.0014</b>	U	mg/Kg	1	0.0034	0.0014	9/11/2019 08:49 J
Toluene	<b>0.0016</b>	U	mg/Kg	1	0.0034	0.0016	9/11/2019 08:49 J
Trichloroethene	<b>0.0012</b>	U	mg/Kg	1	0.0034	0.0012	9/11/2019 08:49 J
Trichlorofluoromethane	<b>0.0010</b>	U	mg/Kg	1	0.0034	0.0010	9/11/2019 08:49 J
Vinyl Acetate	<b>0.0010</b>	U	mg/Kg	1	0.0034	0.0010	9/11/2019 08:49 J
Vinyl Chloride	<b>0.0014</b>	U	mg/Kg	1	0.0034	0.0014	9/11/2019 08:49 J
Xylene (Total)	<b>0.0044</b>	U	mg/Kg	1	0.010	0.0044	9/11/2019 08:49 J
cis-1,2-Dichloroethylene	<b>0.0016</b>	U	mg/Kg	1	0.0034	0.0016	9/11/2019 08:49 J
cis-1,3-Dichloropropene	<b>0.0012</b>	U	mg/Kg	1	0.0034	0.0012	9/11/2019 08:49 J
n-Butylbenzene	<b>0.0012</b>	U	mg/Kg	1	0.0034	0.0012	9/11/2019 08:49 J
n-propylbenzene	<b>0.0013</b>	U	mg/Kg	1	0.0034	0.0013	9/11/2019 08:49 J
sec-butylbenzene	<b>0.0013</b>	U	mg/Kg	1	0.0034	0.0013	9/11/2019 08:49 J
tert-butylbenzene	<b>0.0013</b>	U	mg/Kg	1	0.0034	0.0013	9/11/2019 08:49 J
trans-1,2-Dichloroethylene	<b>0.0011</b>	U	mg/Kg	1	0.0034	0.0011	9/11/2019 08:49 J
trans-1,3-Dichloropropylene	<b>0.00086</b>	U	mg/Kg	1	0.0034	0.00086	9/11/2019 08:49 J
1,2-Dichloroethane-d4 (S)	<b>110</b>	%	1		69-134		9/11/2019 08:49
Toluene-d8 (S)	<b>113</b>	%	1		72-122		9/11/2019 08:49
Bromofluorobenzene (S)	<b>114</b>	%	1		79-126		9/11/2019 08:49

### VOLATILES

Analysis Desc: Percent Solids,SM2540G,Soil

Analytical Method: SM 2540G

Percent Moisture	1.4	%	1
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0.0010	0.0010	9/11/2019 16:17	J
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## ANALYTICAL RESULTS QUALIFIERS

Workorder: J1911609 PFFL

### 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: J1911609 PFFL

QC Batch: DGMj/3936 Analysis Method: SW-846 6010  
QC Batch Method: SW-846 3050B Prepared: 09/10/2019 10:00  
Associated Lab Samples: J1911609001

METHOD BLANK: 3214118

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>METALS</b>				
Silver	mg/Kg	0.20	0.20	U
Arsenic	mg/Kg	0.50	0.50	U
Barium	mg/Kg	0.050	0.050	U
Cadmium	mg/Kg	0.050	0.050	U
Chromium	mg/Kg	0.10	0.10	U
Lead	mg/Kg	0.20	0.20	U
Selenium	mg/Kg	1.0	1.0	U

QC Batch: EXTj/3990 Analysis Method: SW-846 8270C  
QC Batch Method: SW-846 3550B Prepared: 09/09/2019 12:00  
Associated Lab Samples: J1911609001

METHOD BLANK: 3215351

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>SEMOVOLATILES</b>				
Phenol	mg/Kg	0.11	0.11	U
2-Chlorophenol	mg/Kg	0.090	0.090	U
2-Methylphenol (o-Cresol)	mg/Kg	0.11	0.11	U
3+4-Methylphenol(mp-Cresol)	mg/Kg	0.083	0.083	U
2-Nitrophenol	mg/Kg	0.064	0.064	U
2,4-Dimethylphenol	mg/Kg	0.098	0.098	U
Benzoic Acid	mg/Kg	0.057	0.057	U
2,4-Dichlorophenol	mg/Kg	0.061	0.061	U
2,6-Dichlorophenol	mg/Kg	0.067	0.067	U
4-Chloro-3-methylphenol	mg/Kg	0.086	0.086	U
2,4,6-Trichlorophenol	mg/Kg	0.087	0.087	U
2,4,5-Trichlorophenol	mg/Kg	0.090	0.090	U
2,4-Dinitrophenol	mg/Kg	0.061	0.061	U
4-Nitrophenol	mg/Kg	0.14	0.14	U
2,3,4,6-Tetrachlorophenol	mg/Kg	0.092	0.092	U
2-Methyl-4,6-dinitrophenol	mg/Kg	0.067	0.067	U
Pentachlorophenol	mg/Kg	0.058	0.058	U
N-Nitrosodimethylamine	mg/Kg	0.12	0.12	U
2-Picoline (2-Methylpyridine)	mg/Kg	0.13	0.13	U
Methyl Methanesulfonate	mg/Kg	0.10	0.10	U

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## QUALITY CONTROL DATA

Workorder: J1911609 PFFL

METHOD BLANK: 3215351

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Ethyl methanesulfonate	mg/Kg	0.10	0.10 U
Aniline	mg/Kg	0.10	0.10 U
bis(2-Chloroethyl)Ether	mg/Kg	0.099	0.099 U
1,3-Dichlorobenzene	mg/Kg	0.095	0.095 U
1,4-Dichlorobenzene	mg/Kg	0.093	0.093 U
1,2-Dichlorobenzene	mg/Kg	0.098	0.098 U
Benzyl Alcohol	mg/Kg	0.10	0.10 U
bis(2-Chloroisopropyl) Ether	mg/Kg	0.10	0.10 U
Acetophenone	mg/Kg	0.10	0.10 U
N-Nitrosodi-n-propylamine	mg/Kg	0.026	0.026 U
Hexachloroethane	mg/Kg	0.095	0.095 U
Nitrobenzene	mg/Kg	0.13	0.13 U
N-Nitrosopiperidine	mg/Kg	0.096	0.096 U
Isophorone	mg/Kg	0.090	0.090 U
bis(2-Chloroethoxy)methane	mg/Kg	0.12	0.12 U
1,2,4-Trichlorobenzene	mg/Kg	0.058	0.058 U
Naphthalene	mg/Kg	0.0024	0.0024 U
a,a-Dimethylphenethylamine	mg/Kg	0.033	0.033 U
4-Chloroaniline	mg/Kg	0.056	0.056 U
Hexachlorobutadiene	mg/Kg	0.056	0.056 U
N-Nitrosodi-n-butylamine	mg/Kg	0.041	0.041 U
2-Methylnaphthalene	mg/Kg	0.0023	0.0023 U
1-Methylnaphthalene	mg/Kg	0.0023	0.0023 U
Hexachlorocyclopentadiene	mg/Kg	0.055	0.055 U
1,2,4,5-Tetrachlorobenzene	mg/Kg	0.077	0.077 U
2-Chloronaphthalene	mg/Kg	0.11	0.11 U
2-Nitroaniline	mg/Kg	0.079	0.079 U
Dimethyl phthalate	mg/Kg	0.10	0.10 U
2,6-Dinitrotoluene (2,6-DNT)	mg/Kg	0.078	0.078 U
Acenaphthylene	mg/Kg	0.0034	0.0034 U
3-Nitroaniline	mg/Kg	0.11	0.11 U
Acenaphthene	mg/Kg	0.0026	0.0026 U
Pentachlorobenzene	mg/Kg	0.082	0.082 U
Dibenzofuran	mg/Kg	0.0022	0.0022 U
2,4-Dinitrotoluene (2,4-DNT)	mg/Kg	0.077	0.077 U
1-Naphthylamine	mg/Kg	0.11	0.11 U
2-Naphthylamine	mg/Kg	0.095	0.095 U
Diethyl phthalate	mg/Kg	0.12	0.12 U
Fluorene	mg/Kg	0.0029	0.0029 U
4-Chlorophenyl Phenyl Ether	mg/Kg	0.093	0.093 U
4-Nitroaniline	mg/Kg	0.11	0.11 U
1,2-Diphenylhydrazine	mg/Kg	0.14	0.14 U
Phenacetin	mg/Kg	0.13	0.13 U
4-Bromophenyl Phenyl Ether	mg/Kg	0.080	0.080 U
Hexachlorobenzene	mg/Kg	0.082	0.082 U

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## QUALITY CONTROL DATA

Workorder: J1911609 PFFL

METHOD BLANK: 3215351

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Pentachloronitrobenzene	mg/Kg	0.075	0.075 U
4-Aminobiphenyl	mg/Kg	0.067	0.067 U
Pronamide (Kerb)	mg/Kg	0.13	0.13 U
Phenanthrene	mg/Kg	0.0031	0.0031 U
Anthracene	mg/Kg	0.0035	0.0035 U
Carbazole	mg/Kg	0.0043	0.0043 U
Di-n-Butyl Phthalate	mg/Kg	0.16	0.16 U
Fluoranthene	mg/Kg	0.0038	0.0038 U
Benzidine	mg/Kg	0.035	0.035 U
Pyrene	mg/Kg	0.0041	0.0041 U
4-Dimethyl aminoazobenzene	mg/Kg	0.18	0.18 U
Butyl benzyl phthalate	mg/Kg	0.14	0.14 U
Benzo[a]anthracene	mg/Kg	0.0041	0.0041 U
3,3'-Dichlorobenzidine	mg/Kg	0.091	0.091 U
Chrysene	mg/Kg	0.0043	0.0043 U
bis(2-Ethylhexyl) phthalate	mg/Kg	0.13	0.13 U
Di-n-octyl Phthalate	mg/Kg	0.13	0.13 U
Benzo[b]fluoranthene	mg/Kg	0.0042	0.0042 U
7,12-Dimethylbenz[a]anthracene	mg/Kg	0.061	0.061 U
Benzo[k]fluoranthene	mg/Kg	0.0040	0.0040 U
Benzo[a]pyrene	mg/Kg	0.0058	0.0058 U
3-Methylcholanthrene	mg/Kg	0.12	0.12 U
Indeno(1,2,3-cd)pyrene	mg/Kg	0.0038	0.0038 U
Dibenzo[a,h]anthracene	mg/Kg	0.0034	0.0034 U
Benzo[g,h,i]perylene	mg/Kg	0.0047	0.0047 U
N-Nitrosodiphenylamine	mg/Kg	0.088	0.088 U
2-Fluorophenol (S)	%	91	35-115
Phenol-d6 (S)	%	90	33-122
Nitrobenzene-d5 (S)	%	96	37-122
2-Fluorobiphenyl (S)	%	93	44-115
2,4,6-Tribromophenol (S)	%	115	39-132
p-Terphenyl-d14 (S)	%	109	54-127

QC Batch: MSVj/4198

Analysis Method: SW-846 8260B

QC Batch Method: SW-846 5035

Prepared: 09/10/2019 23:37

Associated Lab Samples: J1911609001

METHOD BLANK: 3217594

Parameter	Units	Blank Result	Reporting Limit Qualifiers
VOLATILES			

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## QUALITY CONTROL DATA

Workorder: J1911609 PFFL

METHOD BLANK: 3217594

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Dichlorodifluoromethane	mg/Kg	0.00084	0.00084 U
Chloromethane	mg/Kg	0.0010	0.0010 U
Vinyl Chloride	mg/Kg	0.0012	0.0012 U
Bromomethane	mg/Kg	0.0013	0.0013 U
Chloroethane	mg/Kg	0.0010	0.0010 U
Trichlorofluoromethane	mg/Kg	0.00091	0.00091 U
Acrolein (Propenal)	mg/Kg	0.0066	0.0066 U
Acetone	mg/Kg	0.0025	0.0025 U
1,1-Dichloroethylene	mg/Kg	0.0012	0.0012 U
Iodomethane (Methyl Iodide)	mg/Kg	0.0013	0.0013 U
Acrylonitrile	mg/Kg	0.0052	0.0052 U
Methylene Chloride	mg/Kg	0.0028	0.0028 U
Carbon Disulfide	mg/Kg	0.0012	0.0012 U
trans-1,2-Dichloroethylene	mg/Kg	0.00098	0.00098 U
Methyl tert-butyl Ether (MTBE)	mg/Kg	0.0011	0.0011 U
1,1-Dichloroethane	mg/Kg	0.0013	0.0013 U
Vinyl Acetate	mg/Kg	0.00088	0.00088 U
2-Butanone (MEK)	mg/Kg	0.0021	0.0021 U
cis-1,2-Dichloroethylene	mg/Kg	0.0014	0.0014 U
Bromochloromethane	mg/Kg	0.0014	0.0014 U
Chloroform	mg/Kg	0.0013	0.0013 U
2,2-Dichloropropane	mg/Kg	0.00097	0.00097 U
1,2-Dichloroethane	mg/Kg	0.0014	0.0014 U
1,1,1-Trichloroethane	mg/Kg	0.0014	0.0014 U
1,1-Dichloropropene	mg/Kg	0.0011	0.0011 U
Carbon Tetrachloride	mg/Kg	0.0014	0.0014 U
Benzene	mg/Kg	0.0012	0.0012 U
Dibromomethane	mg/Kg	0.0012	0.0012 U
1,2-Dichloropropane	mg/Kg	0.0012	0.0012 U
Trichloroethene	mg/Kg	0.0010	0.0010 U
Bromodichloromethane	mg/Kg	0.0013	0.0013 U
2-Chloroethyl Vinyl Ether	mg/Kg	0.00076	0.00076 U
cis-1,3-Dichloropropene	mg/Kg	0.0011	0.0011 U
4-Methyl-2-pentanone (MIBK)	mg/Kg	0.0011	0.0011 U
trans-1,3-Dichloropropylene	mg/Kg	0.00075	0.00075 U
1,1,2-Trichloroethane	mg/Kg	0.0013	0.0013 U
Toluene	mg/Kg	0.0014	0.0014 U
1,3-Dichloropropane	mg/Kg	0.0016	0.0016 U
2-Hexanone	mg/Kg	0.0019	0.0019 U
Dibromochloromethane	mg/Kg	0.0013	0.0013 U
Ethylene Dibromide (EDB)	mg/Kg	0.0014	0.0014 U
Tetrachloroethylene (PCE)	mg/Kg	0.0012	0.0012 U
1,1,1,2-Tetrachloroethane	mg/Kg	0.0015	0.0015 U
Chlorobenzene	mg/Kg	0.0014	0.0014 U

Report ID: 903151 - 1394986

Page 13 of 18

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## QUALITY CONTROL DATA

Workorder: J1911609 PFFL

METHOD BLANK: 3217594

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Ethylbenzene	mg/Kg	0.0011	0.0011 U
Bromoform	mg/Kg	0.0019	0.0019 U
Styrene	mg/Kg	0.00098	0.00098 U
1,1,2,2-Tetrachloroethane	mg/Kg	0.0020	0.0020 U
1,2,3-Trichloropropane	mg/Kg	0.0014	0.0014 U
Isopropylbenzene	mg/Kg	0.0012	0.0012 U
Bromobenzene	mg/Kg	0.0012	0.0012 U
n-propylbenzene	mg/Kg	0.0011	0.0011 U
2-Chlorotoluene	mg/Kg	0.0010	0.0010 U
4-Chlorotoluene	mg/Kg	0.0012	0.0012 U
1,3,5-Trimethylbenzene	mg/Kg	0.0010	0.0010 U
tert-butylbenzene	mg/Kg	0.0011	0.0011 U
1,2,4-Trimethylbenzene	mg/Kg	0.0010	0.0010 U
sec-butylbenzene	mg/Kg	0.0011	0.0011 U
1,3-Dichlorobenzene	mg/Kg	0.0013	0.0013 U
1,4-Dichlorobenzene	mg/Kg	0.0011	0.0011 U
1,2-Dichlorobenzene	mg/Kg	0.0013	0.0013 U
n-Butylbenzene	mg/Kg	0.0011	0.0011 U
1,2-Dibromo-3-Chloropropane	mg/Kg	0.0039	0.0039 U
1,2,4-Trichlorobenzene	mg/Kg	0.0014	0.0014 U
Naphthalene	mg/Kg	0.0017	0.0017 U
Hexachlorobutadiene	mg/Kg	0.0016	0.0016 U
1,2,3-Trichlorobenzene	mg/Kg	0.0014	0.0014 U
Xylene (Total)	mg/Kg	0.0038	0.0038 U
1,2-Dichloroethane-d4 (S)	%	106	69-134
Toluene-d8 (S)	%	113	72-122
Bromofluorobenzene (S)	%	111	79-126

QC Batch: DGMj/3951

Analysis Method: SW-846 7471A

QC Batch Method: SW-846 7471A

Prepared: 09/11/2019 11:45

Associated Lab Samples: J1911609001

METHOD BLANK: 3217606

Parameter	Units	Blank Result	Reporting Limit Qualifiers
<b>METALS</b>			
Mercury	mg/Kg	0.00070	0.00070 U

QC Batch: EXTj/4001

Analysis Method: FL-PRO

QC Batch Method: FL-PRO

Prepared: 09/11/2019 14:00

Report ID: 903151 - 1394986

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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

## QUALITY CONTROL DATA

Workorder: J1911609 PFFL

Associated Lab Samples: J1911609001

METHOD BLANK: 3218444

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>SEMIVOLATILES</b>				
TPH	mg/Kg	9.8	9.8	U
o-Terphenyl (S)	%	104	66-136	
Nonatricontane-C39 (S)	%	84	36-132	

QC Batch: EXTj/4027 Analysis Method: EPA 8081

QC Batch Method: SW-846 3550B Prepared: 09/13/2019 13:00

Associated Lab Samples: J1911609001

METHOD BLANK: 3221624

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>SEMIVOLATILES</b>				
alpha-BHC	mg/Kg	0.00056	0.00056	U
gamma-BHC (Lindane)	mg/Kg	0.00059	0.00059	U
beta-BHC	mg/Kg	0.00038	0.00038	U
delta-BHC	mg/Kg	0.00040	0.00040	U
Heptachlor	mg/Kg	0.00062	0.00062	U
Aldrin	mg/Kg	0.00049	0.00049	U
Heptachlor Epoxide	mg/Kg	0.00046	0.00046	U
Endosulfan I	mg/Kg	0.00052	0.00052	U
4,4'-DDE	mg/Kg	0.00042	0.00042	U
Dieldrin	mg/Kg	0.00047	0.00042	I
Endrin	mg/Kg	0.00092	0.00092	U
4,4'-DDD	mg/Kg	0.00054	0.00054	U
Endosulfan II	mg/Kg	0.00036	0.00036	U
Endrin Aldehyde	mg/Kg	0.00055	0.00055	U
4,4'-DDT	mg/Kg	0.00092	0.00092	U
Endosulfan Sulfate	mg/Kg	0.00061	0.00061	U
Methoxychlor	mg/Kg	0.00067	0.00067	U
Chlordane (technical)	mg/Kg	0.013	0.013	U
Toxaphene	mg/Kg	0.024	0.024	U
Tetrachloro-m-xylene (S)	%	97	42-129	
Decachlorobiphenyl (S)	%	102	63-130	

QC Batch: EXTj/4028 Analysis Method: SW-846 8082A

QC Batch Method: SW-846 3550B Prepared: 09/13/2019 13:00

Associated Lab Samples: J1911609001

Report ID: 903151 - 1394986

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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

## QUALITY CONTROL DATA

Workorder: J1911609 PFFL

METHOD BLANK: 3221646

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>SEMOVOLATILES</b>				
Aroclor 1016 (PCB-1016)	mg/Kg	0.0062	0.0062	U
Aroclor 1221 (PCB-1221)	mg/Kg	0.012	0.012	U
Aroclor 1232 (PCB-1232)	mg/Kg	0.029	0.029	U
Aroclor 1242 (PCB-1242)	mg/Kg	0.0079	0.0079	U
Aroclor 1248 (PCB-1248)	mg/Kg	0.021	0.021	U
Aroclor 1254 (PCB-1254)	mg/Kg	0.014	0.014	U
Aroclor 1260 (PCB-1260)	mg/Kg	0.0070	0.0070	U
Tetrachloro-m-xylene (S)	%	97	44-130	
Decachlorobiphenyl (S)	%	102	61-147	

## QUALITY CONTROL DATA QUALIFIERS

Workorder: J1911609 PFFL

### 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

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Phone: (904)363-9354  
Fax: (904)363-9354

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J1911609 PFFL

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
J1911609001	Borrow Pit	SW-846 3050B	DGMj/3936	SW-846 6010	ICPj/2208
J1911609001	Borrow Pit	SW-846 3550B	EXTj/3990	SW-846 8270C	MSSj/2222
J1911609001	Borrow Pit			SM 2540G	WCAj/6039
J1911609001	Borrow Pit	SW-846 5035	MSVj/4198	SW-846 8260B	MSVj/4199
J1911609001	Borrow Pit	SW-846 7471A	DGMj/3951	SW-846 7471A	CVAj/1653
J1911609001	Borrow Pit	FL-PRO	EXTj/4001	FL-PRO	GCSj/3141
J1911609001	Borrow Pit	SW-846 3550B	EXTj/4027	EPA 8081	GCSj/3156
J1911609001	Borrow Pit	SW-846 3550B	EXTj/4028	SW-846 8082A	GCSj/3157

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Page

LAB N

\* J 1 9 1 1 6 0 9 \*

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

Form revised 2/8/08

	Renlinquished by:	Date	Time	Received by:	Date	Time
1	<u>John C.</u>	9-19	11020	<u>John C.</u>	9-19	11020
2						
3						
4						

**FOR DRINKING WATER USE:**  
When PWS information not otherwise supplied) PWS ID: \_\_\_\_\_  
Contact Person: \_\_\_\_\_ Phone: \_\_\_\_\_  
Supplier of Water: \_\_\_\_\_  
Site Address: \_\_\_\_\_

Tuesday, September 17, 2019 4:12:04 PM

Page 18 of 18

**APPENDIX B**

**TRANSPORT AND DISPOSAL FACILITY RECEIPT DOCUMENTS**

Global Job # 127543  
Approval # 123180028

31828-092419-01

NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number <b>FLD980711071</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>800-535-5053</b>	4. Waste Tracking Number <b>-19239-</b>
Generator's Name and Mailing Address <b>Parma-Fix of Florida, Inc. 1940 NW 67TH Place Gainesville, FL 32653 Generator's Phone: 352 373-6066</b> Generator's Site Address (if different than mailing address)					
5. Generator's Name and Mailing Address <b>Parma-Fix of Florida, Inc. 1940 NW 67TH Place Gainesville, FL 32653 Generator's Phone: 352 373-6066</b>					
6. Transporter 1 Company Name <b>Action Resources</b> U.S. EPA ID Number <b>ALR000007237</b>					
7. Transporter 2 Company Name					
8. Designated Facility Name and Site Address <b>Clean Earth of Georgia 5815 Highway 17 N Ringelnd, GA 31548</b> U.S. EPA ID Number Facility's Phone: <b>941-723-2700</b>					
<b>Non-Rag</b>					
9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Wt./Vol.
1. <b>Non Regulated Material (Petroleum Contaminated Soil)</b>		<b>1</b>	<b>CM</b>	<b>20</b>	<b>X</b>
2.					
3.					
4.					
13. Special Handling Instructions and Additional Information <b>Approval # 123180028 Global Job # 127543 Caller must ID Parma-Fix of Florida Contract 82495</b>					
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.					
Generator's/Offeror's Printed/Typed Name <b>Scott Bellanca</b>		Signature		Month Day Year <b>9 24 19</b>	
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.				Port of entry/exit: _____ Date leaving U.S.: _____	
Transporter Signature (for exports only):					
16. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name <b>NEKITIA ABRAMS</b>		Signature		Month Day Year <b>9 24 19</b>	
Transporter 2 Printed/Typed Name		Signature		Month Day Year	
17. Discrepancy					
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
Manifest Reference Number:					
17b. Alternate Facility (or Generator) U.S. EPA ID Number					
Facility's Phone:					
17c. Signature of Alternate Facility (or Generator) Month Day Year					
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a					
Printed/Typed Name <b>Larry Schmidt</b>		Signature		Month Day Year <b>9 24 19</b>	

31828-092419-02

<b>NON-HAZARDOUS WASTE MANIFEST</b>	1. Generator ID Number <b>FLD980711071</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>800-535-5053</b>	4. Waste Tracking Number <b>19248</b>	
	Generator's Site Address (if different than mailing address)				
5. Generator's Name and Mailing Address <b>Parma-Fix of Florida, Inc. 1940 NW 67TH Place Gainesville, FL 32653 Generator's Phone: 352 373-6066</b>		Generator's Site Address (if different than mailing address)			
6. Transporter 1 Company Name <b>Action Resources</b>		U.S. EPA ID Number <b>ALR000007237</b>			
7. Transporter 2 Company Name		U.S. EPA ID Number			
8. Designated Facility Name and Site Address <b>Clean Earth of Georgia 5815 Highway 17 N Ringeland, GA 31548 Facility's Phone: 941-723-2700</b>		U.S. EPA ID Number			
<b>Non-Rag</b>					
<b>GENERATOR</b>	9. Waste Shipping Name and Description <b>1. Non Regulated Material (Petroleum Contaminated Soil)</b>	10. Containers No. <b>1</b>	Type <b>CM</b>	11. Total Quantity <b>20</b>	12. Unit Wt./Vol. <b>Y</b>
	2.				
	3.				
	4.				
13. Special Handling Instructions and Additional Information <b>Approval # 123180029 Global Job # 127543 Caller must ID Parma-Fix of Florida Contract 82495</b>					
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.					
Generator's/Offeror's Printed/Typed Name <b>Scott K. Miller</b>		Signature		Month Day Year <b>19 24 19</b>	
<b>INT'L</b>	15. International Shipments <input type="checkbox"/> Import to U.S.	<input type="checkbox"/> Export from U.S.	Port of entry/exit:		
	Transporter Signature (for exports only): <b>Nekita Abrams</b>				Date leaving U.S.:
<b>TRANSPORTER</b>	16. Transporter Acknowledgment of Receipt of Materials <b>Nekita Abrams</b>				
	Transporter 1 Printed/Typed Name <b>Nekita Abrams</b>	Signature	<b>Nekita Abrams</b>		Month Day Year <b>19 24 19</b>
17. Discrepancy					
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity		<input type="checkbox"/> Type	<input type="checkbox"/> Residue	<input type="checkbox"/> Partial Rejection	<input type="checkbox"/> Full Rejection
Manifest Reference Number:					
17b. Alternate Facility (or Generator)		U.S. EPA ID Number			
Facility's Phone:					
17c. Signature of Alternate Facility (or Generator) <b>Larry Schmidt</b>		Signature	<b>Larry Schmidt</b>		Month Day Year <b>19 24 19</b>
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a					
Printed/Typed Name <b>Larry Schmidt</b>		Signature	<b>Larry Schmidt</b>		Month Day Year <b>19 24 19</b>
<b>DESIGNATED FACILITY TO GENERATOR</b>					

31828-092419-03

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>FLD980711071</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>800-535-5053</b>	4. Waste Tracking Number <b>19241</b>
5. Generator's Name and Mailing Address <b>Parma-Fix of Florida, Inc. 1940 NW 67TH Place Gainesville, FL 32653 Generator's Phone: 352 373-6066</b> Generator's Site Address (if different than mailing address)					
6. Transporter 1 Company Name <b>Action Resources</b> U.S. EPA ID Number					
7. Transporter 2 Company Name <b>Clean Earth of Georgia 5815 Highway 17 N Kingsland, GA 31548</b> Facility's Phone: 941-723-2700 U.S. EPA ID Number					
8. Designated Facility Name and Site Address <b>Facility's Name and Address</b> U.S. EPA ID Number					
9. Waste Shipping Name and Description <b>1. Non Regulated Material (Petroleum Contaminated Soil)</b> 10. Containers No.      Type 1      CR 11. Total Quantity <b>20</b> 12. Unit Wt./Vol. <b>Y</b> Non-Rag					
13. Special Handling Instructions and Additional Information <b>Approval # 123180028   Global Job # 127543   Caller must ID Parma-Fix of Florida   Contract #2495</b>					
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.					
Generator's/Offeror's Printed/Typed Name <b>Satish K. Nihalani</b>			Signature <b>[Signature]</b> Month Day Year <b>19 24 19</b>		
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.   Port of entry/exit: _____ Transporter Signature (for exports only): _____ Date leaving U.S.: _____					
16. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name <b>Nekita Abrams</b> Signature Transporter 2 Printed/Typed Name <b>Nekita Abrams</b> Signature Month Day Year <b>19 24 19</b> Month Day Year					
17. Discrepancy 17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Manifest Reference Number:					
17b. Alternate Facility (or Generator) U.S. EPA ID Number					
Facility's Phone:					
17c. Signature of Alternate Facility (or Generator) Month Day Year					
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a Printed/Typed Name <b>Larry Schmidt</b> Signature <b>[Signature]</b> Month Day Year <b>19 24 19</b>					

Clean Earth of Georgia, LLC  
**Profile Report**

Transactions from 09/24/2019 through 09/24/2019

Inbound and Outbound Tickets

Third Party and Intercompany Customers

Recycle and Disposal Material

Sent and Unsent Tickets

Full Details

Ticket	Date	Truck	In / Out	Manifest	Customer	Bill. Units	Cubic Yards	Tons	Estimated Tons
<b>123180028 - Perma-Fix of Florida</b>									
700001224800	09/24/19	AR 144	I	31828-092419-L PER212-PERMA FIX OF FLORIDA	9.290 Tn	0.00	9.29	0.00	0.00
700001225375	09/24/19	AR 144	I	31828-092419-L PER212-PERMA FIX OF FLORIDA	7.070 Tn	0.00	7.07	0.00	0.00
700001225380	09/24/19	AR 144	I	31828-092419-L PER212-PERMA FIX OF FLORIDA	6.840 Tn	0.00	6.84	0.00	0.00
<b>123180028 - Perma-Fix of Florida</b>									
<i>3 tickets and 3 transactions</i>									
<b><u>Report Grand Totals</u></b>									
<i>3 tickets and 3 transactions</i>									

Global Job # 127543 approval # 123180028

31828-092519-01

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number <b>FLD980711071</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>800-535-5053</b>	4. Waste Tracking Number <b>19242</b>																				
	Generator's Site Address (if different than mailing address)																							
<p><b>Parma-Fix of Florida, Inc.</b> 1940 NW 67TH Place Gainesville, FL 32653 Generator's Phone: 352 373-6066</p>																								
6. Transporter 1 Company Name <b>Action Resources</b> 7. Transporter 2 Company Name																								
8. Designated Facility Name and Site Address <p><b>Clean Earth of Georgia</b> 5815 Highway 17 N Kingsland, GA 31548 Facility's Phone: 941-723-2700</p>																								
U.S. EPA ID Number <b>ALB000007237</b>																								
U.S. EPA ID Number																								
9. Waste Shipping Name and Description <b>1. Non Regulated Material (Petroleum Contaminated Soil)</b>																								
10. Containers <table border="1"><thead><tr><th>No.</th><th>Type</th><th>11. Total Quantity</th><th>12. Unit Wt./Vol.</th></tr></thead><tbody><tr><td>1</td><td>CM</td><td>20</td><td>Y</td></tr><tr><td>2.</td><td></td><td></td><td></td></tr><tr><td>3.</td><td></td><td></td><td></td></tr><tr><td>4.</td><td></td><td></td><td></td></tr></tbody></table>					No.	Type	11. Total Quantity	12. Unit Wt./Vol.	1	CM	20	Y	2.				3.				4.			
No.	Type	11. Total Quantity	12. Unit Wt./Vol.																					
1	CM	20	Y																					
2.																								
3.																								
4.																								
Non-Rag																								
13. Special Handling Instructions and Additional Information <p><b>Approval # 123180028 Global Job # 127543 Caller must ID Parma-Fix of Florida Contract #2495</b></p>																								
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.																								
Generator's/Offeror's Printed/Typed Name <b>Scott Hollister</b>		Signature		Month Day Year <b>19 08 19</b>																				
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Transporter Signature (for exports only): _____ Date leaving U.S.: _____																								
16. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name <b>Nekita Abrams</b> Signature Transporter 2 Printed/Typed Name <b>Nekita Abrams</b> Signature Month Day Year <b>19 08 19</b>																								
17. Discrepancy 17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection																								
Manifest Reference Number:																								
17b. Alternate Facility (or Generator) U.S. EPA ID Number																								
Facility's Phone:																								
17c. Signature of Alternate Facility (or Generator) Month Day Year <b>Larry Schmidt</b> Signature <b>19 08 19</b>																								
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a Printed/Typed Name <b>Larry Schmidt</b> Signature <b>19 08 19</b> Month Day Year																								
DESIGNATED FACILITY TO GENERATOR																								



Global Job # 127543 approval # 123180028

31828-092619-01

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number <b>FLD980711071</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>800-535-5053</b>	4. Waste Tracking Number <b>19242</b>	
	Generator's Site Address (if different than mailing address)				
5. Generator's Name and Mailing Address <b>Parma-Fix of Florida, Inc. 1940 NW 67TH Place Gainesville, FL 32653 Generator's Phone: 352 373-6066</b>					
6. Transporter 1 Company Name <b>Action Resources</b>					
7. Transporter 2 Company Name					
8. Designated Facility Name and Site Address <b>Clean Earth of Georgia 5815 Highway 17 N Kingsland, GA 31548 Facility's Phone: 941-723-2700</b>					
<b>Non-Rag</b>					
GENERATOR	9. Waste Shipping Name and Description <b>1. Non Regulated Material (Petroleum Contaminated Soil)</b>	10. Containers No.      Type		11. Total Quantity <b>1 CM 20</b>	12. Unit Wt./Vol. <b>X</b>
	2.				
	3.				
	4.				
13. Special Handling Instructions and Additional Information <b>Approval # 123180028   Global Job # 127543   Callor must ID Parma-Fix of Florida Contract 82495</b>					
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.					
Generator's/Offeror's Printed/Typed Name <b>Scott Feller</b>		Signature		Month Day Year <b>9 25 19</b>	
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.   Port of entry/exit: Transporter Signature (for exports only):					
16. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name <b>Nekita Abrams</b> Signature Transporter 2 Printed/Typed Name <b>Nekita Abrams</b> Signature   Month Day Year <b>9 25 19</b>					
17. Discrepancy 17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
Manifest Reference Number:					
17b. Alternate Facility (or Generator) U.S. EPA ID Number					
Facility's Phone:					
17c. Signature of Alternate Facility (or Generator)   Month Day Year					
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a Printed/Typed Name <b>Larry Schmidt</b> Signature <b>Larry Schmidt</b> Month Day Year <b>9 26 19</b>					
DESIGNATED FACILITY TO GENERATOR					

31828-092619-02

<b>NON-HAZARDOUS WASTE MANIFEST</b>	1. Generator ID Number <b>VLD980711071</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>800-535-5053</b>	4. Waste Tracking Number <b>19244</b>
	5. Generator's Name and Mailing Address <b>Pezma-Fix of Florida, Inc. 1940 NW 67TH Place Gainesville, FL 32653</b> Generator's Site Address (if different than mailing address)			
6. Transporter 1 Company Name <b>Action Resources</b>		U.S. EPA ID Number <b>EMR000007237</b>		
7. Transporter 2 Company Name				
8. Designated Facility Name and Site Address <b>Clean Earth of Georgia 5015 Highway 17 N Kingland, GA 31548</b> Facility's ID# <b>941-723-2700</b>		U.S. EPA ID Number		
<b>GENERATOR</b>	9. Waste Shipping Name and Description <b>Non Regulated Material (Petroleum Contaminated Soil)</b>	10. Containers No. <b>1</b>	11. Total Quantity <b>CM 20</b>	12. Unit Wt./Vol. <b>X</b>
	1.			
	2.			
	3.			
	4.			
13. Special Handling Instructions and Additional Information <b>Approval # 123180028 Global Job # 127543 Caller must ID Pezma-Fix of Florida Contract 82495</b>				
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.				
Generator's/Offeror's Printed/Typed Name <b>Scott F. Miller</b>		Signature	Month Day Year <b>9 25 19</b>	
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit:		
Transporter Signature (for exports only):				
16. Transporter Acknowledgment of Receipt of Materials				
Transporter 1 Printed/Typed Name <b>Natalia Abrams</b>		Signature	Month Day Year <b>9 25 19</b>	
Transporter 2 Printed/Typed Name		Signature	Month Day Year	
17. Discrepancy				
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue		<input type="checkbox"/> Partial Rejection	<input type="checkbox"/> Full Rejection	
Manifest Reference Number:				
17b. Alternate Facility (or Generator)		U.S. EPA ID Number		
Facility's Phone:				
17c. Signature of Alternate Facility (or Generator)		Month Day Year		
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a				
Printed/Typed Name <b>Larry Schmidt</b>		Signature	Month Day Year <b>9 26 19</b>	

Green Earth of Georgia, LLC  
Profile Report

**Transactions from 09/26/2019 through 09/26/2019**

Inbound and Outbound Tickets  
Third Party and Intercompany Customers  
Recycle and Disposal Material  
Sent and Unsent Tickets  
[Full Details](#)

## Clean Earth of Georgia, LLC

Ticket: 28000000000  
 Date: 9/24/2019 10:25:22 Time: Scale: Manual W  
 Out: 9/24/2019 10:40:55 Manual W

Manifest #: 31828-092419-01  
 Vehicle ID #: 6R 144  
 Vehicle Permit:

Customer: PERMA FIX OF FLORIDA  
 Generator EP#:

Generator: Perma-Fix of Florida

Gen Address: 1940 NW 67th Place

Gainesville, FL 32653

Origin: Materials & Services

Facility Approval #: 123180028  
 Job Name: Perma-Fix of Florida  
 Job Address: 1940 NW 67th Place  
 Gainesville, FL 32653  
 Quantity: Unit

Alachua County Soil Treatment Type I

Contaminant Type: Not Applicable

Treatment Type: Not Applicable

Fac. Waste Code: Not Applicable

Storage Area: Not Applicable

Comments: ST # 127543

Driver: Heather Ahrens  
 NKita

Facility: Layfield  
 Schmidt, Larry

GENERATOR

Clean Earth of Georgia, LLC

Ticket: 700001825375

Date	Time	Scale
Int 9/24/2019	15:35:58	Manual
Out: 9/24/2019	16:50:13	Manual

Manifest: 31028-092419-02

Vehicle ID: AR 144

Vehicle Permit:

Customer: PERMA FIX OF FLORIDA

Generator EP#:

Generator: Perma-Fix of Florida

Gen Address: 1940 NW 67th Place

Gainesville, FL 32653

Materials & Services

Facility Approval #: 123180028

Job Name: Perma-Fix of Florida

Job Address: 1940 NW 67th Place

Gainesville, FL 32653

Quantity

Unit

Alachua County

Soil Treatment Type I

7.07 lbs

Contaminant Type: Not Applicable

Treatment Type: Not Applicable

Fac Waste Code: Not Applicable

Storage Area: Not Applicable

Comment: GJ # 127543

Driver: *Melvin Obensaw*  
Nakita

GENERATOR

Facility: *Larry Schmidt*  
Schmidt Larry

Clean Earth of Georgia, LLC

Ticket: 700001225300

Date: Time:

Scale:

In: 9/24/2019 16:53:47 Manual W

Out: 9/24/2019 17:19:36 Manual W

Manifest #: 31820-092419-03

Vehicle ID: AR 144

Vehicle Permit:

Customer: PERMA FIX OF FLORIDA

Generator: EPA#:

Generator: Perma-Fix of Florida

Gen Address: 1940 NW 67th place

Gainesville, FL 32653

Materials & Services

Origin:

Alachua County Soil Treatment Type J

Contaminant Type: Not Applicable

Treatment Type: Not Applicable

Fac Waste Code: Not Applicable

Storage Area: Not Applicable

Comment: OJ # 127543

	Lbs	Tns
Gross:	57800	28.94
Tare:	44200	22.10
Net:	13680	6.84

Facility Approval #: 123180028

Job Name: perma-Fix of Florida

Job Address: 1940 NW 67th Place

Gainesville, FL 32653

Quantity

Unit

5.04 Tns

Driver: Kekita Bharat  
Nekita

GENERATOR

Facility: Larry Schmidt  
Larry Schmidt

Clean Earth of Georgia, LLC

Ticket: 700001226723

Date: 9/25/2019

Time:

Scale:

In: 9/25/2019 16:11:01 Manual

Out: 9/25/2019 16:12:33

Manifest: 31020-092519-01

Vehicle ID: AR 144

Vehicle Permit:

Customer: PERMA FIX OF FLORIDA

Generator ECR#:

Generator: Perma-Fix of Florida

Gen Address:

1940 NW 67th Place  
Gainesville, FL 32653

Origin

Materials & Services

Quantity

Lbs Tns

Gross: 68220

34.16

Tare: 42780

21.39

Net: 25540

12.77

Facility Approval #: 123160000

Job Name: Perma-Fix of Florida

Job Address: 1940 NW 67th Place

Gainesville, FL 32653

Alachua County Soil Treatment Type I

Contaminant Type: Not Applicable

Treatment Type: Not Applicable

Fac Waste Code: Not Applicable

Storage Area: Not Applicable

Comment: GJ # 127543

Driver: *Jekka Okunay*

GENERATOR

Facility: *Lenghman*

Schmidt, Larry

Clean Earth of Georgia, LLC

Ticket: 700001227149

Date: Time:

Scale:

In: 9/26/2019 10:04:13 Manual  
Out: 9/26/2019 10:21:18 Manual

Manifest: 31828-092619-01

Lbs Tns  
Gross: 62220 34.11

Tare: 43240 24.57

Net: 10880 9.44

Vehicle ID: AR 144

Vehicle Permit:

Customer:

PERMA FIX OF FLORIDA

Generator EPAN:

PERMA-FIX OF FLORIDA

Generator:

PERMA-FIX OF FLORIDA

Gen Address:

1940 NW 67th Place

Bainesville, FL 32653

Origin:

Materials & Services

Alachua County

Soil Treatment Type I

9.44 Tns

Contaminant Type: Not Applicable

Treatment Type: Not Applicable

Fac Waste Code: Not Applicable

Storage Area: Not Applicable

Comment: SJ # 127543

Driver: Heather Oberbeck

Vehicle:  
Wakita

Facility: Larry Schmidt  
GENERATOR

Schmidt Larry

Clean Earth of Georgia, LLC

Ticket: 700001227900

Date: Time:

Scale

Inv: 9/26/2019 15:46:23 Manifest #

Date: 9/26/2019 15:04:19

Manifest #

Manifest: 31888-#92619-#2

Vehicle ID: AR 144

Vehicle Permit:

Customer: PERMA FIX OF FLORIDA

Generator EPA#:

Generator: Perma-Fix of Florida

Gen Address: 1940 NW 67th Place

Gainesville, FL 32653

Origin:

Materials & Services:

Facility Approval #: 123180028  
Job Name: Perma-Fix of Florida

Job Address: 1940 NW 67th Place

Gainesville, FL 32653

lb

Tns

Gross: 70100 35.05

Tare: 43660 21.03

Net: 26440 13.22

Quantity Unit

Alachua County Soil Treatment Type I

Contaminant Type: Not Applicable

Treatment Type: Not Applicable

Fac Waste Code: Not Applicable

Storage Area: Not Applicable

Comment: GJ # 127543

13.22 Tns

Driver:

Nakita

Facility: Lynkhardt

Schmidt Laundry

GENERATOR

**APPENDIX C**

**BaP EQUIVALENT SUMMARY TABLE**

## Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Instructions can be found below the table

Facility/Site Name:	Perma-Fix of Florida - Post Excavation Samples
Site Location:	Gainesville, FL
Facility/Site ID No.:	FLD 980 711 071

SCTL Type	Value	Units
Residential Direct Exposure SCTL	0.1	mg/kg
Industrial Direct Exposure SCTL	0.7	mg/kg
Alternative SCTL (Optional)		mg/kg
Site Specific Background (Optional)		mg/kg

TEF = Toxic Equivalency Factor

	Soil Sample #	SS-1-4C	SS-2-4E	SS-3-4N	SS-4-1C	SS-5-2W	SS-6-1S				
	Sample Date	9/19/2019	9/19/2019	9/19/2019	9/19/2019	9/19/2019	9/19/2019				
	Sample Location:	Lower base	East boundary	North boundary	Center base	West boundary	South boundary				
	Depth (ft):	4	4	4	1	2	1				
<b>Contaminant Concentrations</b>											
Contaminant	TEF	SS-1-4C (mg/kg)	SS-2-4E (mg/kg)	SS-3-4N (mg/kg)	SS-4-1C (mg/kg)	SS-5-2W (mg/kg)	SS-6-1S (mg/kg)				
Benzo(a)pyrene	1.0	0.00385	0.00375	0.0041	0.00365	0.00365	0.01				
Benzo(a)anthracene	0.1	0.00275	0.00265	0.0029	0.0026	0.0026	0.0071				
Benzo(b)fluoranthene	0.1	0.0028	0.0027	0.00295	0.00265	0.00265	0.017				
Benzo(k)fluoranthene	0.01	0.0027	0.0026	0.0028	0.00255	0.0025	0.0062				
Chrysene	0.001	0.0029	0.0028	0.00305	0.00275	0.0027	0.0096				
Dibenz(a,h)anthracene	1.0	0.0023	0.0022	0.0024	0.00215	0.00215	0.0022				
Indeno(1,2,3-cd)pyrene	0.1	0.0025	0.00245	0.00265	0.0024	0.00235	0.01				
<b>Benzo(a)pyrene Equivalents</b>											
Contaminant	TEF	SS-1-4C (mg/kg)	SS-2-4E (mg/kg)	SS-3-4N (mg/kg)	SS-4-1C (mg/kg)	SS-5-2W (mg/kg)	SS-6-1S (mg/kg)				
Benzo(a)pyrene	1.0	0.0039	0.0038	0.0041	0.0037	0.0037	0.0100	0.0000	0.0000	0.0000	0.0000
Benzo(a)anthracene	0.1	0.0003	0.0003	0.0003	0.0003	0.0003	0.0007	0.0000	0.0000	0.0000	0.0000
Benzo(b)fluoranthene	0.1	0.0003	0.0003	0.0003	0.0003	0.0003	0.0017	0.0000	0.0000	0.0000	0.0000
Benzo(k)fluoranthene	0.01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000
Chrysene	0.001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Dibenz(a,h)anthracene	1.0	0.0023	0.0022	0.0024	0.0022	0.0022	0.0022	0.0000	0.0000	0.0000	0.0000
Indeno(1,2,3-cd)pyrene	0.1	0.0003	0.0002	0.0003	0.0002	0.0002	0.0010	0.0000	0.0000	0.0000	0.0000
<b>Total Equivalents</b>											
<b>Total Benzo(a)pyrene Equivalents</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Comparisons to SCTLs</b>											
Does This Sample Exceed:	SS-1-4C (mg/kg)	SS-2-4E (mg/kg)	SS-3-4N (mg/kg)	SS-4-1C (mg/kg)	SS-5-2W (mg/kg)	SS-6-1S (mg/kg)					
The Residential Direct Exposure SCTL of 0.1 mg/kg?	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
The Industrial Direct Exposure SCTL of 0.7 mg/kg?	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
No Alternative SCTL Given	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
No Site Specific Background Given	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

## **APPENDIX D**

### **POST-EXCAVATION BOUNDARY SAMPLES LABORATORY REPORTS OF ANALYSES**



Advanced  
Environmental Laboratories, Inc.

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

September 23, 2019

William C. Kelly  
Trihydro  
3740 Saint Johns Bluff Road S  
Suite 14  
Jacksonville, FL 32224

RE: Workorder: J1912244 PF Gainesville

Dear William Kelly:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, September 20, 2019. 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,

A handwritten signature in black ink that reads "Paul Gunsaulies".

Paul Gunsaulies - Project Manager  
PGunsaulies@AELLab.com

Enclosures

## CERTIFICATE OF ANALYSIS

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## SAMPLE SUMMARY

Workorder: J1912244 PF Gainesville

Lab ID	Sample ID	Matrix	Date Collected	Date Received
J1912244001	SS-1-4C	Soil	9/19/2019 14:05	9/20/2019 08:24
J1912244002	SS-2-4E	Soil	9/19/2019 14:20	9/20/2019 08:24
J1912244003	SS-3-4N	Soil	9/19/2019 14:39	9/20/2019 08:24
J1912244004	SS-4-1C	Soil	9/19/2019 15:09	9/20/2019 08:24
J1912244005	SS-5-2W	Soil	9/19/2019 15:39	9/20/2019 08:24
J1912244006	SS-6-15	Soil	9/19/2019 16:37	9/20/2019 08:24

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## ANALYTICAL RESULTS

Workorder: J1912244 PF Gainesville

Lab ID: **J1912244001** Date Received: 09/20/19 08:24 Matrix: Soil

Sample ID: **SS-1-4C** Date Collected: 09/19/19 14:05

Results for sample J1912244001 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
------------	---------	------	-------	----	--------------	--------------	----------	-----

### SEMIVOLATILES

Analysis Desc: 8270C-SIM PAH  
Analysis, Soil

Preparation Method: SW-846 3550B

Analytical Method: SW-846 8270C (SIM)

1-Methylnaphthalene	<b>0.0031</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0088	0.0031	9/20/2019 20:33	J
2-Methylnaphthalene	<b>0.0030</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0088	0.0030	9/20/2019 20:33	J
Acenaphthene	<b>0.0034</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0088	0.0034	9/20/2019 20:33	J
Acenaphthylene	<b>0.0045</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0088	0.0045	9/20/2019 20:33	J
Anthracene	<b>0.0047</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0088	0.0047	9/20/2019 20:33	J
Benzo[a]anthracene	<b>0.0055</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0088	0.0055	9/20/2019 20:33	J
Benzo[a]pyrene	<b>0.0077</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0088	0.0077	9/20/2019 20:33	J
Benzo[b]fluoranthene	<b>0.0056</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0088	0.0056	9/20/2019 20:33	J
Benzo[g,h,i]perylene	<b>0.0063</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0088	0.0063	9/20/2019 20:33	J
Benzo[k]fluoranthene	<b>0.0054</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0088	0.0054	9/20/2019 20:33	J
Chrysene	<b>0.0058</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0088	0.0058	9/20/2019 20:33	J
Dibenzo[a,h]anthracene	<b>0.0046</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0088	0.0046	9/20/2019 20:33	J
Fluoranthene	<b>0.0050</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0088	0.0050	9/20/2019 20:33	J
Fluorene	<b>0.0039</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0088	0.0039	9/20/2019 20:33	J
Indeno(1,2,3-cd)pyrene	<b>0.0050</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0088	0.0050	9/20/2019 20:33	J
Naphthalene	<b>0.0032</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0088	0.0032	9/20/2019 20:33	J
Phenanthrene	<b>0.0041</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0088	0.0041	9/20/2019 20:33	J
Pyrene	<b>0.0054</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0088	0.0054	9/20/2019 20:33	J
Nitrobenzene-d5 (S)	<b>101</b>		%	<b>1</b>	33-134		9/20/2019 20:33	
2-Fluorobiphenyl (S)	<b>100</b>		%	<b>1</b>	37-127		9/20/2019 20:33	
p-Terphenyl-d14 (S)	<b>120</b>		%	<b>1</b>	42-141		9/20/2019 20:33	

### SEMIVOLATILES

Analysis Desc: Percent Solids,SM2540G,Soil

Analytical Method: SM 2540G

Percent Moisture	<b>10</b>	%	<b>1</b>	0.0010	0.0010	9/20/2019 15:00	J
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## ANALYTICAL RESULTS

Workorder: J1912244 PF Gainesville

Lab ID: **J1912244002** Date Received: 09/20/19 08:24 Matrix: Soil  
Sample ID: **SS-2-4E** Date Collected: 09/19/19 14:20

Results for sample J1912244002 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted	Adjusted	Analyzed	Lab						
					PQL	MDL								
<b>SEMIVOLATILES</b>														
Analysis Desc: 8270C-SIM PAH Analysis, Soil														
1-Methylnaphthalene	<b>0.0030</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0030	9/20/2019 21:01	J						
2-Methylnaphthalene	<b>0.0029</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0029	9/20/2019 21:01	J						
Acenaphthene	<b>0.0033</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0033	9/20/2019 21:01	J						
Acenaphthylene	<b>0.0044</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0044	9/20/2019 21:01	J						
Anthracene	<b>0.0045</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0045	9/20/2019 21:01	J						
Benzo[a]anthracene	<b>0.0053</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0053	9/20/2019 21:01	J						
Benzo[a]pyrene	<b>0.0075</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0075	9/20/2019 21:01	J						
Benzo[b]fluoranthene	<b>0.0054</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0054	9/20/2019 21:01	J						
Benzo[g,h,i]perylene	<b>0.0061</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0061	9/20/2019 21:01	J						
Benzo[k]fluoranthene	<b>0.0052</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0052	9/20/2019 21:01	J						
Chrysene	<b>0.0056</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0056	9/20/2019 21:01	J						
Dibenz[a,h]anthracene	<b>0.0044</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0044	9/20/2019 21:01	J						
Fluoranthene	<b>0.0049</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0049	9/20/2019 21:01	J						
Fluorene	<b>0.0038</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0038	9/20/2019 21:01	J						
Indeno(1,2,3-cd)pyrene	<b>0.0049</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0049	9/20/2019 21:01	J						
Naphthalene	<b>0.0031</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0031	9/20/2019 21:01	J						
Phenanthrene	<b>0.0039</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0039	9/20/2019 21:01	J						
Pyrene	<b>0.0052</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0052	9/20/2019 21:01	J						
Nitrobenzene-d5 (S)	<b>102</b>	%	1		33-134		9/20/2019 21:01							
2-Fluorobiphenyl (S)	<b>100</b>	%	1		37-127		9/20/2019 21:01							
p-Terphenyl-d14 (S)	<b>114</b>	%	1		42-141		9/20/2019 21:01							

### SEMIVOLATILES

Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G
Percent Moisture	5.1 % 1 0.0010 0.0010 9/20/2019 15:00 J

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## ANALYTICAL RESULTS

Workorder: J1912244 PF Gainesville

Lab ID:	<b>J1912244003</b>	Date Received:	09/20/19 08:24	Matrix:	Soil
Sample ID:	<b>SS-3-4N</b>	Date Collected:	09/19/19 14:39		

Results for sample J1912244003 are reported on a dry weight basis.

Sample Description:	Location:
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Parameters	Results	Qual	Units	DF	Adjusted	Adjusted	Analyzed	Lab						
					PQL	MDL								
<b>SEMIVOLATILES</b>														
Analysis Desc: 8270C-SIM PAH Analysis, Soil														
1-Methylnaphthalene	<b>0.0033</b>	U	mg/Kg	1	0.0093	0.0033	9/20/2019 21:28	J						
2-Methylnaphthalene	<b>0.0032</b>	U	mg/Kg	1	0.0093	0.0032	9/20/2019 21:28	J						
Acenaphthene	<b>0.0036</b>	U	mg/Kg	1	0.0093	0.0036	9/20/2019 21:28	J						
Acenaphthylene	<b>0.0048</b>	U	mg/Kg	1	0.0093	0.0048	9/20/2019 21:28	J						
Anthracene	<b>0.0049</b>	U	mg/Kg	1	0.0093	0.0049	9/20/2019 21:28	J						
Benzo[a]anthracene	<b>0.0058</b>	U	mg/Kg	1	0.0093	0.0058	9/20/2019 21:28	J						
Benzo[a]pyrene	<b>0.0082</b>	U	mg/Kg	1	0.0093	0.0082	9/20/2019 21:28	J						
Benzo[b]fluoranthene	<b>0.0059</b>	U	mg/Kg	1	0.0093	0.0059	9/20/2019 21:28	J						
Benzo[g,h,i]perylene	<b>0.0066</b>	U	mg/Kg	1	0.0093	0.0066	9/20/2019 21:28	J						
Benzo[k]fluoranthene	<b>0.0056</b>	U	mg/Kg	1	0.0093	0.0056	9/20/2019 21:28	J						
Chrysene	<b>0.0061</b>	U	mg/Kg	1	0.0093	0.0061	9/20/2019 21:28	J						
Dibenzo[a,h]anthracene	<b>0.0048</b>	U	mg/Kg	1	0.0093	0.0048	9/20/2019 21:28	J						
Fluoranthene	<b>0.0053</b>	U	mg/Kg	1	0.0093	0.0053	9/20/2019 21:28	J						
Fluorene	<b>0.0041</b>	U	mg/Kg	1	0.0093	0.0041	9/20/2019 21:28	J						
Indeno(1,2,3-cd)pyrene	<b>0.0053</b>	U	mg/Kg	1	0.0093	0.0053	9/20/2019 21:28	J						
Naphthalene	<b>0.0033</b>	U	mg/Kg	1	0.0093	0.0033	9/20/2019 21:28	J						
Phenanthrene	<b>0.0043</b>	U	mg/Kg	1	0.0093	0.0043	9/20/2019 21:28	J						
Pyrene	<b>0.0057</b>	U	mg/Kg	1	0.0093	0.0057	9/20/2019 21:28	J						
Nitrobenzene-d5 (S)	<b>102</b>	%	1		33-134		9/20/2019 21:28							
2-Fluorobiphenyl (S)	<b>101</b>	%	1		37-127		9/20/2019 21:28							
p-Terphenyl-d14 (S)	<b>111</b>	%	1		42-141		9/20/2019 21:28							

### SEMIVOLATILES

Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G
Percent Moisture	15 % 1 0.0010 0.0010 9/20/2019 15:00 J

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## ANALYTICAL RESULTS

Workorder: J1912244 PF Gainesville

Lab ID: **J1912244004** Date Received: 09/20/19 08:24 Matrix: Soil

Sample ID: **SS-4-1C** Date Collected: 09/19/19 15:09

Results for sample J1912244004 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
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### SEMIVOLATILES

Analysis Desc: 8270C-SIM PAH  
Analysis, Soil

Preparation Method: SW-846 3550B

Analytical Method: SW-846 8270C (SIM)

1-Methylnaphthalene	<b>0.0029</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0084	0.0029	9/20/2019 21:56	J
2-Methylnaphthalene	<b>0.0029</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0084	0.0029	9/20/2019 21:56	J
Acenaphthene	<b>0.0032</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0084	0.0032	9/20/2019 21:56	J
Acenaphthylene	<b>0.0043</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0084	0.0043	9/20/2019 21:56	J
Anthracene	<b>0.0044</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0084	0.0044	9/20/2019 21:56	J
Benzo[a]anthracene	<b>0.0052</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0084	0.0052	9/20/2019 21:56	J
Benzo[a]pyrene	<b>0.0073</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0084	0.0073	9/20/2019 21:56	J
Benzo[b]fluoranthene	<b>0.0053</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0084	0.0053	9/20/2019 21:56	J
Benzo[g,h,i]perylene	<b>0.0059</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0084	0.0059	9/20/2019 21:56	J
Benzo[k]fluoranthene	<b>0.0051</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0084	0.0051	9/20/2019 21:56	J
Chrysene	<b>0.0055</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0084	0.0055	9/20/2019 21:56	J
Dibenz[a,h]anthracene	<b>0.0043</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0084	0.0043	9/20/2019 21:56	J
Fluoranthene	<b>0.0048</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0084	0.0048	9/20/2019 21:56	J
Fluorene	<b>0.0037</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0084	0.0037	9/20/2019 21:56	J
Indeno(1,2,3-cd)pyrene	<b>0.0048</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0084	0.0048	9/20/2019 21:56	J
Naphthalene	<b>0.0030</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0084	0.0030	9/20/2019 21:56	J
Phenanthrene	<b>0.0039</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0084	0.0039	9/20/2019 21:56	J
Pyrene	<b>0.0051</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0084	0.0051	9/20/2019 21:56	J
Nitrobenzene-d5 (S)	<b>109</b>		%	<b>1</b>	33-134		9/20/2019 21:56	
2-Fluorobiphenyl (S)	<b>107</b>		%	<b>1</b>	37-127		9/20/2019 21:56	
p-Terphenyl-d14 (S)	<b>126</b>		%	<b>1</b>	42-141		9/20/2019 21:56	

### SEMIVOLATILES

Analysis Desc: Percent Solids,SM2540G,Soil

Analytical Method: SM 2540G

Percent Moisture	<b>4.0</b>	%	<b>1</b>	0.0010	0.0010	9/20/2019 15:00	J
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## ANALYTICAL RESULTS

Workorder: J1912244 PF Gainesville

Lab ID: **J1912244005** Date Received: 09/20/19 08:24 Matrix: Soil  
Sample ID: **SS-5-2W** Date Collected: 09/19/19 15:39

Results for sample J1912244005 are reported on a dry weight basis.

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted	Adjusted	Analyzed	Lab
					PQL	MDL		

### SEMIVOLATILES

Analysis Desc: 8270C-SIM PAH  
Analysis, Soil

Preparation Method: SW-846 3550B

Analytical Method: SW-846 8270C (SIM)

1-Methylnaphthalene	<b>0.0029</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0083	0.0029	9/20/2019 22:23	J
2-Methylnaphthalene	<b>0.0029</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0083	0.0029	9/20/2019 22:23	J
Acenaphthene	<b>0.0032</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0083	0.0032	9/20/2019 22:23	J
Acenaphthylene	<b>0.0043</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0083	0.0043	9/20/2019 22:23	J
Anthracene	<b>0.0044</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0083	0.0044	9/20/2019 22:23	J
Benzo[a]anthracene	<b>0.0052</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0083	0.0052	9/20/2019 22:23	J
Benzo[a]pyrene	<b>0.0073</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0083	0.0073	9/20/2019 22:23	J
Benzo[b]fluoranthene	<b>0.0053</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0083	0.0053	9/20/2019 22:23	J
Benzo[g,h,i]perylene	<b>0.0059</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0083	0.0059	9/20/2019 22:23	J
Benzo[k]fluoranthene	<b>0.0050</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0083	0.0050	9/20/2019 22:23	J
Chrysene	<b>0.0054</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0083	0.0054	9/20/2019 22:23	J
Dibenzo[a,h]anthracene	<b>0.0043</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0083	0.0043	9/20/2019 22:23	J
Fluoranthene	<b>0.0047</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0083	0.0047	9/20/2019 22:23	J
Fluorene	<b>0.0037</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0083	0.0037	9/20/2019 22:23	J
Indeno(1,2,3-cd)pyrene	<b>0.0047</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0083	0.0047	9/20/2019 22:23	J
Naphthalene	<b>0.0030</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0083	0.0030	9/20/2019 22:23	J
Phenanthrene	<b>0.0038</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0083	0.0038	9/20/2019 22:23	J
Pyrene	<b>0.0051</b>	<b>U</b>	mg/Kg	<b>1</b>	0.0083	0.0051	9/20/2019 22:23	J
Nitrobenzene-d5 (S)	<b>103</b>		%	<b>1</b>	33-134		9/20/2019 22:23	
2-Fluorobiphenyl (S)	<b>104</b>		%	<b>1</b>	37-127		9/20/2019 22:23	
p-Terphenyl-d14 (S)	<b>127</b>		%	<b>1</b>	42-141		9/20/2019 22:23	

### SEMIVOLATILES

Analysis Desc: Percent Solids,SM2540G,Soil

Analytical Method: SM 2540G

Percent Moisture	<b>4.4</b>	%	<b>1</b>	0.0010	0.0010	9/20/2019 15:00	J
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## ANALYTICAL RESULTS

Workorder: J1912244 PF Gainesville

Lab ID:	<b>J1912244006</b>	Date Received:	09/20/19 08:24	Matrix:	Soil
Sample ID:	<b>SS-6-15</b>	Date Collected:	09/19/19 16:37		

Results for sample J1912244006 are reported on a dry weight basis.

Sample Description:	Location:
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Parameters	Results	Qual	Units	DF	Adjusted	Adjusted	Analyzed	Lab						
					PQL	MDL								
<b>SEMIVOLATILES</b>														
Analysis Desc: 8270C-SIM PAH														
Analysis, Soil														
1-Methylnaphthalene	<b>0.0030</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0030	9/20/2019 22:51	J						
2-Methylnaphthalene	<b>0.0029</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0029	9/20/2019 22:51	J						
Acenaphthene	<b>0.0033</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0033	9/20/2019 22:51	J						
Acenaphthylene	<b>0.0044</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0044	9/20/2019 22:51	J						
Anthracene	<b>0.0045</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0045	9/20/2019 22:51	J						
Benzo[a]anthracene	<b>0.0071</b>	<b>I</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0053	9/20/2019 22:51	J						
Benzo[a]pyrene	<b>0.010</b>		<b>mg/Kg</b>	<b>1</b>	0.0085	0.0075	9/20/2019 22:51	J						
Benzo[b]fluoranthene	<b>0.017</b>		<b>mg/Kg</b>	<b>1</b>	0.0085	0.0054	9/20/2019 22:51	J						
Benzo[g,h,i]perylene	<b>0.0092</b>		<b>mg/Kg</b>	<b>1</b>	0.0085	0.0061	9/20/2019 22:51	J						
Benzo[k]fluoranthene	<b>0.0062</b>	<b>I</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0052	9/20/2019 22:51	J						
Chrysene	<b>0.0096</b>		<b>mg/Kg</b>	<b>1</b>	0.0085	0.0056	9/20/2019 22:51	J						
Dibenzo[a,h]anthracene	<b>0.0044</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0044	9/20/2019 22:51	J						
Fluoranthene	<b>0.010</b>		<b>mg/Kg</b>	<b>1</b>	0.0085	0.0049	9/20/2019 22:51	J						
Fluorene	<b>0.0038</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0038	9/20/2019 22:51	J						
Indeno(1,2,3-cd)pyrene	<b>0.010</b>		<b>mg/Kg</b>	<b>1</b>	0.0085	0.0049	9/20/2019 22:51	J						
Naphthalene	<b>0.0031</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0031	9/20/2019 22:51	J						
Phenanthrene	<b>0.0039</b>	<b>U</b>	<b>mg/Kg</b>	<b>1</b>	0.0085	0.0039	9/20/2019 22:51	J						
Pyrene	<b>0.0092</b>		<b>mg/Kg</b>	<b>1</b>	0.0085	0.0052	9/20/2019 22:51	J						
Nitrobenzene-d5 (S)	<b>112</b>		<b>%</b>	<b>1</b>	33-134		9/20/2019 22:51							
2-Fluorobiphenyl (S)	<b>111</b>		<b>%</b>	<b>1</b>	37-127		9/20/2019 22:51							
p-Terphenyl-d14 (S)	<b>131</b>		<b>%</b>	<b>1</b>	42-141		9/20/2019 22:51							

### SEMIVOLATILES

Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G
Percent Moisture	5.5 % 1 0.0010 0.0010 9/20/2019 15:00 J

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: J1912244 PF 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.

### LAB QUALIFIERS

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

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## QUALITY CONTROL DATA

Workorder: J1912244 PF Gainesville

QC Batch: EXTj/4061 Analysis Method: SW-846 8270C (SIM)  
QC Batch Method: SW-846 3550B Prepared: 09/19/2019 15:00  
Associated Lab Samples: J1912244001, J1912244002, J1912244003, J1912244004, J1912244005, J1912244006

METHOD BLANK: 3228987

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>SEMIVOLATILES</b>				
Naphthalene	mg/Kg	0.0029	0.0029	U
2-Methylnaphthalene	mg/Kg	0.0027	0.0027	U
1-Methylnaphthalene	mg/Kg	0.0028	0.0028	U
Acenaphthylene	mg/Kg	0.0041	0.0041	U
Acenaphthene	mg/Kg	0.0031	0.0031	U
Fluorene	mg/Kg	0.0035	0.0035	U
Phenanthrene	mg/Kg	0.0037	0.0037	U
Anthracene	mg/Kg	0.0042	0.0042	U
Fluoranthene	mg/Kg	0.0045	0.0045	U
Pyrene	mg/Kg	0.0049	0.0049	U
Benzo[a]anthracene	mg/Kg	0.0050	0.0050	U
Chrysene	mg/Kg	0.0052	0.0052	U
Benzo[b]fluoranthene	mg/Kg	0.0051	0.0051	U
Benzo[k]fluoranthene	mg/Kg	0.0048	0.0048	U
Benzo[a]pyrene	mg/Kg	0.0070	0.0070	U
Indeno(1,2,3-cd)pyrene	mg/Kg	0.0045	0.0045	U
Dibenzo[a,h]anthracene	mg/Kg	0.0041	0.0041	U
Benzo[g,h,i]perylene	mg/Kg	0.0057	0.0057	U
Nitrobenzene-d5 (S)	%	111	33-134	
2-Fluorobiphenyl (S)	%	107	37-127	
p-Terphenyl-d14 (S)	%	120	42-141	

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J1912244 PF Gainesville

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
J1912244001	SS-1-4C	SW-846 3550B	EXTj/4061	SW-846 8270C (SIM)	MSSj/2259
J1912244002	SS-2-4E	SW-846 3550B	EXTj/4061	SW-846 8270C (SIM)	MSSj/2259
J1912244003	SS-3-4N	SW-846 3550B	EXTj/4061	SW-846 8270C (SIM)	MSSj/2259
J1912244004	SS-4-1C	SW-846 3550B	EXTj/4061	SW-846 8270C (SIM)	MSSj/2259
J1912244005	SS-5-2W	SW-846 3550B	EXTj/4061	SW-846 8270C (SIM)	MSSj/2259
J1912244006	SS-6-15	SW-846 3550B	EXTj/4061	SW-846 8270C (SIM)	MSSj/2259
J1912244001	SS-1-4C			SM 2540G	WCAj/6148
J1912244002	SS-2-4E			SM 2540G	WCAj/6148
J1912244003	SS-3-4N			SM 2540G	WCAj/6148
J1912244004	SS-4-1C			SM 2540G	WCAj/6148
J1912244005	SS-5-2W			SM 2540G	WCAj/6148
J1912244006	SS-6-15			SM 2540G	WCAj/6148

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6815 SW Archer Road • Gainesville, FL 32608 • 352.377.2349 • Fax 352.385.6539 • E80479

\* J 1 9 1 2 2 4 4 \*

<b>FOR DRINKING WATER USE:</b>	
(When PWS information not otherwise supplied)	PWS ID:
Contact Person:	Phone:
Supplier of Water:	
Sale Address:	

**APPENDIX E**  
**PHOTOLOG**

**APPENDIX E PHOTO LOG – PERMA-FIX FLORIDA, INC. GAINESVILLE, FLORIDA**

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Photo 1. Excavation Area

View to east. MW-2 and Outfall #3 drain pipe in foreground. Deeper excavation in background.



Photo 2. Excavation Area

View to west.

## APPENDIX E PHOTO LOG – PERMA-FIX FLORIDA, INC. GAINESVILLE, FLORIDA

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Photo 3. Excavation Area

View to east. Best Management Practice: replaced section of drain line for Outfall #3.



Photo 4. Post-Excavation Area

Restoration efforts view to east.

**APPENDIX E PHOTO LOG – PERMA-FIX FLORIDA, INC. GAINESVILLE, FLORIDA**

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**Photo 5. Post-Excavation Area  
Restoration efforts view to west.**



**Photo 6. Post-Excavation Area  
Final Restoration view to west**