March 22, 2019 Sent via electronic mail

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

Subject: Site Assessment Report Addendum/Response to Comments
Perma-Fix of Florida, Inc.
1940 NW 67th Place
Gainesville, FL 32653
FLD 980 711 071
Operating Permit Number: 17680-011-HO

Dear Mr. Buselli,

In a letter dated July 25, 2018, the Florida Department of Environmental Protection (FDEP) issued review comments regarding a Site Assessment Report (SAR) dated May 3, 2018, prepared by AECOM Technical Services, Inc. for the subject property. On behalf of Perma-Fix of Florida, Inc. (Perma-Fix), Trihydro Corporation, Inc. (Trihydro) has prepared the following SAR Addendum, serving as a response to the FDEP letter. The FDEP comments and corresponding responses are provided below.

Comment 1: *The SAR notes that "the source of the polycyclic aromatic hydrocarbons (PAH) and arsenic impacts is unknown and does not appear to be related to the fire incident." However, the January 2017 email from Mr. Fogleman indicates that the results for PAHs are "to be anticipated in an area that drained stormwater from an asphalt surface… [and that] Perma-Fix upgraded the containment area to a concrete structure in recent years." The Department requests a summary that details the extent of these containment area upgrade activities, figures showing the location of current and former asphalt surfaces, and a timeframe for when the area received stormwater that drained from asphalt surfaces. If the source of PAHs is most likely related to anthropogenic materials such as asphalt, then a forensic analysis that compares the detected PAH profiles to established profiles of PAH source materials may assist in confirming the source of these contaminants. A complete assessment of soils will provide additional data that can be utilized in a forensic analysis report.*

Response 1: The subject property was originally developed in 1982 as a light industrial facility by Quadrex HPS, Inc. On June 17, 1994, Perma-Fix acquired the fully-developed property. Sometime between 1994 and 2018, Perma-Fix replaced a portion of the asphalt pavement in the northern portion of the property with concrete, including installation of concrete curbing along the paved portion, near the northern boundary of the property. The exact date of pavement replacement is unknown and no historical maps of the original pavement area are available. A portion of the original asphalt pavement remains in place in the north-eastern portion of the property (south of the concrete pavement and curbing). The northern portion of the property is used for materials handling and processing and includes truck traffic. The source of the polycyclic aromatic hydrocarbons (PAH) remains unknown. However, based upon the

installed curbing and other institutional and engineering controls (including spill prevention, control, and countermeasure procedures and equipment), there does not appear to be an ongoing source concern and the residual concern has been fully assessed (as presented in this report).

Therefore, based upon the absence of direct evidence of a historical source of the PAHs beyond potential de minimus influences from historic land use at this property, and the completion of the delineation of PAH impacts, no further investigation into potential PAH sources appears practical or necessary.

Comment 2: *Part I.12 of the current operating permit requires notification and reporting of any event requiring emergency response, including fire and releases of hazardous waste. While notification to the Department was performed, notification to the Hazardous Waste Program and Permitting personnel in Tallahassee, as identified in Part I.15 of the operating permit was not completed; the SAR should have also been submitted to the RCRA project manager in accordance with these conditions. Please note that all future RCRA and permit related documents should include the EPA ID and current operating permit numbers for the facility.*

The Department requests that the Solid Waste Management Unit (SWMU) / Area of Concern (AOC) Profile Sheet (attached below) be completed in support of assessment activities, with as much as detail as appropriate. Depending on the outcome of site assessment activities and sampling results, this area may be placed into the appropriate category of Appendix A (SWMU/AOC Tables) in the operating permit.

Response 2: The SWMU/AOC Profile Sheet has been compiled and is provided as **Attachment A** of this report.

Comment 3: *The analytical data dated January 30, 2017 for Outfall #3 and Upstream sampling did not provide a formal report detailing the collection method, sampling depths, and locations of these samples. Figures 2 & 4 should be revised to indicate the location of these samples and the depths they were collected.*

Section 4.1.2 of the report states that "no analyzed constituents were detected at concentrations above corresponding SCTLs." However, a BaP Conversion Table was not completed for most of the results noted in Tables 2 and 3 of the SAR. The Department observed exceedances of the residential SCTL for BaP TEQs that were calculated at SB-5 (6-foot sampling interval). BaP TEQs must be calculated for all soil sampling results; a table for multiple samples is located at the following link:https://floridadep.gov/waste/district-business-support/documents/benzoapyrene-equivalents-calculator-multiple-samples.

No soil samples were collected between land surface to 4-feet depth at soil borings SB-3 through SB-6; and no soil samples were collected between land surface to 6-inches depth, or 2-feet to 4-feet depth at SB-1 and SB-2. Additional sampling must be conducted to further assess the vertical extent of contamination from land surface to 6", 6" to 2', and so on every 2', until the water table is reached, in accordance with

Chapter 62-780, F.A.C. It appears some soil boring may be located within the concrete containment area, and it should be noted in the report if sampling at a particular interval may or may not be possible. Additional samples at the Upstream sample location area are also requested to complete vertical delineation.

Response 3: Section I.12.b.(1)(3) of the January 30, 2017 preliminary assessment noted that the investigation included water and soil samples collected from the discharge point of the Outfall #3 pipe (water sample designated Outfall #3) and from the surficial soils directly beneath the discharge point of the Outfall #3 pipe (soil sample designated Lower Outfall). The sampling was performed by Perma-Fix personnel on January 5, 2017. However, the chain-of-custody form and subsequent testing results indicated that both samples were water matrix. The grab water samples were collected directly into lab-supplied bottleware, then submitted under chain-of-custody procedures and analyzed by Perma-Fix Analytical Services, located at the subject property. The locations of the sample collection points are depicted on **Figure 2**, presented in **Attachment B**.

Typographical errors were noted in the previous assessment report dated May 2018. Soil sampling was performed at SB-3, SB-4, SB-5, and SB-6 at depths of 0.5 and 4.0 ft (noted in the sample custody form as collected at 6” and 4’) was incorrectly logged by the laboratory as 4 and 6 ft and the error was not detected during table generation. The correct sampling depths were noted on Figure 4 of the previous assessment report. The summary tables have been edited to reflect the corrected sampling depths for the previous soil sampling efforts. The soil cleanup target level (SCTL) exceedance of PAH analyte benzo(a)pyrene (BaP) and calculated BaP equivalents (BaP-eq) for residential direct exposure (RDE), as provided on Table II of Chapter 62-777, Florida Administrative Code (FAC), is acknowledged at the sampling depth of 0.5 ft in SB-5. This boring was completed beyond the fenced perimeter of the subject facility, but within the property boundaries. SB-5 was completed adjacent to the top of the slope of a drainage basin that parallels the northern edge of the developed portion of the property. Soil borings SB-1 and SB-2 were previously completed within the concrete-paved portion of the facility near the roll-off box incident area (SB-1) and the Outfall #3 inlet area (SB-2). Analyses of soil samples collected from both areas detected no impacts and analyses of groundwater samples collected from near the incident area and the outfall similarly detected no impacts exceeding regulatory target levels. Based upon these findings, additional soil assessment was initiated in this unpaved portion of the property to further investigate the area of previously-detected PAH impacts.

On December 10, 2018, Trihydro mobilized to the subject property and performed supplemental soil assessment efforts adjacent to previous soil borings SB-3 and SB-5, plus two additional borings (SB-7 and SB-8), to further assess the extent of PAH impacts west and east (respectively) of former SB-5. Prior to initiating intrusive work, public and private utilities locating efforts were performed in the planned work area using ground penetrating radar and electromagnetic remote sensing tools with intent to avoid potential underground structures near the proposed boring locations. Previously, the depth to water in this soil assessment area was detected at a depth of approximately 6 ft (MW-2). Therefore, samples from each location (SB-3R, SB-5R, SB-7, and SB-8) were collected at depths of 0.5, 2, and 4 ft. Samples

recovered from each interval were field-screened for potential organic vapors using a calibrated organic vapor analyzer (OVA) equipped with a photoionization detector. No detectable OVA response, nor odors or staining was noted in the sampled intervals. Separate samples were collected from each sample interval, placed into laboratory-supplied containers, preserved on wet ice and delivered by Trihydro personnel under chain-of-custody procedures to NELAC-certified Advanced Environmental Laboratories, Inc. (AEL) in Jacksonville, FL for PAH analysis using SW-846 Method 8270-SIM. The results of analyses detected PAH concentrations exceeding RDE SCTLs in the 0.5 ft depth interval only in SB-3R, SB-5R, and SB-8. More specifically, PAH constituents BaP, BaP-eq, and benzo(b)fluoranthene, were detected in SB-3R at 0.5 ft; and BaP and BaP-eq were detected in SB-5R and SB-8 at 0.5 ft, at concentrations exceeding the corresponding RDE SCTLs, but below groundwater leachability (Leachability) SCTLs as provided on Table II of Chapter 62-777, FAC. Based upon these findings, an expanded soil investigation was planned north, east, and south of SB-8.

On January 10, 2019, Trihydro returned to the subject property and completed three additional borings (SB-9, SB-10, and SB-11), to further assess the extent of BaP impacts east, south, and north (respectively) of SB-8. Samples from the three borings were collected at a depth of 0.5 ft. Note that soil boring SB-11 was advanced on the slope of the drainage ditch, and the sample was collected from a depth of 0.5 ft, which represented an approximate depth of 4 ft, relative to the depths collected from the previous level-terrain borings. Samples recovered from each interval were field-screened for potential organic vapors using a calibrated OVA equipped with a photoionization detector. No detectable OVA response, nor odors or staining was noted in the sampled intervals. Separate samples were collected from each sample interval, placed into laboratory-supplied containers, preserved on wet ice and delivered by Trihydro personnel under chain-of-custody procedures to AEL in Jacksonville, FL for PAH analysis using SW-846 Method 8270-SIM. The results of analyses detected PAH concentrations exceeding SCTLs in the 0.5 ft depth interval in SB-10 and SB-11. More specifically, PAH constituents BaP, BaP-eq, dibenzo(a,h)anthracene (DBahA), and benzo(b)fluoranthene, were detected in SB-10 at 0.5 ft; and BaP, BaP-eq, and DBahA were detected in SB-11 at 0.5 ft, at concentrations exceeding the corresponding RDE SCTLs. In addition, benzo(a)anthracene was detected in SB-10 at 0.5 ft, at a concentration exceeding the Leachability SCTL. Based upon these findings, an expanded soil investigation was planned adjacent to and east of SB-9 and SB-10.

On February 5, 2019, Trihydro returned to the subject property and completed four additional borings (SB-9R, SB-10R, SB-12, and SB-11), to further assess the extent of PAH impacts adjacent to and east of SB-9 and SB-10. Samples from SB-9R were collected at a depth of 2 ft. Samples from SB-10R were collected from depths of 2 and 4 ft, and samples from SB-12 and SB-13 were collected from depths of 0.5 and 2 ft. Samples recovered from each interval were field-screened for potential organic vapors using a calibrated OVA equipped with a photoionization detector. No detectable OVA response, nor odors or staining was noted in the sampled intervals. Separate samples were collected from each sample interval, placed into laboratory-supplied containers, preserved on wet ice and delivered by Trihydro personnel under chain-of-custody procedures to AEL in Jacksonville, FL for PAH analysis using SW-846 Method 8270-SIM. The results of analyses detected BaP-eq concentrations exceeding RDE SCTLs in the 2 ft

depth interval in SB-9R, but PAH concentrations were below RDE and Leachability SCTLs in the samples collected from SB-10R, SB-12, and SB-13.

The locations of the previous and recent soil borings are depicted on **Figures 2 and 3**, presented in **Attachment B**. **Revised Table 1 Soil Screening Summary** and **Revised Table 2 Summary of Soil Analytical Results** are presented in **Attachment C**. BaP Conversion Tables for the 13 soil sampling locations and Soil Boring Logs for the nine soils borings recently completed are presented in **Attachment D**. The laboratory analytical reports and equipment calibration logs are provided in **Attachment E**.

Based upon this supplemental soil assessment, Trihydro has assessed the area of PAH impacts to encompass an area measuring approximately 38 ft east to west by 28 ft north to south and a maximum impact depth of approximately 1 ft, plus an additional approximately 10 ft square area centered around SB-9, to further extend to a depth of approximately 4 ft, for a total volume of approximately 50 cubic yards of PAH-impacted surficial soils exceeding RDE SCTLs. Due to the steep slope to the ditch north of SB-11, no additional samples could be collected to the north. Sediments and surface water samples were collected in the drainage ditch, which were found to be free of PAH impacts. Based on this, the PAH impacts were fully delineated in soils. The distribution of PAH impacts in soil (represented by BaP impacts as the common PAH analyte of concern) is depicted on **Figure 3**, presented in **Attachment B**.

Comment 4: *The Department acknowledges that surface water (SW) analytical results indicated contaminants above their respective CTLs for SW-1 [bis(2-ethylhexyl) phthalate] and SW-2 [lead, chromium, fluoranthene, and pyrene], and that these results may not represent actual site conditions due to the lack of detections in the "other soil, sediment, groundwater, or surface water samples at concentrations above corresponding CTLs," as stated in the SAR. The report suggested that turbidity in SW-2 may have contributed to these elevated results; however, please note that PAHs were also detected and reported in Table 6, above the annual average as noted in Chapter 62-302, F.A.C. at the location of SW-2. The Department requests that additional surface water samples be collected to confirm the results for previously sampled surface water locations.*

Monitoring wells MW-1, MW-2, and MW-3 were installed as part of assessment activities, however MW-3 was not sampled and analyzed for contaminants. Based on water level measurements, MW-3 appears to be downgradient of the outfall area. It should also be noted that the analytical results for MW-1 and MW-2 indicate that Dibenzo(a,h)anthracene was not detected, but that the Adjusted Practical Quantitation Limit (PQL) and corresponding non-detect values are above the groundwater cleanup target levels (GCTL) for this constituent. The Department requests the resampling of all three (3) groundwater monitoring wells to confirm that the constituents of concern are below their respective GCTLs.

Response 4: On December 11, 2018, Trihydro mobilized to the subject property and performed supplemental surface water assessment efforts at the locations of former samples SW-1, SW-2, and SW-3, to further assess the extent of semivolatile organic compounds (SVOC), chromium, and lead. Samples collected from each location were placed into laboratory-supplied containers, preserved on wet ice and

delivered by Trihydro personnel under chain-of-custody procedures to AEL in Jacksonville, FL for SVOC analysis using SW-846 Method 8270-SIM, plus for total and dissolved chromium and lead by SW-846 Method 6010. Note that the dissolved metals samples were collected based on the water column turbidity noted in the previous sampling effort conducted by others.

The results of lab analyses indicated no SVOC or tested metals constituents exceeding corresponding Class III Fresh Surface Water Cleanup Target Levels (SWCTL), as provided on Table I of Chapter 62-777, FAC. The locations of the previous and recent surface water sample locations are depicted on **Figure 2**, presented in **Attachment B**. **Revised Table 6 Summary of Surface Water Analytical Results** is presented in **Attachment C**. The laboratory analytical report is provided in **Attachment E**.

Based on these findings, no exceedances of SWCTLs were detected in the surface water present in the drainage ditch at this facility.

On December 11, 2018, Trihydro also performed supplemental groundwater assessment efforts, collecting samples from existing monitoring wells MW-1, MW-2, and MW-3. Prior to sampling, static water level measurements were recorded for each well. Calculated water table elevations confirmed that the depth to water in the vicinity of soil assessment area was approximately 5.8 ft during this supplemental investigation and prevailing groundwater flow beneath the assessment area was toward the south-southeast, consistent with previous observations by others.

Following well gauging, each well was purged and sampling was performed in accordance with current FDEP Groundwater Sampling Standard Operating Procedure 001/01. The groundwater samples were placed into laboratory-supplied containers, preserved on wet ice and delivered by Trihydro personnel under chain-of-custody procedures to AEL in Jacksonville, FL for PAH analysis using SW-846 Method 8270-SIM.

The results of lab analyses indicated no PAH constituents exceeding corresponding Groundwater Cleanup Target Levels (GCTL), as provided on Table I of Chapter 62-777, FAC. The locations of the monitoring wells are depicted on **Figure 2**, and a water table elevation map depicting December 2018 observations is presented on **Figure 4** in **Attachment B**. **Revised Table 4 Water Table Elevation Summary and Revised Table 5 Summary of Groundwater Analytical Results** are presented in **Attachment C**. The laboratory analytical report, groundwater sampling logs, and equipment calibration log are provided in **Attachment E**.

Based on these findings, no exceedances of GCTLs were detected in groundwater beneath the assessment area of this facility.

Conclusions

Trihydro has completed supplemental assessment efforts at the subject facility, related to a roll-off box fire incident that occurred on January 5, 2017. The supplemental assessment included soil, surface water,

and groundwater sampling efforts to confirm the extent of previously-detected PAH impacts in the incident vicinity. The assessment also included surface water testing to further investigate the potential presence of previously-detected chromium and lead that were previously deemed suspect and inaccurate.

Based on the most recent findings, surface water, sediment, and groundwater are not impacted by organics or metals exceeding regulatory target levels. Only an unpaved area in the northern portion of the assessed area is a soil impact concern. These soil impacts are limited to an area measuring approximately 38 ft east to west by 28 ft north to south and a maximum depth of approximately 1 ft, plus an additional approximately 10 ft square area centered around SB-9, to further extend to a depth of approximately 4 ft, for a total volume of approximately 50 cubic yards of PAH-impacted surficial soils exceeding RDE SCTLs.

Recommendations

Trihydro recommends that a limited remediation effort should be performed to remove the estimated 50 cubic yards of impacted soils and collect samples from the excavation boundaries to confirm successful removal of the PAH-impacted material. The excavated material should be properly manifested, transported, and disposed at a license waste disposal facility. Following receipt of analytical results confirming that the impacted soils exceeding SCTLs have been removed, the excavation should be backfilled with clean fill and stabilized to prevent erosion. A Source Removal Report should be prepared to include details of efforts completed, tabulated sampling results and figures depicting the area remediated, and a regulatory request for no further action approval.

We trust you will find this SAR Addendum complete and that you will concur with our recommendation to proceed with a limited remediation effort to achieve a no further action status for this incident. In the interim, 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.

Respectfully submitted,
Trihydro Corporation

3/22/19

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

ec: Mr. Michael S. Shuler, Perma-Fix of Florida, Inc.
Brian Bastek, EPA Region 4

61A-002-001

Attachments (5)

ATTACHMENT A

SOLID WASTE MANAGEMENT UNIT/AREA OF CONCERN PROFILE SHEET

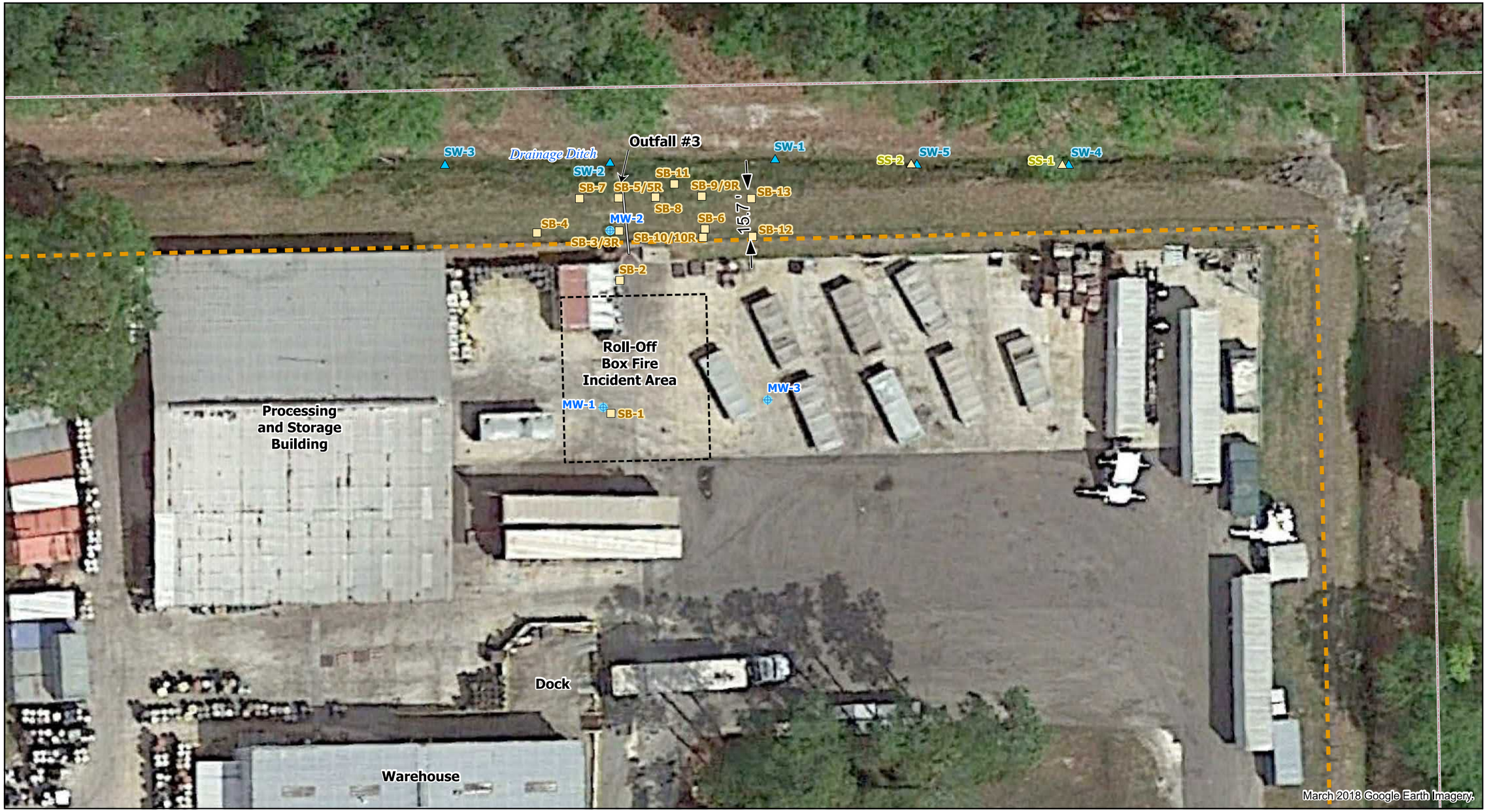
Solid Waste Management Unit (SWMU)/Area of Concern (AOC) Profile Sheet

ACTION	DESCRIPTION
Number:	Building C - Processing and Storage Building (PSB).
Type of Unit:	PSB is a canopy-covered open-sided structure used to receive, store, and blend hazardous and mixed waste into fuel for use at off-site facilities and to bulk wastes for transfer to off-site treatment and/or disposal facilities.
Name:	Processing and Storage Building (PSB)
Unit Characteristics:	PSB is a 6,750 square foot open-air metal canopy structure with concrete foundation and surrounding concrete-paved surface. It includes a 3000-gallon aboveground storage tank and container storage area, permitted to store a maximum of 72,105 gallons of liquid waste.
Operational History:	The subject property was developed by Quadrex HPS, Inc. in 1982. Operations commenced in October 1983. On 6/17/1994, Perma-Fix acquired the subject facility and has sustained facility operations to date.
Permits	Facility ID: FLD 980 711 071 Hazardous Waste Facility Permit: 17680-011-HO
Current Status:	Active.
Waste Characteristics:	On 1/5/2017 a fire incident occurred in an open roll-off container staged approximately 40 feet east of the PSB. The container was storing 10 cubic yards of hazardous waste solids intended for shipment offsite to a hazardous waste landfill as UN3077 Environmental Hazardous Substances, Solid, N.O.S. The wastes included crushed glass and plastic exempt liquid scintillation vials and spent vapor-phase granular activated carbon contaminated with tetrachloroethylene (D039) and spent acetone (D001, F003).
Waste Management:	Solid, non-hazardous wastes such as rags, paper, cardboard, plastic oily sludges, oil-contaminated absorbents, crushed glass, and plastic containers are received at the PSB for bulking and shipment to an authorized off-site facility. These wastes are managed by simply bulking them into a roll-off container up to 30 cubic yards in size lined with 6-mil plastic sheeting. The roll-off containers are then covered with a tight tarpaulin and staged adjacent to the PSB.

Maintenance Procedures:	N/A.
Release History:	On January 5, 2017, 10 cubic yards of bulked hazardous waste solids contained a steel roll-off box spontaneously combusted. The roll-off box was staged on concrete pavement approximately 40 feet east of the PSB. The incident notification was transmitted January 5, 2017. Gainesville Fire Rescue responded to the incident and extinguished the fire with water. Promptly after extinguishing the fire, the water and fluids present in the roll-off box were purged and containerized in a steel tote. However, some water escaped from the roll-off box through a leaking drain and migrated north, across the concrete pavement. Assessment efforts were subsequently initiated to determine whether or not the escaped water had resulted in environmental impacts to the facility.
Potential Pathways:	Soil (M), groundwater (L), surface water (L).
Exposure Potential:	A Site Assessment Report (SAR) has been completed. Soil, sediment, groundwater and surface water were assessed at the facility. The results of the investigation detected no constituents of concern corresponding to the contents of the hazardous materials stored in roll-off box. However, polycyclic aromatic hydrocarbon (PAH) impacts exceeding regulatory target levels for residential direct exposure (RDE) were identified in unpaved surficial soils in an approximately 1040 square foot area located north of the incident area.
Remedial Action:	Source removal proposed. Will be initiated pending regulatory approval of work plan.
Recommendation and reason for recommendation	The SAR includes a recommendation to excavate the assessed area of PAH-impacted soils below RDE target levels.
References (if any)	None.
Photographs	A Site Map depicting the roll-off box staging area from the fire incident is included as Figure 1.

ATTACHMENT B

FIGURES



EXPLANATION

- SURFACE WATER SAMPLE
- MONITORING WELL
- SEDIMENT SAMPLE
- SOIL BORING
- OUTFALL PIPE
- SECURITY FENCE
- PARCEL BOUNDARY

N

0 30'

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1252 Commerce Drive
Laramie, WY 82070
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

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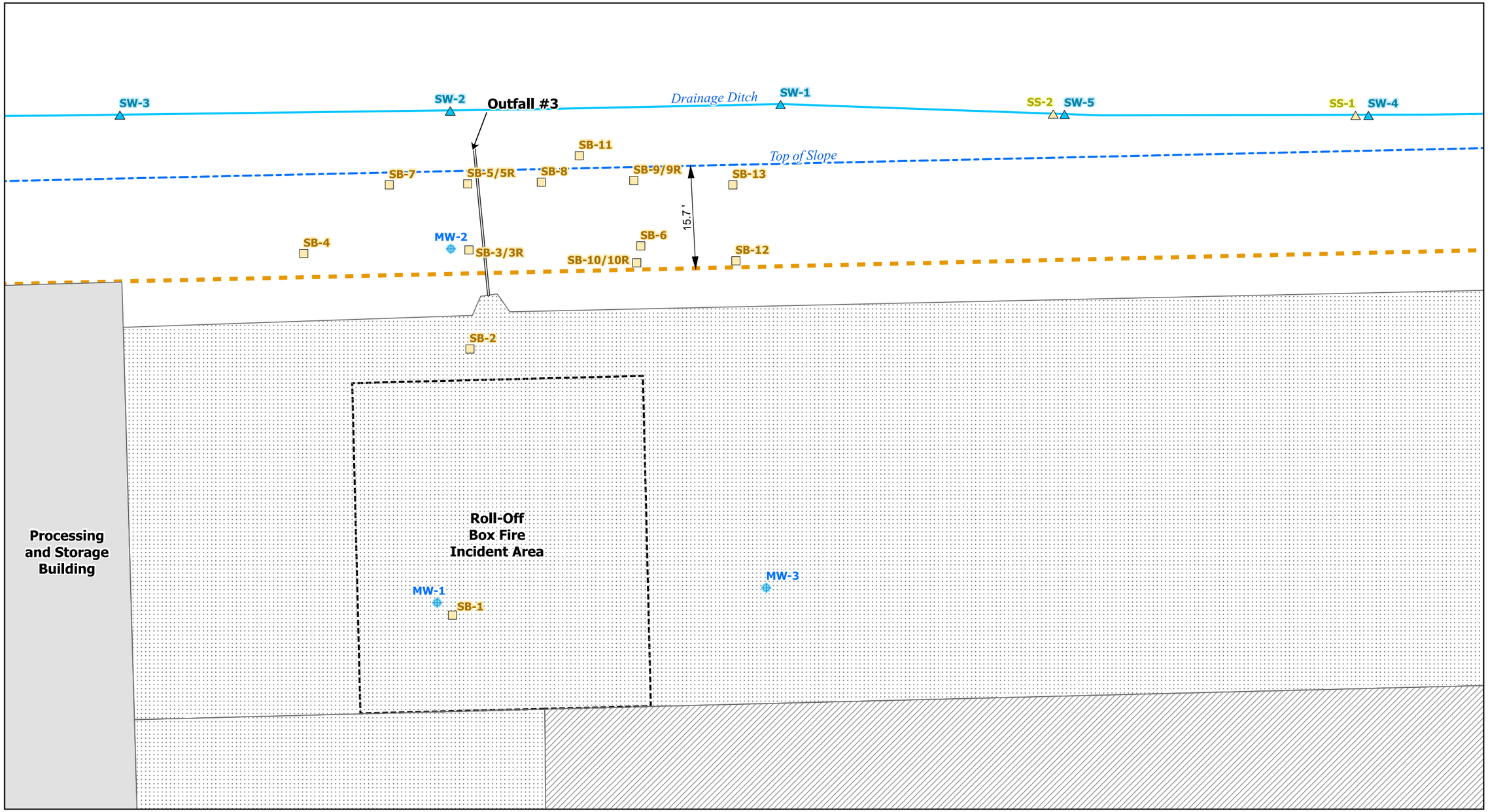

EXPLANATION

- SURFACE WATER SAMPLE
- MONITORING WELL
- SEDIMENT SAMPLE
- SOIL BORING
- TOP OF SLOPE
- DRAINAGE DITCH
- OUTFALL PIPE
- ASPHALT
- CONCRETE
- ROLL-OFF BOX
- STRUCTURE
- SECURITY FENCE

N

0 15'

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www.trihydro.com
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FIGURE 2

ASSESSMENT AREA DETAIL

PERMA-FIX OF FLORIDA
GAINESVILLE, FLORIDA

Drawn By: BR	Checked By: BK	Scale: 1" = 15'	Date: 3/6/19	File: Fig2_SiteLayout

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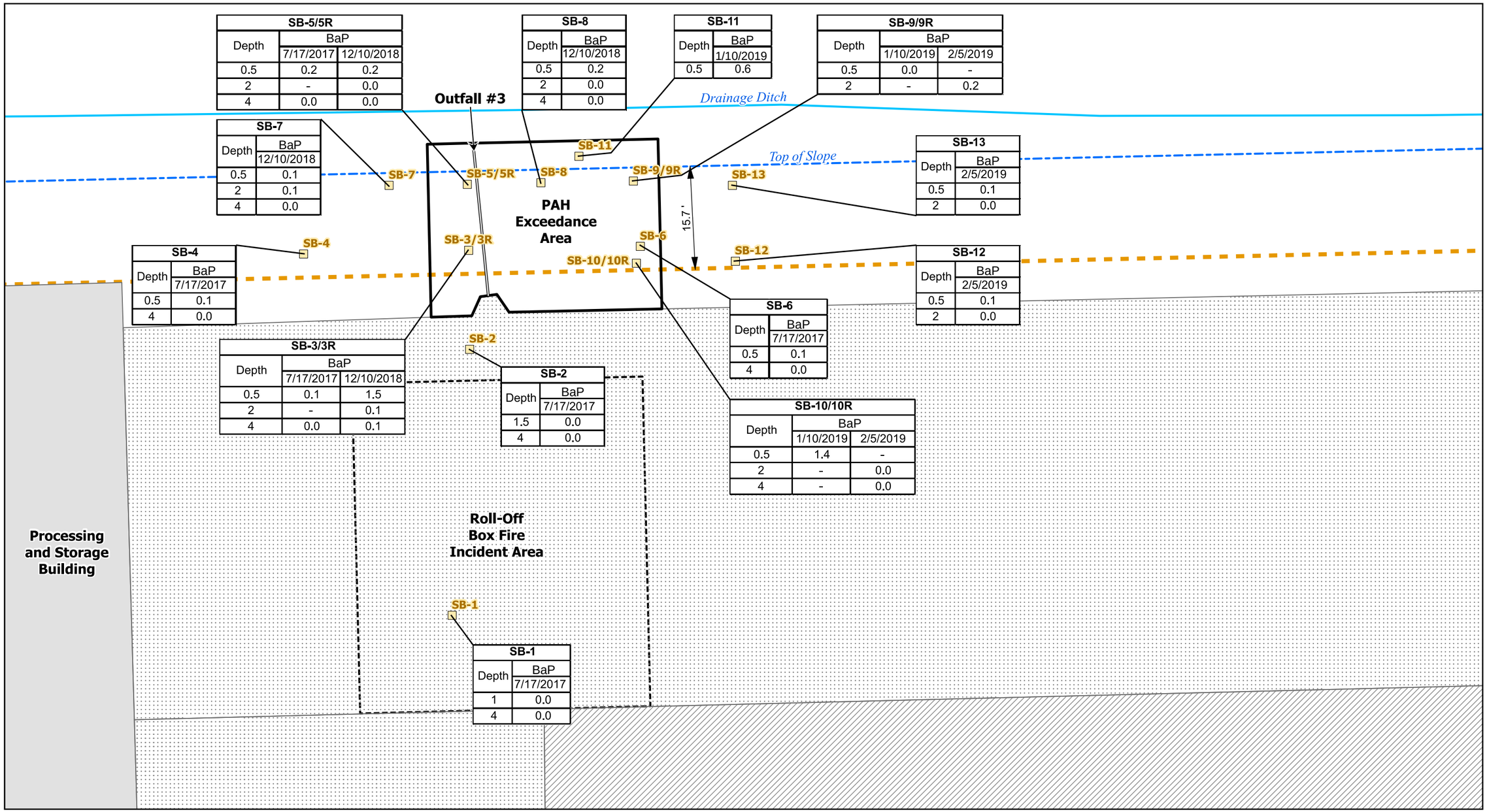

SB-5/5R		
Depth	BaP	
	7/17/2017	12/10/2018
0.5	0.2	0.2
2	-	0.0
4	0.0	0.0

SB-8	
Depth	BaP
	12/10/2018
0.5	0.2
2	0.0
4	0.0

SB-11	
Depth	BaP
	1/10/2019
0.5	0.6

SB-9/9R		
Depth	BaP	
	1/10/2019	2/5/2019
0.5	0.0	-
2	-	0.2

SB-7	
Depth	BaP
	12/10/2018
0.5	0.1
2	0.1
4	0.0

SB-13	
Depth	BaP
	2/5/2019
0.5	0.1
2	0.0

SB-4	
Depth	BaP
	7/17/2017
0.5	0.1
4	0.0

SB-12	
Depth	BaP
	2/5/2019
0.5	0.1
2	0.0

SB-6	
Depth	BaP
	7/17/2017
0.5	0.1
4	0.0

SB-3/3R		
Depth	BaP	
	7/17/2017	12/10/2018
0.5	0.1	1.5
2	-	0.1
4	0.0	0.1

SB-2	
Depth	BaP
	7/17/2017
1.5	0.0
4	0.0

SB-10/10R		
Depth	BaP	
	1/10/2019	2/5/2019
0.5	1.4	-
2	-	0.0
4	-	0.0

SB-1	
Depth	BaP
	7/17/2017
1	0.0
4	0.0

EXPLANATION

- SOIL BORING
- TOP OF SLOPE
- DRAINAGE DITCH
- OUTFALL PIPE
- ASPHALT
- CONCRETE
- ROLL-OFF BOX
- STRUCTURE
- PAH EXCEEDANCE AREA
- SECURITY FENCE

BaP = BENZO(A)PYRENE (in mg/Kg)

N

0 15'

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1252 Commerce Drive
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www.trihydro.com
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FIGURE 3

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

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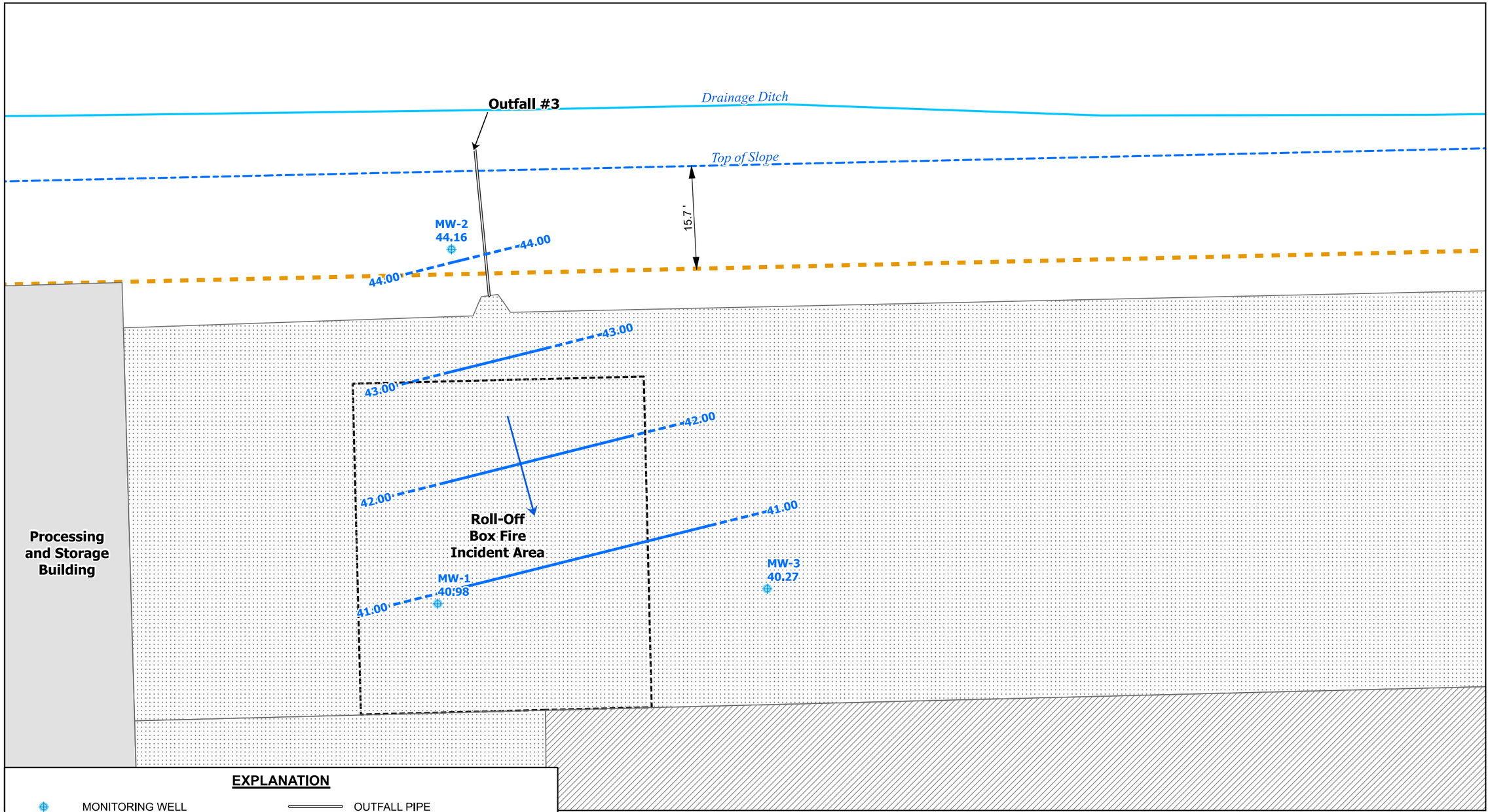

EXPLANATION

- MONITORING WELL
- WATER TABLE ELEVATION IN FEET, DASHED WHERE IN FERRED
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- TOP OF SLOPE
- DRAINAGE DITCH
- OUTFALL PIPE
- ASPHALT
- CONCRETE
- ROLL-OFF BOX
- STRUCTURE
- SECURITY FENCE

N

0 15'

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FIGURE 4

WATER TABLE CONTOUR MAP

PERMA-FIX OF FLORIDA
GAINESVILLE, FLORIDA

Drawn By: BR	Checked By: BK	Scale: 1" = 15'	Date: 3/7/19	File: Fig4_PSurf

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ATTACHMENT C

TABLES

TABLE 1: SOIL SCREENING SUMMARY
1940 NW 67th Place, Gainesville, Florida

Facility Name:	Perma-Fix of Florida, Inc.						Facility ID: FLD 980 711 071
BORING ID	**DATE**	**LOCATION**	**DEPTH INTERVAL**	**Unfiltered**	**Filtered**	**Petroleum Vapor Concentration**	**COMMENTS**
			(feet)	**(ppm)**	**(ppm)**	**(ppm)**	
SB-1	7/17/2017	3' SE of MW-1	1	ND	ND	ND	SB-1 at 1'
			2	ND	ND	ND	
			3	ND	ND	ND	
			4	ND	ND	ND	SB-1 at 4'
			5	ND	ND	ND	
			6	ND	ND	ND	
			8	ND	ND	ND	
			10	ND	ND	ND	SB-1 at 10'
			12	ND	ND	ND	
			14	ND	ND	ND	
			16	ND	ND	ND	
			18	ND	ND	ND	
			20	ND	ND	ND	
SB-2	7/17/2017	12' S of MW-2	1	ND	ND	ND	SB-2 at 1.5'
			2	ND	ND	ND	
			3	ND	ND	ND	
			4	ND	ND	ND	SB-2 at 4'
			5	ND	ND	ND	
			6	ND	ND	ND	
			8	ND	ND	ND	
			10	ND	ND	ND	
			12	ND	ND	ND	
			14	ND	ND	ND	
			16	ND	ND	ND	
			18	ND	ND	ND	
			20	ND	ND	ND	
SB-3/ MW-2	7/17/2017	41' N of MW-1 on N side of fence	1	ND	ND	ND	SB-3 at 0.5'
			2	ND	ND	ND	
			3	ND	ND	ND	
			4	ND	ND	ND	SB-3 at 4'
			5	ND	ND	ND	
			6	ND	ND	ND	
			8	ND	ND	ND	
			10	ND	ND	ND	
			12	ND	ND	ND	
			14	ND	ND	ND	
			16	ND	ND	ND	
			18	ND	ND	ND	
			20	ND	ND	ND	
SB-4	7/17/2017	23' W of MW-2	1	ND	ND	ND	SB-4 at 0.5'
			2	ND	ND	ND	
			3	ND	ND	ND	
			4	ND	ND	ND	SB-4 at 4'
			5	ND	ND	ND	
			6	ND	ND	ND	

TABLE 1: SOIL SCREENING SUMMARY
1940 NW 67th Place, Gainesville, Florida

Facility Name:	Perma-Fix of Florida, Inc.						Facility ID: FLD 980 711 071
BORING ID	**DATE**	**LOCATION**	**DEPTH INTERVAL**	**Unfiltered**	**Filtered**	**Petroleum Vapor Concentration**	**COMMENTS**
			(feet)	**(ppm)**	**(ppm)**	**(ppm)**	
SB-5	7/17/2017	12' N of MW-2	1	ND	ND	ND	SB-5 at 0.5'
			2	ND	ND	ND	
			3	ND	ND	ND	
			4	ND	ND	ND	SB-5 at 4'
			5	ND	ND	ND	
			6	ND	ND	ND	
SB-6	7/17/2017	31' E of MW-2	1	ND	ND	ND	SB-6 at 0.5'
			2	ND	ND	ND	
			3	ND	ND	ND	
			4	ND	ND	ND	SB-6 at 4'
			5	ND	ND	ND	
			6	ND	ND	ND	
SB-3R	12/10/2018	2.6 Ft S of MW-2	0-1	0	0	0	SB3R.05
			1-2	0	0	0	SB3R.2
			2-4	0	0	0	SB3R.4
SB-5R	12/10/2018	11' Ft N of MW-2	0-1	0	0	0	SB5R.05
			1-2	0	0	0	SB5R.2
			2-4	0	0	0	SB5R.4
SB-7	12/10/2018	9 Ft W of SB-5R	0-1	0	0	0	SB7.05
			1-2	0	0	0	SB7.2
			2-4	0	0	0	SB7.4
SB-8	12/10/2018	14 Ft E of SB-5R	0-1	0	0	0	SB8.05
			1-2	0	0	0	SB8.2
			2-4	0	0	0	SB8.4
SB-9	1/10/2019	28 Ft E of SB-5R	0-1	0	0	0	SB9.05
SB-9R	2/5/2019		1-2	0	0	0	SB9.2
SB-10	1/10/2019	28Ft E of SB-3R	0-1	0	0	0	SB10.05
SB-10R	2/5/2019		1-2	0	0	0	SB10.2
			2-4	0	0	0	SB10.4
SB-11	1/10/2019	21Ft E and 6Ft N of SB-5R	0-1	0	0	0	SB11.05
SB-12	2/5/2019	15' E of SB-10	0-1	0	0	0	SB12.05
			1-2	0	0	0	SB12.2
SB-13	2/5/2019	15' E of SB-9	0-1	0	0	0	SB13.05
			1-2	0	0	0	SB13.2

PID = OVA equipped with Photoionization Detector

TABLE 2: 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)	Acenapthylene (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)
Residential Direct Exposure SCTL				**2**	**82**	**210**	**400**	**2,400**	**1,800**	**21,000**	**1 #**	**0.1**	**1 #**	**2,500**	**10 #**
Industrial Direct Exposure SCTL				**12**	**1,700**	**470**	**1,400**	**20,000**	**20,000**	**300,000**	**#**	**0.7**	**#**	**52,000**	**#**
Soil to Groundwater Leachability SCTL				*****	**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	0.0054 U	0.0060 U	0.0052 U

TABLE 2: 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 8270C SIM Laboratory Analysis											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-napthalene (mg/Kg)**	**2-Methyl-napthalene (mg/Kg)**	**Naphthalene (mg/Kg)**	**Phenanthrene (mg/Kg)**	**Pyrene (mg/Kg)**	**B(a)P Equivalents**	**TPH (mg/kg)**
Residential Direct Exposure SCTL				**100 #**	**0.1 #**	**3,200**	**2,600**	**1 #**	**200**	**210**	**55**	**2,200**	**2,400**	**0.1**	**460**
Industrial Direct Exposure SCTL				**#**	**#**	**59,000**	**33,000**	**#**	**1,800**	**2,100**	**300**	**36,000**	**45,000**	**0.7**	**2,700**
Soil to Groundwater Leachability SCTL				**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 quantitiation limit, but above the method detection limit

TABLE 4: WATER TABLE ELEVATION SUMMARY
1940 NW 67th Place, Gainesville, Florida

Facility Name: **PermaFix of Florida** **Facility ID: FLD 980 711 071**

WELL NO.	MW-1	MW-2	MW-3
DIAMETER	1	1	1
WELL DEPTH	16.00	14.00	16.00
SCREEN INTERVAL	6-16	4-14	6-16
TOC ELEVATION	50.00	50.00	50.45

DATE	**ELEV**	**DTW**	**FP**	**ELEV**	**DTW**	**FP**	**ELEV**	**DTW**	**FP**
7/19/2017	41.88	8.12	0.00	43.99	6.01	0.00	40.97	9.48	0.00
12/11/2018	40.98	9.02	0.00	44.16	5.84	0.00	40.27	10.18	0.00

All Measurements = Feet

TABLE 5: 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 Anaylsis				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**
Ch 62-777, FAC Table I GCTL		**10**	**5**	**100**	**15**	**20**	**210**	**2,100**	**0.05**	**0.2**	**0.05**	**210**	**0.5**
Ch 62-777, FAC Table V NADSC		**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-napthalene**	**2-Methyl-napthalene**	**Naphthalene**	**Phenanthrene**	**Pyrene**	**TPH**	**bis(2-Ethylhexyl) phthalate**
Ch 62-777, FAC Table I GCTL		**0.48**	**0.005**	**280**	**280**	**0.05**	**28**	**28**	**14**	**210**	**210**	**50,000**	**6**
Ch 62-777, FAC Table V NADSC		**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 6: 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**
SW Quality Classification Criteria		**50**	**8.8**	**11**	**8.5**	**3**	*****	**0.3**	*****	*****	*****	*****
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	**24**	**30**	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**
SW Quality Classification Criteria		*****	*****	*****	**0.3**	**30**	*****	**26**	*****	**0.3**	**5,000**	**2.2**
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	**3.1 I**
	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	**2.8**	0.038 U	2.2	0.048 U	0.53	**2.4**	2,800	**2.2 I**
	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)

ATTACHMENT D

BaP CONVERSION TABLES AND SOIL BORING LOGS

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
Site Location:	Gainesville, FL
Facility/Site ID No.:	COM_17680

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 #	SB-1 at 1'	SB-1 at 4'	SB-2 at 1.5'	SB-2 at 4'	SB-3 at 0.5'	SB-3 at 4'	SB-4 at 0.5'	SB-4 at 4'	SB-5 at 0.5'	SB-5 at 4'
	Sample Date	7/17/2017	7/17/2017	7/17/2017	7/17/2017	7/17/2017	7/17/2017	7/17/2017	7/17/2017	7/17/2017	7/17/2017
	Sample Location:	3' SE of MW-1	3' SE of MW-1	12' S of MW-2	12' S of MW-2	41' N of MW -1	41' N of MW -1	23' W of MW-2	23' W of MW-2	12' N of MW-2	12' N of MW-2
	Depth (ft):	1	4	1.5	4	0.5	4	0.5	4	0.5	4
Contaminant Concentrations											
Contaminant	**TEF**	SB-1 at 1' (mg/kg)	SB-1 at 4' (mg/kg)	SB-2 at 1.5' (mg/kg)	SB-2 at 4' (mg/kg)	SB-3 at 0.5' (mg/kg)	SB-3 at 4' (mg/kg)	SB-4 at 0.5' (mg/kg)	SB-4 at 4' (mg/kg)	SB-5 at 0.5' (mg/kg)	SB-5 at 4' (mg/kg)
Benzo(a)pyrene	1.0	0.00345	0.00305	0.00305	0.0031	0.04	0.003	0.094	0.0043	0.14	0.00425
Benzo(a)anthracene	0.1	0.00165	0.00145	0.0015	0.0015	0.053	0.017	0.081	0.0021	0.12	0.00205
Benzo(b)fluoranthene	0.1	0.0025	0.0022	0.0022	0.00225	0.065	0.0049	0.14	0.0031	0.19	0.0031
Benzo(k)fluoranthene	0.01	0.00255	0.00225	0.00225	0.0023	0.023	0.0022	0.029	0.0032	0.076	0.00315
Chrysene	0.001	0.00205	0.0018	0.00185	0.00185	0.052	0.0018	0.11	0.00255	0.16	0.00255
Dibenz(a,h)anthracene	1.0	0.0019	0.00165	0.00165	0.0017	0.0097	0.00165	0.0215	0.00235	0.0205	0.0023
Indeno(1,2,3-cd)pyrene	0.1	0.00205	0.0018	0.0018	0.00185	0.034	0.0018	0.094	0.00255	0.14	0.00255
Benzo(a)pyrene Equivalents											
Contaminant	**TEF**	SB-1 at 1' (mg/kg)	SB-1 at 4' (mg/kg)	SB-2 at 1.5' (mg/kg)	SB-2 at 4' (mg/kg)	SB-3 at 0.5' (mg/kg)	SB-3 at 4' (mg/kg)	SB-4 at 0.5' (mg/kg)	SB-4 at 4' (mg/kg)	SB-5 at 0.5' (mg/kg)	SB-5 at 4' (mg/kg)
Benzo(a)pyrene	1.0	0.0035	0.0031	0.0031	0.0031	0.0400	0.0030	0.0940	0.0043	0.1400	0.0043
Benzo(a)anthracene	0.1	0.0002	0.0001	0.0002	0.0002	0.0053	0.0017	0.0081	0.0002	0.0120	0.0002
Benzo(b)fluoranthene	0.1	0.0003	0.0002	0.0002	0.0002	0.0065	0.0005	0.0140	0.0003	0.0190	0.0003
Benzo(k)fluoranthene	0.01	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000	0.0003	0.0000	0.0008	0.0000
Chrysene	0.001	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0001	0.0000	0.0002	0.0000
Dibenz(a,h)anthracene	1.0	0.0019	0.0017	0.0017	0.0017	0.0097	0.0017	0.0215	0.0024	0.0205	0.0023
Indeno(1,2,3-cd)pyrene	0.1	0.0002	0.0002	0.0002	0.0002	0.0034	0.0002	0.0094	0.0003	0.0140	0.0003
Total Equivalents											
Total Benzo(a)pyrene Equivalents		**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.1**	**0.0**	**0.2**	**0.0**
Comparisons to SCTLs											
Does This Sample Exceed:		**SB-1 at 1' (mg/kg)**	**SB-1 at 4' (mg/kg)**	**SB-2 at 1.5' (mg/kg)**	**SB-2 at 4' (mg/kg)**	**SB-3 at 0.5' (mg/kg)**	**SB-3 at 4' (mg/kg)**	**SB-4 at 0.5' (mg/kg)**	**SB-4 at 4' (mg/kg)**	**SB-5 at 0.5' (mg/kg)**	**SB-5 at 4' (mg/kg)**
The Residential Direct Exposure SCTL of 0.1 mg/kg?		**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**EXCEEDS**	**OK**
The Industrial Direct Exposure SCTL of 0.7 mg/kg?		**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**
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**

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
Site Location:	Gainesville, FL
Facility/Site ID No.:	COM_17680

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 #	SB-6 at 0.5'	SB-6 at 4'								
	Sample Date	7/17/2017	7/17/2017								
	Sample Location:	31' E of MW-2	31' E of MW-2								
	Depth (ft):	0.5	4								
Contaminant Concentrations											
Contaminant	**TEF**	SB-6 at 0.5' (mg/kg)	SB-6 at 4' (mg/kg)								
Benzo(a)pyrene	1.0	0.04	0.0042								
Benzo(a)anthracene	0.1	0.057	0.00205								
Benzo(b)fluoranthene	0.1	0.12	0.00305								
Benzo(k)fluoranthene	0.01	0.0295	0.0031								
Chrysene	0.001	0.089	0.0025								
Dibenz(a,h)anthracene	1.0	0.022	0.0008								
Indeno(1,2,3-cd)pyrene	0.1	0.08	0.0025								
Benzo(a)pyrene Equivalents											
Contaminant	**TEF**	SB-6 at 0.5' (mg/kg)	SB-6 at 4' (mg/kg)								
Benzo(a)pyrene	1.0	0.0400	0.0042	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Benzo(a)anthracene	0.1	0.0057	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Benzo(b)fluoranthene	0.1	0.0120	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Benzo(k)fluoranthene	0.01	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Chrysene	0.001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Dibenz(a,h)anthracene	1.0	0.0220	0.0008	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Indeno(1,2,3-cd)pyrene	0.1	0.0080	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total Equivalents											
Total Benzo(a)pyrene Equivalents		**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Comparisons to SCTLs											
Does This Sample Exceed:		**SB-6 at 0.5' (mg/kg)**	**SB-6 at 4' (mg/kg)**								
The Residential Direct Exposure SCTL of 0.1 mg/kg?		**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**
No Alternative SCTL Given		**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**

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
Site Location:	Gainesville, FL
Facility/Site ID No.:	COM_17680

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 #	SB3R.05	SB3R.2	SB3R.4	SB5R.05	SB5R.2	SB5R.4	SB7.05	SB7.2	SB7.4	
	Sample Date	12/10/2018	12/10/2018	12/10/2018	12/10/2018	12/10/2018	12/10/2018	12/10/2018	12/10/2018	12/10/2018	
	Sample Location:	~2.6ft south of MW-2	~2.6ft south of MW-2	~2.6ft south of MW-2	~9.8ft north of MW-2	~9.8ft north of MW-2	~9.8ft north of MW-2	~9ft west of SB-5R	~9ft west of SB-5R	~9ft west of SB-5R	
	Depth (ft):	0.05	2	4	0.5	2	4	0.5	2	4	
Contaminant Concentrations											
Contaminant	**TEF**	SB3R.05 (mg/kg)	SB3R.2 (mg/kg)	SB3R.4 (mg/kg)	SB5R.05 (mg/kg)	SB5R.2 (mg/kg)	SB5R.4 (mg/kg)	SB7.05 (mg/kg)	SB7.2 (mg/kg)	SB7.4 (mg/kg)	
Benzo(a)pyrene	1.0	0.92	0.069	0.093	0.14	0.015	0.015	0.081	0.082	0.015	0
Benzo(a)anthracene	0.1	0.6	0.054	0.073	0.07	0.011	0.0105	0.053	0.041	0.0105	0
Benzo(b)fluoranthene	0.1	1.5	0.12	0.16	0.14	0.011	0.011	0.11	0.11	0.011	0
Benzo(k)fluoranthene	0.01	0.54	0.043	0.057	0.054	0.0105	0.0105	0.041	0.039	0.0105	0
Chrysene	0.001	0.86	0.084	0.11	0.094	0.0115	0.011	0.073	0.063	0.011	0
Dibenz(a,h)anthracene	1.0	0.23	0.009	0.023	0.023	0.009	0.009	0.0095	0.02	0.009	0
Indeno(1,2,3-cd)pyrene	0.1	0.94	0.061	0.088	0.13	0.01	0.0095	0.076	0.08	0.0095	0
Benzo(a)pyrene Equivalents											
Contaminant	**TEF**	SB3R.05 (mg/kg)	SB3R.2 (mg/kg)	SB3R.4 (mg/kg)	SB5R.05 (mg/kg)	SB5R.2 (mg/kg)	SB5R.4 (mg/kg)	SB7.05 (mg/kg)	SB7.2 (mg/kg)	SB7.4 (mg/kg)	
Benzo(a)pyrene	1.0	0.9200	0.0690	0.0930	0.1400	0.0150	0.0150	0.0810	0.0820	0.0150	0.0000
Benzo(a)anthracene	0.1	0.0600	0.0054	0.0073	0.0070	0.0011	0.0011	0.0053	0.0041	0.0011	0.0000
Benzo(b)fluoranthene	0.1	0.1500	0.0120	0.0160	0.0140	0.0011	0.0011	0.0110	0.0110	0.0011	0.0000
Benzo(k)fluoranthene	0.01	0.0054	0.0004	0.0006	0.0005	0.0001	0.0001	0.0004	0.0004	0.0001	0.0000
Chrysene	0.001	0.0009	0.0001	0.0001	0.0001	0.0000	0.0000	0.0001	0.0001	0.0000	0.0000
Dibenz(a,h)anthracene	1.0	0.2300	0.0090	0.0230	0.0230	0.0090	0.0090	0.0095	0.0200	0.0090	0.0000
Indeno(1,2,3-cd)pyrene	0.1	0.0940	0.0061	0.0088	0.0130	0.0010	0.0010	0.0076	0.0080	0.0010	0.0000
Total Equivalents											
Total Benzo(a)pyrene Equivalents		**1.5**	**0.1**	**0.1**	**0.2**	**0.0**	**0.0**	**0.1**	**0.1**	**0.0**	**0.0**
Comparisons to SCTLs											
Does This Sample Exceed:		**SB3R.05 (mg/kg)**	**SB3R.2 (mg/kg)**	**SB3R.4 (mg/kg)**	**SB5R.05 (mg/kg)**	**SB5R.2 (mg/kg)**	**SB5R.4 (mg/kg)**	**SB7.05 (mg/kg)**	**SB7.2 (mg/kg)**	**SB7.4 (mg/kg)**	
The Residential Direct Exposure SCTL of 0.1 mg/kg?		**EXCEEDS**	**OK**	**OK**	**EXCEEDS**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
The Industrial Direct Exposure SCTL of 0.7 mg/kg?		**EXCEEDS**	**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**
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**

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
Site Location:	Gainesville, FL
Facility/Site ID No.:	COM_17680

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 #	SB8.05	SB8.2	SB8.4	SB9.05	SB9R.2	SB10.05	SB10R.2	SB10R.4	SB11.05	
	Sample Date	12/10/2018	12/10/2018	12/10/2018	1/10/2019	2/5/2019	1/10/2019	2/5/2019	2/5/2019	1/10/2019	
	Sample Location:	~14' east of SB-5R	~14' east of SB-5R	~14' east of SB-5R	~28' east of SB-5R	~28' east of SB-5R	~28' east of SB-3R	~28' east of SB-3R	~28' east of SB-3R	~21' east and 6' north of SB-5R (on slope)	
	Depth (ft):	0.5	2	4	0.5	2	0.5	2	4	0.5	
Contaminant Concentrations											
Contaminant	**TEF**	SB8.05 (mg/kg)	SB8.2 (mg/kg)	SB8.4 (mg/kg)	SB9.05 (mg/kg)	SB9R.2 (mg/kg)	SB10.05 (mg/kg)	SB10R.2 (mg/kg)	SB10R.4 (mg/kg)	SB11.05 (mg/kg)	
Benzo(a)pyrene	1.0	0.13	0.015	0.0155	0.029	0.1	0.96	0.0037	0.0037	0.36	0
Benzo(a)anthracene	0.1	0.072	0.011	0.011	0.024	0.052	0.86	0.0026	0.00265	0.24	0
Benzo(b)fluoranthene	0.1	0.13	0.036	0.025	0.042	0.12	1.1	0.00265	0.0027	0.7	0
Benzo(k)fluoranthene	0.01	0.047	0.0105	0.0105	0.016	0.054	0.35	0.00255	0.0026	0.23	0
Chrysene	0.001	0.095	0.023	0.0115	0.033	0.096	0.94	0.00275	0.00275	0.39	0
Dibenz(a,h)anthracene	1.0	0.027	0.009	0.009	0.0071	0.03	0.18	0.0022	0.0022	0.11	0
Indeno(1,2,3-cd)pyrene	0.1	0.12	0.023	0.01	0.028	0.1	0.9	0.0024	0.0024	0.41	0
Benzo(a)pyrene Equivalents											
Contaminant	**TEF**	SB8.05 (mg/kg)	SB8.2 (mg/kg)	SB8.4 (mg/kg)	SB9.05 (mg/kg)	SB9R.2 (mg/kg)	SB10.05 (mg/kg)	SB10R.2 (mg/kg)	SB10R.4 (mg/kg)	SB11.05 (mg/kg)	
Benzo(a)pyrene	1.0	0.1300	0.0150	0.0155	0.0290	0.1000	0.9600	0.0037	0.0037	0.3600	0.0000
Benzo(a)anthracene	0.1	0.0072	0.0011	0.0011	0.0024	0.0052	0.0860	0.0003	0.0003	0.0240	0.0000
Benzo(b)fluoranthene	0.1	0.0130	0.0036	0.0025	0.0042	0.0120	0.1100	0.0003	0.0003	0.0700	0.0000
Benzo(k)fluoranthene	0.01	0.0005	0.0001	0.0001	0.0002	0.0005	0.0035	0.0000	0.0000	0.0023	0.0000
Chrysene	0.001	0.0001	0.0000	0.0000	0.0000	0.0001	0.0009	0.0000	0.0000	0.0004	0.0000
Dibenz(a,h)anthracene	1.0	0.0270	0.0090	0.0090	0.0071	0.0300	0.1800	0.0022	0.0022	0.1100	0.0000
Indeno(1,2,3-cd)pyrene	0.1	0.0120	0.0023	0.0010	0.0028	0.0100	0.0900	0.0002	0.0002	0.0410	0.0000
Total Equivalents											
Total Benzo(a)pyrene Equivalents		**0.2**	**0.0**	**0.0**	**0.0**	**0.2**	**1.4**	**0.0**	**0.0**	**0.6**	**0.0**
Comparisons to SCTLs											
Does This Sample Exceed:		**SB8.05 (mg/kg)**	**SB8.2 (mg/kg)**	**SB8.4 (mg/kg)**	**SB9.05 (mg/kg)**	**SB9R.2 (mg/kg)**	**SB10.05 (mg/kg)**	**SB10R.2 (mg/kg)**	**SB10R.4 (mg/kg)**	**SB11.05 (mg/kg)**	
The Residential Direct Exposure SCTL of 0.1 mg/kg?		**EXCEEDS**	**OK**	**OK**	**OK**	**EXCEEDS**	**EXCEEDS**	**OK**	**OK**	**EXCEEDS**	**OK**
The Industrial Direct Exposure SCTL of 0.7 mg/kg?		**OK**	**OK**	**OK**	**OK**	**OK**	**EXCEEDS**	**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**
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**

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
Site Location:	Gainesville, FL
Facility/Site ID No.:	COM_17680

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 #	SB12.05	SB12.2	SB13.05	SB13.2						
	Sample Date	2/5/2019	2/5/2019	2/5/2019	2/5/2019						
	Sample Location:	15' E of SB-10	15' E of SB-10	15' E of SB-9	15' E of SB-9						
	Depth (ft):	0.5	2	0.5	2						
Contaminant Concentrations											
Contaminant	**TEF**	SB12.05 (mg/kg)	SB12.2 (mg/kg)	SB13.05 (mg/kg)	SB13.2 (mg/kg)						
Benzo(a)pyrene	1.0	0.039	0.00385	0.043	0.0037						
Benzo(a)anthracene	0.1	0.022	0.00275	0.04	0.00265						
Benzo(b)fluoranthene	0.1	0.061	0.0028	0.056	0.0027						
Benzo(k)fluoranthene	0.01	0.029	0.0027	0.026	0.0026						
Chrysene	0.001	0.038	0.0029	0.048	0.00275						
Dibenz(a,h)anthracene	1.0	0.012	0.0023	0.011	0.0022						
Indeno(1,2,3-cd)pyrene	0.1	0.042	0.0025	0.037	0.0024						
Benzo(a)pyrene Equivalents											
Contaminant	**TEF**	SB12.05 (mg/kg)	SB12.2 (mg/kg)	SB13.05 (mg/kg)	SB13.2 (mg/kg)						
Benzo(a)pyrene	1.0	0.0390	0.0039	0.0430	0.0037	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Benzo(a)anthracene	0.1	0.0022	0.0003	0.0040	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Benzo(b)fluoranthene	0.1	0.0061	0.0003	0.0056	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Benzo(k)fluoranthene	0.01	0.0003	0.0000	0.0003	0.0000	0.0000	0.0000	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	0.0120	0.0023	0.0110	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Indeno(1,2,3-cd)pyrene	0.1	0.0042	0.0003	0.0037	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total Equivalents											
Total Benzo(a)pyrene Equivalents		**0.1**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Comparisons to SCTLs											
Does This Sample Exceed:		**SB12.05 (mg/kg)**	**SB12.2 (mg/kg)**	**SB13.05 (mg/kg)**	**SB13.2 (mg/kg)**						
The Residential Direct Exposure SCTL of 0.1 mg/kg?		**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**
No Alternative SCTL Given		**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**

BORING LOG

Boring/Well Number: SB-3R	Permit Number: NA	FDEP Facility Identification Number: FLD 980 711 071
Site Name: Perma-Fix of Florida, Inc.	Borehole Start Date: 12/10/18 End Date: 12/10/18	Borehole Start Time: 0830 ☑ AM ☐ PM End Time: 0845 ☑ AM ☐ PM
Environmental Contractor: Trihydro Corporation	Geologist's Name: Vicki Bierwirth	Environmental Technician's Name: NA
Drilling Company: NA	Pavement Thickness (inches): 0	Borehole Diameter (inches): 3
Borehole Depth (feet): 4		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 5	Measured Well DTW (in feet after water recharges in well): NA
OVA (list model and check type): MiniRAE 2000 ☐ FID ☑ PID		

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0.5	12	NA	0		0	1	0-4 ft SILTY SAND; Sand, brown, medium to fine grain; silt, brown. No odors or staining.	SM	D	SB3R.05
HA	2	12	NA	0		0	2			D	SB3R.2
HA		12	NA				3			D	
HA	4	12	NA	0		0	4			D	SB3R.4
							5	End of Boring			
							6				
							7				
							8				
							9				
							10				
							11				
							12				

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

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

BORING LOG

Boring/Well Number: SB-5R	Permit Number: NA	FDEP Facility Identification Number: FLD 980 711 071
Site Name: Perma-Fix of Florida, Inc.	Borehole Start Date: 12/10/18 End Date: 12/10/18	Borehole Start Time: 0850 ☑ AM ☐ PM End Time: 0900 ☑ AM ☐ PM
Environmental Contractor: Trihydro Corporation	Geologist's Name: Vicki Bierwirth	Environmental Technician's Name: NA

Drilling Company: NA	Pavement Thickness (inches): 0	Borehole Diameter (inches): 3	Borehole Depth (feet): 4
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 5	Measured Well DTW (in feet after water recharges in well): NA	OVA (list model and check type): MiniRAE 2000 ☐ FID ☑ PID

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0.5	12	NA	0		0	1	0-4 ft SILTY SAND; Sand, brown, medium to fine grain; silt, brown. No odors or staining.	SM	D	SB5R.05
HA	2	12	NA	0		0	2			D	SB5R.2
HA		12	NA				3			D	
HA	4	12	NA	0		0	4			D	SB5R.4
							5	End of Boring			
							6				
							7				
							8				
							9				
							10				
							11				
							12				

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

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

BORING LOG

Boring/Well Number: SB-7	Permit Number: NA	FDEP Facility Identification Number: FLD 980 711 071
Site Name: Perma-Fix of Florida, Inc.	Borehole Start Date: 12/10/18 End Date: 12/10/18	Borehole Start Time: 0920 ☑ AM ☐ PM End Time: 0930 ☑ AM ☐ PM
Environmental Contractor: Trihydro Corporation	Geologist's Name: Vicki Bierwirth	Environmental Technician's Name: NA

Drilling Company: NA	Pavement Thickness (inches): 0	Borehole Diameter (inches): 3	Borehole Depth (feet): 4
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 5	Measured Well DTW (in feet after water recharges in well): NA	OVA (list model and check type): MiniRAE 2000 ☐ FID ☑ PID

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0.5	12	NA	0		0	1	0-4 ft SILTY SAND; Sand, brown, medium to fine grain; silt, brown. No odors or staining.	SM	D	SB7.05
HA	2	12	NA	0		0	2			D	SB7.2
HA		12	NA				3			D	
HA	4	12	NA	0		0	4			D	SB7.4
							5	End of Boring			
							6				
							7				
							8				
							9				
							10				
							11				
							12				

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

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

BORING LOG

Boring/Well Number: SB-8	Permit Number: NA	FDEP Facility Identification Number: FLD 980 711 071
Site Name: Perma-Fix of Florida, Inc.	Borehole Start Date: 12/10/18 End Date: 12/10/18	Borehole Start Time: 0905 ☑ AM ☐ PM End Time: 0915 ☑ AM ☐ PM
Environmental Contractor: Trihydro Corporation	Geologist's Name: Vicki Bierwirth	Environmental Technician's Name: NA

Drilling Company: NA	Pavement Thickness (inches): 0	Borehole Diameter (inches): 3	Borehole Depth (feet): 4
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 5	Measured Well DTW (in feet after water recharges in well): NA	OVA (list model and check type): MiniRAE 2000 ☐ FID ☑ PID

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0.5	12	NA	0		0	1	0-4 ft SILTY SAND; Sand, brown, medium to fine grain; silt, brown. No odors or staining.	SM	D	SB8.05
HA	2	12	NA	0		0	2			D	SB8.2
HA		12	NA				3			D	
HA	4	12	NA	0		0	4			D	SB8.4
							5	End of Boring			
							6				
							7				
							8				
							9				
							10				
							11				
							12				

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

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

BORING LOG

Boring/Well Number: SB-9	Permit Number: NA	FDEP Facility Identification Number: FLD 980 711 071
Site Name: Perma-Fix of Florida, Inc.	Borehole Start Date: 01/10/19 End Date: 01/10/19	Borehole Start Time: 0925 ☑ AM ☐ PM End Time: 0932 ☑ AM ☐ PM
Environmental Contractor: Trihydro Corporation	Geologist's Name: Vicki Bierwirth	Environmental Technician's Name: NA
Drilling Company: NA	Pavement Thickness (inches): 0	Borehole Diameter (inches): 3
Borehole Depth (feet): 1		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 5	Measured Well DTW (in feet after water recharges in well): NA
OVA (list model and check type): MiniRAE 2000 ☐ FID ☑ PID		

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0.5	12	NA	0		0	1	0-1 ft SILTY SAND; Sand, brown, medium to fine grain; silt, brown. No odors or staining.	SM	D	SB9.05
								End of Boring			
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

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

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

BORING LOG

Boring/Well Number: SB-9R	Permit Number: NA	FDEP Facility Identification Number: FLD 980 711 071
Site Name: Perma-Fix of Florida, Inc.	Borehole Start Date: 02/05/19 End Date: 02/05/19	Borehole Start Time: 0840 ☑ AM ☐ PM End Time: 0945 ☑ AM ☐ PM
Environmental Contractor: Trihydro Corporation	Geologist's Name: Vicki Bierwirth	Environmental Technician's Name: NA
Drilling Company: NA	Pavement Thickness (inches): 0	Borehole Diameter (inches): 3
Borehole Depth (feet): 2		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 5	Measured Well DTW (in feet after water recharges in well): NA
OVA (list model and check type): MiniRAE 2000 ☐ FID ☑ PID		

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA		12					1	0-2 ft SILTY SAND; Sand, brown, medium to fine grain; silt, brown. No odors or staining.	SM	D	
HA	2	12	NA	0		0	2			D	SB9.2
								End of Boring			
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

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

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

BORING LOG

Boring/Well Number: SB-10	Permit Number: NA	FDEP Facility Identification Number: FLD 980 711 071
Site Name: Perma-Fix of Florida, Inc.	Borehole Start Date: 01/10/19 End Date: 01/10/19	Borehole Start Time: 0935 ☑ AM ☐ PM End Time: 0938 ☑ AM ☐ PM
Environmental Contractor: Trihydro Corporation	Geologist's Name: Vicki Bierwirth	Environmental Technician's Name: NA
Drilling Company: NA	Pavement Thickness (inches): 0	Borehole Diameter (inches): 3
Borehole Depth (feet): 1		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 5	Measured Well DTW (in feet after water recharges in well): NA
OVA (list model and check type): MiniRAE 2000 ☐ FID ☑ PID		

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0.5	12	NA	0		0	1	0-1 ft SILTY SAND; Sand, brown, medium to fine grain; silt, brown. No odors or staining.	SM	D	SB10.05
								End of Boring			
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

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

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

BORING LOG

Boring/Well Number: SB-10R	Permit Number: NA	FDEP Facility Identification Number: FLD 980 711 071
Site Name: Perma-Fix of Florida, Inc.	Borehole Start Date: 02/05/19 End Date: 02/05/19	Borehole Start Time: 0852 ☑ AM ☐ PM End Time: 0900 ☑ AM ☐ PM
Environmental Contractor: Trihydro Corporation	Geologist's Name: Vicki Bierwirth	Environmental Technician's Name: NA
Drilling Company: NA	Pavement Thickness (inches): 0	Borehole Diameter (inches): 3
Borehole Depth (feet): 4		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 5	Measured Well DTW (in feet after water recharges in well): NA
OVA (list model and check type): MiniRAE 2000 ☐ FID ☑ PID		

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA		12	NA				1	0-4 ft SILTY SAND; Sand, brown, medium to fine grain; silt, brown. No odors or staining.		D	
HA	2	12	NA	0		0	2		SM	D	SB10.2
HA		12	NA				3			D	
HA	4	12	NA	0		0	4			D	SB10.4
							5	End of Boring			
							6				
							7				
							8				
							9				
							10				
							11				
							12				

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

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

BORING LOG

Boring/Well Number: SB-11	Permit Number: NA	FDEP Facility Identification Number: FLD 980 711 071
Site Name: Perma-Fix of Florida, Inc.	Borehole Start Date: 01/10/19 End Date: 01/10/19	Borehole Start Time: 0945 ☑ AM ☐ PM End Time: 0948 ☑ AM ☐ PM
Environmental Contractor: Trihydro Corporation	Geologist's Name: Vicki Bierwirth	Environmental Technician's Name: NA
Drilling Company: NA	Pavement Thickness (inches): 0	Borehole Diameter (inches): 3
Borehole Depth (feet): 1		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 2	Measured Well DTW (in feet after water recharges in well): NA
OVA (list model and check type): MiniRAE 2000 ☐ FID ☑ PID		

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0.5	12	NA	0		0	1	0-1 ft SILTY SAND; Sand, brown, medium to fine grain; silt, brown. No odors or staining.	SM	D	SB11.05
								End of Boring			
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

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

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

BORING LOG

Boring/Well Number: SB-12	Permit Number: NA	FDEP Facility Identification Number: FLD 980 711 071
Site Name: Perma-Fix of Florida, Inc.	Borehole Start Date: 02/05/19 End Date: 02/05/19	Borehole Start Time: 0905 ☑ AM ☐ PM End Time: 0912 ☑ AM ☐ PM
Environmental Contractor: Trihydro Corporation	Geologist's Name: Vicki Bierwirth	Environmental Technician's Name: NA
Drilling Company: NA	Pavement Thickness (inches): 0	Borehole Diameter (inches): 3
Borehole Depth (feet): 2		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 5	Measured Well DTW (in feet after water recharges in well): NA
OVA (list model and check type): MiniRAE 2000 ☐ FID ☑ PID		

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	1	12	NA	0		0	1	0-2 ft SILTY SAND; Sand, brown, medium to fine grain; silt, brown. No odors or staining.	SM	D	SB12.05
HA	2	12	NA	0		0	2			D	SB12.2
							3	End of Boring			
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

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

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

BORING LOG

Boring/Well Number: SB-13	Permit Number: NA	FDEP Facility Identification Number: FLD 980 711 071
Site Name: Perma-Fix of Florida, Inc.	Borehole Start Date: 02/05/19 End Date: 02/05/19	Borehole Start Time: 0915 ☑ AM ☐ PM End Time: 0925 ☑ AM ☐ PM
Environmental Contractor: Trihydro Corporation	Geologist's Name: Vicki Bierwirth	Environmental Technician's Name: NA
Drilling Company: NA	Pavement Thickness (inches): 0	Borehole Diameter (inches): 3
Borehole Depth (feet): 2		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): 5	Measured Well DTW (in feet after water recharges in well): NA
OVA (list model and check type): MiniRAE 2000 ☐ FID ☑ PID		

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	1	12	NA	0		0	1	0-2 ft SILTY SAND; Sand, brown, medium to fine grain; silt, brown. No odors or staining.	SM	D	SB13.05
HA	2	12	NA	0		0	2			D	SB13.2
							3	End of Boring			
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

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

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

ATTACHMENT E

LABORATORY ANALYTICAL REPORTS, GROUNDWATER SAMPLING LOGS, AND EQUIPMENT CALIBRATION LOGS

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

December 13, 2018

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

RE: Workorder: J1813991 PF Gainesville

Dear William Kelly:

Enclosed are the analytical results for sample(s) received by the laboratory on Monday, December 10, 2018. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Paul Gunsaulies - Project Manager
PGunsaulies@AELLab.com

Enclosures

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SAMPLE SUMMARY

Workorder: J1813991 PF Gainesville

Lab ID	Sample ID	Matrix	Date Collected	Date Received
J1813991001	SB3R.05	Soil	12/10/2018 08:35	12/10/2018 12:26
J1813991002	SB3R.2	Soil	12/10/2018 08:40	12/10/2018 12:26
J1813991003	SB3R.4	Soil	12/10/2018 08:45	12/10/2018 12:26
J1813991004	SB5R.05	Soil	12/10/2018 08:50	12/10/2018 12:26
J1813991005	SB5R.2	Soil	12/10/2018 08:55	12/10/2018 12:26
J1813991006	SB5R.4	Soil	12/10/2018 09:00	12/10/2018 12:26
J1813991007	SB7.05	Soil	12/10/2018 09:20	12/10/2018 12:26
J1813991008	SB7.2	Soil	12/10/2018 09:25	12/10/2018 12:26
J1813991009	SB7.4	Soil	12/10/2018 09:30	12/10/2018 12:26
J1813991010	SB8.05	Soil	12/10/2018 09:05	12/10/2018 12:26
J1813991011	SB8.2	Soil	12/10/2018 09:10	12/10/2018 12:26
J1813991012	SB8.4	Soil	12/10/2018 09:15	12/10/2018 12:26

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ANALYTICAL RESULTS

Workorder: J1813991 PF Gainesville

Lab ID: **J1813991001** Date Received: 12/10/18 12:26 Matrix: Soil

Sample ID: **SB3R.05** Date Collected: 12/10/18 08:35

Results for sample J1813991001 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.035	0.012	12/12/2018 18:42	J
2-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.035	0.012	12/12/2018 18:42	J
Acenaphthene	**0.014**	**U**	**mg/Kg**	**1**	0.035	0.014	12/12/2018 18:42	J
Acenaphthylene	**0.018**	**U**	**mg/Kg**	**1**	0.035	0.018	12/12/2018 18:42	J
Anthracene	**0.030**	**I**	**mg/Kg**	**1**	0.035	0.019	12/12/2018 18:42	J
Benzo[a]anthracene	**0.60**		**mg/Kg**	**1**	0.035	0.022	12/12/2018 18:42	J
Benzo[a]pyrene	**0.92**		**mg/Kg**	**1**	0.035	0.031	12/12/2018 18:42	J
Benzo[b]fluoranthene	**1.5**		**mg/Kg**	**1**	0.035	0.022	12/12/2018 18:42	J
Benzo[g,h,i]perylene	**0.89**		**mg/Kg**	**1**	0.035	0.025	12/12/2018 18:42	J
Benzo[k]fluoranthene	**0.54**		**mg/Kg**	**1**	0.035	0.021	12/12/2018 18:42	J
Chrysene	**0.86**		**mg/Kg**	**1**	0.035	0.023	12/12/2018 18:42	J
Dibenzo[a,h]anthracene	**0.23**		**mg/Kg**	**1**	0.035	0.018	12/12/2018 18:42	J
Fluoranthene	**1.1**		**mg/Kg**	**1**	0.035	0.020	12/12/2018 18:42	J
Fluorene	**0.015**	**U**	**mg/Kg**	**1**	0.035	0.015	12/12/2018 18:42	J
Indeno(1,2,3-cd)pyrene	**0.94**		**mg/Kg**	**1**	0.035	0.020	12/12/2018 18:42	J
Naphthalene	**0.013**	**U**	**mg/Kg**	**1**	0.035	0.013	12/12/2018 18:42	J
Phenanthrene	**0.15**		**mg/Kg**	**1**	0.035	0.016	12/12/2018 18:42	J
Pyrene	**0.81**		**mg/Kg**	**1**	0.035	0.021	12/12/2018 18:42	J
Nitrobenzene-d5 (S)	**81**		**%**	**1**	33-134		12/12/2018 18:42	
2-Fluorobiphenyl (S)	**101**		**%**	**1**	37-127		12/12/2018 18:42	
p-Terphenyl-d14 (S)	**89**		**%**	**1**	42-141		12/12/2018 18:42	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**4.9**		**%**	**1**			12/11/2018 00:00	J

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ANALYTICAL RESULTS

Workorder: J1813991 PF Gainesville

Lab ID: **J1813991002** Date Received: 12/10/18 12:26 Matrix: Soil

Sample ID: **SB3R.2** Date Collected: 12/10/18 08:40

Results for sample J1813991002 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.035	0.012	12/12/2018 19:09	J
2-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.035	0.012	12/12/2018 19:09	J
Acenaphthene	**0.013**	**U**	**mg/Kg**	**1**	0.035	0.013	12/12/2018 19:09	J
Acenaphthylene	**0.018**	**U**	**mg/Kg**	**1**	0.035	0.018	12/12/2018 19:09	J
Anthracene	**0.018**	**U**	**mg/Kg**	**1**	0.035	0.018	12/12/2018 19:09	J
Benzo[a]anthracene	**0.054**		**mg/Kg**	**1**	0.035	0.022	12/12/2018 19:09	J
Benzo[a]pyrene	**0.069**		**mg/Kg**	**1**	0.035	0.030	12/12/2018 19:09	J
Benzo[b]fluoranthene	**0.12**		**mg/Kg**	**1**	0.035	0.022	12/12/2018 19:09	J
Benzo[g,h,i]perylene	**0.058**		**mg/Kg**	**1**	0.035	0.025	12/12/2018 19:09	J
Benzo[k]fluoranthene	**0.043**		**mg/Kg**	**1**	0.035	0.021	12/12/2018 19:09	J
Chrysene	**0.084**		**mg/Kg**	**1**	0.035	0.023	12/12/2018 19:09	J
Dibenzo[a,h]anthracene	**0.018**	**U**	**mg/Kg**	**1**	0.035	0.018	12/12/2018 19:09	J
Fluoranthene	**0.12**		**mg/Kg**	**1**	0.035	0.020	12/12/2018 19:09	J
Fluorene	**0.015**	**U**	**mg/Kg**	**1**	0.035	0.015	12/12/2018 19:09	J
Indeno(1,2,3-cd)pyrene	**0.061**		**mg/Kg**	**1**	0.035	0.020	12/12/2018 19:09	J
Naphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.035	0.012	12/12/2018 19:09	J
Phenanthrene	**0.025**	**I**	**mg/Kg**	**1**	0.035	0.016	12/12/2018 19:09	J
Pyrene	**0.086**		**mg/Kg**	**1**	0.035	0.021	12/12/2018 19:09	J
Nitrobenzene-d5 (S)	**86**		**%**	**1**	33-134		12/12/2018 19:09	
2-Fluorobiphenyl (S)	**105**		**%**	**1**	37-127		12/12/2018 19:09	
p-Terphenyl-d14 (S)	**89**		**%**	**1**	42-141		12/12/2018 19:09	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**3.6**		**%**	**1**			12/11/2018 00:00	J

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ANALYTICAL RESULTS

Workorder: J1813991 PF Gainesville

Lab ID: **J1813991003** Date Received: 12/10/18 12:26 Matrix: Soil

Sample ID: **SB3R.4** Date Collected: 12/10/18 08:45

Results for sample J1813991003 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.035	0.012	12/12/2018 19:36	J
2-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.035	0.012	12/12/2018 19:36	J
Acenaphthene	**0.013**	**U**	**mg/Kg**	**1**	0.035	0.013	12/12/2018 19:36	J
Acenaphthylene	**0.018**	**U**	**mg/Kg**	**1**	0.035	0.018	12/12/2018 19:36	J
Anthracene	**0.018**	**U**	**mg/Kg**	**1**	0.035	0.018	12/12/2018 19:36	J
Benzo[a]anthracene	**0.073**		**mg/Kg**	**1**	0.035	0.021	12/12/2018 19:36	J
Benzo[a]pyrene	**0.093**		**mg/Kg**	**1**	0.035	0.030	12/12/2018 19:36	J
Benzo[b]fluoranthene	**0.16**		**mg/Kg**	**1**	0.035	0.022	12/12/2018 19:36	J
Benzo[g,h,i]perylene	**0.081**		**mg/Kg**	**1**	0.035	0.025	12/12/2018 19:36	J
Benzo[k]fluoranthene	**0.057**		**mg/Kg**	**1**	0.035	0.021	12/12/2018 19:36	J
Chrysene	**0.11**		**mg/Kg**	**1**	0.035	0.023	12/12/2018 19:36	J
Dibenzo[a,h]anthracene	**0.023**	**I**	**mg/Kg**	**1**	0.035	0.018	12/12/2018 19:36	J
Fluoranthene	**0.11**		**mg/Kg**	**1**	0.035	0.020	12/12/2018 19:36	J
Fluorene	**0.015**	**U**	**mg/Kg**	**1**	0.035	0.015	12/12/2018 19:36	J
Indeno(1,2,3-cd)pyrene	**0.088**		**mg/Kg**	**1**	0.035	0.020	12/12/2018 19:36	J
Naphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.035	0.012	12/12/2018 19:36	J
Phenanthrene	**0.016**	**U**	**mg/Kg**	**1**	0.035	0.016	12/12/2018 19:36	J
Pyrene	**0.085**		**mg/Kg**	**1**	0.035	0.021	12/12/2018 19:36	J
Nitrobenzene-d5 (S)	**87**		**%**	**1**	33-134		12/12/2018 19:36	
2-Fluorobiphenyl (S)	**106**		**%**	**1**	37-127		12/12/2018 19:36	
p-Terphenyl-d14 (S)	**91**		**%**	**1**	42-141		12/12/2018 19:36	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**4.7**		**%**	**1**			12/11/2018 00:00	J

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ANALYTICAL RESULTS

Workorder: J1813991 PF Gainesville

Lab ID: **J1813991004** Date Received: 12/10/18 12:26 Matrix: Soil

Sample ID: **SB5R.05** Date Collected: 12/10/18 08:50

Results for sample J1813991004 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.013**	**U**	**mg/Kg**	**1**	0.036	0.013	12/12/2018 20:04	J
2-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.036	0.012	12/12/2018 20:04	J
Acenaphthene	**0.014**	**U**	**mg/Kg**	**1**	0.036	0.014	12/12/2018 20:04	J
Acenaphthylene	**0.033**	**I**	**mg/Kg**	**1**	0.036	0.018	12/12/2018 20:04	J
Anthracene	**0.019**	**U**	**mg/Kg**	**1**	0.036	0.019	12/12/2018 20:04	J
Benzo[a]anthracene	**0.070**		**mg/Kg**	**1**	0.036	0.022	12/12/2018 20:04	J
Benzo[a]pyrene	**0.14**		**mg/Kg**	**1**	0.036	0.031	12/12/2018 20:04	J
Benzo[b]fluoranthene	**0.14**		**mg/Kg**	**1**	0.036	0.023	12/12/2018 20:04	J
Benzo[g,h,i]perylene	**0.14**		**mg/Kg**	**1**	0.036	0.025	12/12/2018 20:04	J
Benzo[k]fluoranthene	**0.054**		**mg/Kg**	**1**	0.036	0.022	12/12/2018 20:04	J
Chrysene	**0.094**		**mg/Kg**	**1**	0.036	0.023	12/12/2018 20:04	J
Dibenzo[a,h]anthracene	**0.023**	**I**	**mg/Kg**	**1**	0.036	0.019	12/12/2018 20:04	J
Fluoranthene	**0.097**		**mg/Kg**	**1**	0.036	0.020	12/12/2018 20:04	J
Fluorene	**0.016**	**U**	**mg/Kg**	**1**	0.036	0.016	12/12/2018 20:04	J
Indeno(1,2,3-cd)pyrene	**0.13**		**mg/Kg**	**1**	0.036	0.020	12/12/2018 20:04	J
Naphthalene	**0.013**	**U**	**mg/Kg**	**1**	0.036	0.013	12/12/2018 20:04	J
Phenanthrene	**0.032**	**I**	**mg/Kg**	**1**	0.036	0.017	12/12/2018 20:04	J
Pyrene	**0.13**		**mg/Kg**	**1**	0.036	0.022	12/12/2018 20:04	J
Nitrobenzene-d5 (S)	**86**		**%**	**1**	33-134		12/12/2018 20:04	
2-Fluorobiphenyl (S)	**105**		**%**	**1**	37-127		12/12/2018 20:04	
p-Terphenyl-d14 (S)	**91**		**%**	**1**	42-141		12/12/2018 20:04	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**6.3**		**%**	**1**			12/11/2018 00:00	J

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ANALYTICAL RESULTS

Workorder: J1813991 PF Gainesville

Lab ID: **J1813991005** Date Received: 12/10/18 12:26 Matrix: Soil

Sample ID: **SB5R.2** Date Collected: 12/10/18 08:55

Results for sample J1813991005 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.035	0.012	12/12/2018 20:31	J
2-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.035	0.012	12/12/2018 20:31	J
Acenaphthene	**0.013**	**U**	**mg/Kg**	**1**	0.035	0.013	12/12/2018 20:31	J
Acenaphthylene	**0.018**	**U**	**mg/Kg**	**1**	0.035	0.018	12/12/2018 20:31	J
Anthracene	**0.018**	**U**	**mg/Kg**	**1**	0.035	0.018	12/12/2018 20:31	J
Benzo[a]anthracene	**0.022**	**U**	**mg/Kg**	**1**	0.035	0.022	12/12/2018 20:31	J
Benzo[a]pyrene	**0.030**	**U**	**mg/Kg**	**1**	0.035	0.030	12/12/2018 20:31	J
Benzo[b]fluoranthene	**0.022**	**U**	**mg/Kg**	**1**	0.035	0.022	12/12/2018 20:31	J
Benzo[g,h,i]perylene	**0.025**	**U**	**mg/Kg**	**1**	0.035	0.025	12/12/2018 20:31	J
Benzo[k]fluoranthene	**0.021**	**U**	**mg/Kg**	**1**	0.035	0.021	12/12/2018 20:31	J
Chrysene	**0.023**	**U**	**mg/Kg**	**1**	0.035	0.023	12/12/2018 20:31	J
Dibenzo[a,h]anthracene	**0.018**	**U**	**mg/Kg**	**1**	0.035	0.018	12/12/2018 20:31	J
Fluoranthene	**0.020**	**U**	**mg/Kg**	**1**	0.035	0.020	12/12/2018 20:31	J
Fluorene	**0.015**	**U**	**mg/Kg**	**1**	0.035	0.015	12/12/2018 20:31	J
Indeno(1,2,3-cd)pyrene	**0.020**	**U**	**mg/Kg**	**1**	0.035	0.020	12/12/2018 20:31	J
Naphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.035	0.012	12/12/2018 20:31	J
Phenanthrene	**0.016**	**U**	**mg/Kg**	**1**	0.035	0.016	12/12/2018 20:31	J
Pyrene	**0.021**	**U**	**mg/Kg**	**1**	0.035	0.021	12/12/2018 20:31	J
Nitrobenzene-d5 (S)	**86**		**%**	**1**	33-134		12/12/2018 20:31	
2-Fluorobiphenyl (S)	**102**		**%**	**1**	37-127		12/12/2018 20:31	
p-Terphenyl-d14 (S)	**89**		**%**	**1**	42-141		12/12/2018 20:31	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**3.6**		**%**	**1**			12/11/2018 00:00	J

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ANALYTICAL RESULTS

Workorder: J1813991 PF Gainesville

Lab ID: **J1813991006** Date Received: 12/10/18 12:26 Matrix: Soil

Sample ID: **SB5R.4** Date Collected: 12/10/18 09:00

Results for sample J1813991006 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.034	0.012	12/12/2018 20:59	J
2-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.034	0.012	12/12/2018 20:59	J
Acenaphthene	**0.013**	**U**	**mg/Kg**	**1**	0.034	0.013	12/12/2018 20:59	J
Acenaphthylene	**0.018**	**U**	**mg/Kg**	**1**	0.034	0.018	12/12/2018 20:59	J
Anthracene	**0.018**	**U**	**mg/Kg**	**1**	0.034	0.018	12/12/2018 20:59	J
Benzo[a]anthracene	**0.021**	**U**	**mg/Kg**	**1**	0.034	0.021	12/12/2018 20:59	J
Benzo[a]pyrene	**0.030**	**U**	**mg/Kg**	**1**	0.034	0.030	12/12/2018 20:59	J
Benzo[b]fluoranthene	**0.022**	**U**	**mg/Kg**	**1**	0.034	0.022	12/12/2018 20:59	J
Benzo[g,h,i]perylene	**0.024**	**U**	**mg/Kg**	**1**	0.034	0.024	12/12/2018 20:59	J
Benzo[k]fluoranthene	**0.021**	**U**	**mg/Kg**	**1**	0.034	0.021	12/12/2018 20:59	J
Chrysene	**0.022**	**U**	**mg/Kg**	**1**	0.034	0.022	12/12/2018 20:59	J
Dibenzo[a,h]anthracene	**0.018**	**U**	**mg/Kg**	**1**	0.034	0.018	12/12/2018 20:59	J
Fluoranthene	**0.019**	**U**	**mg/Kg**	**1**	0.034	0.019	12/12/2018 20:59	J
Fluorene	**0.015**	**U**	**mg/Kg**	**1**	0.034	0.015	12/12/2018 20:59	J
Indeno(1,2,3-cd)pyrene	**0.019**	**U**	**mg/Kg**	**1**	0.034	0.019	12/12/2018 20:59	J
Naphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.034	0.012	12/12/2018 20:59	J
Phenanthrene	**0.016**	**U**	**mg/Kg**	**1**	0.034	0.016	12/12/2018 20:59	J
Pyrene	**0.021**	**U**	**mg/Kg**	**1**	0.034	0.021	12/12/2018 20:59	J
Nitrobenzene-d5 (S)	**89**		**%**	**1**	33-134		12/12/2018 20:59	
2-Fluorobiphenyl (S)	**106**		**%**	**1**	37-127		12/12/2018 20:59	
p-Terphenyl-d14 (S)	**90**		**%**	**1**	42-141		12/12/2018 20:59	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**2.8**		**%**	**1**			12/11/2018 00:00	J

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ANALYTICAL RESULTS

Workorder: J1813991 PF Gainesville

Lab ID: **J1813991007** Date Received: 12/10/18 12:26 Matrix: Soil

Sample ID: **SB7.05** Date Collected: 12/10/18 09:20

Results for sample J1813991007 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.013**	**U**	**mg/Kg**	**1**	0.036	0.013	12/12/2018 21:26	J
2-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.036	0.012	12/12/2018 21:26	J
Acenaphthene	**0.014**	**U**	**mg/Kg**	**1**	0.036	0.014	12/12/2018 21:26	J
Acenaphthylene	**0.018**	**U**	**mg/Kg**	**1**	0.036	0.018	12/12/2018 21:26	J
Anthracene	**0.019**	**U**	**mg/Kg**	**1**	0.036	0.019	12/12/2018 21:26	J
Benzo[a]anthracene	**0.053**		**mg/Kg**	**1**	0.036	0.022	12/12/2018 21:26	J
Benzo[a]pyrene	**0.081**		**mg/Kg**	**1**	0.036	0.031	12/12/2018 21:26	J
Benzo[b]fluoranthene	**0.11**		**mg/Kg**	**1**	0.036	0.023	12/12/2018 21:26	J
Benzo[g,h,i]perylene	**0.074**		**mg/Kg**	**1**	0.036	0.025	12/12/2018 21:26	J
Benzo[k]fluoranthene	**0.041**		**mg/Kg**	**1**	0.036	0.022	12/12/2018 21:26	J
Chrysene	**0.073**		**mg/Kg**	**1**	0.036	0.023	12/12/2018 21:26	J
Dibenzo[a,h]anthracene	**0.019**	**U**	**mg/Kg**	**1**	0.036	0.019	12/12/2018 21:26	J
Fluoranthene	**0.10**		**mg/Kg**	**1**	0.036	0.020	12/12/2018 21:26	J
Fluorene	**0.016**	**U**	**mg/Kg**	**1**	0.036	0.016	12/12/2018 21:26	J
Indeno(1,2,3-cd)pyrene	**0.076**		**mg/Kg**	**1**	0.036	0.020	12/12/2018 21:26	J
Naphthalene	**0.013**	**U**	**mg/Kg**	**1**	0.036	0.013	12/12/2018 21:26	J
Phenanthrene	**0.032**	**I**	**mg/Kg**	**1**	0.036	0.016	12/12/2018 21:26	J
Pyrene	**0.092**		**mg/Kg**	**1**	0.036	0.022	12/12/2018 21:26	J
Nitrobenzene-d5 (S)	**82**		**%**	**1**	33-134		12/12/2018 21:26	
2-Fluorobiphenyl (S)	**101**		**%**	**1**	37-127		12/12/2018 21:26	
p-Terphenyl-d14 (S)	**91**		**%**	**1**	42-141		12/12/2018 21:26	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**6.2**		**%**	**1**			12/11/2018 00:00	J

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ANALYTICAL RESULTS

Workorder: J1813991 PF Gainesville

Lab ID: **J1813991008** Date Received: 12/10/18 12:26 Matrix: Soil

Sample ID: **SB7.2** Date Collected: 12/10/18 09:25

Results for sample J1813991008 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.035	0.012	12/12/2018 21:54	J
2-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.035	0.012	12/12/2018 21:54	J
Acenaphthene	**0.014**	**U**	**mg/Kg**	**1**	0.035	0.014	12/12/2018 21:54	J
Acenaphthylene	**0.030**	**I**	**mg/Kg**	**1**	0.035	0.018	12/12/2018 21:54	J
Anthracene	**0.019**	**U**	**mg/Kg**	**1**	0.035	0.019	12/12/2018 21:54	J
Benzo[a]anthracene	**0.041**		**mg/Kg**	**1**	0.035	0.022	12/12/2018 21:54	J
Benzo[a]pyrene	**0.082**		**mg/Kg**	**1**	0.035	0.031	12/12/2018 21:54	J
Benzo[b]fluoranthene	**0.11**		**mg/Kg**	**1**	0.035	0.022	12/12/2018 21:54	J
Benzo[g,h,i]perylene	**0.086**		**mg/Kg**	**1**	0.035	0.025	12/12/2018 21:54	J
Benzo[k]fluoranthene	**0.039**		**mg/Kg**	**1**	0.035	0.021	12/12/2018 21:54	J
Chrysene	**0.063**		**mg/Kg**	**1**	0.035	0.023	12/12/2018 21:54	J
Dibenzo[a,h]anthracene	**0.020**	**I**	**mg/Kg**	**1**	0.035	0.018	12/12/2018 21:54	J
Fluoranthene	**0.065**		**mg/Kg**	**1**	0.035	0.020	12/12/2018 21:54	J
Fluorene	**0.015**	**U**	**mg/Kg**	**1**	0.035	0.015	12/12/2018 21:54	J
Indeno(1,2,3-cd)pyrene	**0.080**		**mg/Kg**	**1**	0.035	0.020	12/12/2018 21:54	J
Naphthalene	**0.023**	**I**	**mg/Kg**	**1**	0.035	0.013	12/12/2018 21:54	J
Phenanthrene	**0.018**	**I**	**mg/Kg**	**1**	0.035	0.016	12/12/2018 21:54	J
Pyrene	**0.064**		**mg/Kg**	**1**	0.035	0.021	12/12/2018 21:54	J
Nitrobenzene-d5 (S)	**82**		**%**	**1**	33-134		12/12/2018 21:54	
2-Fluorobiphenyl (S)	**100**		**%**	**1**	37-127		12/12/2018 21:54	
p-Terphenyl-d14 (S)	**92**		**%**	**1**	42-141		12/12/2018 21:54	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**5.8**		**%**	**1**			12/11/2018 00:00	J

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ANALYTICAL RESULTS

Workorder: J1813991 PF Gainesville

Lab ID: **J1813991009** Date Received: 12/10/18 12:26 Matrix: Soil

Sample ID: **SB7.4** Date Collected: 12/10/18 09:30

Results for sample J1813991009 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.034	0.012	12/12/2018 22:21	J
2-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.034	0.012	12/12/2018 22:21	J
Acenaphthene	**0.013**	**U**	**mg/Kg**	**1**	0.034	0.013	12/12/2018 22:21	J
Acenaphthylene	**0.017**	**U**	**mg/Kg**	**1**	0.034	0.017	12/12/2018 22:21	J
Anthracene	**0.018**	**U**	**mg/Kg**	**1**	0.034	0.018	12/12/2018 22:21	J
Benzo[a]anthracene	**0.021**	**U**	**mg/Kg**	**1**	0.034	0.021	12/12/2018 22:21	J
Benzo[a]pyrene	**0.030**	**U**	**mg/Kg**	**1**	0.034	0.030	12/12/2018 22:21	J
Benzo[b]fluoranthene	**0.022**	**U**	**mg/Kg**	**1**	0.034	0.022	12/12/2018 22:21	J
Benzo[g,h,i]perylene	**0.024**	**U**	**mg/Kg**	**1**	0.034	0.024	12/12/2018 22:21	J
Benzo[k]fluoranthene	**0.021**	**U**	**mg/Kg**	**1**	0.034	0.021	12/12/2018 22:21	J
Chrysene	**0.022**	**U**	**mg/Kg**	**1**	0.034	0.022	12/12/2018 22:21	J
Dibenzo[a,h]anthracene	**0.018**	**U**	**mg/Kg**	**1**	0.034	0.018	12/12/2018 22:21	J
Fluoranthene	**0.019**	**U**	**mg/Kg**	**1**	0.034	0.019	12/12/2018 22:21	J
Fluorene	**0.015**	**U**	**mg/Kg**	**1**	0.034	0.015	12/12/2018 22:21	J
Indeno(1,2,3-cd)pyrene	**0.019**	**U**	**mg/Kg**	**1**	0.034	0.019	12/12/2018 22:21	J
Naphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.034	0.012	12/12/2018 22:21	J
Phenanthrene	**0.016**	**U**	**mg/Kg**	**1**	0.034	0.016	12/12/2018 22:21	J
Pyrene	**0.021**	**U**	**mg/Kg**	**1**	0.034	0.021	12/12/2018 22:21	J
Nitrobenzene-d5 (S)	**85**		**%**	**1**	33-134		12/12/2018 22:21	
2-Fluorobiphenyl (S)	**100**		**%**	**1**	37-127		12/12/2018 22:21	
p-Terphenyl-d14 (S)	**89**		**%**	**1**	42-141		12/12/2018 22:21	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**2.9**		**%**	**1**			12/11/2018 00:00	J

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ANALYTICAL RESULTS

Workorder: J1813991 PF Gainesville

Lab ID: **J1813991010** Date Received: 12/10/18 12:26 Matrix: Soil

Sample ID: **SB8.05** Date Collected: 12/10/18 09:05

Results for sample J1813991010 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.036	0.012	12/12/2018 22:49	J
2-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.036	0.012	12/12/2018 22:49	J
Acenaphthene	**0.014**	**U**	**mg/Kg**	**1**	0.036	0.014	12/12/2018 22:49	J
Acenaphthylene	**0.088**		**mg/Kg**	**1**	0.036	0.018	12/12/2018 22:49	J
Anthracene	**0.031**	**I**	**mg/Kg**	**1**	0.036	0.019	12/12/2018 22:49	J
Benzo[a]anthracene	**0.072**		**mg/Kg**	**1**	0.036	0.022	12/12/2018 22:49	J
Benzo[a]pyrene	**0.13**		**mg/Kg**	**1**	0.036	0.031	12/12/2018 22:49	J
Benzo[b]fluoranthene	**0.13**		**mg/Kg**	**1**	0.036	0.023	12/12/2018 22:49	J
Benzo[g,h,i]perylene	**0.17**		**mg/Kg**	**1**	0.036	0.025	12/12/2018 22:49	J
Benzo[k]fluoranthene	**0.047**		**mg/Kg**	**1**	0.036	0.022	12/12/2018 22:49	J
Chrysene	**0.095**		**mg/Kg**	**1**	0.036	0.023	12/12/2018 22:49	J
Dibenzo[a,h]anthracene	**0.027**	**I**	**mg/Kg**	**1**	0.036	0.018	12/12/2018 22:49	J
Fluoranthene	**0.092**		**mg/Kg**	**1**	0.036	0.020	12/12/2018 22:49	J
Fluorene	**0.016**	**U**	**mg/Kg**	**1**	0.036	0.016	12/12/2018 22:49	J
Indeno(1,2,3-cd)pyrene	**0.12**		**mg/Kg**	**1**	0.036	0.020	12/12/2018 22:49	J
Naphthalene	**0.013**	**U**	**mg/Kg**	**1**	0.036	0.013	12/12/2018 22:49	J
Phenanthrene	**0.042**		**mg/Kg**	**1**	0.036	0.016	12/12/2018 22:49	J
Pyrene	**0.14**		**mg/Kg**	**1**	0.036	0.022	12/12/2018 22:49	J
Nitrobenzene-d5 (S)	**82**		**%**	**1**	33-134		12/12/2018 22:49	
2-Fluorobiphenyl (S)	**99**		**%**	**1**	37-127		12/12/2018 22:49	
p-Terphenyl-d14 (S)	**89**		**%**	**1**	42-141		12/12/2018 22:49	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**6.2**		**%**	**1**			12/11/2018 00:00	J

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ANALYTICAL RESULTS

Workorder: J1813991 PF Gainesville

Lab ID: **J1813991011** Date Received: 12/10/18 12:26 Matrix: Soil

Sample ID: **SB8.2** Date Collected: 12/10/18 09:10

Results for sample J1813991011 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.035	0.012	12/12/2018 23:16	J
2-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.035	0.012	12/12/2018 23:16	J
Acenaphthene	**0.013**	**U**	**mg/Kg**	**1**	0.035	0.013	12/12/2018 23:16	J
Acenaphthylene	**0.018**	**U**	**mg/Kg**	**1**	0.035	0.018	12/12/2018 23:16	J
Anthracene	**0.018**	**U**	**mg/Kg**	**1**	0.035	0.018	12/12/2018 23:16	J
Benzo[a]anthracene	**0.022**	**U**	**mg/Kg**	**1**	0.035	0.022	12/12/2018 23:16	J
Benzo[a]pyrene	**0.030**	**U**	**mg/Kg**	**1**	0.035	0.030	12/12/2018 23:16	J
Benzo[b]fluoranthene	**0.036**		**mg/Kg**	**1**	0.035	0.022	12/12/2018 23:16	J
Benzo[g,h,i]perylene	**0.025**	**U**	**mg/Kg**	**1**	0.035	0.025	12/12/2018 23:16	J
Benzo[k]fluoranthene	**0.021**	**U**	**mg/Kg**	**1**	0.035	0.021	12/12/2018 23:16	J
Chrysene	**0.023**	**I**	**mg/Kg**	**1**	0.035	0.023	12/12/2018 23:16	J
Dibenzo[a,h]anthracene	**0.018**	**U**	**mg/Kg**	**1**	0.035	0.018	12/12/2018 23:16	J
Fluoranthene	**0.026**	**I**	**mg/Kg**	**1**	0.035	0.020	12/12/2018 23:16	J
Fluorene	**0.015**	**U**	**mg/Kg**	**1**	0.035	0.015	12/12/2018 23:16	J
Indeno(1,2,3-cd)pyrene	**0.023**	**I**	**mg/Kg**	**1**	0.035	0.020	12/12/2018 23:16	J
Naphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.035	0.012	12/12/2018 23:16	J
Phenanthrene	**0.016**	**U**	**mg/Kg**	**1**	0.035	0.016	12/12/2018 23:16	J
Pyrene	**0.023**	**I**	**mg/Kg**	**1**	0.035	0.021	12/12/2018 23:16	J
Nitrobenzene-d5 (S)	**87**		**%**	**1**	33-134		12/12/2018 23:16	
2-Fluorobiphenyl (S)	**104**		**%**	**1**	37-127		12/12/2018 23:16	
p-Terphenyl-d14 (S)	**90**		**%**	**1**	42-141		12/12/2018 23:16	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**4.7**		**%**	**1**			12/11/2018 00:00	J

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Fax: (904)363-9354

ANALYTICAL RESULTS

Workorder: J1813991 PF Gainesville

Lab ID: **J1813991012** Date Received: 12/10/18 12:26 Matrix: Soil

Sample ID: **SB8.4** Date Collected: 12/10/18 09:15

Results for sample J1813991012 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.035	0.012	12/12/2018 00:54	J
2-Methylnaphthalene	**0.012**	**U**	**mg/Kg**	**1**	0.035	0.012	12/12/2018 00:54	J
Acenaphthene	**0.014**	**U**	**mg/Kg**	**1**	0.035	0.014	12/12/2018 00:54	J
Acenaphthylene	**0.018**	**U**	**mg/Kg**	**1**	0.035	0.018	12/12/2018 00:54	J
Anthracene	**0.019**	**U**	**mg/Kg**	**1**	0.035	0.019	12/12/2018 00:54	J
Benzo[a]anthracene	**0.022**	**U**	**mg/Kg**	**1**	0.035	0.022	12/12/2018 00:54	J
Benzo[a]pyrene	**0.031**	**U**	**mg/Kg**	**1**	0.035	0.031	12/12/2018 00:54	J
Benzo[b]fluoranthene	**0.025**	**I**	**mg/Kg**	**1**	0.035	0.022	12/12/2018 00:54	J
Benzo[g,h,i]perylene	**0.025**	**U**	**mg/Kg**	**1**	0.035	0.025	12/12/2018 00:54	J
Benzo[k]fluoranthene	**0.021**	**U**	**mg/Kg**	**1**	0.035	0.021	12/12/2018 00:54	J
Chrysene	**0.023**	**U**	**mg/Kg**	**1**	0.035	0.023	12/12/2018 00:54	J
Dibenzo[a,h]anthracene	**0.018**	**U**	**mg/Kg**	**1**	0.035	0.018	12/12/2018 00:54	J
Fluoranthene	**0.020**	**U**	**mg/Kg**	**1**	0.035	0.020	12/12/2018 00:54	J
Fluorene	**0.015**	**U**	**mg/Kg**	**1**	0.035	0.015	12/12/2018 00:54	J
Indeno(1,2,3-cd)pyrene	**0.020**	**U**	**mg/Kg**	**1**	0.035	0.020	12/12/2018 00:54	J
Naphthalene	**0.013**	**U**	**mg/Kg**	**1**	0.035	0.013	12/12/2018 00:54	J
Phenanthrene	**0.016**	**U**	**mg/Kg**	**1**	0.035	0.016	12/12/2018 00:54	J
Pyrene	**0.021**	**U**	**mg/Kg**	**1**	0.035	0.021	12/12/2018 00:54	J
Nitrobenzene-d5 (S)	**88**		**%**	**1**	33-134		12/12/2018 00:54	
2-Fluorobiphenyl (S)	**103**		**%**	**1**	37-127		12/12/2018 00:54	
p-Terphenyl-d14 (S)	**83**		**%**	**1**	42-141		12/12/2018 00:54	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**4.2**		**%**	**1**			12/11/2018 00:00	J

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ANALYTICAL RESULTS QUALIFIERS

Workorder: J1813991 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: J1813991 PF Gainesville

QC Batch: EXTj/2602 Analysis Method: SW-846 8270C (SIM)
QC Batch Method: SW-846 3550B Prepared: 12/10/2018 10:00
Associated Lab Samples: J1813991001, J1813991002, J1813991003, J1813991004, J1813991005, J1813991006, J1813991007, J1813991008,

METHOD BLANK: 2931667

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
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)	%	110	33-134	
2-Fluorobiphenyl (S)	%	122	37-127	
p-Terphenyl-d14 (S)	%	103	42-141	

QC Batch: EXTj/2607 Analysis Method: SW-846 8270C (SIM)
QC Batch Method: SW-846 3550B Prepared: 12/11/2018 13:00
Associated Lab Samples: J1813991012

METHOD BLANK: 2933472

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
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

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QUALITY CONTROL DATA

Workorder: J1813991 PF Gainesville

METHOD BLANK: 2933472

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
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)	%	86	33-134	
2-Fluorobiphenyl (S)	%	103	37-127	
p-Terphenyl-d14 (S)	%	85	42-141	

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J1813991 PF Gainesville

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
J1813991001	SB3R.05	SW-846 3550B	EXTj/2602	SW-846 8270C (SIM)	MSSj/1649
J1813991002	SB3R.2	SW-846 3550B	EXTj/2602	SW-846 8270C (SIM)	MSSj/1649
J1813991003	SB3R.4	SW-846 3550B	EXTj/2602	SW-846 8270C (SIM)	MSSj/1649
J1813991004	SB5R.05	SW-846 3550B	EXTj/2602	SW-846 8270C (SIM)	MSSj/1649
J1813991005	SB5R.2	SW-846 3550B	EXTj/2602	SW-846 8270C (SIM)	MSSj/1649
J1813991006	SB5R.4	SW-846 3550B	EXTj/2602	SW-846 8270C (SIM)	MSSj/1649
J1813991007	SB7.05	SW-846 3550B	EXTj/2602	SW-846 8270C (SIM)	MSSj/1649
J1813991008	SB7.2	SW-846 3550B	EXTj/2602	SW-846 8270C (SIM)	MSSj/1649
J1813991009	SB7.4	SW-846 3550B	EXTj/2602	SW-846 8270C (SIM)	MSSj/1649
J1813991010	SB8.05	SW-846 3550B	EXTj/2602	SW-846 8270C (SIM)	MSSj/1649
J1813991011	SB8.2	SW-846 3550B	EXTj/2602	SW-846 8270C (SIM)	MSSj/1649
J1813991012	SB8.4	SW-846 3550B	EXTj/2607	SW-846 8270C (SIM)	MSSj/1650
J1813991001	SB3R.05			SM 2540G	WCAj/3677
J1813991002	SB3R.2			SM 2540G	WCAj/3677
J1813991003	SB3R.4			SM 2540G	WCAj/3677
J1813991004	SB5R.05			SM 2540G	WCAj/3677
J1813991005	SB5R.2			SM 2540G	WCAj/3677
J1813991006	SB5R.4			SM 2540G	WCAj/3677
J1813991007	SB7.05			SM 2540G	WCAj/3677
J1813991008	SB7.2			SM 2540G	WCAj/3677
J1813991009	SB7.4			SM 2540G	WCAj/3677
J1813991010	SB8.05			SM 2540G	WCAj/3677
J1813991011	SB8.2			SM 2540G	WCAj/3677
J1813991012	SB8.4			SM 2540G	WCAj/3677

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☐ 528 S. North Lake Blvd., Ste. 1016 • Altamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1597 • E53076

J1813991

CLIENT NAME:	Trihydro
ADDRESS:	3740 Saint Johns Bluff Rd S, S14
	Jacksonville, FL 32224
PHONE:	904-513-9742
FAX:	
CONTACT:	Bill Kelly
SAMPLED BY:	VICKI BIERWIRTH
TURN AROUND TIME:	☑ STANDARD ☐
PROJECT NAME:	PF Gainesville
P.O. NUMBER/PROJECT NUMBER:	
PROJECT LOCATION:	Gainesville, FL
REMARKS/SPECIAL INSTRUCTIONS:	AEL Profile #36109

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	PRESERVATION	PAHs by 8270-SIM (8oz Soil Jar)	LABORATORY I.D. NUMBER
	SB3R.05	X	12/10/18	0835	SO	1	None	X	001
	SB3R.2	X		0840	SO	1		X	002
	SB3R.4	X		0845	SO	1		X	003
	SB5R.05	X		0850	SO	1		X	004
	SB5R.2	X		0855	SO	1		X	005
	SB5R.4	X		0900	SO	1		X	006
	SB7.05	X		0920	SO	1		X	007
	SB7.2	X		0925	SO	1		X	008
	SB7.4	X		0930	SO	1		X	009
	SB8.05	X		0905	SO	1		X	010
	SB8.2	X	12/10/18	0910	SO	1		X	011

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

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

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

Temperature when received 4 (in degrees celcius)

Form revised 2/8/08

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

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Vicki Bierwirth	12/10/18	1220	[illegible]	12/10/18	12:24
2						
3						
4						

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

J1813991

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☐ 528 S. North Lake Blvd., Ste. 1016 • Altamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1597 • E53076

CLIENT NAME: Trihydro
ADDRESS: 3740 Saint Johns Bluff Rd S, S14
Jacksonville, FL 32224
PHONE: 904-513-9742
FAX:
CONTACT: Bill Kelly
SAMPLED BY: VICKI BIERWIRTH
TURN AROUND TIME:
☑ STANDARD _____ ☐

PROJECT NAME: PF Gainesville
P.O. NUMBER/PROJECT NUMBER:
PROJECT LOCATION: Gainesville, FL
REMARKS/SPECIAL INSTRUCTIONS:
AEL Profile #36109

BOTTLE SIZE & TYPE: 8oz Soil Jar
ANALYSIS REQUIRED: PAHs by 8270-SIM
PRESERVATION: None

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	PRESERVATION	PAHs by 8270-SIM	LABORATORY I.D. NUMBER
	SB8.4	X	12/10/18	0915	SO	1		X	012

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

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

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

Temperature when received ____ (in degrees celcius)

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

Form revised 2/8/08

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Vicki Bierwirth	12/10/18	1226	[illegible]	12-10-18	12:26
2						
3						
4						

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

OVA HEADSPACE DATA FORM

Trihydro CORPORATION

PROJECT INFORMATION

Project No. PermaFix Gainesville FL

INSTRUMENT DESCRIPTION

Description Mini RAE2000

Serial No. 010893

DATA

Location Description	Time	Depth (feet)	Bkg (ppm)	Unfiltered Total Bkg (ppm)	Filtered Meth-Bkg (ppm)	Net Organic Vapor	Comments
SB3R.05		.05	Ø	Ø			
SB3R.2		2	Ø	Ø			
SB3R.4		4	Ø	Ø			
SB5R.05		.05	Ø	Ø			
SB5R.2		2	Ø	Ø			
SB5R.4		4	Ø	Ø			
SB7.05		.05	Ø	Ø			
SB7.2		2	Ø	Ø			
SB7.4		4	Ø	Ø			
SB8.05		.05	Ø	Ø			
SB8.2		2	Ø	Ø			
SB8.4		4	Ø	Ø			

Note: Bkg = background. Meth = methane. ppm = part per million

SIGNATURES (Signed Initials)

Sampled by: VICKI BIERWIRTH Vicki Bierwirth

Date: 12/10/18

Reviewed by:

Date:

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) MiniRAE2000 01053 **INSTRUMENT #** _____

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP

☐ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☐ OTHER _____

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A 100

Standard B 0 (ambient air)

Standard C _____

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
12/10/18	0900	A	100			YES	INIT	KB
		B	Ø	Ø				

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December 18, 2018

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

RE: Workorder: J1814055 Permafix Gainesville

Dear William Kelly:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, December 11, 2018. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Paul Gunsaulies - Project Manager
PGunsaulies@AELLab.com

Enclosures

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SAMPLE SUMMARY

Workorder: J1814055 Permafix Gainesville

Lab ID	Sample ID	Matrix	Date Collected	Date Received
J1814055001	MW-2	Water	12/11/2018 09:10	12/11/2018 13:20
J1814055002	SW-1	Water	12/11/2018 09:30	12/11/2018 13:20
J1814055003	SW-2	Water	12/11/2018 09:40	12/11/2018 13:20
J1814055004	SW-3	Water	12/11/2018 09:50	12/11/2018 13:20
J1814055005	MW-1	Water	12/11/2018 10:25	12/11/2018 13:20
J1814055006	MW-3	Water	12/11/2018 10:54	12/11/2018 13:20

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ANALYTICAL RESULTS

Workorder: J1814055 Permafix Gainesville

Lab ID: **J1814055001** Date Received: 12/11/18 13:20 Matrix: Water
Sample ID: **MW-2** Date Collected: 12/11/18 09:10

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
SEMIVOLATILES								
Analysis Desc: 8270C-SIM Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**1.1**		**ug/L**	**1**	0.20	0.20	12/15/2018 00:03	J
2-Methylnaphthalene	**1.7**		**ug/L**	**1**	0.20	0.20	12/15/2018 00:03	J
Acenaphthene	**0.16**	**U**	**ug/L**	**1**	0.20	0.16	12/15/2018 00:03	J
Acenaphthylene	**0.17**	**U**	**ug/L**	**1**	0.20	0.17	12/15/2018 00:03	J
Anthracene	**0.14**	**U**	**ug/L**	**1**	0.20	0.14	12/15/2018 00:03	J
Benzo[a]anthracene	**0.049**	**U**	**ug/L**	**1**	0.20	0.049	12/15/2018 00:03	J
Benzo[a]pyrene	**0.15**	**U**	**ug/L**	**1**	0.20	0.15	12/15/2018 00:03	J
Benzo[b]fluoranthene	**0.050**	**U**	**ug/L**	**1**	0.10	0.050	12/15/2018 00:03	J
Benzo[g,h,i]perylene	**0.19**	**U**	**ug/L**	**1**	0.20	0.19	12/15/2018 00:03	J
Benzo[k]fluoranthene	**0.19**	**U**	**ug/L**	**1**	0.20	0.19	12/15/2018 00:03	J
Chrysene	**0.13**	**U**	**ug/L**	**1**	0.20	0.13	12/15/2018 00:03	J
Dibenzo[a,h]anthracene	**0.095**	**U**	**ug/L**	**1**	0.20	0.095	12/15/2018 00:03	J
Fluoranthene	**0.15**	**U**	**ug/L**	**1**	0.20	0.15	12/15/2018 00:03	J
Fluorene	**0.15**	**U**	**ug/L**	**1**	0.20	0.15	12/15/2018 00:03	J
Indeno(1,2,3-cd)pyrene	**0.045**	**U**	**ug/L**	**1**	0.20	0.045	12/15/2018 00:03	J
Naphthalene	**0.73**		**ug/L**	**1**	0.20	0.19	12/15/2018 00:03	J
Phenanthrene	**0.16**	**U**	**ug/L**	**1**	0.20	0.16	12/15/2018 00:03	J
Pyrene	**0.14**	**U**	**ug/L**	**1**	0.20	0.14	12/15/2018 00:03	J
Nitrobenzene-d5 (S)	**90**		**%**	**1**	34-139		12/15/2018 00:03	
2-Fluorobiphenyl (S)	**100**		**%**	**1**	36-125		12/15/2018 00:03	
p-Terphenyl-d14 (S)	**90**		**%**	**1**	41-138		12/15/2018 00:03	

Lab ID: **J1814055002** Date Received: 12/11/18 13:20 Matrix: Water
Sample ID: **SW-1** Date Collected: 12/11/18 09:30

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: E200.8 Analysis,Waters	Preparation Method: EPA 200.8 Analytical Method: EPA 200.8							
Chromium	**0.18**	**I**	**ug/L**	**1**	2.0	0.11	12/18/2018 12:22	J
Lead	**0.40**	**I**	**ug/L**	**1**	0.70	0.24	12/18/2018 12:22	J

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ANALYTICAL RESULTS

Workorder: J1814055 Permafix Gainesville

Lab ID: **J1814055002** Date Received: 12/11/18 13:20 Matrix: Water

Sample ID: **SW-1** Date Collected: 12/11/18 09:30

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS, DISSOLVED								
Analysis Desc: E200.8 Analysis,Dissolved	Preparation Method: EPA 200.8							
	Analytical Method: EPA 200.8							
Chromium	**0.27**	**I**	**ug/L**	**1**	2.0	0.11	12/18/2018 12:33	J
Lead	**1.4**		**ug/L**	**1**	0.70	0.24	12/18/2018 12:33	J
SEMIVOLATILES								
Analysis Desc: 8270C Analysis, Water	Preparation Method: SW-846 3510C							
	Analytical Method: SW-846 8270C							
1,2,4,5-Tetrachlorobenzene	**1.4**	**U**	**ug/L**	**1**	5.3	1.4	12/15/2018 08:16	J
1,2,4-Trichlorobenzene	**0.73**	**U**	**ug/L**	**1**	5.3	0.73	12/15/2018 08:16	J
1,2-Dichlorobenzene	**1.5**	**U**	**ug/L**	**1**	5.3	1.5	12/15/2018 08:16	J
1,2-Diphenylhydrazine	**1.0**	**U**	**ug/L**	**1**	5.3	1.0	12/15/2018 08:16	J
1,3-Dichlorobenzene	**1.1**	**U**	**ug/L**	**1**	5.3	1.1	12/15/2018 08:16	J
1,4-Dichlorobenzene	**2.1**	**U**	**ug/L**	**1**	5.3	2.1	12/15/2018 08:16	J
1-Methylnaphthalene	**0.052**	**U**	**ug/L**	**1**	0.21	0.052	12/15/2018 08:16	J
1-Naphthylamine	**1.0**	**U**	**ug/L**	**1**	5.3	1.0	12/15/2018 08:16	J
2,3,4,6-Tetrachlorophenol	**1.3**	**U**	**ug/L**	**1**	5.3	1.3	12/15/2018 08:16	J
2,4,5-Trichlorophenol	**1.4**	**U**	**ug/L**	**1**	5.3	1.4	12/15/2018 08:16	J
2,4,6-Trichlorophenol	**1.5**	**U**	**ug/L**	**1**	5.3	1.5	12/15/2018 08:16	J
2,4-Dichlorophenol	**0.95**	**U**	**ug/L**	**1**	5.3	0.95	12/15/2018 08:16	J
2,4-Dimethylphenol	**2.7**	**U**	**ug/L**	**1**	5.3	2.7	12/15/2018 08:16	J
2,4-Dinitrophenol	**1.1**	**U**	**ug/L**	**1**	11	1.1	12/15/2018 08:16	J
2,4-Dinitrotoluene (2,4-DNT)	**1.9**	**U**	**ug/L**	**1**	5.3	1.9	12/15/2018 08:16	J
2,6-Dichlorophenol	**1.4**	**U**	**ug/L**	**1**	5.3	1.4	12/15/2018 08:16	J
2,6-Dinitrotoluene (2,6-DNT)	**2.1**	**U**	**ug/L**	**1**	5.3	2.1	12/15/2018 08:16	J
2-Chloronaphthalene	**1.8**	**U**	**ug/L**	**1**	5.3	1.8	12/15/2018 08:16	J
2-Chlorophenol	**1.6**	**U**	**ug/L**	**1**	5.3	1.6	12/15/2018 08:16	J
2-Methyl-4,6-dinitrophenol	**1.2**	**U**	**ug/L**	**1**	5.3	1.2	12/15/2018 08:16	J
2-Methylnaphthalene	**0.052**	**U**	**ug/L**	**1**	0.21	0.052	12/15/2018 08:16	J
2-Methylphenol (o-Cresol)	**1.5**	**U**	**ug/L**	**1**	5.3	1.5	12/15/2018 08:16	J
2-Naphthylamine	**0.94**	**U**	**ug/L**	**1**	5.3	0.94	12/15/2018 08:16	J
2-Nitroaniline	**1.6**	**U**	**ug/L**	**1**	5.3	1.6	12/15/2018 08:16	J
2-Nitrophenol	**0.66**	**U**	**ug/L**	**1**	5.3	0.66	12/15/2018 08:16	J
2-Picoline (2-Methylpyridine)	**1.3**	**U**	**ug/L**	**1**	5.3	1.3	12/15/2018 08:16	J
3+4-Methylphenol(mp-Cresol)	**1.1**	**U**	**ug/L**	**1**	5.3	1.1	12/15/2018 08:16	J
3,3`-Dichlorobenzidine	**1.3**	**U**	**ug/L**	**1**	5.3	1.3	12/15/2018 08:16	J
3-Methylcholanthrene	**2.0**	**U**	**ug/L**	**1**	5.3	2.0	12/15/2018 08:16	J
3-Nitroaniline	**1.1**	**U**	**ug/L**	**1**	5.3	1.1	12/15/2018 08:16	J

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ANALYTICAL RESULTS

Workorder: J1814055 Permafix Gainesville

Lab ID: **J1814055002** Date Received: 12/11/18 13:20 Matrix: Water

Sample ID: **SW-1** Date Collected: 12/11/18 09:30

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
4-Aminobiphenyl	**0.64**	**U**	**ug/L**	**1**	5.3	0.64	12/15/2018 08:16	J
4-Bromophenyl Phenyl Ether	**1.2**	**U**	**ug/L**	**1**	5.3	1.2	12/15/2018 08:16	J
4-Chloro-3-methylphenol	**0.66**	**U**	**ug/L**	**1**	5.3	0.66	12/15/2018 08:16	J
4-Chloroaniline	**0.94**	**U**	**ug/L**	**1**	5.3	0.94	12/15/2018 08:16	J
4-Chlorophenyl Phenyl Ether	**1.7**	**U**	**ug/L**	**1**	5.3	1.7	12/15/2018 08:16	J
4-Dimethyl aminoazobenzene	**0.77**	**U**	**ug/L**	**1**	5.3	0.77	12/15/2018 08:16	J
4-Nitroaniline	**1.3**	**U**	**ug/L**	**1**	5.3	1.3	12/15/2018 08:16	J
4-Nitrophenol	**3.0**	**U**	**ug/L**	**1**	5.3	3.0	12/15/2018 08:16	J
7,12-Dimethylbenz[a]anthracene	**1.1**	**U**	**ug/L**	**1**	5.3	1.1	12/15/2018 08:16	J
Acenaphthene	**0.042**	**U**	**ug/L**	**1**	0.21	0.042	12/15/2018 08:16	J
Acenaphthylene	**0.044**	**U**	**ug/L**	**1**	0.21	0.044	12/15/2018 08:16	J
Acetophenone	**1.7**	**U**	**ug/L**	**1**	5.3	1.7	12/15/2018 08:16	J
Aniline	**0.94**	**U**	**ug/L**	**1**	5.3	0.94	12/15/2018 08:16	J
Anthracene	**0.037**	**U**	**ug/L**	**1**	0.21	0.037	12/15/2018 08:16	J
Benzidine	**1.3**	**U**	**ug/L**	**1**	5.3	1.3	12/15/2018 08:16	J
Benzo[a]anthracene	**0.013**	**U**	**ug/L**	**1**	0.21	0.013	12/15/2018 08:16	J
Benzo[a]pyrene	**0.039**	**U**	**ug/L**	**1**	0.21	0.039	12/15/2018 08:16	J
Benzo[b]fluoranthene	**0.013**	**U**	**ug/L**	**1**	0.11	0.013	12/15/2018 08:16	J
Benzo[g,h,i]perylene	**0.050**	**U**	**ug/L**	**1**	0.21	0.050	12/15/2018 08:16	J
Benzo[k]fluoranthene	**0.051**	**U**	**ug/L**	**1**	0.21	0.051	12/15/2018 08:16	J
Benzoic Acid	**0.82**	**U**	**ug/L**	**1**	11	0.82	12/15/2018 08:16	J
Benzyl Alcohol	**2.5**	**U**	**ug/L**	**1**	5.3	2.5	12/15/2018 08:16	J
Butyl benzyl phthalate	**1.1**	**U**	**ug/L**	**1**	5.3	1.1	12/15/2018 08:16	J
Carbazole	**0.021**	**U**	**ug/L**	**1**	5.3	0.021	12/15/2018 08:16	J
Chrysene	**0.035**	**U**	**ug/L**	**1**	0.21	0.035	12/15/2018 08:16	J
Di-n-Butyl Phthalate	**0.92**	**U**	**ug/L**	**1**	5.3	0.92	12/15/2018 08:16	J
Di-n-octyl Phthalate	**1.3**	**U**	**ug/L**	**1**	5.3	1.3	12/15/2018 08:16	J
Dibenzo[a,h]anthracene	**0.025**	**U**	**ug/L**	**1**	0.21	0.025	12/15/2018 08:16	J
Dibenzofuran	**0.073**	**U**	**ug/L**	**1**	5.3	0.073	12/15/2018 08:16	J
Diethyl phthalate	**2.2**	**U**	**ug/L**	**1**	5.3	2.2	12/15/2018 08:16	J
Dimethyl phthalate	**1.9**	**U**	**ug/L**	**1**	11	1.9	12/15/2018 08:16	J
Ethyl methanesulfonate	**0.96**	**U**	**ug/L**	**1**	5.3	0.96	12/15/2018 08:16	J
Fluoranthene	**0.039**	**U**	**ug/L**	**1**	0.21	0.039	12/15/2018 08:16	J
Fluorene	**0.041**	**U**	**ug/L**	**1**	0.21	0.041	12/15/2018 08:16	J
Hexachlorobenzene	**1.0**	**U**	**ug/L**	**1**	5.3	1.0	12/15/2018 08:16	J
Hexachlorobutadiene	**1.3**	**U**	**ug/L**	**1**	5.3	1.3	12/15/2018 08:16	J
Hexachlorocyclopentadiene	**1.1**	**U**	**ug/L**	**1**	5.3	1.1	12/15/2018 08:16	J
Hexachloroethane	**1.3**	**U**	**ug/L**	**1**	5.3	1.3	12/15/2018 08:16	J
Indeno(1,2,3-cd)pyrene	**0.012**	**U**	**ug/L**	**1**	0.21	0.012	12/15/2018 08:16	J
Isophorone	**1.2**	**U**	**ug/L**	**1**	5.3	1.2	12/15/2018 08:16	J

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ANALYTICAL RESULTS

Workorder: J1814055 Permafix Gainesville

Lab ID: **J1814055002** Date Received: 12/11/18 13:20 Matrix: Water
Sample ID: **SW-1** Date Collected: 12/11/18 09:30

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Methyl Methanesulfonate	**0.71**	**U**	**ug/L**	**1**	5.3	0.71	12/15/2018 08:16	J
N-Nitrosodi-n-butylamine	**1.6**	**U**	**ug/L**	**1**	5.3	1.6	12/15/2018 08:16	J
N-Nitrosodi-n-propylamine	**2.4**	**U**	**ug/L**	**1**	5.3	2.4	12/15/2018 08:16	J
N-Nitrosodimethylamine	**0.98**	**U**	**ug/L**	**1**	5.3	0.98	12/15/2018 08:16	J
N-Nitrosodiphenylamine	**2.2**	**U**	**ug/L**	**1**	5.3	2.2	12/15/2018 08:16	J
N-Nitrosopiperidine	**1.3**	**U**	**ug/L**	**1**	5.3	1.3	12/15/2018 08:16	J
Naphthalene	**0.050**	**U**	**ug/L**	**1**	0.21	0.050	12/15/2018 08:16	J
Nitrobenzene	**1.2**	**U**	**ug/L**	**1**	5.3	1.2	12/15/2018 08:16	J
Pentachlorobenzene	**1.4**	**U**	**ug/L**	**1**	5.3	1.4	12/15/2018 08:16	J
Pentachloronitrobenzene	**1.8**	**U**	**ug/L**	**1**	5.3	1.8	12/15/2018 08:16	J
Pentachlorophenol	**1.0**	**U**	**ug/L**	**1**	5.3	1.0	12/15/2018 08:16	J
Phenacetin	**3.3**	**U**	**ug/L**	**1**	5.3	3.3	12/15/2018 08:16	J
Phenanthrene	**0.042**	**U**	**ug/L**	**1**	0.21	0.042	12/15/2018 08:16	J
Phenol	**0.57**	**U**	**ug/L**	**1**	5.3	0.57	12/15/2018 08:16	J
Pronamide (Kerb)	**3.8**	**U**	**ug/L**	**1**	5.3	3.8	12/15/2018 08:16	J
Pyrene	**0.038**	**U**	**ug/L**	**1**	0.21	0.038	12/15/2018 08:16	J
a,a-Dimethylphenethylamine	**2.0**	**U**	**ug/L**	**1**	5.3	2.0	12/15/2018 08:16	J
bis(2-Chloroethoxy)methane	**1.3**	**U**	**ug/L**	**1**	5.3	1.3	12/15/2018 08:16	J
bis(2-Chloroethyl)Ether	**1.5**	**U**	**ug/L**	**1**	5.3	1.5	12/15/2018 08:16	J
bis(2-Chloroisopropyl) Ether	**1.5**	**U**	**ug/L**	**1**	5.3	1.5	12/15/2018 08:16	J
bis(2-Ethylhexyl) phthalate	**2.1**	**U**	**ug/L**	**1**	5.3	2.1	12/15/2018 08:16	J
2-Fluorophenol (S)	**43**		**%**	**1**	31-134		12/15/2018 08:16	
Phenol-d6 (S)	**28**		**%**	**1**	24-120		12/15/2018 08:16	
Nitrobenzene-d5 (S)	**78**		**%**	**1**	38-139		12/15/2018 08:16	
2-Fluorobiphenyl (S)	**73**		**%**	**1**	42-138		12/15/2018 08:16	
2,4,6-Tribromophenol (S)	**95**		**%**	**1**	48-147		12/15/2018 08:16	
p-Terphenyl-d14 (S)	**87**		**%**	**1**	61-154		12/15/2018 08:16	

Lab ID: **J1814055003** Date Received: 12/11/18 13:20 Matrix: Water
Sample ID: **SW-2** Date Collected: 12/11/18 09:40

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: E200.8 Analysis,Waters	Preparation Method: EPA 200.8							
	Analytical Method: EPA 200.8							

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ANALYTICAL RESULTS

Workorder: J1814055 Permafix Gainesville

Lab ID: **J1814055003** Date Received: 12/11/18 13:20 Matrix: Water

Sample ID: **SW-2** Date Collected: 12/11/18 09:40

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Chromium	**0.47**	**I**	**ug/L**	**1**	2.0	0.11	12/18/2018 12:37	J
Lead	**2.5**		**ug/L**	**1**	0.70	0.24	12/18/2018 12:37	J
METALS, DISSOLVED								
Analysis Desc: E200.8 Analysis,Dissolved	Preparation Method: EPA 200.8 Analytical Method: EPA 200.8							
Chromium	**0.11**	**U**	**ug/L**	**1**	2.0	0.11	12/18/2018 12:41	J
Lead	**0.43**	**I**	**ug/L**	**1**	0.70	0.24	12/18/2018 12:41	J
SEMIVOLATILES								
Analysis Desc: 8270C Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: SW-846 8270C							
1,2,4,5-Tetrachlorobenzene	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	12/15/2018 07:36	J
1,2,4-Trichlorobenzene	**0.69**	**U**	**ug/L**	**1**	5.0	0.69	12/15/2018 07:36	J
1,2-Dichlorobenzene	**1.4**	**U**	**ug/L**	**1**	5.0	1.4	12/15/2018 07:36	J
1,2-Diphenylhydrazine	**0.96**	**U**	**ug/L**	**1**	5.0	0.96	12/15/2018 07:36	J
1,3-Dichlorobenzene	**1.0**	**U**	**ug/L**	**1**	5.0	1.0	12/15/2018 07:36	J
1,4-Dichlorobenzene	**2.0**	**U**	**ug/L**	**1**	5.0	2.0	12/15/2018 07:36	J
1-Methylnaphthalene	**0.050**	**U**	**ug/L**	**1**	0.20	0.050	12/15/2018 07:36	J
1-Naphthylamine	**0.95**	**U**	**ug/L**	**1**	5.0	0.95	12/15/2018 07:36	J
2,3,4,6-Tetrachlorophenol	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	12/15/2018 07:36	J
2,4,5-Trichlorophenol	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	12/15/2018 07:36	J
2,4,6-Trichlorophenol	**1.4**	**U**	**ug/L**	**1**	5.0	1.4	12/15/2018 07:36	J
2,4-Dichlorophenol	**0.90**	**U**	**ug/L**	**1**	5.0	0.90	12/15/2018 07:36	J
2,4-Dimethylphenol	**2.6**	**U**	**ug/L**	**1**	5.0	2.6	12/15/2018 07:36	J
2,4-Dinitrophenol	**1.1**	**U**	**ug/L**	**1**	10	1.1	12/15/2018 07:36	J
2,4-Dinitrotoluene (2,4-DNT)	**1.8**	**U**	**ug/L**	**1**	5.0	1.8	12/15/2018 07:36	J
2,6-Dichlorophenol	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	12/15/2018 07:36	J
2,6-Dinitrotoluene (2,6-DNT)	**2.0**	**U**	**ug/L**	**1**	5.0	2.0	12/15/2018 07:36	J
2-Chloronaphthalene	**1.7**	**U**	**ug/L**	**1**	5.0	1.7	12/15/2018 07:36	J
2-Chlorophenol	**1.5**	**U**	**ug/L**	**1**	5.0	1.5	12/15/2018 07:36	J
2-Methyl-4,6-dinitrophenol	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	12/15/2018 07:36	J
2-Methylnaphthalene	**0.049**	**U**	**ug/L**	**1**	0.20	0.049	12/15/2018 07:36	J
2-Methylphenol (o-Cresol)	**1.5**	**U**	**ug/L**	**1**	5.0	1.5	12/15/2018 07:36	J
2-Naphthylamine	**0.89**	**U**	**ug/L**	**1**	5.0	0.89	12/15/2018 07:36	J
2-Nitroaniline	**1.5**	**U**	**ug/L**	**1**	5.0	1.5	12/15/2018 07:36	J
2-Nitrophenol	**0.63**	**U**	**ug/L**	**1**	5.0	0.63	12/15/2018 07:36	J
2-Picoline (2-Methylpyridine)	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	12/15/2018 07:36	J
3+4-Methylphenol(mp-Cresol)	**1.0**	**U**	**ug/L**	**1**	5.0	1.0	12/15/2018 07:36	J

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Phone: (904)363-9350
Fax: (904)363-9354

ANALYTICAL RESULTS

Workorder: J1814055 Permafix Gainesville

Lab ID: **J1814055003** Date Received: 12/11/18 13:20 Matrix: Water

Sample ID: **SW-2** Date Collected: 12/11/18 09:40

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
3,3`-Dichlorobenzidine	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	12/15/2018 07:36	J
3-Methylcholanthrene	**1.9**	**U**	**ug/L**	**1**	5.0	1.9	12/15/2018 07:36	J
3-Nitroaniline	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	12/15/2018 07:36	J
4-Aminobiphenyl	**0.61**	**U**	**ug/L**	**1**	5.0	0.61	12/15/2018 07:36	J
4-Bromophenyl Phenyl Ether	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	12/15/2018 07:36	J
4-Chloro-3-methylphenol	**0.63**	**U**	**ug/L**	**1**	5.0	0.63	12/15/2018 07:36	J
4-Chloroaniline	**0.90**	**U**	**ug/L**	**1**	5.0	0.90	12/15/2018 07:36	J
4-Chlorophenyl Phenyl Ether	**1.6**	**U**	**ug/L**	**1**	5.0	1.6	12/15/2018 07:36	J
4-Dimethyl aminoazobenzene	**0.73**	**U**	**ug/L**	**1**	5.0	0.73	12/15/2018 07:36	J
4-Nitroaniline	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	12/15/2018 07:36	J
4-Nitrophenol	**2.9**	**U**	**ug/L**	**1**	5.0	2.9	12/15/2018 07:36	J
7,12-Dimethylbenz[a]anthracene	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	12/15/2018 07:36	J
Acenaphthene	**0.040**	**U**	**ug/L**	**1**	0.20	0.040	12/15/2018 07:36	J
Acenaphthylene	**0.042**	**U**	**ug/L**	**1**	0.20	0.042	12/15/2018 07:36	J
Acetophenone	**1.6**	**U**	**ug/L**	**1**	5.0	1.6	12/15/2018 07:36	J
Aniline	**0.90**	**U**	**ug/L**	**1**	5.0	0.90	12/15/2018 07:36	J
Anthracene	**0.035**	**U**	**ug/L**	**1**	0.20	0.035	12/15/2018 07:36	J
Benzidine	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	12/15/2018 07:36	J
Benzo[a]anthracene	**0.012**	**U**	**ug/L**	**1**	0.20	0.012	12/15/2018 07:36	J
Benzo[a]pyrene	**0.037**	**U**	**ug/L**	**1**	0.20	0.037	12/15/2018 07:36	J
Benzo[b]fluoranthene	**0.012**	**U**	**ug/L**	**1**	0.10	0.012	12/15/2018 07:36	J
Benzo[g,h,i]perylene	**0.048**	**U**	**ug/L**	**1**	0.20	0.048	12/15/2018 07:36	J
Benzo[k]fluoranthene	**0.048**	**U**	**ug/L**	**1**	0.20	0.048	12/15/2018 07:36	J
Benzoic Acid	**0.78**	**U**	**ug/L**	**1**	10	0.78	12/15/2018 07:36	J
Benzyl Alcohol	**2.4**	**U**	**ug/L**	**1**	5.0	2.4	12/15/2018 07:36	J
Butyl benzyl phthalate	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	12/15/2018 07:36	J
Carbazole	**0.020**	**U**	**ug/L**	**1**	5.0	0.020	12/15/2018 07:36	J
Chrysene	**0.033**	**U**	**ug/L**	**1**	0.20	0.033	12/15/2018 07:36	J
Di-n-Butyl Phthalate	**0.88**	**U**	**ug/L**	**1**	5.0	0.88	12/15/2018 07:36	J
Di-n-octyl Phthalate	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	12/15/2018 07:36	J
Dibenzo[a,h]anthracene	**0.024**	**U**	**ug/L**	**1**	0.20	0.024	12/15/2018 07:36	J
Dibenzofuran	**0.069**	**U**	**ug/L**	**1**	5.0	0.069	12/15/2018 07:36	J
Diethyl phthalate	**2.1**	**U**	**ug/L**	**1**	5.0	2.1	12/15/2018 07:36	J
Dimethyl phthalate	**1.8**	**U**	**ug/L**	**1**	10	1.8	12/15/2018 07:36	J
Ethyl methanesulfonate	**0.91**	**U**	**ug/L**	**1**	5.0	0.91	12/15/2018 07:36	J
Fluoranthene	**0.037**	**U**	**ug/L**	**1**	0.20	0.037	12/15/2018 07:36	J
Fluorene	**0.038**	**U**	**ug/L**	**1**	0.20	0.038	12/15/2018 07:36	J
Hexachlorobenzene	**0.99**	**U**	**ug/L**	**1**	5.0	0.99	12/15/2018 07:36	J
Hexachlorobutadiene	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	12/15/2018 07:36	J
Hexachlorocyclopentadiene	**1.0**	**U**	**ug/L**	**1**	5.0	1.0	12/15/2018 07:36	J

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Phone: (904)363-9350
Fax: (904)363-9354

ANALYTICAL RESULTS

Workorder: J1814055 Permafix Gainesville

Lab ID: **J1814055003** Date Received: 12/11/18 13:20 Matrix: Water

Sample ID: **SW-2** Date Collected: 12/11/18 09:40

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Hexachloroethane	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	12/15/2018 07:36	J
Indeno(1,2,3-cd)pyrene	**0.011**	**U**	**ug/L**	**1**	0.20	0.011	12/15/2018 07:36	J
Isophorone	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	12/15/2018 07:36	J
Methyl Methanesulfonate	**0.67**	**U**	**ug/L**	**1**	5.0	0.67	12/15/2018 07:36	J
N-Nitrosodi-n-butylamine	**1.5**	**U**	**ug/L**	**1**	5.0	1.5	12/15/2018 07:36	J
N-Nitrosodi-n-propylamine	**2.2**	**U**	**ug/L**	**1**	5.0	2.2	12/15/2018 07:36	J
N-Nitrosodimethylamine	**0.93**	**U**	**ug/L**	**1**	5.0	0.93	12/15/2018 07:36	J
N-Nitrosodiphenylamine	**2.1**	**U**	**ug/L**	**1**	5.0	2.1	12/15/2018 07:36	J
N-Nitrosopiperidine	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	12/15/2018 07:36	J
Naphthalene	**0.048**	**U**	**ug/L**	**1**	0.20	0.048	12/15/2018 07:36	J
Nitrobenzene	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	12/15/2018 07:36	J
Pentachlorobenzene	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	12/15/2018 07:36	J
Pentachloronitrobenzene	**1.7**	**U**	**ug/L**	**1**	5.0	1.7	12/15/2018 07:36	J
Pentachlorophenol	**0.95**	**U**	**ug/L**	**1**	5.0	0.95	12/15/2018 07:36	J
Phenacetin	**3.2**	**U**	**ug/L**	**1**	5.0	3.2	12/15/2018 07:36	J
Phenanthrene	**0.040**	**U**	**ug/L**	**1**	0.20	0.040	12/15/2018 07:36	J
Phenol	**0.54**	**U**	**ug/L**	**1**	5.0	0.54	12/15/2018 07:36	J
Pronamide (Kerb)	**3.6**	**U**	**ug/L**	**1**	5.0	3.6	12/15/2018 07:36	J
Pyrene	**0.036**	**U**	**ug/L**	**1**	0.20	0.036	12/15/2018 07:36	J
a,a-Dimethylphenethylamine	**1.9**	**U**	**ug/L**	**1**	5.0	1.9	12/15/2018 07:36	J
bis(2-Chloroethoxy)methane	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	12/15/2018 07:36	J
bis(2-Chloroethyl)Ether	**1.5**	**U**	**ug/L**	**1**	5.0	1.5	12/15/2018 07:36	J
bis(2-Chloroisopropyl) Ether	**1.4**	**U**	**ug/L**	**1**	5.0	1.4	12/15/2018 07:36	J
bis(2-Ethylhexyl) phthalate	**2.0**	**U**	**ug/L**	**1**	5.0	2.0	12/15/2018 07:36	J
2-Fluorophenol (S)	**44**		**%**	**1**	31-134		12/15/2018 07:36	
Phenol-d6 (S)	**27**		**%**	**1**	24-120		12/15/2018 07:36	
Nitrobenzene-d5 (S)	**86**		**%**	**1**	38-139		12/15/2018 07:36	
2-Fluorobiphenyl (S)	**77**		**%**	**1**	42-138		12/15/2018 07:36	
2,4,6-Tribromophenol (S)	**93**		**%**	**1**	48-147		12/15/2018 07:36	
p-Terphenyl-d14 (S)	**88**		**%**	**1**	61-154		12/15/2018 07:36	

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Phone: (904)363-9350
Fax: (904)363-9354

ANALYTICAL RESULTS

Workorder: J1814055 Permafix Gainesville

Lab ID: **J1814055004** Date Received: 12/11/18 13:20 Matrix: Water

Sample ID: **SW-3** Date Collected: 12/11/18 09:50

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: E200.8 Analysis,Waters	Preparation Method: EPA 200.8							
	Analytical Method: EPA 200.8							
Chromium	**0.15**	**I**	**ug/L**	**1**	2.0	0.11	12/18/2018 12:45	J
Lead	**0.26**	**I**	**ug/L**	**1**	0.70	0.24	12/18/2018 12:45	J
METALS, DISSOLVED								
Analysis Desc: E200.8 Analysis,Dissolved	Preparation Method: EPA 200.8							
	Analytical Method: EPA 200.8							
Chromium	**0.11**	**U**	**ug/L**	**1**	2.0	0.11	12/18/2018 12:49	J
Lead	**0.36**	**I**	**ug/L**	**1**	0.70	0.24	12/18/2018 12:49	J
SEMIVOLATILES								
Analysis Desc: 8270C Analysis, Water	Preparation Method: SW-846 3510C							
	Analytical Method: SW-846 8270C							
1,2,4,5-Tetrachlorobenzene	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	12/15/2018 06:56	J
1,2,4-Trichlorobenzene	**0.69**	**U**	**ug/L**	**1**	5.0	0.69	12/15/2018 06:56	J
1,2-Dichlorobenzene	**1.4**	**U**	**ug/L**	**1**	5.0	1.4	12/15/2018 06:56	J
1,2-Diphenylhydrazine	**0.96**	**U**	**ug/L**	**1**	5.0	0.96	12/15/2018 06:56	J
1,3-Dichlorobenzene	**1.0**	**U**	**ug/L**	**1**	5.0	1.0	12/15/2018 06:56	J
1,4-Dichlorobenzene	**2.0**	**U**	**ug/L**	**1**	5.0	2.0	12/15/2018 06:56	J
1-Methylnaphthalene	**0.050**	**U**	**ug/L**	**1**	0.20	0.050	12/15/2018 06:56	J
1-Naphthylamine	**0.95**	**U**	**ug/L**	**1**	5.0	0.95	12/15/2018 06:56	J
2,3,4,6-Tetrachlorophenol	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	12/15/2018 06:56	J
2,4,5-Trichlorophenol	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	12/15/2018 06:56	J
2,4,6-Trichlorophenol	**1.4**	**U**	**ug/L**	**1**	5.0	1.4	12/15/2018 06:56	J
2,4-Dichlorophenol	**0.90**	**U**	**ug/L**	**1**	5.0	0.90	12/15/2018 06:56	J
2,4-Dimethylphenol	**2.6**	**U**	**ug/L**	**1**	5.0	2.6	12/15/2018 06:56	J
2,4-Dinitrophenol	**1.1**	**U**	**ug/L**	**1**	10	1.1	12/15/2018 06:56	J
2,4-Dinitrotoluene (2,4-DNT)	**1.8**	**U**	**ug/L**	**1**	5.0	1.8	12/15/2018 06:56	J
2,6-Dichlorophenol	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	12/15/2018 06:56	J
2,6-Dinitrotoluene (2,6-DNT)	**2.0**	**U**	**ug/L**	**1**	5.0	2.0	12/15/2018 06:56	J
2-Chloronaphthalene	**1.7**	**U**	**ug/L**	**1**	5.0	1.7	12/15/2018 06:56	J
2-Chlorophenol	**1.5**	**U**	**ug/L**	**1**	5.0	1.5	12/15/2018 06:56	J
2-Methyl-4,6-dinitrophenol	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	12/15/2018 06:56	J
2-Methylnaphthalene	**0.049**	**U**	**ug/L**	**1**	0.20	0.049	12/15/2018 06:56	J
2-Methylphenol (o-Cresol)	**1.5**	**U**	**ug/L**	**1**	5.0	1.5	12/15/2018 06:56	J
2-Naphthylamine	**0.89**	**U**	**ug/L**	**1**	5.0	0.89	12/15/2018 06:56	J

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Fax: (904)363-9354

ANALYTICAL RESULTS

Workorder: J1814055 Permafix Gainesville

Lab ID: **J1814055004** Date Received: 12/11/18 13:20 Matrix: Water

Sample ID: **SW-3** Date Collected: 12/11/18 09:50

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
2-Nitroaniline	**1.5**	**U**	**ug/L**	**1**	5.0	1.5	12/15/2018 06:56	J
2-Nitrophenol	**0.63**	**U**	**ug/L**	**1**	5.0	0.63	12/15/2018 06:56	J
2-Picoline (2-Methylpyridine)	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	12/15/2018 06:56	J
3+4-Methylphenol(mp-Cresol)	**1.0**	**U**	**ug/L**	**1**	5.0	1.0	12/15/2018 06:56	J
3,3`-Dichlorobenzidine	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	12/15/2018 06:56	J
3-Methylcholanthrene	**1.9**	**U**	**ug/L**	**1**	5.0	1.9	12/15/2018 06:56	J
3-Nitroaniline	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	12/15/2018 06:56	J
4-Aminobiphenyl	**0.61**	**U**	**ug/L**	**1**	5.0	0.61	12/15/2018 06:56	J
4-Bromophenyl Phenyl Ether	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	12/15/2018 06:56	J
4-Chloro-3-methylphenol	**0.63**	**U**	**ug/L**	**1**	5.0	0.63	12/15/2018 06:56	J
4-Chloroaniline	**0.90**	**U**	**ug/L**	**1**	5.0	0.90	12/15/2018 06:56	J
4-Chlorophenyl Phenyl Ether	**1.6**	**U**	**ug/L**	**1**	5.0	1.6	12/15/2018 06:56	J
4-Dimethyl aminoazobenzene	**0.73**	**U**	**ug/L**	**1**	5.0	0.73	12/15/2018 06:56	J
4-Nitroaniline	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	12/15/2018 06:56	J
4-Nitrophenol	**2.9**	**U**	**ug/L**	**1**	5.0	2.9	12/15/2018 06:56	J
7,12-Dimethylbenz[a]anthracene	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	12/15/2018 06:56	J
Acenaphthene	**0.040**	**U**	**ug/L**	**1**	0.20	0.040	12/15/2018 06:56	J
Acenaphthylene	**0.042**	**U**	**ug/L**	**1**	0.20	0.042	12/15/2018 06:56	J
Acetophenone	**1.6**	**U**	**ug/L**	**1**	5.0	1.6	12/15/2018 06:56	J
Aniline	**0.90**	**U**	**ug/L**	**1**	5.0	0.90	12/15/2018 06:56	J
Anthracene	**0.035**	**U**	**ug/L**	**1**	0.20	0.035	12/15/2018 06:56	J
Benzidine	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	12/15/2018 06:56	J
Benzo[a]anthracene	**0.012**	**U**	**ug/L**	**1**	0.20	0.012	12/15/2018 06:56	J
Benzo[a]pyrene	**0.037**	**U**	**ug/L**	**1**	0.20	0.037	12/15/2018 06:56	J
Benzo[b]fluoranthene	**0.012**	**U**	**ug/L**	**1**	0.10	0.012	12/15/2018 06:56	J
Benzo[g,h,i]perylene	**0.048**	**U**	**ug/L**	**1**	0.20	0.048	12/15/2018 06:56	J
Benzo[k]fluoranthene	**0.048**	**U**	**ug/L**	**1**	0.20	0.048	12/15/2018 06:56	J
Benzoic Acid	**0.78**	**U**	**ug/L**	**1**	10	0.78	12/15/2018 06:56	J
Benzyl Alcohol	**2.4**	**U**	**ug/L**	**1**	5.0	2.4	12/15/2018 06:56	J
Butyl benzyl phthalate	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	12/15/2018 06:56	J
Carbazole	**0.020**	**U**	**ug/L**	**1**	5.0	0.020	12/15/2018 06:56	J
Chrysene	**0.033**	**U**	**ug/L**	**1**	0.20	0.033	12/15/2018 06:56	J
Di-n-Butyl Phthalate	**0.88**	**U**	**ug/L**	**1**	5.0	0.88	12/15/2018 06:56	J
Di-n-octyl Phthalate	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	12/15/2018 06:56	J
Dibenzo[a,h]anthracene	**0.024**	**U**	**ug/L**	**1**	0.20	0.024	12/15/2018 06:56	J
Dibenzofuran	**0.069**	**U**	**ug/L**	**1**	5.0	0.069	12/15/2018 06:56	J
Diethyl phthalate	**2.1**	**U**	**ug/L**	**1**	5.0	2.1	12/15/2018 06:56	J
Dimethyl phthalate	**1.8**	**U**	**ug/L**	**1**	10	1.8	12/15/2018 06:56	J
Ethyl methanesulfonate	**0.91**	**U**	**ug/L**	**1**	5.0	0.91	12/15/2018 06:56	J
Fluoranthene	**0.037**	**U**	**ug/L**	**1**	0.20	0.037	12/15/2018 06:56	J

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ANALYTICAL RESULTS

Workorder: J1814055 Permafix Gainesville

Lab ID: **J1814055004** Date Received: 12/11/18 13:20 Matrix: Water

Sample ID: **SW-3** Date Collected: 12/11/18 09:50

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Fluorene	**0.038**	**U**	**ug/L**	**1**	0.20	0.038	12/15/2018 06:56	J
Hexachlorobenzene	**0.99**	**U**	**ug/L**	**1**	5.0	0.99	12/15/2018 06:56	J
Hexachlorobutadiene	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	12/15/2018 06:56	J
Hexachlorocyclopentadiene	**1.0**	**U**	**ug/L**	**1**	5.0	1.0	12/15/2018 06:56	J
Hexachloroethane	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	12/15/2018 06:56	J
Indeno(1,2,3-cd)pyrene	**0.011**	**U**	**ug/L**	**1**	0.20	0.011	12/15/2018 06:56	J
Isophorone	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	12/15/2018 06:56	J
Methyl Methanesulfonate	**0.67**	**U**	**ug/L**	**1**	5.0	0.67	12/15/2018 06:56	J
N-Nitrosodi-n-butylamine	**1.5**	**U**	**ug/L**	**1**	5.0	1.5	12/15/2018 06:56	J
N-Nitrosodi-n-propylamine	**2.2**	**U**	**ug/L**	**1**	5.0	2.2	12/15/2018 06:56	J
N-Nitrosodimethylamine	**0.93**	**U**	**ug/L**	**1**	5.0	0.93	12/15/2018 06:56	J
N-Nitrosodiphenylamine	**2.1**	**U**	**ug/L**	**1**	5.0	2.1	12/15/2018 06:56	J
N-Nitrosopiperidine	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	12/15/2018 06:56	J
Naphthalene	**0.048**	**U**	**ug/L**	**1**	0.20	0.048	12/15/2018 06:56	J
Nitrobenzene	**1.1**	**U**	**ug/L**	**1**	5.0	1.1	12/15/2018 06:56	J
Pentachlorobenzene	**1.3**	**U**	**ug/L**	**1**	5.0	1.3	12/15/2018 06:56	J
Pentachloronitrobenzene	**1.7**	**U**	**ug/L**	**1**	5.0	1.7	12/15/2018 06:56	J
Pentachlorophenol	**0.95**	**U**	**ug/L**	**1**	5.0	0.95	12/15/2018 06:56	J
Phenacetin	**3.2**	**U**	**ug/L**	**1**	5.0	3.2	12/15/2018 06:56	J
Phenanthrene	**0.040**	**U**	**ug/L**	**1**	0.20	0.040	12/15/2018 06:56	J
Phenol	**0.54**	**U**	**ug/L**	**1**	5.0	0.54	12/15/2018 06:56	J
Pronamide (Kerb)	**3.6**	**U**	**ug/L**	**1**	5.0	3.6	12/15/2018 06:56	J
Pyrene	**0.036**	**U**	**ug/L**	**1**	0.20	0.036	12/15/2018 06:56	J
a,a-Dimethylphenethylamine	**1.9**	**U**	**ug/L**	**1**	5.0	1.9	12/15/2018 06:56	J
bis(2-Chloroethoxy)methane	**1.2**	**U**	**ug/L**	**1**	5.0	1.2	12/15/2018 06:56	J
bis(2-Chloroethyl)Ether	**1.5**	**U**	**ug/L**	**1**	5.0	1.5	12/15/2018 06:56	J
bis(2-Chloroisopropyl) Ether	**1.4**	**U**	**ug/L**	**1**	5.0	1.4	12/15/2018 06:56	J
bis(2-Ethylhexyl) phthalate	**2.0**	**U**	**ug/L**	**1**	5.0	2.0	12/15/2018 06:56	J
2-Fluorophenol (S)	**35**		**%**	**1**	31-134		12/15/2018 06:56	
Phenol-d6 (S)	**22**	**J4**	**%**	**1**	24-120		12/15/2018 06:56	
Nitrobenzene-d5 (S)	**84**		**%**	**1**	38-139		12/15/2018 06:56	
2-Fluorobiphenyl (S)	**78**		**%**	**1**	42-138		12/15/2018 06:56	
2,4,6-Tribromophenol (S)	**85**		**%**	**1**	48-147		12/15/2018 06:56	
p-Terphenyl-d14 (S)	**86**		**%**	**1**	61-154		12/15/2018 06:56	

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ANALYTICAL RESULTS

Workorder: J1814055 Permafix Gainesville

Lab ID: **J1814055005** Date Received: 12/11/18 13:20 Matrix: Water
Sample ID: **MW-1** Date Collected: 12/11/18 10:25

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
SEMIVOLATILES								
Analysis Desc: 8270C-SIM Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.21**	**U**	**ug/L**	**1**	0.21	0.21	12/15/2018 00:31	J
2-Methylnaphthalene	**0.20**	**U**	**ug/L**	**1**	0.21	0.20	12/15/2018 00:31	J
Acenaphthene	**0.17**	**U**	**ug/L**	**1**	0.21	0.17	12/15/2018 00:31	J
Acenaphthylene	**0.18**	**U**	**ug/L**	**1**	0.21	0.18	12/15/2018 00:31	J
Anthracene	**0.15**	**U**	**ug/L**	**1**	0.21	0.15	12/15/2018 00:31	J
Benzo[a]anthracene	**0.051**	**U**	**ug/L**	**1**	0.21	0.051	12/15/2018 00:31	J
Benzo[a]pyrene	**0.15**	**U**	**ug/L**	**1**	0.21	0.15	12/15/2018 00:31	J
Benzo[b]fluoranthene	**0.052**	**U**	**ug/L**	**1**	0.10	0.052	12/15/2018 00:31	J
Benzo[g,h,i]perylene	**0.20**	**U**	**ug/L**	**1**	0.21	0.20	12/15/2018 00:31	J
Benzo[k]fluoranthene	**0.20**	**U**	**ug/L**	**1**	0.21	0.20	12/15/2018 00:31	J
Chrysene	**0.14**	**U**	**ug/L**	**1**	0.21	0.14	12/15/2018 00:31	J
Dibenzo[a,h]anthracene	**0.099**	**U**	**ug/L**	**1**	0.21	0.099	12/15/2018 00:31	J
Fluoranthene	**0.15**	**U**	**ug/L**	**1**	0.21	0.15	12/15/2018 00:31	J
Fluorene	**0.16**	**U**	**ug/L**	**1**	0.21	0.16	12/15/2018 00:31	J
Indeno(1,2,3-cd)pyrene	**0.047**	**U**	**ug/L**	**1**	0.21	0.047	12/15/2018 00:31	J
Naphthalene	**0.20**	**U**	**ug/L**	**1**	0.21	0.20	12/15/2018 00:31	J
Phenanthrene	**0.17**	**U**	**ug/L**	**1**	0.21	0.17	12/15/2018 00:31	J
Pyrene	**0.15**	**U**	**ug/L**	**1**	0.21	0.15	12/15/2018 00:31	J
Nitrobenzene-d5 (S)	**91**		**%**	**1**	34-139		12/15/2018 00:31	
2-Fluorobiphenyl (S)	**105**		**%**	**1**	36-125		12/15/2018 00:31	
p-Terphenyl-d14 (S)	**97**		**%**	**1**	41-138		12/15/2018 00:31	

Lab ID: **J1814055006** Date Received: 12/11/18 13:20 Matrix: Water
Sample ID: **MW-3** Date Collected: 12/11/18 10:54

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
SEMIVOLATILES								
Analysis Desc: 8270C-SIM Analysis, Water	Preparation Method: SW-846 3510C Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.20**	**U**	**ug/L**	**1**	0.20	0.20	12/15/2018 00:58	J
2-Methylnaphthalene	**0.20**	**U**	**ug/L**	**1**	0.20	0.20	12/15/2018 00:58	J

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ANALYTICAL RESULTS

Workorder: J1814055 Permafix Gainesville

Lab ID: **J1814055006** Date Received: 12/11/18 13:20 Matrix: Water

Sample ID: **MW-3** Date Collected: 12/11/18 10:54

Sample Description: Location:

Parameters	Results	Qual	Units	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Acenaphthene	**0.16**	**U**	**ug/L**	**1**	0.20	0.16	12/15/2018 00:58	J
Acenaphthylene	**0.17**	**U**	**ug/L**	**1**	0.20	0.17	12/15/2018 00:58	J
Anthracene	**0.14**	**U**	**ug/L**	**1**	0.20	0.14	12/15/2018 00:58	J
Benzo[a]anthracene	**0.049**	**U**	**ug/L**	**1**	0.20	0.049	12/15/2018 00:58	J
Benzo[a]pyrene	**0.15**	**U**	**ug/L**	**1**	0.20	0.15	12/15/2018 00:58	J
Benzo[b]fluoranthene	**0.050**	**U**	**ug/L**	**1**	0.10	0.050	12/15/2018 00:58	J
Benzo[g,h,i]perylene	**0.19**	**U**	**ug/L**	**1**	0.20	0.19	12/15/2018 00:58	J
Benzo[k]fluoranthene	**0.19**	**U**	**ug/L**	**1**	0.20	0.19	12/15/2018 00:58	J
Chrysene	**0.13**	**U**	**ug/L**	**1**	0.20	0.13	12/15/2018 00:58	J
Dibenzo[a,h]anthracene	**0.095**	**U**	**ug/L**	**1**	0.20	0.095	12/15/2018 00:58	J
Fluoranthene	**0.15**	**U**	**ug/L**	**1**	0.20	0.15	12/15/2018 00:58	J
Fluorene	**0.15**	**U**	**ug/L**	**1**	0.20	0.15	12/15/2018 00:58	J
Indeno(1,2,3-cd)pyrene	**0.045**	**U**	**ug/L**	**1**	0.20	0.045	12/15/2018 00:58	J
Naphthalene	**0.19**	**U**	**ug/L**	**1**	0.20	0.19	12/15/2018 00:58	J
Phenanthrene	**0.16**	**U**	**ug/L**	**1**	0.20	0.16	12/15/2018 00:58	J
Pyrene	**0.14**	**U**	**ug/L**	**1**	0.20	0.14	12/15/2018 00:58	J
Nitrobenzene-d5 (S)	**90**		**%**	**1**	34-139		12/15/2018 00:58	
2-Fluorobiphenyl (S)	**106**		**%**	**1**	36-125		12/15/2018 00:58	
p-Terphenyl-d14 (S)	**99**		**%**	**1**	41-138		12/15/2018 00:58	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: J1814055 Permafix 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.
J4	Estimated Result

LAB QUALIFIERS

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

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QUALITY CONTROL DATA

Workorder: J1814055 Permafix Gainesville

QC Batch: DGMj/2591 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Prepared: 12/13/2018 03:30
Associated Lab Samples: J1814055002, J1814055003, J1814055004

METHOD BLANK: 2935140

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
METALS				
Chromium	ug/L	0.11	0.11	U
Lead	ug/L	0.24	0.24	U

QC Batch: EXTj/2629 Analysis Method: SW-846 8270C
QC Batch Method: SW-846 3510C Prepared: 12/14/2018 10:30
Associated Lab Samples: J1814055002, J1814055003, J1814055004

METHOD BLANK: 2938650

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
Phenol	ug/L	0.54	0.54	U
2-Chlorophenol	ug/L	1.5	1.5	U
2-Methylphenol (o-Cresol)	ug/L	1.5	1.5	U
3+4-Methylphenol(mp-Cresol)	ug/L	1.0	1.0	U
2-Nitrophenol	ug/L	0.63	0.63	U
2,4-Dimethylphenol	ug/L	2.6	2.6	U
Benzoic Acid	ug/L	0.78	0.78	U
2,4-Dichlorophenol	ug/L	0.90	0.90	U
2,6-Dichlorophenol	ug/L	1.3	1.3	U
4-Chloro-3-methylphenol	ug/L	0.63	0.63	U
2,4,6-Trichlorophenol	ug/L	1.4	1.4	U
2,4,5-Trichlorophenol	ug/L	1.3	1.3	U
2,4-Dinitrophenol	ug/L	1.1	1.1	U
4-Nitrophenol	ug/L	2.9	2.9	U
2,3,4,6-Tetrachlorophenol	ug/L	1.3	1.3	U
2-Methyl-4,6-dinitrophenol	ug/L	1.2	1.2	U
Pentachlorophenol	ug/L	0.95	0.95	U
N-Nitrosodimethylamine	ug/L	0.93	0.93	U
2-Picoline (2-Methylpyridine)	ug/L	1.2	1.2	U
Methyl Methanesulfonate	ug/L	0.67	0.67	U
Ethyl methanesulfonate	ug/L	0.91	0.91	U
Aniline	ug/L	0.90	0.90	U
bis(2-Chloroethyl)Ether	ug/L	1.5	1.5	U
1,3-Dichlorobenzene	ug/L	1.0	1.0	U
1,4-Dichlorobenzene	ug/L	2.0	2.0	U

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QUALITY CONTROL DATA

Workorder: J1814055 Permafix Gainesville

METHOD BLANK: 2938650

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dichlorobenzene	ug/L	1.4	1.4	U
Benzyl Alcohol	ug/L	2.4	2.4	U
bis(2-Chloroisopropyl) Ether	ug/L	1.4	1.4	U
Acetophenone	ug/L	1.6	1.6	U
N-Nitrosodi-n-propylamine	ug/L	2.2	2.2	U
Hexachloroethane	ug/L	1.2	1.2	U
Nitrobenzene	ug/L	1.1	1.1	U
N-Nitrosopiperidine	ug/L	1.3	1.3	U
Isophorone	ug/L	1.1	1.1	U
bis(2-Chloroethoxy)methane	ug/L	1.2	1.2	U
1,2,4-Trichlorobenzene	ug/L	0.69	0.69	U
Naphthalene	ug/L	0.048	0.048	U
a,a-Dimethylphenethylamine	ug/L	1.9	1.9	U
4-Chloroaniline	ug/L	0.90	0.90	U
Hexachlorobutadiene	ug/L	1.3	1.3	U
N-Nitrosodi-n-butylamine	ug/L	1.5	1.5	U
2-Methylnaphthalene	ug/L	0.049	0.049	U
1-Methylnaphthalene	ug/L	0.050	0.050	U
Hexachlorocyclopentadiene	ug/L	1.0	1.0	U
1,2,4,5-Tetrachlorobenzene	ug/L	1.3	1.3	U
2-Chloronaphthalene	ug/L	1.7	1.7	U
2-Nitroaniline	ug/L	1.5	1.5	U
Dimethyl phthalate	ug/L	1.8	1.8	U
2,6-Dinitrotoluene (2,6-DNT)	ug/L	2.0	2.0	U
Acenaphthylene	ug/L	0.042	0.042	U
3-Nitroaniline	ug/L	1.1	1.1	U
Acenaphthene	ug/L	0.040	0.040	U
Pentachlorobenzene	ug/L	1.3	1.3	U
Dibenzofuran	ug/L	0.069	0.069	U
2,4-Dinitrotoluene (2,4-DNT)	ug/L	1.8	1.8	U
1-Naphthylamine	ug/L	0.95	0.95	U
2-Naphthylamine	ug/L	0.89	0.89	U
Diethyl phthalate	ug/L	2.1	2.1	U
Fluorene	ug/L	0.038	0.038	U
4-Chlorophenyl Phenyl Ether	ug/L	1.6	1.6	U
4-Nitroaniline	ug/L	1.3	1.3	U
1,2-Diphenylhydrazine	ug/L	0.96	0.96	U
Phenacetin	ug/L	3.2	3.2	U
4-Bromophenyl Phenyl Ether	ug/L	1.1	1.1	U
Hexachlorobenzene	ug/L	0.99	0.99	U
Pentachloronitrobenzene	ug/L	1.7	1.7	U
4-Aminobiphenyl	ug/L	0.61	0.61	U
Pronamide (Kerb)	ug/L	3.6	3.6	U
Phenanthrene	ug/L	0.040	0.040	U
Anthracene	ug/L	0.035	0.035	U

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QUALITY CONTROL DATA

Workorder: J1814055 Permafix Gainesville

METHOD BLANK: 2938650

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Carbazole	ug/L	0.020	0.020	U
Di-n-Butyl Phthalate	ug/L	0.88	0.88	U
Fluoranthene	ug/L	0.037	0.037	U
Benzidine	ug/L	1.2	1.2	U
Pyrene	ug/L	0.036	0.036	U
4-Dimethyl aminoazobenzene	ug/L	0.73	0.73	U
Butyl benzyl phthalate	ug/L	1.1	1.1	U
Benzo[a]anthracene	ug/L	0.012	0.012	U
3,3`-Dichlorobenzidine	ug/L	1.3	1.3	U
Chrysene	ug/L	0.033	0.033	U
bis(2-Ethylhexyl) phthalate	ug/L	2.0	2.0	U
Di-n-octyl Phthalate	ug/L	1.2	1.2	U
Benzo[b]fluoranthene	ug/L	0.012	0.012	U
7,12-Dimethylbenz[a]anthracene	ug/L	1.1	1.1	U
Benzo[k]fluoranthene	ug/L	0.048	0.048	U
Benzo[a]pyrene	ug/L	0.037	0.037	U
3-Methylcholanthrene	ug/L	1.9	1.9	U
Indeno(1,2,3-cd)pyrene	ug/L	0.011	0.011	U
Dibenzo[a,h]anthracene	ug/L	0.024	0.024	U
Benzo[g,h,i]perylene	ug/L	0.048	0.048	U
N-Nitrosodiphenylamine	ug/L	2.1	2.1	U
2-Fluorophenol (S)	%	81	31-134	
Phenol-d6 (S)	%	66	24-120	
Nitrobenzene-d5 (S)	%	89	38-139	
2-Fluorobiphenyl (S)	%	83	42-138	
2,4,6-Tribromophenol (S)	%	91	48-147	
p-Terphenyl-d14 (S)	%	94	61-154	

QC Batch: EXTj/2631 Analysis Method: SW-846 8270C (SIM)

QC Batch Method: SW-846 3510C Prepared: 12/14/2018 15:00

Associated Lab Samples: J1814055001, J1814055005, J1814055006

METHOD BLANK: 2939726

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

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Fax: (904)363-9354

QUALITY CONTROL DATA

Workorder: J1814055 Permafix Gainesville

METHOD BLANK: 2939726

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Fluorene	ug/L	0.15	0.15	U
Phenanthrene	ug/L	0.16	0.16	U
Anthracene	ug/L	0.14	0.14	U
Fluoranthene	ug/L	0.15	0.15	U
Pyrene	ug/L	0.14	0.14	U
Benzo[a]anthracene	ug/L	0.049	0.049	U
Chrysene	ug/L	0.13	0.13	U
Benzo[b]fluoranthene	ug/L	0.050	0.050	U
Benzo[k]fluoranthene	ug/L	0.19	0.19	U
Benzo[a]pyrene	ug/L	0.15	0.15	U
Indeno(1,2,3-cd)pyrene	ug/L	0.045	0.045	U
Dibenzo[a,h]anthracene	ug/L	0.095	0.095	U
Benzo[g,h,i]perylene	ug/L	0.19	0.19	U
Nitrobenzene-d5 (S)	%	93	34-139	
2-Fluorobiphenyl (S)	%	108	36-125	
p-Terphenyl-d14 (S)	%	93	41-138	

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Phone: (904)363-9350
Fax: (904)363-9354

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J1814055 Permafix Gainesville

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
J1814055002	SW-1	EPA 200.8	DGMj/2591	EPA 200.8	ICMj/1613
J1814055003	SW-2	EPA 200.8	DGMj/2591	EPA 200.8	ICMj/1613
J1814055004	SW-3	EPA 200.8	DGMj/2591	EPA 200.8	ICMj/1613
J1814055002	SW-1	SW-846 3510C	EXTj/2629	SW-846 8270C	MSSj/1661
J1814055003	SW-2	SW-846 3510C	EXTj/2629	SW-846 8270C	MSSj/1661
J1814055004	SW-3	SW-846 3510C	EXTj/2629	SW-846 8270C	MSSj/1661
J1814055001	MW-2	SW-846 3510C	EXTj/2631	SW-846 8270C (SIM)	MSSj/1659
J1814055005	MW-1	SW-846 3510C	EXTj/2631	SW-846 8270C (SIM)	MSSj/1659
J1814055006	MW-3	SW-846 3510C	EXTj/2631	SW-846 8270C (SIM)	MSSj/1659

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☐ 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327 • E84589
☐ 6815 SW Archer Road • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6639 • E82001
☐ 528 S. North Lake Blvd., Ste. 1016 • Altamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1597• E53076

J1814055

CLIENT NAME: Trihydro
ADDRESS: 3740 Saint Johns Bluff Rd S, S14
Jacksonville, FL 32224
PHONE: 904-513-9742
FAX:
CONTACT: Bill Kelly
SAMPLED BY: VICKI BIERWIRTH
TURN AROUND TIME: ☑ STANDARD ☐

PROJECT NAME: PERMAFIX GAINESVILLE
P.O. NUMBER/PROJECT NUMBER: 18-430WO-L
PROJECT LOCATION: Gainesville
REMARKS/SPECIAL INSTRUCTIONS:
36109
AEL Project # ~~36116~~ - MS/MSD on _____

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	PRESERVATION	PAHs by 8270-SIM (250mL Amber)	8270 Full List (1L Amber)	Total Cr/Pb (250mL Plastic)	Diss Cr/Pb (Lab Filter) (250mL Plastic)	LABORATORY I.D. NUMBER
								None	None	HNO3	None	
	MW-2	G	12/11/18	0910	GW	1		X				001
	SW-1	G	12/11/18	0930	SW	3			X	X	X	002
	SW-2	G	12/11/18	0940	SW	3			X	X	X	003
	SW-3	G	12/11/18	0950	SW	3			X	X	X	004
	MS/MSD	G	12/11/18	0930	SW	2			X			
	MW-1	G	12/11/18	1025	GW	1		X				005
	MW-3	G	12/11/18	1054	GW	1		X				006
	MS/MSD	G	12/11/18	1025	GW	2		X				

ANALYSIS REQUIRED

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

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

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

Temperature when received 4 (in degrees celcius)

Form revised 2/8/08

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

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Vicki Bierwirth	12/11/18	1320	[illegible]	12-11-18	13:20
2						
3						
4						

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

Trihydro CORPORATION

GROUNDWATER LEVEL DATA FORM

PROJECT INFORMATION

Project & Task #: PERMAFIX GAINESVILLE 6IA-002-001 Date: 12/11/18

LEVEL DATA

Well #	Time	Total Depth	Ref. Elevation	Depth to GW	GW Elevation	Observation/Comments
MW-1	0830	15.08		~~5.~~ 9.02		
MW-2	0828	13.26		5.84		
MW-3	0832	14.95		10.18		

SIGNED INITIALS

Measured by: VICKI BIERWIRTH Date: 12/11/18
Recorded by: VICKI BIERWIRTH Date: 12/11/18
Reviewed by: Date:

EQUIPMENT DESCRIPTION & DECONTAMINATION

Description & S/N: SOLINST MODEL 101 47282
Decontaminate between wells? ☒ Yes or ☐ No
Procedure 4.1.9.1? ☒ Yes or ☐ No Other? (describe)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: PERMAFIX	SITE LOCATION: GAINESVILLE, FL
WELL NO: MW-1	SAMPLE ID:
DATE: 12/11/18	

PURGING DATA

WELL DIAMETER (inches): 1	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 5.08 feet to 15.08 feet	STATIC DEPTH TO WATER (feet): 9.02	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
6.06 = (15.08 feet – 9.02 feet) X 0.04 gallons/foot = 0.2424 gallons

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 11	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12	PURGING INITIATED AT: 1000	PURGING ENDED AT: 1024	TOTAL VOLUME PURGED (gallons): 2.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1003	0.25	.25	0.08	11.00	7.49	17.79	450	0.07	1093	milky	none
1006	0.25	.50	0.08	11.00	7.30	17.63	444	0.13	132		
1009	0.25	.75	0.08	11.00	7.39	18.06	407	0.21	85.5		
1012	0.25	1.00	0.08	11.00	7.30	18.04	461	0.09	40.5		
1015	0.25	1.25	0.08	11.00	7.38	18.03	449	0.09	23.8		
1018	0.25	1.50	0.08	11.00	7.31	18.00	446	0.09	13.6		
1021	0.25	1.75	0.08	11.00	7.36	18.03	449	0.09	9.65		
1024	0.25	2.00	0.08	11.00	7.23	18.00	447	0.09	6.54		

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: VICKI BIERWIRTH / TRIHYDRO	SAMPLER(S) SIGNATURE(S): Vicki Bierwirth	SAMPLING INITIATED AT: 1025	SAMPLING ENDED AT: 1035
PUMP OR TUBING DEPTH IN WELL (feet): 12	TUBING MATERIAL CODE: LDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-1	1	AG	250mL	none			8270	APP	200
MS	1	AG	250mL	none			8270	APP	200
MSD	1	AG	250mL	none			8270	APP	200

REMARKS:
ORP : 52.4

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: PERMAFIX	SITE LOCATION: GAINESVILLE, FL
WELL NO: MW-2	SAMPLE ID:
DATE: 12/11/18	

PURGING DATA

WELL DIAMETER (inches): 1	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 3.26 feet to 13.26 feet	STATIC DEPTH TO WATER (feet): 5.84 ~~13.26~~	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) 7.42 = (13.26 feet – 5.84 feet) X 0.04 gallons/foot = 0.2968 gallons

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 7	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 10	PURGING INITIATED AT: 0848	PURGING ENDED AT: 0900	TOTAL VOLUME PURGED (gallons): 1.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or ~~µS/cm~~	DISSOLVED OXYGEN (circle units) ~~mg/L~~ or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
0854	.50	.50	0.08	9.85	6.96	16.78	218.5	1.33	33.7	clear	none
0857	.25	.75	0.08	9.85	7.09	16.64	216.7	1.30	32.4	"	"
0900	.25	1.00	0.08	9.85	6.98	16.68	202.9	1.31	34.6		

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: VICKI BIERWIRTH/TRIHYDRO	SAMPLER(S) SIGNATURE(S): Vicki Bierwirth	SAMPLING INITIATED AT: 0910	SAMPLING ENDED AT: 0915
PUMP OR TUBING DEPTH IN WELL (feet): 10	TUBING MATERIAL CODE: LDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING (Y) N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-2	1	AG	250mL	none			8270	APP	200

REMARKS:
ORP 45.8

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: PERMAFIX	SITE LOCATION: GAINESVILLE, FL
WELL NO: MW-3	SAMPLE ID:
DATE: 12/11/18	

PURGING DATA

WELL DIAMETER (inches): 1	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 4.95 feet to 14.95 feet	STATIC DEPTH TO WATER (feet): 10.18	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
4.77 = (14.95 feet – 10.18 feet) X 0.04 gallons/foot = 0.19 gallons

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12	PURGING INITIATED AT: 1041	PURGING ENDED AT: 1053	TOTAL VOLUME PURGED (gallons): 1.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1044	0.25	0.25	0.08	11.89	7.40	19.66	463	0.01	45.3	clear	none
1047	0.25	0.50	0.08	11.89	7.38	19.17	457	0.01	15.6	|	|
1050	0.25	0.75	0.08	11.89	7.21	19.06	461	0.01	13.9	|	|
1053	0.25	1.00	0.08	11.89	7.30	19.20	462	0.01	12.4	|	|

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: VICKI BIERNWIRTH / TRIHYDRO	SAMPLER(S) SIGNATURE(S): Vicki Biernwirth	SAMPLING INITIATED AT: 1054	SAMPLING ENDED AT: 1100
PUMP OR TUBING DEPTH IN WELL (feet): 12	TUBING MATERIAL CODE: LDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW 3	1	AG	250mL	none			8270	APP	200

REMARKS:
ORP: 31.4

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

CALIBRATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000

Project/Site: PERMAFIX, GAINESVILLE, FL Date: Meter # YSI 556 MPS

Temperature (Quarterly) *For Date of Last Temperature Verification see* *in log book*

Dissolved Oxygen	DEP SOP FT 1500	Initials	Date	Time	Probe Charge	Probe Gain	mg/L	Temp °C	% DO	Saturation mg/L (from chart)	Pass or Fail
										Acceptance Criteria: +/- 0.3 mg/l	
CAL ICV CCV		VB	12/10/18	1352						8.65	P F
CAL ICV CCV										7.99	P F
CAL ICV CCV											P F
CAL ICV CCV											P F
CAL ICV CCV											P F
CAL ICV CCV											P F
CAL ICV CCV											P F

Specific Conductance	DEP SOP FT 1200	Initials	Date	Time	Standard umhos/cm	Exp. Date	Lot #	Bottle #	Cell Constant	Reading umhos/cm	Pass or Fail
										Acceptance Criteria: +/- 5%	
CAL ICV CCV		VB	12/10/18	1352	1000	5/20	117/1000-E			998.1	P F
CAL ICV CCV										1000	P F
CAL ICV CCV											P F
CAL ICV CCV											P F
CAL ICV CCV											P F
CAL ICV CCV											P F
CAL ICV CCV											P F

pH	DEP SOP FT 1100	Initials	Date	Time	Standard SU	Exp. Date	Lot #	Bottle #	Slope	Reading SU	Pass or Fail
										Acceptance Criteria: +/- 0.2 SU	
CAL ICV CCV		VB	12/10/18	1352	7	1/19	105-E			7.00	P F
CAL ICV CCV										7.01	P F
CAL ICV CCV				1352	4	4/20	104-E			3.96	P F
CAL ICV CCV										3.88	P F
CAL ICV CCV											P F
CAL ICV CCV											P F
CAL ICV CCV											P F
CAL ICV CCV											P F
CAL ICV CCV											P F

Maintenance: Weekly pH Slope: _____ Specific Conductance Probe Cleaned? Yes No Dissolved Oxygen Membrane Changed: Yes No

Notes:

Perform only in Calibrate Mode: **CAL** - Calibrate
Perform only in Run Mode: **ICV** - Initial Calibration Verification
Perform only in Run Mode: **CCV** - Continuing Calibration Verificaiton

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) ~~LaMotte 2000~~ LaMotte 2020 **INSTRUMENT #** _____

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP

☒ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☐ OTHER _____

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A 1

Standard B 10

Standard C _____

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
12/11/18	0810	A	1	1.04		YES	INIT	KB
12/11/18	0810	B	10	9.89		YES	INIT	KB

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January 17, 2019

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

RE: Workorder: J1900538 PF Gainesville

Dear William Kelly:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, January 10, 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,

Paul Gunsaulies - Project Manager
PGunsaulies@AELLab.com

Enclosures

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SAMPLE SUMMARY

Workorder: J1900538 PF Gainesville

Lab ID	Sample ID	Matrix	Date Collected	Date Received
J1900538001	SB9.05	Soil	1/10/2019 08:32	1/10/2019 11:10
J1900538002	SB10.05	Soil	1/10/2019 08:38	1/10/2019 11:10
J1900538003	SB11.05	Soil	1/10/2019 08:48	1/10/2019 11:10

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ANALYTICAL RESULTS

Workorder: J1900538 PF Gainesville

Lab ID: **J1900538001** Date Received: 01/10/19 11:10 Matrix: Soil

Sample ID: **SB9.05** Date Collected: 01/10/19 08:32

Results for sample J1900538001 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.0031**	**U**	**mg/Kg**	**1**	0.0087	0.0031	1/14/2019 19:18	J
2-Methylnaphthalene	**0.0030**	**U**	**mg/Kg**	**1**	0.0087	0.0030	1/14/2019 19:18	J
Acenaphthene	**0.0034**	**U**	**mg/Kg**	**1**	0.0087	0.0034	1/14/2019 19:18	J
Acenaphthylene	**0.0054**	**I**	**mg/Kg**	**1**	0.0087	0.0045	1/14/2019 19:18	J
Anthracene	**0.0046**	**U**	**mg/Kg**	**1**	0.0087	0.0046	1/14/2019 19:18	J
Benzo[a]anthracene	**0.024**		**mg/Kg**	**1**	0.0087	0.0054	1/14/2019 19:18	J
Benzo[a]pyrene	**0.029**		**mg/Kg**	**1**	0.0087	0.0076	1/14/2019 19:18	J
Benzo[b]fluoranthene	**0.042**		**mg/Kg**	**1**	0.0087	0.0055	1/14/2019 19:18	J
Benzo[g,h,i]perylene	**0.028**		**mg/Kg**	**1**	0.0087	0.0062	1/14/2019 19:18	J
Benzo[k]fluoranthene	**0.016**		**mg/Kg**	**1**	0.0087	0.0053	1/14/2019 19:18	J
Chrysene	**0.033**		**mg/Kg**	**1**	0.0087	0.0057	1/14/2019 19:18	J
Dibenzo[a,h]anthracene	**0.0071**	**I**	**mg/Kg**	**1**	0.0087	0.0045	1/14/2019 19:18	J
Fluoranthene	**0.051**		**mg/Kg**	**1**	0.0087	0.0049	1/14/2019 19:18	J
Fluorene	**0.0038**	**U**	**mg/Kg**	**1**	0.0087	0.0038	1/14/2019 19:18	J
Indeno(1,2,3-cd)pyrene	**0.028**		**mg/Kg**	**1**	0.0087	0.0050	1/14/2019 19:18	J
Naphthalene	**0.0031**	**U**	**mg/Kg**	**1**	0.0087	0.0031	1/14/2019 19:18	J
Phenanthrene	**0.014**		**mg/Kg**	**1**	0.0087	0.0040	1/14/2019 19:18	J
Pyrene	**0.045**		**mg/Kg**	**1**	0.0087	0.0053	1/14/2019 19:18	J
Nitrobenzene-d5 (S)	**60**		**%**	**1**	33-134		1/14/2019 19:18	
2-Fluorobiphenyl (S)	**60**		**%**	**1**	37-127		1/14/2019 19:18	
p-Terphenyl-d14 (S)	**102**		**%**	**1**	42-141		1/14/2019 19:18	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**9.0**		**%**	**1**			1/16/2019 18:17	J

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ANALYTICAL RESULTS

Workorder: J1900538 PF Gainesville

Lab ID: **J1900538002** Date Received: 01/10/19 11:10 Matrix: Soil

Sample ID: **SB10.05** Date Collected: 01/10/19 08:38

Results for sample J1900538002 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.0033**	**U**	**mg/Kg**	**1**	0.0093	0.0033	1/14/2019 19:45	J
2-Methylnaphthalene	**0.0074**	**I**	**mg/Kg**	**1**	0.0093	0.0032	1/14/2019 19:45	J
Acenaphthene	**0.0036**	**U**	**mg/Kg**	**1**	0.0093	0.0036	1/14/2019 19:45	J
Acenaphthylene	**0.090**		**mg/Kg**	**1**	0.0093	0.0047	1/14/2019 19:45	J
Anthracene	**0.070**		**mg/Kg**	**1**	0.0093	0.0049	1/14/2019 19:45	J
Benzo[a]anthracene	**0.86**		**mg/Kg**	**1**	0.0093	0.0058	1/14/2019 19:45	J
Benzo[a]pyrene	**0.96**		**mg/Kg**	**1**	0.0093	0.0081	1/14/2019 19:45	J
Benzo[b]fluoranthene	**1.1**		**mg/Kg**	**1**	0.0093	0.0059	1/14/2019 19:45	J
Benzo[g,h,i]perylene	**0.91**		**mg/Kg**	**1**	0.0093	0.0066	1/14/2019 19:45	J
Benzo[k]fluoranthene	**0.35**		**mg/Kg**	**1**	0.0093	0.0056	1/14/2019 19:45	J
Chrysene	**0.94**		**mg/Kg**	**1**	0.0093	0.0060	1/14/2019 19:45	J
Dibenzo[a,h]anthracene	**0.18**		**mg/Kg**	**1**	0.0093	0.0048	1/14/2019 19:45	J
Fluoranthene	**1.7**		**mg/Kg**	**1**	0.0093	0.0053	1/14/2019 19:45	J
Fluorene	**0.011**		**mg/Kg**	**1**	0.0093	0.0041	1/14/2019 19:45	J
Indeno(1,2,3-cd)pyrene	**0.90**		**mg/Kg**	**1**	0.0093	0.0053	1/14/2019 19:45	J
Naphthalene	**0.017**		**mg/Kg**	**1**	0.0093	0.0033	1/14/2019 19:45	J
Phenanthrene	**0.43**		**mg/Kg**	**1**	0.0093	0.0043	1/14/2019 19:45	J
Pyrene	**2.1**		**mg/Kg**	**1**	0.0093	0.0057	1/14/2019 19:45	J
Nitrobenzene-d5 (S)	**75**		**%**	**1**	33-134		1/14/2019 19:45	
2-Fluorobiphenyl (S)	**72**		**%**	**1**	37-127		1/14/2019 19:45	
p-Terphenyl-d14 (S)	**91**		**%**	**1**	42-141		1/14/2019 19:45	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**13**		**%**	**1**			1/16/2019 18:17	J

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ANALYTICAL RESULTS

Workorder: J1900538 PF Gainesville

Lab ID: **J1900538003** Date Received: 01/10/19 11:10 Matrix: Soil

Sample ID: **SB11.05** Date Collected: 01/10/19 08:48

Results for sample J1900538003 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.0063**	**I**	**mg/Kg**	**1**	0.0087	0.0031	1/14/2019 20:13	J
2-Methylnaphthalene	**0.0090**		**mg/Kg**	**1**	0.0087	0.0030	1/14/2019 20:13	J
Acenaphthene	**0.0034**	**U**	**mg/Kg**	**1**	0.0087	0.0034	1/14/2019 20:13	J
Acenaphthylene	**0.10**		**mg/Kg**	**1**	0.0087	0.0045	1/14/2019 20:13	J
Anthracene	**0.067**		**mg/Kg**	**1**	0.0087	0.0046	1/14/2019 20:13	J
Benzo[a]anthracene	**0.24**		**mg/Kg**	**1**	0.0087	0.0054	1/14/2019 20:13	J
Benzo[a]pyrene	**0.36**		**mg/Kg**	**1**	0.0087	0.0076	1/14/2019 20:13	J
Benzo[b]fluoranthene	**0.70**		**mg/Kg**	**1**	0.0087	0.0055	1/14/2019 20:13	J
Benzo[g,h,i]perylene	**0.40**		**mg/Kg**	**1**	0.0087	0.0062	1/14/2019 20:13	J
Benzo[k]fluoranthene	**0.23**		**mg/Kg**	**1**	0.0087	0.0053	1/14/2019 20:13	J
Chrysene	**0.39**		**mg/Kg**	**1**	0.0087	0.0057	1/14/2019 20:13	J
Dibenzo[a,h]anthracene	**0.11**		**mg/Kg**	**1**	0.0087	0.0045	1/14/2019 20:13	J
Fluoranthene	**0.32**		**mg/Kg**	**1**	0.0087	0.0049	1/14/2019 20:13	J
Fluorene	**0.0038**	**U**	**mg/Kg**	**1**	0.0087	0.0038	1/14/2019 20:13	J
Indeno(1,2,3-cd)pyrene	**0.41**		**mg/Kg**	**1**	0.0087	0.0050	1/14/2019 20:13	J
Naphthalene	**0.0094**		**mg/Kg**	**1**	0.0087	0.0031	1/14/2019 20:13	J
Phenanthrene	**0.032**		**mg/Kg**	**1**	0.0087	0.0040	1/14/2019 20:13	J
Pyrene	**0.33**		**mg/Kg**	**1**	0.0087	0.0053	1/14/2019 20:13	J
Nitrobenzene-d5 (S)	**67**		**%**	**1**	33-134		1/14/2019 20:13	
2-Fluorobiphenyl (S)	**65**		**%**	**1**	37-127		1/14/2019 20:13	
p-Terphenyl-d14 (S)	**89**		**%**	**1**	42-141		1/14/2019 20:13	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**8.7**		**%**	**1**			1/16/2019 18:17	J

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ANALYTICAL RESULTS QUALIFIERS

Workorder: J1900538 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: J1900538 PF Gainesville

QC Batch:	EXTj/2751	Analysis Method:	SW-846 8270C (SIM)
QC Batch Method:	SW-846 3550B	Prepared:	01/14/2019 11:00

Associated Lab Samples: J1900538001, J1900538002, J1900538003

METHOD BLANK: 2965129

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
Naphthalene	mg/Kg	0.0029	0.0029	U
2-Methylnaphthalene	mg/Kg	0.0028	0.0028	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	0.0049	0.0049	U
Benzo[a]pyrene	mg/Kg	0.0070	0.0070	U
Indeno(1,2,3-cd)pyrene	mg/Kg	0.0046	0.0046	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)	%	95	33-134	
2-Fluorobiphenyl (S)	%	88	37-127	
p-Terphenyl-d14 (S)	%	111	42-141	

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J1900538 PF Gainesville

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
J1900538001	SB9.05	SW-846 3550B	EXTj/2751	SW-846 8270C (SIM)	MSSj/1707
J1900538002	SB10.05	SW-846 3550B	EXTj/2751	SW-846 8270C (SIM)	MSSj/1707
J1900538003	SB11.05	SW-846 3550B	EXTj/2751	SW-846 8270C (SIM)	MSSj/1707
J1900538001	SB9.05			SM 2540G	WCAj/3964
J1900538002	SB10.05			SM 2540G	WCAj/3964
J1900538003	SB11.05			SM 2540G	WCAj/3964

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LAB NUMBER

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9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327 • E84589
6815 SW Archer Road • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6639 • E82001
528 S. North Lake Blvd., Ste. 1015 • Altamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1597 • E53075

* J1900538 *

CLIENT NAME: Trihydro
ADDRESS: 3740 Saint Johns Bluff Rd S, S14
Jacksonville, FL 32224
PHONE: 904-513-9742
FAX:
CONTACT: Bill Kelly
SAMPLED BY: VICKI BIERWIRTH
TURN AROUND TIME:
☑ STANDARD ☐

PROJECT NAME: PF Gainesville
P.O. NUMBER/PROJECT NUMBER: 61A-002-001
PROJECT LOCATION: GAINESVILLE, FL
REMARKS/SPECIAL INSTRUCTIONS:
AEL Profile #36109

ANALYSIS REQUIRED

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	PRESERVATION	BOTTLE SIZE & TYPE: 8oz Soil Jar	LABORATORY I.D. NUMBER
								PAHs by 8270-SIM	
								None	
	SB9.05	G	1/10/19	0832	SO	1		X	001
	SB10.05	G	1/10/19	0838	SO	1		X	002
	SB11.05	G	1/10/19	0845	SO	1		X	003

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

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

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

Temperature when received 4 (in degrees celcius)

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

Form revised 2/8/08

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Vicki Bierwirth	1/10/19	1110	Bryan	1-10-19	1110
2						
3						
4						

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

OVA HEADSPACE DATA FORM

Trihydro CORPORATION

PROJECT INFORMATION

Project No. 61A-002-001 PERMA FIX

INSTRUMENT DESCRIPTION

Description MiniRAE 2000 | Serial No. 010893

DATA

Location Description	Time	Depth (feet)	Bkg (ppm)	Unfiltered Total Bkg (ppm)	Filtered Meth-Bkg (ppm)	Net Organic Vapor	Comments
SB9.05	0838	~~0.0~~ 0.5' bgs		0	0	0	
SB10.05	0842	0.5' bgs		0	0	0	
SB11.05	0854	0.5' bgs		0	0	0	

Note: Bkg = background. Meth = methane. ppm = part per million

SIGNATURES (Signed Initials)

Sampled by: VICKI BIERWIRTH | Date: 1/10/19

Reviewed by: | Date:

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) Mini RAE 2000 **INSTRUMENT #** 010893

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP

☐ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☐ OTHER _____

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A 0

Standard B 100 ppm

Standard C _____

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
19/01/10	0800	A	0	0		YES	INIT	VB
19/01/10	0820	B	100	99.9		YES	INIT	VB

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February 12, 2019

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

RE: Workorder: J1901563 PF Gainesville

Dear William Kelly:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, February 05, 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,

Paul Gunsaulies - Project Manager
PGunsaulies@AELLab.com

Enclosures

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SAMPLE SUMMARY

Workorder: J1901563 PF Gainesville

Lab ID	Sample ID	Matrix	Date Collected	Date Received
J1901563001	SB9.2	Soil	2/5/2019 08:42	2/5/2019 11:40
J1901563002	SB10.2	Soil	2/5/2019 08:32	2/5/2019 11:40
J1901563003	SB10.4	Soil	2/5/2019 08:56	2/5/2019 11:40
J1901563004	SB12.05	Soil	2/5/2019 09:08	2/5/2019 11:40
J1901563005	SB12.2	Soil	2/5/2019 09:10	2/5/2019 11:40
J1901563006	SB13.05	Soil	2/5/2019 09:19	2/5/2019 11:40
J1901563007	SB13.2	Soil	2/5/2019 09:22	2/5/2019 11:40

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ANALYTICAL RESULTS

Workorder: J1901563 PF Gainesville

Lab ID: **J1901563001** Date Received: 02/05/19 11:40 Matrix: Soil

Sample ID: **SB9.2** Date Collected: 02/05/19 08:42

Results for sample J1901563001 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.0031**	**U**	**mg/Kg**	**1**	0.0089	0.0031	2/11/2019 02:25	J
2-Methylnaphthalene	**0.0067**	**I**	**mg/Kg**	**1**	0.0089	0.0031	2/11/2019 02:25	J
Acenaphthene	**0.0034**	**U**	**mg/Kg**	**1**	0.0089	0.0034	2/11/2019 02:25	J
Acenaphthylene	**0.027**		**mg/Kg**	**1**	0.0089	0.0046	2/11/2019 02:25	J
Anthracene	**0.019**		**mg/Kg**	**1**	0.0089	0.0047	2/11/2019 02:25	J
Benzo[a]anthracene	**0.052**		**mg/Kg**	**1**	0.0089	0.0055	2/11/2019 02:25	J
Benzo[a]pyrene	**0.10**		**mg/Kg**	**1**	0.0089	0.0078	2/11/2019 02:25	J
Benzo[b]fluoranthene	**0.12**		**mg/Kg**	**1**	0.0089	0.0057	2/11/2019 02:25	J
Benzo[g,h,i]perylene	**0.13**		**mg/Kg**	**1**	0.0089	0.0063	2/11/2019 02:25	J
Benzo[k]fluoranthene	**0.054**		**mg/Kg**	**1**	0.0089	0.0054	2/11/2019 02:25	J
Chrysene	**0.096**		**mg/Kg**	**1**	0.0089	0.0058	2/11/2019 02:25	J
Dibenzo[a,h]anthracene	**0.030**		**mg/Kg**	**1**	0.0089	0.0046	2/11/2019 02:25	J
Fluoranthene	**0.13**		**mg/Kg**	**1**	0.0089	0.0051	2/11/2019 02:25	J
Fluorene	**0.0039**	**U**	**mg/Kg**	**1**	0.0089	0.0039	2/11/2019 02:25	J
Indeno(1,2,3-cd)pyrene	**0.10**		**mg/Kg**	**1**	0.0089	0.0051	2/11/2019 02:25	J
Naphthalene	**0.0078**	**I**	**mg/Kg**	**1**	0.0089	0.0032	2/11/2019 02:25	J
Phenanthrene	**0.057**		**mg/Kg**	**1**	0.0089	0.0041	2/11/2019 02:25	J
Pyrene	**0.12**		**mg/Kg**	**1**	0.0089	0.0055	2/11/2019 02:25	J
Nitrobenzene-d5 (S)	**77**		**%**	**1**	33-134		2/11/2019 02:25	
2-Fluorobiphenyl (S)	**73**		**%**	**1**	37-127		2/11/2019 02:25	
p-Terphenyl-d14 (S)	**106**		**%**	**1**	42-141		2/11/2019 02:25	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**10**		**%**	**1**			2/7/2019 12:25	J

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ANALYTICAL RESULTS

Workorder: J1901563 PF Gainesville

Lab ID: **J1901563002** Date Received: 02/05/19 11:40 Matrix: Soil

Sample ID: **SB10.2** Date Collected: 02/05/19 08:32

Results for sample J1901563002 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.0029**	**U**	**mg/Kg**	**1**	0.0084	0.0029	2/11/2019 02:53	J
2-Methylnaphthalene	**0.0029**	**U**	**mg/Kg**	**1**	0.0084	0.0029	2/11/2019 02:53	J
Acenaphthene	**0.0032**	**U**	**mg/Kg**	**1**	0.0084	0.0032	2/11/2019 02:53	J
Acenaphthylene	**0.0043**	**U**	**mg/Kg**	**1**	0.0084	0.0043	2/11/2019 02:53	J
Anthracene	**0.0045**	**U**	**mg/Kg**	**1**	0.0084	0.0045	2/11/2019 02:53	J
Benzo[a]anthracene	**0.0052**	**U**	**mg/Kg**	**1**	0.0084	0.0052	2/11/2019 02:53	J
Benzo[a]pyrene	**0.0074**	**U**	**mg/Kg**	**1**	0.0084	0.0074	2/11/2019 02:53	J
Benzo[b]fluoranthene	**0.0053**	**U**	**mg/Kg**	**1**	0.0084	0.0053	2/11/2019 02:53	J
Benzo[g,h,i]perylene	**0.0060**	**U**	**mg/Kg**	**1**	0.0084	0.0060	2/11/2019 02:53	J
Benzo[k]fluoranthene	**0.0051**	**U**	**mg/Kg**	**1**	0.0084	0.0051	2/11/2019 02:53	J
Chrysene	**0.0055**	**U**	**mg/Kg**	**1**	0.0084	0.0055	2/11/2019 02:53	J
Dibenzo[a,h]anthracene	**0.0044**	**U**	**mg/Kg**	**1**	0.0084	0.0044	2/11/2019 02:53	J
Fluoranthene	**0.0048**	**U**	**mg/Kg**	**1**	0.0084	0.0048	2/11/2019 02:53	J
Fluorene	**0.0037**	**U**	**mg/Kg**	**1**	0.0084	0.0037	2/11/2019 02:53	J
Indeno(1,2,3-cd)pyrene	**0.0048**	**U**	**mg/Kg**	**1**	0.0084	0.0048	2/11/2019 02:53	J
Naphthalene	**0.0030**	**U**	**mg/Kg**	**1**	0.0084	0.0030	2/11/2019 02:53	J
Phenanthrene	**0.0039**	**U**	**mg/Kg**	**1**	0.0084	0.0039	2/11/2019 02:53	J
Pyrene	**0.0051**	**U**	**mg/Kg**	**1**	0.0084	0.0051	2/11/2019 02:53	J
Nitrobenzene-d5 (S)	**77**		**%**	**1**	33-134		2/11/2019 02:53	
2-Fluorobiphenyl (S)	**75**		**%**	**1**	37-127		2/11/2019 02:53	
p-Terphenyl-d14 (S)	**111**		**%**	**1**	42-141		2/11/2019 02:53	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**5.1**		**%**	**1**			2/7/2019 12:25	J

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ANALYTICAL RESULTS

Workorder: J1901563 PF Gainesville

Lab ID: **J1901563003** Date Received: 02/05/19 11:40 Matrix: Soil

Sample ID: **SB10.4** Date Collected: 02/05/19 08:56

Results for sample J1901563003 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.0030**	**U**	**mg/Kg**	**1**	0.0085	0.0030	2/11/2019 03:21	J
2-Methylnaphthalene	**0.0029**	**U**	**mg/Kg**	**1**	0.0085	0.0029	2/11/2019 03:21	J
Acenaphthene	**0.0033**	**U**	**mg/Kg**	**1**	0.0085	0.0033	2/11/2019 03:21	J
Acenaphthylene	**0.0043**	**U**	**mg/Kg**	**1**	0.0085	0.0043	2/11/2019 03:21	J
Anthracene	**0.0045**	**U**	**mg/Kg**	**1**	0.0085	0.0045	2/11/2019 03:21	J
Benzo[a]anthracene	**0.0053**	**U**	**mg/Kg**	**1**	0.0085	0.0053	2/11/2019 03:21	J
Benzo[a]pyrene	**0.0074**	**U**	**mg/Kg**	**1**	0.0085	0.0074	2/11/2019 03:21	J
Benzo[b]fluoranthene	**0.0054**	**U**	**mg/Kg**	**1**	0.0085	0.0054	2/11/2019 03:21	J
Benzo[g,h,i]perylene	**0.0060**	**U**	**mg/Kg**	**1**	0.0085	0.0060	2/11/2019 03:21	J
Benzo[k]fluoranthene	**0.0052**	**U**	**mg/Kg**	**1**	0.0085	0.0052	2/11/2019 03:21	J
Chrysene	**0.0055**	**U**	**mg/Kg**	**1**	0.0085	0.0055	2/11/2019 03:21	J
Dibenzo[a,h]anthracene	**0.0044**	**U**	**mg/Kg**	**1**	0.0085	0.0044	2/11/2019 03:21	J
Fluoranthene	**0.0048**	**U**	**mg/Kg**	**1**	0.0085	0.0048	2/11/2019 03:21	J
Fluorene	**0.0037**	**U**	**mg/Kg**	**1**	0.0085	0.0037	2/11/2019 03:21	J
Indeno(1,2,3-cd)pyrene	**0.0048**	**U**	**mg/Kg**	**1**	0.0085	0.0048	2/11/2019 03:21	J
Naphthalene	**0.0030**	**U**	**mg/Kg**	**1**	0.0085	0.0030	2/11/2019 03:21	J
Phenanthrene	**0.0039**	**U**	**mg/Kg**	**1**	0.0085	0.0039	2/11/2019 03:21	J
Pyrene	**0.0052**	**U**	**mg/Kg**	**1**	0.0085	0.0052	2/11/2019 03:21	J
Nitrobenzene-d5 (S)	**76**		**%**	**1**	33-134		2/11/2019 03:21	
2-Fluorobiphenyl (S)	**75**		**%**	**1**	37-127		2/11/2019 03:21	
p-Terphenyl-d14 (S)	**111**		**%**	**1**	42-141		2/11/2019 03:21	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**5.5**		**%**	**1**			2/7/2019 12:25	J

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ANALYTICAL RESULTS

Workorder: J1901563 PF Gainesville

Lab ID: **J1901563004** Date Received: 02/05/19 11:40 Matrix: Soil

Sample ID: **SB12.05** Date Collected: 02/05/19 09:08

Results for sample J1901563004 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.0031**	**U**	**mg/Kg**	**1**	0.0088	0.0031	2/11/2019 03:49	J
2-Methylnaphthalene	**0.0030**	**U**	**mg/Kg**	**1**	0.0088	0.0030	2/11/2019 03:49	J
Acenaphthene	**0.0034**	**U**	**mg/Kg**	**1**	0.0088	0.0034	2/11/2019 03:49	J
Acenaphthylene	**0.0045**	**U**	**mg/Kg**	**1**	0.0088	0.0045	2/11/2019 03:49	J
Anthracene	**0.0060**	**I**	**mg/Kg**	**1**	0.0088	0.0047	2/11/2019 03:49	J
Benzo[a]anthracene	**0.022**		**mg/Kg**	**1**	0.0088	0.0055	2/11/2019 03:49	J
Benzo[a]pyrene	**0.039**		**mg/Kg**	**1**	0.0088	0.0077	2/11/2019 03:49	J
Benzo[b]fluoranthene	**0.061**		**mg/Kg**	**1**	0.0088	0.0056	2/11/2019 03:49	J
Benzo[g,h,i]perylene	**0.043**		**mg/Kg**	**1**	0.0088	0.0063	2/11/2019 03:49	J
Benzo[k]fluoranthene	**0.029**		**mg/Kg**	**1**	0.0088	0.0054	2/11/2019 03:49	J
Chrysene	**0.038**		**mg/Kg**	**1**	0.0088	0.0058	2/11/2019 03:49	J
Dibenzo[a,h]anthracene	**0.012**		**mg/Kg**	**1**	0.0088	0.0046	2/11/2019 03:49	J
Fluoranthene	**0.043**		**mg/Kg**	**1**	0.0088	0.0050	2/11/2019 03:49	J
Fluorene	**0.0039**	**U**	**mg/Kg**	**1**	0.0088	0.0039	2/11/2019 03:49	J
Indeno(1,2,3-cd)pyrene	**0.042**		**mg/Kg**	**1**	0.0088	0.0050	2/11/2019 03:49	J
Naphthalene	**0.0032**	**U**	**mg/Kg**	**1**	0.0088	0.0032	2/11/2019 03:49	J
Phenanthrene	**0.0058**	**I**	**mg/Kg**	**1**	0.0088	0.0041	2/11/2019 03:49	J
Pyrene	**0.034**		**mg/Kg**	**1**	0.0088	0.0054	2/11/2019 03:49	J
Nitrobenzene-d5 (S)	**77**		**%**	**1**	33-134		2/11/2019 03:49	
2-Fluorobiphenyl (S)	**77**		**%**	**1**	37-127		2/11/2019 03:49	
p-Terphenyl-d14 (S)	**110**		**%**	**1**	42-141		2/11/2019 03:49	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**9.2**		**%**	**1**			2/7/2019 12:25	J

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ANALYTICAL RESULTS

Workorder: J1901563 PF Gainesville

Lab ID: **J1901563005** Date Received: 02/05/19 11:40 Matrix: Soil

Sample ID: **SB12.2** Date Collected: 02/05/19 09:10

Results for sample J1901563005 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.0031**	**U**	**mg/Kg**	**1**	0.0088	0.0031	2/11/2019 04:16	J
2-Methylnaphthalene	**0.0030**	**U**	**mg/Kg**	**1**	0.0088	0.0030	2/11/2019 04:16	J
Acenaphthene	**0.0034**	**U**	**mg/Kg**	**1**	0.0088	0.0034	2/11/2019 04:16	J
Acenaphthylene	**0.0045**	**U**	**mg/Kg**	**1**	0.0088	0.0045	2/11/2019 04:16	J
Anthracene	**0.0047**	**U**	**mg/Kg**	**1**	0.0088	0.0047	2/11/2019 04:16	J
Benzo[a]anthracene	**0.0055**	**U**	**mg/Kg**	**1**	0.0088	0.0055	2/11/2019 04:16	J
Benzo[a]pyrene	**0.0077**	**U**	**mg/Kg**	**1**	0.0088	0.0077	2/11/2019 04:16	J
Benzo[b]fluoranthene	**0.0056**	**U**	**mg/Kg**	**1**	0.0088	0.0056	2/11/2019 04:16	J
Benzo[g,h,i]perylene	**0.0063**	**U**	**mg/Kg**	**1**	0.0088	0.0063	2/11/2019 04:16	J
Benzo[k]fluoranthene	**0.0054**	**U**	**mg/Kg**	**1**	0.0088	0.0054	2/11/2019 04:16	J
Chrysene	**0.0058**	**U**	**mg/Kg**	**1**	0.0088	0.0058	2/11/2019 04:16	J
Dibenzo[a,h]anthracene	**0.0046**	**U**	**mg/Kg**	**1**	0.0088	0.0046	2/11/2019 04:16	J
Fluoranthene	**0.0050**	**U**	**mg/Kg**	**1**	0.0088	0.0050	2/11/2019 04:16	J
Fluorene	**0.0039**	**U**	**mg/Kg**	**1**	0.0088	0.0039	2/11/2019 04:16	J
Indeno(1,2,3-cd)pyrene	**0.0050**	**U**	**mg/Kg**	**1**	0.0088	0.0050	2/11/2019 04:16	J
Naphthalene	**0.0032**	**U**	**mg/Kg**	**1**	0.0088	0.0032	2/11/2019 04:16	J
Phenanthrene	**0.0041**	**U**	**mg/Kg**	**1**	0.0088	0.0041	2/11/2019 04:16	J
Pyrene	**0.0054**	**U**	**mg/Kg**	**1**	0.0088	0.0054	2/11/2019 04:16	J
Nitrobenzene-d5 (S)	**73**		**%**	**1**	33-134		2/11/2019 04:16	
2-Fluorobiphenyl (S)	**69**		**%**	**1**	37-127		2/11/2019 04:16	
p-Terphenyl-d14 (S)	**103**		**%**	**1**	42-141		2/11/2019 04:16	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**9.3**		**%**	**1**			2/7/2019 12:25	J

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ANALYTICAL RESULTS

Workorder: J1901563 PF Gainesville

Lab ID: **J1901563006** Date Received: 02/05/19 11:40 Matrix: Soil

Sample ID: **SB13.05** Date Collected: 02/05/19 09:19

Results for sample J1901563006 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.0030**	**U**	**mg/Kg**	**1**	0.0086	0.0030	2/11/2019 04:44	J
2-Methylnaphthalene	**0.0029**	**U**	**mg/Kg**	**1**	0.0086	0.0029	2/11/2019 04:44	J
Acenaphthene	**0.0061**	**I**	**mg/Kg**	**1**	0.0086	0.0033	2/11/2019 04:44	J
Acenaphthylene	**0.0044**	**U**	**mg/Kg**	**1**	0.0086	0.0044	2/11/2019 04:44	J
Anthracene	**0.024**		**mg/Kg**	**1**	0.0086	0.0045	2/11/2019 04:44	J
Benzo[a]anthracene	**0.040**		**mg/Kg**	**1**	0.0086	0.0053	2/11/2019 04:44	J
Benzo[a]pyrene	**0.043**		**mg/Kg**	**1**	0.0086	0.0075	2/11/2019 04:44	J
Benzo[b]fluoranthene	**0.056**		**mg/Kg**	**1**	0.0086	0.0054	2/11/2019 04:44	J
Benzo[g,h,i]perylene	**0.038**		**mg/Kg**	**1**	0.0086	0.0061	2/11/2019 04:44	J
Benzo[k]fluoranthene	**0.026**		**mg/Kg**	**1**	0.0086	0.0052	2/11/2019 04:44	J
Chrysene	**0.048**		**mg/Kg**	**1**	0.0086	0.0056	2/11/2019 04:44	J
Dibenzo[a,h]anthracene	**0.011**		**mg/Kg**	**1**	0.0086	0.0044	2/11/2019 04:44	J
Fluoranthene	**0.11**		**mg/Kg**	**1**	0.0086	0.0049	2/11/2019 04:44	J
Fluorene	**0.0058**	**I**	**mg/Kg**	**1**	0.0086	0.0038	2/11/2019 04:44	J
Indeno(1,2,3-cd)pyrene	**0.037**		**mg/Kg**	**1**	0.0086	0.0049	2/11/2019 04:44	J
Naphthalene	**0.0031**	**U**	**mg/Kg**	**1**	0.0086	0.0031	2/11/2019 04:44	J
Phenanthrene	**0.065**		**mg/Kg**	**1**	0.0086	0.0040	2/11/2019 04:44	J
Pyrene	**0.065**		**mg/Kg**	**1**	0.0086	0.0053	2/11/2019 04:44	J
Nitrobenzene-d5 (S)	**74**		**%**	**1**	33-134		2/11/2019 04:44	
2-Fluorobiphenyl (S)	**73**		**%**	**1**	37-127		2/11/2019 04:44	
p-Terphenyl-d14 (S)	**103**		**%**	**1**	42-141		2/11/2019 04:44	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**6.8**		**%**	**1**			2/7/2019 12:25	J

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ANALYTICAL RESULTS

Workorder: J1901563 PF Gainesville

Lab ID: **J1901563007** Date Received: 02/05/19 11:40 Matrix: Soil

Sample ID: **SB13.2** Date Collected: 02/05/19 09:22

Results for sample J1901563007 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 Analysis, Soil	Preparation Method: SW-846 3550B Analytical Method: SW-846 8270C (SIM)							
1-Methylnaphthalene	**0.0030**	**U**	**mg/Kg**	**1**	0.0085	0.0030	2/11/2019 05:12	J
2-Methylnaphthalene	**0.0029**	**U**	**mg/Kg**	**1**	0.0085	0.0029	2/11/2019 05:12	J
Acenaphthene	**0.0033**	**U**	**mg/Kg**	**1**	0.0085	0.0033	2/11/2019 05:12	J
Acenaphthylene	**0.0043**	**U**	**mg/Kg**	**1**	0.0085	0.0043	2/11/2019 05:12	J
Anthracene	**0.0045**	**U**	**mg/Kg**	**1**	0.0085	0.0045	2/11/2019 05:12	J
Benzo[a]anthracene	**0.0053**	**U**	**mg/Kg**	**1**	0.0085	0.0053	2/11/2019 05:12	J
Benzo[a]pyrene	**0.0074**	**U**	**mg/Kg**	**1**	0.0085	0.0074	2/11/2019 05:12	J
Benzo[b]fluoranthene	**0.0054**	**U**	**mg/Kg**	**1**	0.0085	0.0054	2/11/2019 05:12	J
Benzo[g,h,i]perylene	**0.0060**	**U**	**mg/Kg**	**1**	0.0085	0.0060	2/11/2019 05:12	J
Benzo[k]fluoranthene	**0.0052**	**U**	**mg/Kg**	**1**	0.0085	0.0052	2/11/2019 05:12	J
Chrysene	**0.0055**	**U**	**mg/Kg**	**1**	0.0085	0.0055	2/11/2019 05:12	J
Dibenzo[a,h]anthracene	**0.0044**	**U**	**mg/Kg**	**1**	0.0085	0.0044	2/11/2019 05:12	J
Fluoranthene	**0.0048**	**U**	**mg/Kg**	**1**	0.0085	0.0048	2/11/2019 05:12	J
Fluorene	**0.0037**	**U**	**mg/Kg**	**1**	0.0085	0.0037	2/11/2019 05:12	J
Indeno(1,2,3-cd)pyrene	**0.0048**	**U**	**mg/Kg**	**1**	0.0085	0.0048	2/11/2019 05:12	J
Naphthalene	**0.0031**	**U**	**mg/Kg**	**1**	0.0085	0.0031	2/11/2019 05:12	J
Phenanthrene	**0.0039**	**U**	**mg/Kg**	**1**	0.0085	0.0039	2/11/2019 05:12	J
Pyrene	**0.0052**	**U**	**mg/Kg**	**1**	0.0085	0.0052	2/11/2019 05:12	J
Nitrobenzene-d5 (S)	**73**		**%**	**1**	33-134		2/11/2019 05:12	
2-Fluorobiphenyl (S)	**69**		**%**	**1**	37-127		2/11/2019 05:12	
p-Terphenyl-d14 (S)	**103**		**%**	**1**	42-141		2/11/2019 05:12	
SEMIVOLATILES								
Analysis Desc: Percent Solids,SM2540G,Soil	Analytical Method: SM 2540G							
Percent Moisture	**5.7**		**%**	**1**			2/7/2019 12:25	J

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ANALYTICAL RESULTS QUALIFIERS

Workorder: J1901563 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: J1901563 PF Gainesville

QC Batch:	EXTj/2850	Analysis Method:	SW-846 8270C (SIM)
QC Batch Method:	SW-846 3550B	Prepared:	02/06/2019 13:30

Associated Lab Samples: J1901563001, J1901563002, J1901563003, J1901563004, J1901563005, J1901563006, J1901563007

METHOD BLANK: 2989501

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
SEMIVOLATILES				
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	0.0049	0.0049	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)	%	66	33-134	
2-Fluorobiphenyl (S)	%	67	37-127	
p-Terphenyl-d14 (S)	%	107	42-141	

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J1901563 PF Gainesville

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
J1901563001	SB9.2	SW-846 3550B	EXTj/2850	SW-846 8270C (SIM)	MSSj/1748
J1901563002	SB10.2	SW-846 3550B	EXTj/2850	SW-846 8270C (SIM)	MSSj/1748
J1901563003	SB10.4	SW-846 3550B	EXTj/2850	SW-846 8270C (SIM)	MSSj/1748
J1901563004	SB12.05	SW-846 3550B	EXTj/2850	SW-846 8270C (SIM)	MSSj/1748
J1901563005	SB12.2	SW-846 3550B	EXTj/2850	SW-846 8270C (SIM)	MSSj/1748
J1901563006	SB13.05	SW-846 3550B	EXTj/2850	SW-846 8270C (SIM)	MSSj/1748
J1901563007	SB13.2	SW-846 3550B	EXTj/2850	SW-846 8270C (SIM)	MSSj/1748
J1901563001	SB9.2			SM 2540G	WCAj/4131
J1901563002	SB10.2			SM 2540G	WCAj/4131
J1901563003	SB10.4			SM 2540G	WCAj/4131
J1901563004	SB12.05			SM 2540G	WCAj/4131
J1901563005	SB12.2			SM 2540G	WCAj/4131
J1901563006	SB13.05			SM 2540G	WCAj/4131
J1901563007	SB13.2			SM 2540G	WCAj/4131

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9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327 • E84589
6815 SW Archer Road • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6639 • E82001
528 S. North Lake Blvd., Ste. 1016 • Altamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1597 • E53076

J1901563

CLIENT NAME: Trihydro
ADDRESS: 3740 Saint Johns Bluff Rd S, S14
Jacksonville, FL 32224
PHONE: 904-513-9742
FAX:
CONTACT: Bill Kelly
SAMPLED BY: VICKI BIERWIRTH
TURN AROUND TIME: ☑ STANDARD ☐

PROJECT NAME: PF Gainesville
P.O. NUMBER/PROJECT NUMBER: 6IA-002-001
PROJECT LOCATION: GAINESVILLE, FL
REMARKS/SPECIAL INSTRUCTIONS:
AEL Profile #36109

ANALYSIS REQUIRED

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	PRESERVATION	BOTTLE SIZE & TYPE: 8oz Soil Jar – PAHs by 8270-SIM	LABORATORY I.D. NUMBER
								None	
~~SB9.2~~ (B)	SB9.2	G	2/5/19	0842	SO	1		X	001
	SB10.2	G	2/5/19	0837	SO	1		X	002
	SB10.4	G	2/5/19	0856 ~~0857~~ (B)	SO	1		X	003
	SB12.05	G	2/5/19	0908	SO	1		X	004
	SB12.2	G	~~2/5/19~~ 2/5/19	0910	SO	1		X	005
	SB13.05	G	2/5/19	0919	SO	1		X	006
	SB13.2	G	2/5/19	0922	SO	1		X	007

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

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

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

Temperature when received 4 (in degrees celcius)

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

Form revised 2/8/08

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Vicki Bierwirth	2/5/19	1140	[illegible]	2-5-19	11:40
2						
3						
4						

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

OVA HEADSPACE DATA FORM

Trihydro CORPORATION

PROJECT INFORMATION

Project No. 61A-002-001 Permafix

INSTRUMENT DESCRIPTION

Description mini RAE 2000 | Serial No. NO-012725

DATA

Location Description	Time	Depth (feet)	Bkg (ppm)	Unfiltered Total Bkg (ppm)	Filtered Meth-Bkg (ppm)	Net Organic Vapor	Comments
SB10.2	0857 ~~0847~~	2		0	0	0	
SB10.4	0902 ~~0857~~	4		0	0	0	
SB9.2	0847	2		0	0	0	
SB12.05	0911	0.5		0	0	0	
SB12.2	0913	2		0	0	0	
SB13.05	0922	0.5		0	0	0	
SB13.2	0926	2		0	0	0	

Note: Bkg = background. Meth = methane. ppm = part per million

SIGNATURES (Signed Initials)

Sampled by: Victoria Brownsmith | Date: 2/5/19

Reviewed by: | Date:

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) mini RAE 2000 **INSTRUMENT #** 110-012725

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP

☐ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☐ OTHER _____

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A 0

Standard B 100 ppm

Standard C _____

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
19/02/05	0530	A	0	0		YES	INIT	VB
19/02/05	0530	B	100	100		YES	INIT	VB