APPENDIX C

2013 POTABLE WELL SURVEY

Potable Well Survey

Florida Department of Health Bureau of Water Programs

Facility ID: **8628726**
Request: 56448
Name: DADE SCHOOL DIST
Address: 7011 SW 4 ST
MIAMI, FL 33144

County:
DADE

GPS Date / Method: 6/26/2012 DGPS OFFS
Decimal Degrees: 25.768068 -80.30921
Deg Min Sec: 25 46 5.0448 80 18 33.1560

Large (>150,000 gpd) Public Supply Wells within 1/2 mile: 0
Small potable wells within 1/4 mile: 0

Sent to CHD: 4/11/2012
Received: 7/6/2012

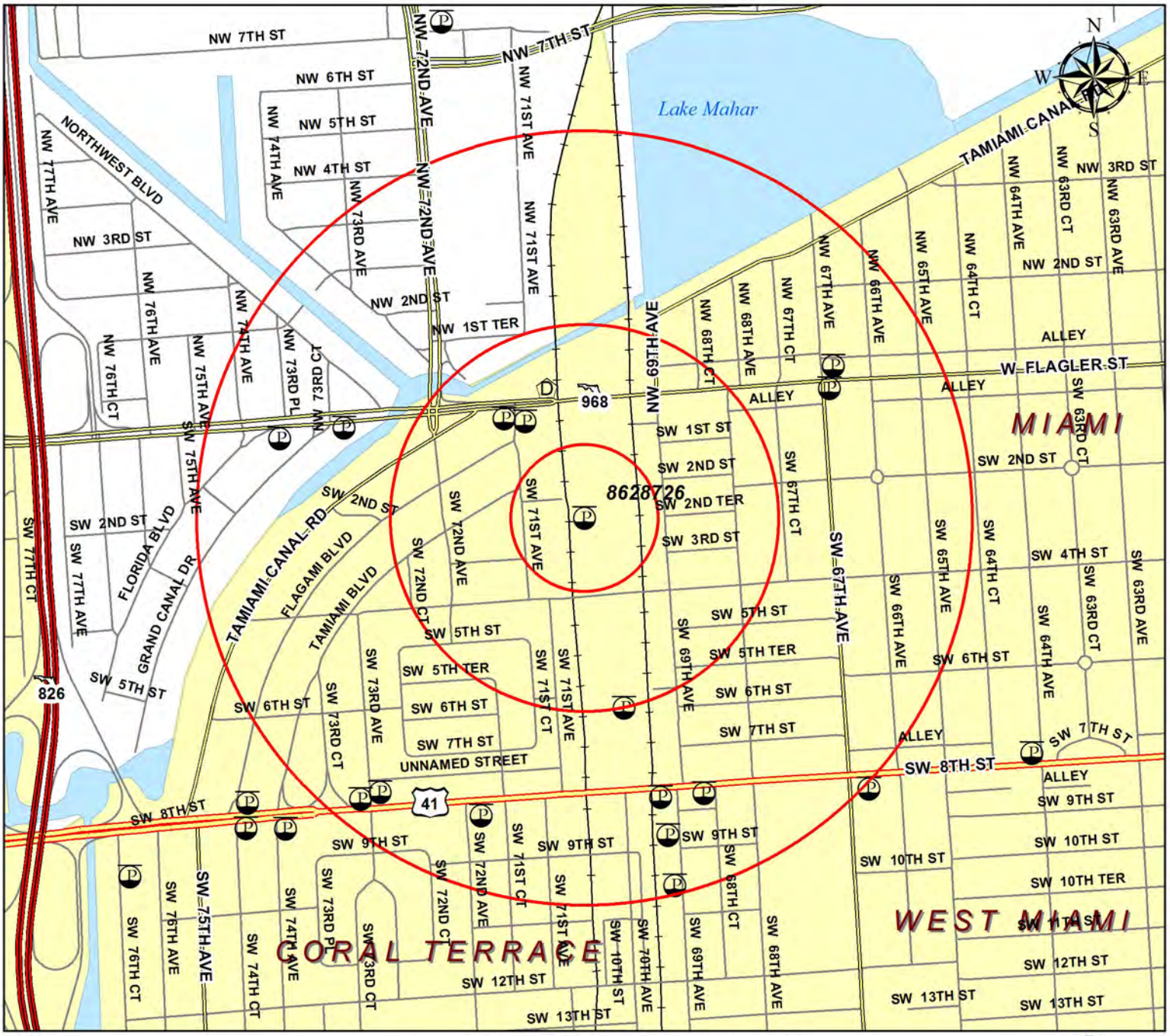
Comment: APPROVED WaszinkLM

FAVA*: (MV: More Vulnerable; V: Vulnerable; LV: Less Vulnerable)
Surficial: MV Intermediate: No Data Floridan: No Data

* Florida Aquifer Vulnerability Assessment (FAVA) data obtained from the Florida Department of Environmental Protection. The Florida Department of Health does not guarantee this data to be free from errors or inaccuracies and disclaims any responsibility or liability for interpretations or decisions based thereon.

8628726
DADE SCHOOL DIST
7011 SW 4 ST
MIAMI, FL 33144

Latitude/Longitude: 25.768068 -80.30921
DDMMSS: 25 46 5.0448 80 18 33.156
Number of large public wells (>150,000 gpd) within the 1/2 mile: 0
Number of small public and private wells within the 1/4 mile: 0



0 0.1 0.2 0.3 0.4 0.5 Miles

Sample Results--Petroleum*

- >1/2 MCL/HAL
- <1/2 MCL/HAL
- <1/4 MCL/HAL
- Sampled, no detect
- Not sampled within last year (3 years if large Community PWS)
- No sample found for this analysis

SDWA PWS Wells

Design Capacity
PS <150,000 gpd
P150 ≥150,000 gpd

Facility Type

- Petroleum
- Proximity Threat
- Drycleaner
- Toxics
- Other
- Cattle Dip Vat

* The following chemicals were use for the Petroleum Indicator analysis: Benzene, Ethylbenzene, Toluene, Xylenes (Total), Napthalene, and Methyl-Tert-Butyl-Ether (MTBE)

FLORIDA DEPARTMENT OF HEALTH

Florida Department of Health
Bureau of Water Programs
Potable Well Survey

07/09/2012
waszinklm
DADE

Victor Lopez, PhD

RECEPTOR SURVEY & EXPOSURE PATHWAY IDENTIFICATION FORM

I. Water Well Inventory

Summary of Water Wells Within 0.5 Mile Radius Of The Site. (DG = Down gradient)

	Total No.:	Active No.:	No. Screened in Affected Zone:	Total No. DG:	Active No. DG:
Public/Municipal:					
Industrial:					
Domestic:					
Agricultural:					

Potential Receptor Points

	Closest DG Water Well:	Closest DG Water Well Screened in Affected Zone:
Well No./Designation:		
Distance From Site (ft.):		
Total Well Depth (ft.):		
Current use of Water:		
Screened Interval Below Ground:		
Year Constructed:		

Discuss any ordinances or special circumstances which prevent or influence the future installation of water wells at the site or surrounding area:

Have contaminants of concern (COC's) been detected in a water supply well: ☐ Yes ☐ No ☐ Unk

If yes indicate highest concentration: ☐ >2x MCL/HAL ☐ >1 to 2x ☐ 0.5 to 1x ☐ 0.25 to 0.5x ☐ <0.25x

RECEPTOR SURVEY & EXPOSURE PATHWAY IDENTIFICATION FORM

II. Underground Utility Survey (within 500 foot radius)	
Nearest Underground Utility: Include Name, Type, Depth of Utility, Distance and Direction from Affected Zone:	
Nearest Down gradient Underground Utility: Include Name, Type, Depth of Utility, Distance and Direction from Affected Zone:	
Are any of the underground utilities within the footprint of the contaminant plume: ☐ Yes ☐ No ☐ Unk	
Discuss other receptors and indicate on Attachment 3 (if affected, discuss abatement measures):	

III. Building/Confined Space Survey (within 500 foot radius)	
Nearest Building/Confined Space: Include Name, Type, Distance and Direction from Affected Zone:	Kilowatts Electric Supply, comercial, across street/adjacent to DCSB, Southwest from AOI
Nearest Down gradient Building/Confined Space: Include Name, Type, Distance and Direction from Affected Zone:	11
Has indoor vapor intrusion (IVI) screening procedure been performed: ☐ Yes ☐ No ☒ Unk If yes: (☐ tier one-no vapor testing ☐ tier 2-sub slab or near foundation vapor testing)	
Do the screening results indicate that an IVI pathway is complete: ☐ Yes ☐ No ☒ Unk	
Is GW depth shallow (if Yes, check below): ☐ Yes ☐ No ☒ Unk — emperical observations from Southern DCSB property indicates, Yes @[5'-6'] (☐ 0' - 2' ☐ >2' - 5' ☒ >5' - 10' ☐ >10' - 15' ☐ >15' - 20')	
Have any petroleum vapors/odors been detected and/or reported (if Yes, check below): ☐ Yes ☒ No ☒ Unk (☐ outdoors ☐ building ☐ conf space ☐ storm sewer ☐ sanitary sewer ☐ other _____)	
Discuss the nearest and other receptors and indicate on Attachment 3. (buildings should include residences, schools, day care facilities, nursing homes, etc.): Karlas Bakery III, Intermotors: Paint & Body Shop, inc, Florida Eagle Collision, inc, transmission, Falcon Judo Club, CM glass, Gables window & glass Co.	

RECEPTOR SURVEY & EXPOSURE PATHWAY IDENTIFICATION FORM

Lake Mahar: ~NE of AOI d > 500 ft

IV. Surface Water Survey (within 500 foot radius)	
Nearest Surface Water: Include Name, Type, Distance and Direction from Affected Zone:	• Flood waters @ Corner of 4th St SW & SW 7th Ave • ~100 ft, SW of AOI
Nearest Down gradient Surface Water:	11
Is there any evidence that surface water has been impacted by the contaminant plume: ☐ Yes ☒ No ☒ Unk	
Impacted Surface Water: Include Name, Type, Distance and Direction from source area:	unknown
Has GW adjacent to the SW been tested (date last test _____): ☐ Yes ☐ No ☒ Unk	
If Yes, did any GW or SW samples exceed applicable surface water CTLs: ☐ Yes ☐ No ☒ Unk	
Describe potential for affected storm water or groundwater discharge to surface water feature: Depending on GW flow direction: Lake Mahar is N/NE of property, but flows SW towards 8th Street / SR 41	

V. Sensitive or Protected Habitat Survey (within 500 foot radius)	
Nearest Sensitive or Protected Habitat: Include Name, Type, Distance and Direction from Affected Zone:	Lake Mahar / Robert King High Park • up gradient • North of AOI @ ~1000 ft North
Nearest Down gradient Sensitive or Protected Habitat:	N/A
Is there evidence that a sensitive/protected habitat is impacted by the contaminant plume: ☐ Yes ☒ No ☐ Unk	
Provide the habitat type condition, regulatory authority, and other information relative to habitat characterization: N/A	

VI. Off-Source Site Property Impacts:
Is there confirmed or suspected contamination beyond the source property boundaries: ☐ Yes ☐ No ☐ Unk
If yes: ☐ FDOT ROW ☐ non-FDOT Road ROW ☐ residential ☐ non-residential ☐ other _____
If yes, indicated impacted media: (☐ FP ☐ GW ☐ soil)
No. of impacted properties beyond the source property boundaries: _____

RECEPTOR SURVEY & EXPOSURE PATHWAY IDENTIFICATION FORM

VII. Other Potential Receptor Risk Factors:	
Is there free product present: ☐ Yes ☒ No ☐ Unk	not in MWs (1-13), MW-A, MWs (15-19)
Is the depth to product less than 5 feet below land surface: ☐ Yes ☐ No ☒ Unk	
Is there contaminated soil in the top 2 feet below land surface: ☐ Yes ☒ No ☐ Unk	
Is there contaminated soil between 2 feet and 5 feet below land surface: ☐ Yes ☒ No ☐ Unk	
Is there any other potential for exposure to contaminants not previously addressed: ☒ Yes ☐ No ☐ Unk	↓ current AST

VIII. Current Area Land Use and Zoning:	
Source property current land use and zoning information:	
Surrounding property current land use and zoning within 500' of site (indicate direction):	Commercial/Residential
Is there evidence of planned future change in area land use and/or zoning: ☐ Yes ☐ No ☒ Unk	
Source of land use and zoning information:	

IX. Summary and Recommended Action:

Any observed or potential impacts anticipated:	☐ Yes ☐ No	If Yes, additional Corrective Action may be required.
Any potential for significant impacts:	☐ Yes ☐ No	If Yes, additional Corrective Action is required.
Any significant impacts observed:	☐ Yes ☐ No	If Yes, additional Corrective Action is required.

Describe observed or potential impacts to receptors and any recommended emergency abatement and/or continued corrective action:

X. Required Attachments

Attachment 1: Site plan illustrating location of entire former/current UST/AST system(s), subsurface utilities, limits of past excavation(s), and surface cover.

Attachment 2: Site map(s) showing all sampling points and contaminant plume contours

RECEPTOR SURVEY & EXPOSURE PATHWAY IDENTIFICATION FORM

Attachment 3: Vicinity map or aerial photograph illustrating surrounding land use and receptors identified within a 500-foot radius
Attachment 4: USGS topographic map with plotted water well locations
Attachment5: Copies of completion details and water well drillers reports for located wells within 0.5 mile radius, (if available).
Attachment 6: Photographic documentation of site and surrounding area.

APPENDIX D

BORING LOGS/GROUNDWATER SAMPLING LOGS/CALIBRATION LOGS/FIELD NOTES

Location Dade Cnty School Board Date Monday 12/18/17

Project / Client FACID : 13/8628726

AET# : 26672 E02

worker J. Marquez III, GIT / AET, IV

vehicle AET - Toyota Tacoma '08, ini= ____ mi

weather (80 / 73)°F, %R= 0 % cloudy

Sub Earth Tech Drilling: rig DPT #emply= 2

SOW SB ≤ 24 @ 14 ft bls, SS from TVA areas

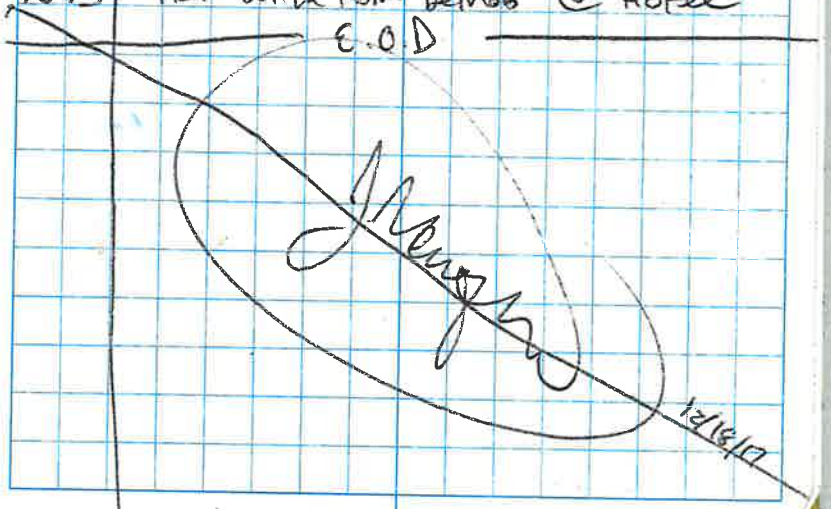
Time	Description
0545	AET mob to site - notify on-site contact
0945	" on-site
1000	set up equipment; tag mw-10 BTW = 5.7',
"	mark SBs, cal verify TVA 1000 w/ 100ppm CH4
1045	Earth Tech Drilling on-site
"	" Driller: A. Baldwin
"	" Assistant: A. Valentin
1113	" set up DPT rig & equip.
1115	SB-16 core through concrete Start
1140	" " End
"	Earth Tech having rig issues
1200	AET ⇒ Pine Env. TVA 1000 issues.
1200	AET / Earth Tech take lunch / resolve
"	equipment issues.
1330	AET / Earth Tech on-site / cal verify TVA
1336	SB-16 HA (0-5)'
1403	" DP (5-14)'
1405	SB-17(a+b) S.A.A.
1515	" S.A.A.

Location Dade Cnty School Board Date Monday 12/18/17

Project / Client

1415	SB-17a	- obstruction encountered @ 2 ½'
1417	SB-17b	- stepout 2' North
↓	"	- upon coring concrete Driller
↓	"	broke teeth on bit ⇒ replace
X	"	- HA (0-5) ft *
X	"	- DP (5-10)(10-14) ft bls X
*	Driller will bring core barrel for 12/19/17	
"	SBs for quicker advancement through concrete	
1522	SB-18	* teeth on drill bit broke *
"		coring into rebar ridden concrete
1525	Earth Tech / AET	clean-up, drum test
"	Soils, complete SB, patch to grade,	TVA FINAL CAL
1615	Earth Tech / AET	off-site ⇒ Demob
1645	AET	arrive from Demob @ Hotel

E.O.D



Location: Dade County School Board Date: Tuesday 12/19/2017

Project / Client: FAC ID: 13186287 26
AET# 26672 E02

worker	J. Marquez III, GIT / AET, LLC
vehicle	AET - Toyota Tacoma '08 Δmi= ___ mi
weather	(81/72) °F, %R = 0 % cloudy
Sub	EarthTech Drilling: 2 employees - DPT rig.
SOW	SB continued / SO confirmation samples
time	Description
0700	AET Mob to site
0715	" gas truck / ice confirmation cooler(s)
0730	" / EarthTech on-site: 2 employees
"	• A. Baldwin — Driller
"	• T. Walter — helper
0740	HASM - sign-off - sheet.
"	Calibrate TVA 2020 w/ 100ppm Cℓ eq ⇒ 103 ✓
0745	EarthTech has Core barrel machine to
"	core out hard rebarred Concrete
0750	SB-18 - Concrete cored
0805	" - HA (0-5)' - no odor gravelly vfs
"	" DPT (5-10)' - petrol. " OVA ≤ 100 ppm
0825	" " (10-14)' - " " ≤ 600 ppm
0850	SB-26 S.A.A. net OVAs all ≤ 10ppm
0906	" end
0913	SB-27 S.A.A. net OVAs all ≤ 10ppm
0929	" end
0940	SB-19 S.A.A. net OVAs ≥ 200 ppm
1005	" end

Location: Dade Cnty School Board Date: Tuesday 12/19/2017

Project / Client:

time	
1015	update PM w/ SB logs
"	" SBs 20, 24, 25 all clean per guidance
"	- taking H_2O in BH
"	- Driller doesn't want to penetrate
1035	Per PM - SB between SB 17 + 19
"	* See map. *
1040	SB-30 - core concrete - visible BH
1100	" HA (0-5)' net OVA ≈ 0ppm
1115	" DPT (5-10)(10-14) / Core SB-29
1120	SB-29 - S.A.A.
1125	" HA (0-5) net OVA ≤ 1.0 ppm
1204	" DPT (5-10)(10-14) net OVA ≡ 0 ppm
1210	SB-31 (between SB 17 + 19) - see map
1215 (1225)	" HA (0-5) (Confirmation @ 4')
1255	DPT (5-10)(10-14) OVA_{net} ≤ 300ppm
1315	update PM w/ SB logs
1320	AET / EarthTech lunch / wait on
"	word from FDEP.
1430	update from PM w/ step out SB / Confirmation samples
1450	mark new SB - locations - all asphalt
"	* advance to 10' bls - per PM *
1505	SB-25 (P) (see map) HA (0-5)' OVA_{net} ≤ 10ppm
1515	" DPT (5-10)' terminate 10'
1518	SB-25 S.A.A. (0-5)' OVA_{net} = 0
1530	" (5-10)' OVA_{net} ≤ 20ppm

Location Dade County School Board Date Tuesday 12/19/2017

Project / Client FACID : 13/8628726

AET # : 26672.00 (E02)

time		
1535	SB-23	HA (0-5) OVA not = 0 ppm
1547	"	DP (5-10) " ≤ 226 ppm
1600	SB-22	S.A.A. " = 0 ppm
1622	"	" " = 0 ppm
1637	SB-21	" " = 0 ppm
1651	"	" no recovery
1700	"	~ clean pea gravel ≥ 2.5 bls
1710		* Step out ~2' East - S.A.A
1725	SB-26	confirmation SO samples
"	"	@ (1-2)' bls
1740	"	(@ 4' bls
1756	SB-20	confirmation SO samples
1800	"	@ (1-2)' bls
1815	"	(4)' bls
	SB-32	(adjacent to SB-16 ≤ 2 ft)
	"	
	Earth Tech off-site	
1900	AET	clean-up work zone - Calvert
1930	"	off-site / Demob to FedEx / gas st.
"	"	ice cont. coolers / package for shipping
2030	"	@ FedEx / Demob ⇒ Hotel
2100	"	@ Hotel.

E.O.D

J. Margeson 12/19/17

Location _____ Date _____

Project / Client _____

DEP-SOP-001/01
FT 1000 General Field Testing and Measurement

Site: Dade County School Board FACID: 13/8628726
AET #: 26672.00 (T2)

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) TVA 2020 **INSTRUMENT #** _____

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP
☐ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☒ OTHER TVA

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 Methane 100.0 ppm ± 10 ppm

Standard B _____

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
TVA 1000 → 12/18/17	1000	A	100	104	4.0	verify	initial	JM
TVA 2020 → 12/18/17	1330	"	"	106	6.0	"	"	JM
"	1525	"	"	105	5.0	"	final	JM
12/19/17	0740	"	"	103	3.0	"	initial	JM
"	1900	"	"	104	4.0	"	final	JM

BORING LOG ✓

Boring/Well Number: SB-16	Permit Number:		FDEP Facility Identification Number: 13/8628726
Site Name: Dade County School Board	Borehole Start Date: 12/18/17 End Date: 11	Borehole Start Time: 1338 ☐ AM ☒ PM End Time: 1403 ☐ AM ☒ PM	
Environmental Contractor: AET, LLC	Geologist's Name: J. Marquez III, GIT		Environmental Technician's Name: /
Drilling Company: EarthTech	Pavement Thickness (inches): 8½	Borehole Diameter (inches): 4½	Borehole Depth (feet): 14.0
Drilling Method(s): HA / DPT	Apparent Borehole DTW (in feet from soil moisture content): ~5½	Measured Well DTW (in feet after water recharges in well): /	OVA (list model and check type): TVA2020 ☒ FID ☐

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1	12		100	8½	91.5	1	Brown sandy pea gravel no odor, no staining	GP	D	SS@1-2' C
"	1-2	"		90	10	80	2	"	"	"	
"	2-3	"		37.5	25	12.5	3	"	"	"	
"	3-4	"		680	16	664	4	S.A.A. Hot odor	"	m	SS@4' C
"	4-5	"					5	"	"	m	
DP	5-10	60		1760	13	1747	6	S.A.A. more vfs brown Black Stain Hot odor	SP	m w	
							7			S	
				1193	12	1181	8	Brown vfs with trace MIA lm fragments	SP	"	
							9			"	
				540	8	532	10	S.A.A.	SP	"	
	10-14	48					11			"	
↓				670	12	658	12	Brown/tan vfs hot odor / lt orange stain	SP	"	

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

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

BORING LOG

Boring/Well Number:	FDEP Facility Identification Number:	Site Name:	Borehole Start Date: / End Date:
SB-16	13/8628726	Dade County School Board	12/18/17 "

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP	10-14	48		265	7	258	13				
							14	Brown/tan vfs trace MIA limerock fragments. Hotodor	SP	S	
							15	*terminus depth*			
							16				
							17				
							18				
							19				
							20				
							21				
							22				
							23				
							24				
							25				
							26				
							27				
							28				
							29				
							30				

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

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

BORING LOG ✓

Boring/Well Number:	Permit Number:	FDEP Facility Identification Number:
SB - 17b		13/8628726
Site Name:	**Borehole Start Date:** 12/18/17	**Borehole Start Time:** 1495 ☐ AM ☒ PM
Dade County School Board	**End Date:** 11	**End Time:** 1515 ☐ AM ☒ PM
Environmental Contractor:	**Geologist's Name:**	**Environmental Technician's Name:**
AET, LLC	J. Marquez III, GFT	✓
Drilling Company:	**Pavement Thickness (inches):**	**Borehole Diameter (inches):**	**Borehole Depth (feet):**
EarthTech	8 1/2	4 1/2	14.0
Drilling Method(s):	**Apparent Borehole DTW (in feet from soil moisture content):**	**Measured Well DTW (in feet after water recharges in well):**	**OVA (list model and check type):**
HA / DPT	~5½	/	TVA1000 ☒ FID ☐

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
								(concrete (thick rebar)			
HA	0-1	12		120	0	120	1	Brown, gravelly sand. low odor / No staining	SP GP	D	
"	1-2	"		160	0	160	2	S.A.A.	"	"	
"	2-3	"		6	0	6	3	S.A.A.	"	"	
"	3-4	"		157	0	157	4	grey/brown gravelly vfs low odor / no staining	"	m	
"	4-5	"					5			m	
DP	5-10	60		1490	5	1485	6	lt brown vfs w/ trace brick fragments / shell frag. odorous	SP	m w	
"							7			S	
"				103	10.5	92.5	8	S.A.A. with oil sheen on sample	SP	S	
"							9				
"				42	10.5	31.5	10	S.A.A. Hot odor sheen	SP	S	
"	10-14	48					11				
"				27	7	20	12	S.A.A. Hot odor no sheen	SP	S	

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

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

BORING LOG

Boring/Well Number:	FDEP Facility Identification Number:	Site Name:	Borehole Start Date: / End Date:
SB - 176	13/8628726	Dade County School Board	12/18/17

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
	↓	↓					13				
DP	~~48~~ 10-14	48		52	6.5	45.5	14	grey/white vfs trace peat lt orange staining, low odor	SP	S	
							15				
							16				
							17				
							18				
							19				
							20				
							21				
							22				
							23				
							24				
							25				
							26				
							27				
							28				
							29				
							30				

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

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

BORING LOG

Boring/Well Number: SB-18	Permit Number:	FDEP Facility Identification Number: 13/8628726
Site Name: Dade County School Board	Borehole Start Date: 12/19/17 End Date: 11	Borehole Start Time: 0750 ☒ AM ☐ PM End Time: 0825 ☒ AM ☐ PM
Environmental Contractor: AET, LLC	Geologist's Name: J. Marquez III, GIT	Environmental Technician's Name: /
Drilling Company: EarthTech	Pavement Thickness (inches): ~8 1/2	Borehole Diameter (inches): ~4 1/2
Borehole Depth (feet): 14.0		
Drilling Method(s): HA / DPT	Apparent Borehole DTW (in feet from soil moisture content): ~5 1/2	Measured Well DTW (in feet after water recharges in well): /
OVA (list model and check type): TVA1020 ☒ FID ☐		

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA		Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
									Concrete ~8 1/2			
HA	0-1	12		0	0	0		1	old grey peagravel, no odor	GW	D	
"	1-2	"		0	0	0		2	grey lt brown peagravelly sand no odor	SP	D	
"	2-3	"		1.5	0	1.5		3	S.A.A. trace lm rck	"	"	
"	3-4	"		0	0	0		4	S.A.A. "	"	M	
"	4-5	"						5				
DP	5-10	60		114	16	98		6	S.A.A. no odor "	SP	W S	
"								7				
"				42	3	39		8	S.A.A.	SP	S	
"								9				
"	10-14	48		17	0	17		10	poorly sorted clean vfs w/ trace lm rck	SP	S	
"	↓	↓						11				
"	↓	↓		560	0	560		12	S.A.A.	SP	S	

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

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

BORING LOG

Boring/Well Number:	FDEP Facility Identification Number:	Site Name:	Borehole Start Date: / End Date:
SB-18	13/8628726	Dade County School Board	12/19/17 "

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP	10-14	48		440	0	440	13				
							14	gray/white. silty vfs trace peat	SM (PT)	S	
							15				
							16				
							17				
							18				
							19				
							20				
							21				
							22				
							23				
							24				
							25				
							26				
							27				
							28				
							29				
							30				

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

BORING LOG ✓

Boring/Well Number:	Permit Number:	FDEP Facility Identification Number:
SB - 19		13/8628726
Site Name:	**Borehole Start Date:** 12/19/17 **End Date:** 11	**Borehole Start Time:** 0940 ☒ AM ☐ PM **End Time:** 1005 ☒ AM ☐ PM
Dade County School Board		
Environmental Contractor:	**Geologist's Name:**	**Environmental Technician's Name:**
AET, LLC	J. Marquez III, GFT	/

Drilling Company:	Pavement Thickness (inches):	Borehole Diameter (inches):	Borehole Depth (feet):
EarthTech	~ 9.0	4 1/2	14.0

Drilling Method(s):	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type):
HA / DPT	~ 5 1/2	/	TVA2020 ☒ FID ☐

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1	12		0	0	0	1	white/gray gravelly PS vfs ~ no odor	SP	D	-
"	1-2	|		0	0	0	2	s. A.A.	"	"	
"	2-3	|		582	42	540	3	lt brown gravelly PS vfs Hot odor	"	"	
"	3-4	|		1500	50	1450	4	S.A.A. HOT odor	"	M	
"	4-5	↓					5				
DP	5-10	60		1950	12	1938	6	S.A.A. HOT odor	"	S	
|	"						7				
	"			1380	21	1359	8	lt brown PS gravelly vfs. (HOT) * brown product sheen on soil *	SP	S	
	"						9				
	10-14	48		740	5	735	10	S.A.A.	SP	S	
	"	|					11				
↓	"	↓		435	1	434	12	clean vfs. - low odor slightly silty	SP SM	S	

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

(PS) = poorly sorted.

BORING LOG

Boring/Well Number:	FDEP Facility Identification Number:	Site Name:	Borehole Start Date: / End Date:
SB-19	13/8628726	Dade County School Board	12/19/17 "

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP	10-14	48		440	2	438	13				
							14	H brown FS vfs slightly silty Hotodor no staining	SP SM	S	
							15				
							16				
							17				
							18				
							19				
							20				
							21				
							22				
							23				
							24				
							25				
							26				
							27				
							28				
							29				
							30				

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

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

BORING LOG ✓

Boring/Well Number:	Permit Number:	FDEP Facility Identification Number:
SB-21		13/8628726
Site Name:	**Borehole Start Date:** 12/19/17	**Borehole Start Time:** 1637 ☐ AM ☒ PM
Dade County School Board	**End Date:** 11	**End Time:** 1710 ☐ AM ☒ PM
Environmental Contractor:	**Geologist's Name:**	**Environmental Technician's Name:**
AET, LLC	J. Marquez III, GFT	✓
Drilling Company:	**Pavement Thickness (inches):**	**Borehole Diameter (inches):**	**Borehole Depth (feet):**
EarthTech	~2.0	4 1/2	~~10.0~~ 2.50
Drilling Method(s):	**Apparent Borehole DTW (in feet from soil moisture content):**	**Measured Well DTW (in feet after water recharges in well):**	**OVA (list model and check type):**
HA	✓	✓	TVA2020 ☒ FID ☐

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
								Asphalt			
HA	0-1	12		0	0	0	1	lt brown/white Sandy Pea gravel - no odor	GP	D	
11	1-2	11		0	0	0	2	S.A.A.	11	11	
							3	← 2.50' termination depth pea gravel unable to	GP	D	
							4	advance HA further			
							5	* Step out ~ 2' East = S.A.A. - terminate			
							6				SB = NO Confirmation SO
							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

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

BORING LOG ✓

Boring/Well Number: SB-22	Permit Number:	FDEP Facility Identification Number: 13/8628726
Site Name: Dade County School Board	Borehole Start Date: 12/19/17 End Date: 11	Borehole Start Time: 1600 ☐ AM ☒ PM End Time: 1622 ☐ AM ☒ PM
Environmental Contractor: AET, LLC	Geologist's Name: J. Marquez III, GFT	Environmental Technician's Name: ✓
Drilling Company: EarthTech	Pavement Thickness (inches): ~2.0	Borehole Diameter (inches): 4 1/2
Borehole Depth (feet): 10.0		
Drilling Method(s): HA / DPT	Apparent Borehole DTW (in feet from soil moisture content): ~5 1/2	Measured Well DTW (in feet after water recharges in well): ✓
OVA (list model and check type): TVA2020 ☒ FID ☐		

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks) Asphalt	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1	12		0	0	0	1	blk/grey PS vfs trace gravels - no odor/stain	SP	D	SS@1-2' @1800
"	1-2	"		0	0	0	2	grey PS vfs - trace gravel - no odor/stain	"	"	
"	2-3	"		0	0	0	3	Brown PS vfs no odor/ staing	"	"	
"	3-4	"		0	0	0	4	S.A.A.	"	M	SS@4' @1815
"	4-5	"					5				
DP	5-10	60		1	1	0	6	S.A.A. some gravel	"	S	
"	↓						7				
"				0	0	0	8	S.A.A. abundant gravels	"	S	
"							9				
"	↓			0	0	0	10	1ft brown PS vfs trace gravel - no odor/stain	SP	S	
							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

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

BORING LOG

Boring/Well Number: SB-23	Permit Number:		FDEP Facility Identification Number: 13/8628726
Site Name: Dade County School Board	Borehole Start Date: 12/19/17 End Date: 11	Borehole Start Time: 1535 ☐ AM ☒ PM End Time: 1547 ☐ AM ☒ PM	
Environmental Contractor: AET, LLC	Geologist's Name: J. Marquez III, GFT		Environmental Technician's Name: /
Drilling Company: EarthTech	Pavement Thickness (inches): ~2.0	Borehole Diameter (inches): ~4 1/2	Borehole Depth (feet): 10.0
Drilling Method(s): HA / DPT	Apparent Borehole DTW (in feet from soil moisture content): ~5 1/2	Measured Well DTW (in feet after water recharges in well): /	OVA (list model and check type): TVA2020 ☒ FID ☐

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
								Asphalt			
HA	0-1	12		0.5	0.5	0	1	BLK sandy soil, no odor, no staining	SP	D	-
"				0	0	0	2	BLK grey rs vfs; no odor no staining	"	"	
"				0	0	0	3	Brown S.A.A.	"	"	
"				0	0	0	4	S.A.A.	"	M	
"		↓					5				
DP	5-10	60		3	2	1	6	S.A.A. trace pebbles	SP	S	
"							7	S			
"				59	8	51	8	S.A.A.	"	S	
"							9				
"		↓		305	79	226	10	S.A.A.	"	S	
							11	Termination Depth			
							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

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

BORING LOG

Boring/Well Number: SB-24	Permit Number:	FDEP Facility Identification Number: 13/8628726
Site Name: Dade County School Board	Borehole Start Date: 12/19/17 End Date: 11	Borehole Start Time: 1505 ☐ AM ☒ PM End Time: 1515 ☐ AM ☒ PM
Environmental Contractor: AET, LLC	Geologist's Name: J. Marquez III, GFT	Environmental Technician's Name:
Drilling Company: EarthTech	Pavement Thickness (inches): ~ 2.0	Borehole Diameter (inches): ~ 4 1/2 — Borehole Depth (feet): 10.0
Drilling Method(s): HA/DPT	Apparent Borehole DTW (in feet from soil moisture content): 5 1/2	Measured Well DTW (in feet after water recharges in well): — OVA (list model and check type): TVA1030 ☒ FID ☐

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
								Asphalt			
HA	0-1	12		0	0	0	1	blk/grey PS vfs/topsoil no odor/staining	SP	D	
"	1-2	"		0	0	0	2	grey	"	"	
"	2-3	"		1.5	1.2	0.3	3	Brown	"	"	
"	3-4	"		0	0	0	4	Brown PS vfs w/ clayey nodules S.A.A. — no odor/stain	SP/SC	M	
"	4-5	"					5				
DP	5-10	60		213	7	206	6	lt Brown PS vfs w/ abundant gravels mod. petrol odor	SP	S	
							7				
				2800	47	2753	8	S.A.A.	SP	S	
							9				
				250	140	110	10	lt brown PS vfs w/ trace gravels — no odor/stain	SP	S	
							11	termination depth			
							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

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

BORING LOG ✓

Boring/Well Number: SB-25	Permit Number:	FDEP Facility Identification Number: 13/8628726
Site Name: Dade County School Board	Borehole Start Date: 12/19/17 End Date: 11	Borehole Start Time: 1518 ☐ AM ☒ PM End Time: 1530 ☐ AM ☒ PM
Environmental Contractor: AET, LLC	Geologist's Name: J. Marquez III, GFT	Environmental Technician's Name: ✓
Drilling Company: EarthTech	Pavement Thickness (inches): Asphalt ~2.0	Borehole Diameter (inches): 4 1/2
Borehole Depth (feet): 10.0		
Drilling Method(s): HA / DPT	Apparent Borehole DTW (in feet from soil moisture content): ~5½	Measured Well DTW (in feet after water recharges in well): ✓
OVA (list model and check type): TVA2020 ☒ FID ☐		

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
								Asphalt			
HA	0-1	12		0	0	0	1	Black sandy top soil - no odor	SP	D	
"	1-2	11		0	0	0	2	Blk/grey PS vfs - no odor no stain	"	"	
"	2-3	4		0	0	0	3	Brown PS vfs - no odor - no stain	"	"	
"	3-4	6		0	0	0	4	S.A.A. clayey nodules.	SP/SC	M	
"	4-5	11					5				
DP	5-10	60		3	2	1	6	lt Brown gravelly abundant PS vfs - low odor	SP	S	
"	↓						7				
"				18.5	10	8.5	8	S.A.A.	SP	S	
"							9				
"	↓			89	70	19	10	lt brown PS vfs with trace gravels - mod. odor	SP	S	
							11	↖ termination depth			
							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

odor = Petrol.

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

BORING LOG ✓

Boring/Well Number: SB-26	Permit Number:	FDEP Facility Identification Number: 13/8628726
Site Name: Dade County School Board	Borehole Start Date: 12/19/17 End Date: 11	Borehole Start Time: 0850 ☒ AM ☐ PM End Time: 0906 ☒ AM ☐ PM
Environmental Contractor: AET, LLC	Geologist's Name: J. Marquez III, GIT	Environmental Technician's Name: /
Drilling Company: EarthTech	Pavement Thickness (inches): asphalt	Borehole Diameter (inches): 4 1/2
Borehole Depth (feet): 14.0		
Drilling Method(s): HA/DPT	Apparent Borehole DTW (in feet from soil moisture content): ~5 1/2	Measured Well DTW (in feet after water recharges in well): /
OVA (list model and check type): TVA 2020 ☒ FID ☐		

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1	12		1	0	1	1	white/grey gravelly vfs no odor/stony	SP	D	SS@1-2' @1725
↓	1-2	11		0	0	0	2	S.A.A.	11	11	
	2-3	11		0	0	0	3	lt brown S.A.A.	11	11	
↓	3-4	11		0	0	0	4	lt brown lmrck vfs abundant no odor/stony	GP SP	M	SS@4' @1740
							5				
DP	5-10	60		2	0	2	6	S.A.A.	GP SP	S	
↓		↓					7				
				2.5	0	2.5	8	S.A.A.	11	S	
		↓					9				
	10-14	48		8	8	0	10	S.A.A. trace lmrck	SP	S	
		↓					11				
↓		↓		0	0	0	12	grey silty vfs, no odor	SM	11	

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

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

BORING LOG

Boring/Well Number:	FDEP Facility Identification Number:	Site Name:	Borehole Start Date: / End Date:
SB-26	13/8628726	Dade County School Board	12/19/17

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP	10-14	↓ 48		0	0	0	13				
							14	grey silty vfs, no odor or staining	SM	S	
							15				
							16				
							17				
							18				
							19				
							20				
							21				
							22				
							23				
							24				
							25				
							26				
							27				
							28				
							29				
							30				

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

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

BORING LOG ✓

Boring/Well Number: SB - 27	Permit Number:	FDEP Facility Identification Number: 13/8628726
Site Name: Dade County School Board	Borehole Start Date: 12/19/17 End Date: 11	Borehole Start Time: 0913 ☒ AM ☐ PM End Time: 0929 ☒ AM ☐ PM
Environmental Contractor: AET, LLC	Geologist's Name: J. Marquez III, GFT	Environmental Technician's Name: /
Drilling Company: EarthTech	Pavement Thickness (inches): asphalt ~2.0	Borehole Diameter (inches): 4 1/2
Borehole Depth (feet): 14.0		
Drilling Method(s): HA / DPT	Apparent Borehole DTW (in feet from soil moisture content): ~5 1/2	Measured Well DTW (in feet after water recharges in well): /
OVA (list model and check type): TVA2020 ☒ FID ☐		

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1	12		0	0	0	1	white gravelly poorly sorted Sand no odor	SP	D	-
"	1-2	"		0	0	0	2	white trace gravelly vfs no odor	"	"	
"	2-3	"		0	0	0	3	Brown/white PS sand no odor	"	"	
"	3-4	"		0	0	0	4	S.A.A. abundant lm rck	"	M	
"	4-5	↓					5				
DPT	5-10	60		8	2	6	6	S.A.A. low odor	"	S	
"	↓	↓					7				
"				12	3	9	8	S.A.A.	"	"	
"	↓	↓					9				
"	10-14	48		7.5	0	7.5	10	lt brown/white silty vfs no odor	SM	"	
"	↓	↓					11				
"	↓	↓		3	1	2	12	S.A.A. no odor	"	"	

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

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

BORING LOG

Boring/Well Number:	FDEP Facility Identification Number:	Site Name:	Borehole Start Date: / End Date:
SB-27	13/8628726	Dade County School Board	12/19/17 / "

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP	10-14	↓ 48		1	0	1	13	white/lt brown PS sand w/ trace cm rock frags	SP	S	
							14				
							15				
							16				
							17				
							18				
							19				
							20				
							21				
							22				
							23				
							24				
							25				
							26				
							27				
							28				
							29				
							30				

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

BORING LOG ✓

Boring/Well Number:	Permit Number:	FDEP Facility Identification Number:
SB - 29		13/8628726
Site Name:	**Borehole Start Date:** 12/19/17 **End Date:** 11	**Borehole Start Time:** 1125 ☒ AM ☐ PM **End Time:** 1204 ☐ AM ☒ PM
Dade County School Board		
Environmental Contractor:	**Geologist's Name:**	**Environmental Technician's Name:**
AET, LLC	J. Marquez III, GFT	/

Drilling Company:	Pavement Thickness (inches):	Borehole Diameter (inches):	Borehole Depth (feet):
EarthTech	~5.0	4 1/2	14.0

Drilling Method(s):	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type):
HA / DPT	~5 1/2	/	TVA 2020 ☒ FID ☐

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1	12		0.5	0.5	0	1	Black/grey gravelly PS vfs no odor	SP PT	D	
"	1-2	"		1.5	0.5	1.0	2	grey/lt brown trace gravels PS vfs - no odor	SP	"	
"	2-3	"		0.5	0	0.5	3	Brown PS vfs - no odor	"	"	
"	3-4	"		1.0	1.0	0	4	brown/lt brown PS vfs no odor	"	M	
"	4-5	"					5				
DP	5-10	60		0	0	0	6	lt brown PS vfs w/ abundant gravels - no odor	SP	S	
"	|	|					7				
"				0	0	0	8	S.AA.	"	S	
"	↓	↓					9				
"	10-14	48		0	0	0	10	lt brown PS - slightly silty vfs - trace lm rck - no odor	SP	S	
"	|	|					11				
"	↓	↓		0	0	0	12	lt brown - well sorted - slightly silty vfs - trace gravels no odor	SP	S	

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

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

BORING LOG

Boring/Well Number:	FDEP Facility Identification Number:	Site Name:	Borehole Start Date: / End Date:
SB - 29	13/8628726	Dade County School Board	12/19/17 "

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP	10-14	48		0	0	0	13				
							14	lt brown well sorted VFS trace gravels - no odor	SP	S	
							15				
							16				
							17				
							18				
							19				
							20				
							21				
							22				
							23				
							24				
							25				
							26				
							27				
							28				
							29				
							30				

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

BORING LOG ✓

Boring/Well Number:	Permit Number:	FDEP Facility Identification Number:
SB - 30		13/8628726

Site Name:	Borehole Start Date: 12/19/17 End Date: 11	Borehole Start Time: 1045 ☒ AM ☐ PM End Time: 1120 ☒ AM ☐ PM
Dade County School Board		

Environmental Contractor:	Geologist's Name:	Environmental Technician's Name:
AET, LLC	J. Marquez III, GFT	✓

Drilling Company:	Pavement Thickness (inches):	Borehole Diameter (inches):	Borehole Depth (feet):
EarthTech	~ 5.0	4 1/2	14.0

Drilling Method(s):	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type):
HA / DPT	~5 1/2	✓	TVA2020 ☒ FID ☐

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1	12		0	0	0	1	grey/white gravelly PS vfs no odor / staining	SP	D	-
"	1-2	|		0	0	0	2	Brown S.A.A. no odor	"	"	
"	2-3	|		0	0	0	3	S.A.A.	"	"	
"	3-4	|		0.5	0.5	0	4	S.A.A.	"	M	
"	4-5	↓					5				
DP	5-10	60		0	0	0	6	lt brown PS gravelly vfs low abundant limerock gravels odor	GP SP	S	
		|					7				
		|		0	0	0	8	white/lt brown silty ~~PS~~ vfs w/ trace gravels - no odor	SP SM	S	
		↓					9				
	10-14	48		0.5	0.5	0	10	S.A.A.	SP SM	S	
		|					11				
↓		↓		0	0	0	12	lt brown fS vfs - no gravels trace Peat	SM PT	S	

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

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

BORING LOG

Boring/Well Number:	FDEP Facility Identification Number:	Site Name:	Borehole Start Date: / End Date:
SB-30	13/8628726	Dade County School Board	12/19/17 "

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP	10-14	48		0	0	0	13				
							14	lt brown/white silty vfs trace peat	SM PT	S	
							15				
							16				
							17				
							18				
							19				
							20				
							21				
							22				
							23				
							24				
							25				
							26				
							27				
							28				
							29				
							30				

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

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

BORING LOG

Page 1 of 2

Boring/Well Number:	Permit Number:	FDEP Facility Identification Number:
SB-31		13/8628726
Site Name:	**Borehole Start Date:** 12/19/17 **End Date:** 11	**Borehole Start Time:** 1210 ☐ AM ☒ PM **End Time:** 1255 ☐ AM ☒ PM
Dade County School Board		
Environmental Contractor:	**Geologist's Name:**	**Environmental Technician's Name:**
AET, LLC	J. Marquez III, GIT	

Drilling Company:	Pavement Thickness (inches):	Borehole Diameter (inches):	Borehole Depth (feet):
EarthTech	~7.0	4 1/2	14.0

Drilling Method(s):	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type):
HA/DPT	~5 1/2		TVA2020 ☒ FID ☐

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

(describe if other or multiple items are checked):

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

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1	12		0	0	0	1	Sandy pea gravel no odor	GP	D	
"	1-2	"		550	5	545	2	lt brown PS vfs w/ abundnt pea gravel HOT	SP	D	
"	2-3	"		2300	14	2286	3	S.A.A. HOT odor	"	"	
"	3-4	"		1700	8	1692	4	S.A.A. HOT odor some peagravel	"	M	SS @ 4' @ 1225
"	4-5	"					5				
DP	5-10	60		1345	5	1340	6	lt brown/tan PS vfs trace rock frags - odorous (HOT)	"	S	
"							7				
"				270	1.5	268.5	8	lt brown/brown PS vfs some rock frag. med odor	"	"	
"							9				
"	10-14	48		100	4	96	10	lt brown PS vfs trace rock frags - low odor	"	"	
"							11				
"				119	3	116	12	S.A.A. little to no rock frags	"	"	
"	10-14			50	12	38	14	S.A.A.	SP	S	

Sample Type Codes: **FH** = 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

Location Dade Cnty School Board Date Mon. 06/25/18

Project / Client FACID- 13/8628726 AET#22399

7001 SW 4th St. Miami, Miami-Dade, FL

AET, LLC - J. Marquez III, GIT

SOW - recollect SB samples from 5/25/18 due to Lab error

0715 - prep @ HQ - load equip

0730 - mob to site in AET vehicle

1245 - pick up Rental CoreDrill/Gen from united Rentals

1245 - Arrive onsite - check in @ front / site contact

1300 - Set up equipment @ previous SB location - w/in 2' - trucks having moved

1330 - Core Concrete (Rebar present) x2, Collect SB32RA @ 1-2'/4' PAH TRPH MADEP
SB31RA @ 4'

1630 - Demob site to United Rentals

1800 - arrive from Demob @ HQ

1815 - Complete field Report

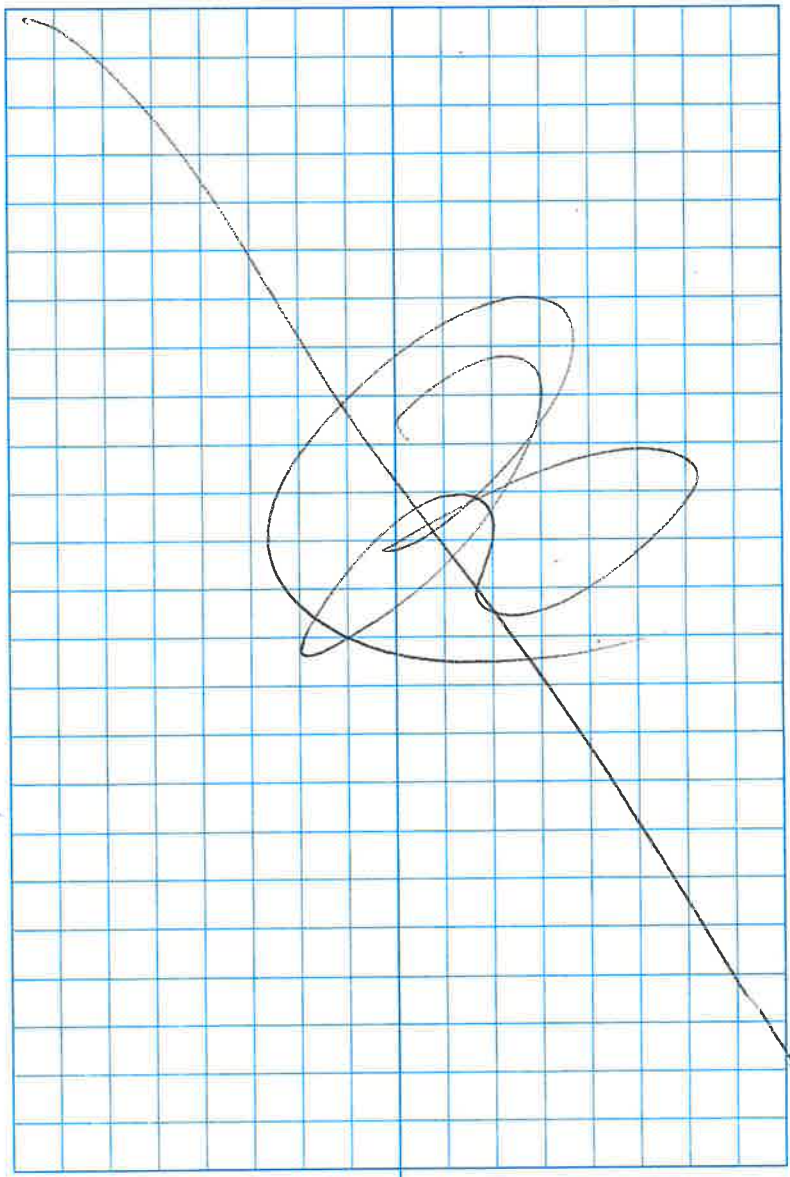
E.O.D.

* Soils shipped over night to ETL *

J. Marquez III 06/25/18

Location _____ Date _____

Project / Client _____



Dade County Schools
Miami, Fl

9/5/18

JOb# 26672.00 Fac# 13/9628726

7:00 AET HP mob. to site in
a AET white F-150 2016

11:00 AET HP Arrive on site

11:06 AET HP check in with
dade county schools.
currently 91°F partly cloudy
Scope of work soil sample. one

11:22 AET HP Set up equipment.

11:45 AET HP begin core drilling
SB-31RR.

* SB-31 RR at 4ft at 12:24

12:45 AET HP complete scope
of work and End of day

Location Dade Cnty School Board Date 05/25/18 (friday)

Project / Client FACID 13/8628726 AET# 26672.00(C02)

7001 SW 4th St., Miami, Miami-Dade Co., FL

AET - Geologist - J. Marquez III, GIT

vehicle - AET, LLC - Ford F-150 2016 1/2 ton

weather - (81/75)°F, Currently 81°F, 80% rain, overcast cloudy

Scope - SB x 2 - 3 SS per approved w/o

0800 - AET prep for field - ice cooler, fuel, vehicle maintenance/mob

0830 - AET arrive on site/check-in

0840 - Mark proposed SB locations, locate H_2O source, Label confirmation soil kits.

0850 - Set up Generator/Core Drill

0912 - Begin coring concrete @ SB locations

1015 - Calibrate MiniRAE3kPID w/ 100 ppm Isobutylene standard - reading 100.0 ppm

- Decon/setup SB equip - HA - 16oz jars

~~SB~~ DTW @ MW-11 = 4.81 ft bTOC

~~DTW~~

1015 - SB-32R/SB-31R cores opened

- rebar in concrete

1030 - clean work area of concrete debris w/ hose

11 - pack up generator/Core Drill

1039 - SB-32R HA 0-4' bls OVA/lith

1059/1056 " SS @ 4' / 4' bls for PAH

Location Dade Cnty School Board Date 05/25/18 (friday)

Project / Client FACID-13/8628726

AET# - 26672.00 (C02)

1108 - SB-31R HA 0-4' bls

1115 " SS @ 4' bls TRPH/MaDEP

- Clean work area/Decon SS equip

- final Cal. MiniRAE 3000 PID ——— reading ——— 100.0 ppm

- complete BHs & concrete

- Clean equipment/pack-up

- package Confirmation coolers for FEDEX overnight to Lab

1215 - Demob Subject site to HQ/FedEx

1800 - arrive from Demob @ HQ

1915 - Complete field report/off-load equipment.

E.O.D.

J. Marquez

DEP-SOP-001/01
FT 1000 General Field Testing and Measurement

- Site name / Prj # : Dade City School Board / 26672000(EJ) FACID: 13/8628726

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) ~~Thermo TVA 2020~~ miniRAE3000 **INSTRUMENT #** ~~AQS2R1~~ OVA

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP
☐ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☒ OTHER OVA

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 ~~Methane~~ 100.0 ppm ± ~~10 ppm~~ Isobutylene

Standard B _____

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
5/25/18	1015	A	100	100.0	Ø	Yes	initial	JM
"	1115	"	"	100.0	"	verify	final	JM

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

BORING LOG

Page 1 of 1

Boring/Well Number: SB - 31R	Permit Number: /	FDEP Facility Identification Number: 13/8628726
Site Name: Dade Cnty School Board	Borehole Start Date: 5/25/18 End Date: 11	Borehole Start Time: 1108 [X] AM [ ] PM End Time: 1120 [X] AM [ ] PM
Environmental Contractor: AET, LLC	Geologist's Name: Justiniano Marquez III, GIT	Environmental Technician's Name: /
Drilling Company: AET, LLC	Pavement Thickness (inches): ~10	Borehole Diameter (inches): 4.0
Borehole Depth (feet): 4.0		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): N/S	Measured Well DTW (in feet after water recharges in well): /
OVA (list model and check type): ~~Photovac PID~~ MiniRAE 3000 [ ] PID [X] FID [X] PID		

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

(describe if other or multiple items are checked):

Borehole Completion (check one): [ ] Well [ ] Grout [ ] Bentonite [X] 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)
								Concrete ~10"			
HA	0-1	12		0	-	0	1	grey - dry - sandy peagravel - no odor/staining	GW	D	
"	1-2	"		4	-	4	2	"	"	"	
"	2-3	"		421	-	421	3	" ~~not~~ Hot odor	"	M	
"	3-4	"		391	-	391	4	"	"	"	SB-31R @ 4' - 1115
							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

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

BORING LOG

Page 1 of 1

Boring/Well Number: SB-32R	Permit Number:	FDEP Facility Identification Number: 13/8628726
Site Name: Dade Cnty School Board	Borehole Start Date: 5/25/18 End Date: 11	Borehole Start Time: 1039 [X] AM [ ] PM End Time: 1105 [X] AM [ ] PM
Environmental Contractor: AET, LLC	Geologist's Name: Justiniano Marquez III, GIT	Environmental Technician's Name:
Drilling Company: AET, LLC	Pavement Thickness (inches): ~10.0	Borehole Diameter (inches): 4.0
Borehole Depth (feet): 4.0		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): ~5	Measured Well DTW (in feet after water recharges in well):
QVA (list model and check type): MiniRAE 3000 Photovac MicroFID [X] FID [X] PID		

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

(describe if other or multiple items are checked):

Borehole Completion (check one): [ ] Well [ ] Grout [ ] Bentonite [X] 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	0-1	12		4.1	-	4.1	1	-Dry-loose sandy peagravel -no odor/staining	GW	D	
"	1-2	"		0.1	-	0.1	2	"	"	"	SB-32R @ 1-2 - 1050
"	2-3	"		182.1	-	182.1	3	" mod/Hotodor	"	M	
"	3-4	"		99.8	-	99.8	4	"	"	"	SB-32R @ 4' - 1056
							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

Location Miami-Dade City School Board Date tuesday 10/17/17

Project / Client FALID: 13/8628726

AET#: 26672 (E02)

Worker	J. Marquez III, GIT
vehicle	AET - Toyota Tacoma '08 Δmi = 15
weather	(86(79)°F, hR = 50 % sunny, cloudy
SOW	GWS/DTW x 14 GWS 9/14

time	description
0850	AET mob to site
0905	AET on-site / Edmond Hines (inspector)
"	on-site.
0910	Locate mw's of interest / open for eq
0945	MW's 6/10 are obstructed
	- mw 10 - under car
	- mw 6 - inundated in pile of water.
1000	mw-10 - parked car owner located & moved
1018	mw-6 - H_2O brushed away & opened
1030	DTW measurements

MW ID	DTW (ft)	FP (ft)	Comments
mw-10	5.72	X	1½" dia
mw-11	4.88	X	4" d
mw-12	5.18	X	4" d
mw-3	4.91	X	4" d
mw-9	5.51	X	1½" d
MW-A	5.16	X	2" d
mw-4	4.61	X	4" d
MW-1	4.86	X	4" d

Location continued Date tuesday (10/17/17)

Project / Client

time				
1030	DTW measurements (cont.)			
	MW ID	DTW	FP	Comments
	mw-12	5.05	X	1½" d
	mw-13	5.28	X	1½ d
	mw-5	5.22	X	2" d
	mw-6	5.27	X	2" d need broom to push water away
	mw-7	5.36	X	2" d
1105	mw-8	5.47	X	2" d
1110	GWS equip calibration			St
1135	" "			End
1140	AET off-site for lunch			
1200	AET on-site			
1210	MW-10			
1224	"	purge		St
1238	"	GWS		St
1250	MW-11			
1256	"	purge		St
1337	"	GWS		St
1410	MW-12			
1423	"	purge		St
1441	"	GWS		St
	MW-2			
1505	"	purge		St
1548	"	GWS		St

Location Dade Cnty School Board Date 10/17/17 tuesday

Project / Client FACID: 13/8628726

AET#: 26672.00 (E02)

1624	MW-4			
1625	"	purge	St	
1712	"	GWS	St	
1723	MW-13			
1728	"	purge	St	
1795	"	GWS	St	
1804	MW-5			
1805	"	purge	St	
1822	"	GWS	St	
1840	MW-6			
1843	"	purge	St	
1900	"	GWS	St	
1923	MW-8			
1924	"	purge	St	
1942	"	GWS	St	
1957	AET	cleanup / Decon / final Cal. GWS eq		
2015	AET	off-site / Demob → Hotel.		
2045	"	arrive @ Hotel.		

E.O.D

J. Marquez 10/17/17

Location Dade Cnty School Board Date 10/18/17 wednesday

Project / Client FACID: 13/8628726

AET#: 26672.00 (E02)

Worker: J. Marquez II, GIT

Vehicle: AET-Toyota Tacoma '08 Δmi = 25mi

Weather: (91/80)° F, %R = 30 %

SOW: GWS x 5

time		Description		
0800	mob to site			
0815	on-site / GWS equip Calc verify			
0820	open mw caps of interest			
↓	MW-A			
0824	"	purge	St	
0841	"	GWS	St	
↓	MW-9			
0906	"	purge	St	
0917	"	GWS	St	
↓	MW-3			
0944	"	purge	St	
1017	"	GWS		
↓	MW-1			
1043	"	purge	St	
1127	"	GWS	ST	
1210	MW-7	purge	St	
1232	"	GWS	St	
1250	AET cleanup/Decon equipment/ice samples			
1300	AET off site / Demob/Cal.			E.O.D
1345	AET arrive	from Demob		

Boldly "X" this box if there is qualified data on this page.

Form FD9000-8 **CALIBRATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)** 11-10-05

Project/Site: Dade County School Board P# 26672 (T2) Date: 10/17/17 Meter # 06C2653 AV

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: +/- 0.3mg/l	
CAL ICV CCV		AM	1110	10/17/17			8.27	26.75	103.3	8.016	P F
CAL ICV CCV		AM	1957	"			7.97	27.82	100.6	7.856	P F
CAL ICV CCV		"	0815	10/18/17			7.81	29.11	99.8	7.678	P F
CAL ICV CCV		"	1300	"			7.49	30.52	100.2	7.520	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 µmhos/cm	Exp. Date	Lot #	Bottle #	Cell Constant	Reading µmhos/cm	Pass or Fail
										Acceptance Criteria: +/- 5%	
CAL ICV CCV		AM	1110	10/17/17	1.413	01/18	7GA091			1408	P F
CAL ICV CCV		AM	1957	"	"	SAA	SAA			1417	P F
CAL ICV CCV		AM	0815	10/18/17	"	"	"			1411	P F
CAL ICV CCV		AM	1300	"	"	"	"			1409	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		AM	1110	10/17/17	4.0	12/18	6GL310			4.03	P F
CAL ICV CCV		AM	1110	"	10.0	01/19	7BA050			9.98	P F
CAL ICV CCV		AM	1957	"	4.0	SAA	SAA			4.07	P F
CAL ICV CCV		AM	1957	"	10.0	SAA	SAA			10.03	P F
CAL ICV CCV		"	0815	10/18/17	4.0	SAA	SAA			4.01	P F
CAL ICV CCV		"	"	"	10.0	SAA	SAA			10.1	P F
CAL ICV CCV		"	1300	"	4.0	SAA	SAA			4.13	P F
CAL ICV CCV		"	"	"	10.0	SAA	SAA			9.88	P F
CAL ICV CCV											P F

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

Notes:

* S.A.A. = same as above. *

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

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: Dade County School Board	SITE LOCATION: Miami, FL	
WELL NO: MW-1	SAMPLE ID: MW-1	DATE: 10/18/2017

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): (3/16)	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 4.86	PURGE PUMP TYPE OR BAILER: P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH − STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (12 feet − 4.86 feet) X 0.65 gallons/foot = 4.64 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): 5 1/2	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 5 1/2	PURGING INITIATED AT: 1043	PURGING ENDED AT: 1126	TOTAL VOLUME PURGED (gallons): 5.55

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)
1120	4.75	4.75	0.13	4.95	7.03	29.21	445	0.19	3.93	~clear	none
1123	0.4	5.15	"	4.94	7.00	29.19	447	0.20	3.79	"	"
1126	"	5.55	"	"	6.98	29.22	446	0.19	3.66	"	"

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: Justiniano Marquez III, GIT	SAMPLER(S) SIGNATURE(S): J. Marquez III	SAMPLING INITIATED AT: 1127	SAMPLING ENDED AT: 1143
PUMP OR TUBING DEPTH IN WELL (feet): 5 1/2	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: X µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-1	3	CG	40 mL	HCL			BTEXM	APP	~200
"	1	AG	1 L	H_2SO_4			TRPH	"	"
"	1	AG	1 L	none			PAH	"	"
"	3	CG	40mL	HCL			EDC	"	"
"	2	CG	40 mL	none			EDB	"	"
"	1	HDPE	1/4 L	HNO_3			Pb	"	"

REMARKS: ORP (mV): 154.3 (1), 156.8 (2), 157.3 (3)

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:	Dade County School Board	SITE LOCATION:	Miami, FL
WELL NO:	MW-2	SAMPLE ID:	MW-2
DATE:	10/17/2017		

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
4	(3/16)	2 feet to 12 feet	5.18	P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (17 feet – 5.18 feet) X 0.65 gallons/foot = 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):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
6.0	6.0	1505	1547	5.26

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)
1541	4.50	4.50	0.125	5.21	7.02	29.68	445	0.28	3.78	~clear	none
1544	0.38	4.88	"	5.26	7.03	29.67	444	0.26	3.44	"	"
1547	"	5.26	"	"	7.05	29.63	"	"	3.39	"	"

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:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Justiniano Marquez III, EIT	J. Marquez III	1548	1605

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

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

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-2	3	CG	40mL	HCL			BTEXM	APP	~200
"	1	AG	1L	H_2SO_4			TRPH	"	"
"	1	AG	1L	none			PAH	"	"

REMARKS: (ORP (mV): 46.8 (1), 46.1 (2), 45.5 (3))

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: Dade County School Board	SITE LOCATION: Miami, FL	
WELL NO: MW-3	SAMPLE ID: MW-3	DATE: 10/18/2017

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): (3/16)	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 4.91	PURGE PUMP TYPE OR BAILER: P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (12 feet – 4.91 feet) X 0.65 gallons/foot = 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): 5 1/2	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 5 1/2	PURGING INITIATED AT: 0944	PURGING ENDED AT: 1016	TOTAL VOLUME PURGED (gallons): 5.63

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)
1010	4.625	4.625	0.17	5.05	7.38	29.06	383	0.16	3.33	~clear	low
1013	0.5	5.13	"	5.02	7.40	29.02	"	0.15	3.24	"	"
1016	"	5.63	"	"	"	28.94	"	0.16	3.17	"	"

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: Justiniano Marquez III, GIT	SAMPLER(S) SIGNATURE(S): J. Marquez III	SAMPLING INITIATED AT: 1017	SAMPLING ENDED AT: 1033
PUMP OR TUBING DEPTH IN WELL (feet): 5 1/2	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ~~X~~ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y ~~N (replaced)~~	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-3	3	CG	40mL	HCL			BTEXM	APP	~200
"	1	AG	1L	H_2SO_4			TRPH	"	"
"	1	AG	1L	none			PAH	"	"
"	3	CG	40mL	HCL			EDC	"	"
"	2	CG	"	none			EDB	"	"
"	1	HDPE	1/4L	HNO_3			Pb	"	"

REMARKS: ORP$_{1,2,3}$ (mV): 170.0$_1$ 171.2$_2$ 172.2$_3$

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:	Dade County School Board	SITE LOCATION:	Miami, FL	
WELL NO:	MW-4	SAMPLE ID:	MW-4	DATE: 10/17/2017

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
4	(3/16)	2 feet to 12 feet	4.61	P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (12 feet – 4.61 feet) X 0.65 gallons/foot = 4.80 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):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
5 1/2	5 1/2	1625	1711	5.53

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)
1705	4.81	4.81	0.12	4.69	7.09	28.66	389	0.22	3.94	~clear	none
1708	0.36	5.17	"	4.68	7.08	28.63	385	0.31	3.82	"	"
1711	"	5.53	"	"	7.09	28.65	383	0.28	3.69	"	"

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:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Justiniano Marquez III, GIT	J. Marquez III	1712	1723

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ~~µm~~
5 1/2	HDPE		

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

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-4	3	CG	40 mL	HCL			BTEXM	APP	~200
"	1	AG	1 L	H_2SO_4			TRPH	"	"
"	1	AG	1 L	none			PAH	"	"

REMARKS: ORP (mV): 149.5 (1), 148.8 (2), 148.7 (3)

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: Dade County School Board	SITE LOCATION: Miami, FL	
WELL NO: MW-5	SAMPLE ID: MW-5	DATE: 10/17/2017

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): (3/16)	WELL SCREEN INTERVAL DEPTH: 4 feet to 14 feet	STATIC DEPTH TO WATER (feet): 5.22	PURGE PUMP TYPE OR BAILER: P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (14 feet – 5.22 feet) X 0.16 gallons/foot = 1.40 gallons

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6.0	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6.0	PURGING INITIATED AT: 1805	PURGING ENDED AT: 1821	TOTAL VOLUME PURGED (gallons): 2.40

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)
1815	1.50	1.50	0.15	5.39	6.80	29.75	679	0.39	4.11	~CLEAR	none
1818	0.45	1.95	"	5.36	6.81	29.76	676	0.37	3.77	"	"
1821	"	2.40	"	"	6.80	29.73	"	0.38	3.59	"	"

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: Justiniano Marquez III, GIT	SAMPLER(S) SIGNATURE(S): J. Marquez III	SAMPLING INITIATED AT: 1822	SAMPLING ENDED AT: 1834
PUMP OR TUBING DEPTH IN WELL (feet): 6.0	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: X µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-5	3	CG	40 mL	HCL			BTEXM	APP	~200
"	1	AG	1L	H_2SO_4			TRPH	"	"
"	1	AG	1L	none			PAH	"	"

REMARKS: (ORP (mV): 148.3 (1), 150.7 (2), 152.1 (3))

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: Dade County School Board	SITE LOCATION: Miami, FL	
WELL NO: MW – 6	SAMPLE ID: MW – 6	DATE: 10 / 17 / 2017

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): (3/16)	WELL SCREEN INTERVAL DEPTH: 1 feet to 11 feet	STATIC DEPTH TO WATER (feet): 5.27	PURGE PUMP TYPE OR BAILER: P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (11 feet – 5.27 feet) X 0.16 gallons/foot = 0.91 gallons

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6.0	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6.0	PURGING INITIATED AT: 1843	PURGING ENDED AT: 1859	TOTAL VOLUME PURGED (gallons): 1.60

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)
1853	1.00	1.00	0.10	5.33	6.85	30.59	407	0.77	21.3	clear	med
1856	0.30	1.30	"	5.32	6.86	30.60	412	"	19.5	"	"
1859	"	1.60	"	"	6.87	30.55	420	0.71	19.2	"	"

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: Justiniano Marquez III, GIT	SAMPLER(S) SIGNATURE(S): J. Marquez III	SAMPLING INITIATED AT: 1900	SAMPLING ENDED AT: 1914
PUMP OR TUBING DEPTH IN WELL (feet): 6.0	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: X µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N (replaced))	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-6	3	CG	40 mL	HCL			BTEXM	APP	~200
"	1	AG	1 L	H_2SO_4			TRPH	"	"
"	1	AG	1 L	none			PAH	"	"

REMARKS: ORP (mV): 137.4 (1), 133.4 (2), 129.9 (3)

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: Dade County School Board	SITE LOCATION: Miami, FL	
WELL NO: MW-7	SAMPLE ID: MW-7	DATE: 10 / 18 / 2017

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): (3/16)	WELL SCREEN INTERVAL DEPTH: 3 feet to 13 feet	STATIC DEPTH TO WATER (feet): 5.36	PURGE PUMP TYPE OR BAILER: P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (13 feet – 5.36 feet) X 0.16 gallons/foot = 1.22 gallons

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6.0	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6.0	PURGING INITIATED AT: 1216	PURGING ENDED AT: 1231	TOTAL VOLUME PURGED (gallons): 1.75

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)
1225	1.25	1.25	0.08	5.88	7.17	30.38	351	3.16	4.39	~clear	none
1228	0.25	1.50	"	5.86	7.16	30.37	349	3.14	4.17	"	"
1231	"	1.75	"	"	7.17	30.39	352	3.13	4.01	"	"

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: Justiniano Marquez III, GIT	SAMPLER(S) SIGNATURE(S): J. Marquez III	SAMPLING INITIATED AT: 1232	SAMPLING ENDED AT: 1247
PUMP OR TUBING DEPTH IN WELL (feet): 6.0	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: X µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-7	3	CG	40mL	HCL			BTEXM	APP	~200
"	1	AG	1L	H_2SO_4			TRPH	"	"
"	1	AG	1L	none			PAH	"	"
"	3	CG	40mL	HCL			EDC	"	"
"	2	CG	"	none			EDB	"	"
"	1	HDPE	1/4 L	HNO_3			Pb	"	"

REMARKS: ORP (mV): 174.3 (1), 174.6 (2), 174.9 (3)

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: Dade County School Board	SITE LOCATION: Miami, FL	
WELL NO: MW-8	SAMPLE ID: MW-8	DATE: 10 / 17 / 2017

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): (3/16)	WELL SCREEN INTERVAL DEPTH: 4 feet to 14 feet	STATIC DEPTH TO WATER (feet): 5.47	PURGE PUMP TYPE OR BAILER: P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (14 feet – 5.47 feet) X 0.16 gallons/foot = 1.36 gallons

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6.0	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6.0	PURGING INITIATED AT: 1924	PURGING ENDED AT: 1941	TOTAL VOLUME PURGED (gallons): 2.12

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)
1935	1.375	1.375	0.125	5.61	7.07	30.31	447	3.10	4.65	~clear	none
1938	0.37	1.75	"	5.59	7.05	30.30	444	2.97	4.04	"	"
1941	"	2.12	"	"	"	30.32	445	3.08	3.72	"	"

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: Justiniano Marquez III, GIT	SAMPLER(S) SIGNATURE(S): J. Marquez III	SAMPLING INITIATED AT: 1942	SAMPLING ENDED AT: 1954
PUMP OR TUBING DEPTH IN WELL (feet): 6.0	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: X µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-8	3	CG	40mL	HCL			BTEXM	APP	~200
"	1	AG	1L	H_2SO_4			TRPH	"	"
"	1	AG	1L	none			PAH	"	"

REMARKS: ORP (mV): 156.3 (1), 157.5 (2), 157.9 (3)

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:	Dade County School Board	SITE LOCATION:	Miami, FL
WELL NO:	MW-9	SAMPLE ID:	MW-9
DATE:	10 / 18 / 2017		

PURGING DATA

WELL DIAMETER (inches):	1 1/2	TUBING DIAMETER (inches):	3/16	WELL SCREEN INTERVAL DEPTH:	2 feet to 12 feet	STATIC DEPTH TO WATER (feet):	5.51	PURGE PUMP TYPE OR BAILER:	P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (12 feet – 5.51 feet) X 0.092 gallons/foot = 0.59 gallons

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	6.0	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	6.0	PURGING INITIATED AT:	0906	PURGING ENDED AT:	0916	TOTAL VOLUME PURGED (gallons):	1.55

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)
0910	0.625	0.625	0.15	5.69	6.94	30.95	413	0.20	4.86	clear	none
0913	6.45	1.10	"	5.67	7.01	30.88	400	"	4.44	"	"
0916	"	1.55	"	"	7.06	30.99	396	0.19	4.21	"	"

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:	Justiniano Marquez III, EIT	SAMPLER(S) SIGNATURE(S):	J. Marquez III	SAMPLING INITIATED AT:	0917	SAMPLING ENDED AT:	0929
PUMP OR TUBING DEPTH IN WELL (feet):	6.00	TUBING MATERIAL CODE:	HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:		FILTER SIZE: X µm	
FIELD DECONTAMINATION: PUMP Y (N)		TUBING Y (N replaced)		DUPLICATE: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-9	3	CG	40 mL	HCL			BTEXM	APP	~200
"	1	AG	1L	H_2SO_4			TRPH	"	"
"	1	AG	1L	none			PAH	"	"

REMARKS: ORP (mV): 164.8 (1), 163.7 (2), 162.5 (3)

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: Dade County School Board	SITE LOCATION: Miami, FL	
WELL NO: MW - 10	SAMPLE ID: MW - 10	DATE: 10 / 17 / 2017

PURGING DATA

WELL DIAMETER (inches): 1 1/2	TUBING DIAMETER (inches): (3/16)	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 5.72	PURGE PUMP TYPE OR BAILER: P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (12 feet – 5.72 feet) X 0.092 gallons/foot = 0.57 gallons

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6 1/2	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6 1/2	PURGING INITIATED AT: 1224	PURGING ENDED AT: 1237	TOTAL VOLUME PURGED (gallons): 1.23 (Av)

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)
1231	0.625	0.625	0.08	5.93	6.87	30.86	448	0.26	3.99	clear	none
1234	0.30	0.93	"	"	6.96	30.72	445	0.30	3.74	"	"
1237	"	1.23	"	"	6.99	30.88	442	0.33	3.59	"	"

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: Justiniano Marquez III, GIT	SAMPLER(S) SIGNATURE(S): J. Marquez III	SAMPLING INITIATED AT: 1238	SAMPLING ENDED AT: 1249
PUMP OR TUBING DEPTH IN WELL (feet): 6 1/2	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: X µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-10	3	CG	40 mL	HCL			BTEXM	APP	~200
"	1	AG	1 L	H_2SO_4			TRPH	"	"
"	1	AG	1 L	none			PAH	"	"

REMARKS: ORP (mV): 84.6 (1), 82.5 (2), 80.2 (3)

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: Dade County School Board	SITE LOCATION: Miami, FL	
WELL NO: MW – 11	SAMPLE ID: MW – 11	DATE: 10 / 17 / 2017

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): (3/16)	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 4.88	PURGE PUMP TYPE OR BAILER: P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (12 feet – 4.88 feet) X 0.65 gallons/foot = 4.628 gallons

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6.0	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6.0	PURGING INITIATED AT: 1256	PURGING ENDED AT: 1336	TOTAL VOLUME PURGED (gallons): 5.55

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)
1330	4.75	4.75	0.14	5.08	7.15	29.88	465	0.21	2.65	~clear	low
1333	0.4	5.15	"	"	7.16	29.83	466	0.20	2.49	"	"
1336	"	5.55	"	"	"	29.87	"	0.19	2.37	"	"

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: Justiniano Marquez III, GIT	SAMPLER(S) SIGNATURE(S): J. Marquez III	SAMPLING INITIATED AT: 1337	SAMPLING ENDED AT: 1358
PUMP OR TUBING DEPTH IN WELL (feet): 6.0	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ~~X~~ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y ~~N (replaced)~~	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-11	3	CG	40 mL	HCL			BTEXM	APP	~200
"	1	AG	1L	H_2SO_4			TRPH	"	"
"	1	AG	1L	none			PAH	"	"

REMARKS: ($ORP_{1,2,3}$ (mV): -62.8, -62, -62.7) * QA/QC location *

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: Dade County School Board	SITE LOCATION: Miami, FL	
WELL NO: MW-12	SAMPLE ID: MW-12	DATE: 10 / 17 / 2017

PURGING DATA

WELL DIAMETER (inches): 1 1/2	TUBING DIAMETER (inches): (3/16)	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 5.05	PURGE PUMP TYPE OR BAILER: P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (12 feet – 5.05 feet) X 0.092 gallons/foot = 0.64 gallons

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6.0	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6.0	PURGING INITIATED AT: 1425	PURGING ENDED AT: 1440	TOTAL VOLUME PURGED (gallons): 1.25

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)
1434	0.75	0.75	0.08	5.27	6.86	31.47	537	0.40	5.88	clear	low
1437	0.25	1.00	"	5.25	6.88	31.36	535	0.48	5.61	"	"
1440	"	1.25	"	"	6.89	31.31	"	0.45	5.48	"	"

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: Justiniano Marquez III, GIT	SAMPLER(S) SIGNATURE(S): J. Marquez III	SAMPLING INITIATED AT: 1441	SAMPLING ENDED AT: 1453
PUMP OR TUBING DEPTH IN WELL (feet): 6.0	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ~~µm~~
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y ~~N~~ (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-12	3	CG	40 mL	HCL			BTEXM	APP	~200
"	1	AG	1 L	H_2SO_4			TRPH	"	"
"	1	AG	1 L	none			PAH	"	"

REMARKS: (ORP (mV): 67.6 (1), 67.1 (2), 62.1 (3))

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: Dade County School Board	SITE LOCATION: Miami, FL	
WELL NO: MW-13	SAMPLE ID: MW-13	DATE: 10 / 17 / 2017

PURGING DATA

WELL DIAMETER (inches): 1 1/2	TUBING DIAMETER (inches): (3/16)	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 5.28	PURGE PUMP TYPE OR BAILER: P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (12 feet – 5.28 feet) X 0.092 gallons/foot = 1.07 gallons

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6.0	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6.0	PURGING INITIATED AT: 1728	PURGING ENDED AT: 1744	TOTAL VOLUME PURGED (gallons): 1.90

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)
1738	1.10	1.80	0.14	5.37	7.02	25.64	529	0.29	5.02	~clear	none
1741	0.40	1.50	"	5.35	6.99	"	527	0.30	4.91	"	"
1744	"	1.90	"	"	7.01	"	525	0.28	4.33	"	"

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: Justiniano Marquez III, EIT	SAMPLER(S) SIGNATURE(S): J. Marquez III	SAMPLING INITIATED AT: 1745	SAMPLING ENDED AT: 1757
PUMP OR TUBING DEPTH IN WELL (feet): 6.0	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: X µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-13	3	CG	40mL	HCL			BTEXM	APP	~200
"	1	AG	1L	H_2SO_4			TRPH	"	"
"	1	AG	1L	none			PAH	"	"

REMARKS: ORP (mV): 118.4 (1), 119.7 (2), 121.2 (3)

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: Dade County School Board	SITE LOCATION: Miami, FL	
WELL NO: MW – A	SAMPLE ID: MW – A	DATE: 10 / 18 / 2017

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): (3/16)	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 5.16	PURGE PUMP TYPE OR BAILER: P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (12 feet – 5.16 feet) X 0.16 gallons/foot = 1.09 gallons

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6.0	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6.0	PURGING INITIATED AT: 0824	PURGING ENDED AT: 0841	TOTAL VOLUME PURGED (gallons): 1.76

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)
0834	1.10	1.10	0.11	5.30	6.92	29.56	492	0.35	8.71	~clear	low
0837	0.33	1.43	"	5.29	6.93	29.58	482	0.31	8.59	"	"
0840	"	1.76	"	"	6.94	29.60	486	0.26	8.42	"	"

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: Justiniano Marquez III, GET	SAMPLER(S) SIGNATURE(S): J. Marquez III	SAMPLING INITIATED AT: 0842	SAMPLING ENDED AT: 0854
PUMP OR TUBING DEPTH IN WELL (feet): 6.0	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: X µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-A	3	CG	40mL	HCL			BTEXM	APP	~200
"	1	AG	1L	H_2SO_4			TRPH	"	"
"	1	AG	1L	none			PAH	"	"

REMARKS: ORP (mV): 136.0 (1), 136.6 (2), 136.8 (3)

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)

FT 1000 General Field Testing and Measurement

Prj name: Dade City School Board Prj #: 26672 (T2)

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) YSI Hach **INSTRUMENT #** 06C2653 AV 14040C031969

PARAMETER: *[check only one]*

- ☐ TEMPERATURE
- ☐ CONDUCTIVITY
- ☐ SALINITY
- ☐ pH
- ☒ ORP (A)
- ☒ TURBIDITY (B)
- ☐ 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 240 mV ± 20 mV Exp: 11/2020, Lot #: 9567

Standard B 10.0 NTU

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
10/17/17	1110	A	240	238.9	0.45	Yes	initial	JM
11	1110	B	10.0	9.80	2	11	11	JM
11	1957	A	240	238.3	0.7	NO	final	JM
11	11	B	10.0	9.87	1.3	11	11	JM
10/18/17	0815	A	240	238.8	0.5	Yes	initial	AM
11	11	B	10	9.85	1.5	11	11	AM
11	1300	A	240	237.8	0.91	NO	final	AM
11	11	B	10	9.79	2.1	11	11	JM

Location Dade Cnty SB Date 10/31/17 tuesday

Project / Client FACID: 13/8628726

AET#: 26678 (CO2)

worker	J. Marquez III, HIT / AET-L
vehicle	AET - white Toyota Tacoma '08
weather	(85/72)°F, 10% precip clear skies
SOW	GWS x 3 PAH/TRPH

time	description
0730	AET mob to site / ice cooler(s)
1145	on-site / notify POC
1150	open mws of interest / set up
1205	DTW measurements

MW ID	DTW	FP	comments
MW-10	5.17	X	1½" no odor
MW-11	4.80	"	petrol odor
MW-12	4.95	"	1½" no odor

1210				
1211	Set up GWS equipment			
1212	MW-10	purge	St	
1224	"	GWS	St	
1307	MW-11	purge	St	
1337	"	GWS	St	
1240	MW-12	purge	St	
1251	"	GWS	St	
1350	AET clean up GWS eq / Final Col/Decon			
1400	" off-site / Demob			
1800	" arrive from Demob			

4.0 D

Mod

Form FD 9000-24

GROUNDWATER SAMPLING LOG

E ME:	Dade Cnty SB	SITE LOCATION:	Miami, FL
LL NO:	MW-10	SAMPLE ID:	MW-10
DATE:	10/31/17		

PURGING DATA

LL METER (inches): 1 1/2	TUBING DIAMETER (inches): (3/16)	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 5.17	PURGE PUMP TYPE OR BAILER: PP

LL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH − STATIC DEPTH TO WATER) X WELL CAPACITY
y fill out if applicable)
= (12 feet − 5.17 feet) X 0.092 gallons/foot = 0.63 gallons

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

TAL PUMP OR TUBING PTH IN WELL (feet): 6 1/2	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6 1/2	PURGING INITIATED AT: 1212	PURGING ENDED AT: 1223	TOTAL VOLUME PURGED (gallons): 1.75

ME	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	ORP (mV)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1216	0.75	0.75	0.18	5.36	7.10	29.76	570	0.17	20.4	3.51	Milky	none
1219	0.5	1.25	11	5.35	7.11	29.93	567	0.12	18.4	3.33	11	11
1222	11	1.75	11	11	7.12	29.87	566	0.14	13.0	3.45	11	11

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

PLED BY (PRINT) / AFFILIATION: J. Marquez III, GIT/AET	SAMPLER(S) SIGNATURE(S): J. Marquez III	SAMPLING INITIATED AT: 1224	SAMPLING ENDED AT: 1235
P OR TUBING TH IN WELL (feet): 6 1/2	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: X µm
D DECONTAMINATION: PUMP Y (N)	TUBING Y (N (replaced))	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
MPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-10	1	A.G.	1L	H_2SO_4			FL PRO	A.PP	~200
11	1	A.G.	1L	none.			8270	11	11

ARKS:

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

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

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

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

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

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

E ME: Dade Cnty SB		SITE LOCATION: Miami, FL	
LL NO: MW – 11	SAMPLE ID: MW – 11		DATE: 10 / 31 / 17

PURGING DATA

LL METER (inches): 4"	TUBING DIAMETER (inches): (3/16)	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 4.80	PURGE PUMP TYPE OR BAILER: PP

LL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
y fill out if applicable)
= (12 feet – 4.80 feet) X 0.65 gallons/foot = 4.68 gallons

JIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
y fill out if applicable)
= gallons + (gallons/foot X 1307 feet) + FM gallons = gallons

TAL PUMP OR TUBING TH IN WELL (feet): 5 1/2	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 5 1/2	PURGING ~~INITIATED AT: 1240~~	PURGING ENDED AT: 1336	TOTAL VOLUME PURGED (gallons): 5.75	

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	ORP (mV)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1330	4.75	4.75	0.20	4.80	7.10	28.98	532	0.15	-229.3	5.05	~clear	medium
1333	0.6	5.35	"	"	7.11	28.97	533	"	-247.2	4.96	"	"
1336	"	5.95	"	"	7.10	29.05	"	"	-248.9	4.74	"	"

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

PLED BY (PRINT) / AFFILIATION: J. Marquez III, GIT/AET	SAMPLER(S) SIGNATURE(S): J. Marquez III	SAMPLING INITIATED AT: 1337	SAMPLING ENDED AT: 1348
P OR TUBING TH IN WELL (feet): 5 1/2	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: X µm
D DECONTAMINATION: PUMP Y (N)	TUBING Y (N (replaced))	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
MPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
W – 11	1	A.G.	1L	H_2SO_4			FLPRO	A-PP	~200
"	1	A.G.	1L	none.			8270	"	"

ARKS:

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

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

OTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

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

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

E ME: Dade County SB	SITE LOCATION: Miami, FL		
LL NO: MW – 12	SAMPLE ID: MW – 12	DATE: 10/31/17	

PURGING DATA

LL METER (inches): 1 1/2	TUBING DIAMETER (inches): (3/16)	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 4.95	PURGE PUMP TYPE OR BAILER: PP

LL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
y fill out if applicable)
= (12 feet – 4.95 feet) X 0.092 gallons/foot = 0.64 gallons

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

TAL PUMP OR TUBING PTH IN WELL (feet): 6	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6	PURGING INITIATED AT: 1240	PURGING ENDED AT: 1250	TOTAL VOLUME PURGED (gallons): 1.84

ME	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	ORP (mV)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1244	0.75	0.75	0.18	5.11	6.98	30.50	524	0.17	58.9	7.03	~clear	none
1247	0.54	1.30	"	5.09	6.99	"	518	0.16	48.5	6.20	"	"
1250	"	1.84	"	"	6.98	30.52	520	0.17	37.2	5.94	"	"

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

PLED BY (PRINT) / AFFILIATION: J. Marquez III, GIT/AET	SAMPLER(S) SIGNATURE(S): J. Marquez III	SAMPLING INITIATED AT: 1251	SAMPLING ENDED AT: 1302
P OR TUBING TH IN WELL (feet): 6	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: X µm
D DECONTAMINATION: PUMP Y (N)	TUBING Y (N (replaced))	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
MPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-12	1	A.G.	1L	H_2SO_4			FLPRO	A-PP	~200
"	1	A.G.	1L	none.			8270	"	"

ARKS:

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

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

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

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

Revision Date: February 12, 2009

Boldly "X" this box if there is qualified data on this page.

Form FD9000-8 **CALIBRATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)** *11-10-05*

Project/Site: Dade Cnty SB P# 26672 (T2) Date: 10/31/17 Meter # 06C2653 AV

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: +/- 0.3mg/l	
(CAL) (ICV) CCV		AM	10/31	1350			7.54	30.00	99.7	7.559	(P) F
CAL ICV (CCV)		AM	10/30	1438			8.43	24.02	100.1	8.419	(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 µmhos/cm	Exp. Date	Lot #	Bottle #	Cell Constant	Reading µmhos/cm	Pass or Fail
										Acceptance Criteria: +/- 5%	
(CAL) (ICV) CCV		AM	10/30	1438	1.413	01/18	76A091			1402	(P) F
CAL ICV (CCV)		SAA	10/31	1350	"	SAA	SAA			1407	(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		AM	10/30		4.0	12/18	6GL310			4.01	(P) F
CAL (ICV) CCV		SAA	"		10.0	01/19	70A050			9.81	(P) F
CAL ICV (CCV)		AM	10/31	1350	4.0	SAA	SAA.			4.012	(P) F
CAL ICV (CCV)		SAA	"	11	10.0	SAA	SAA			10.01	(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:

* S.A.A. = same as above. *

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

FT 1000 General Field Testing and Measurement

Pgname: Dade Cnty SB Prj #: 26672 (T2)

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) YSI Hach **INSTRUMENT #** 06C2653 AV 14040C031969

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☐ pH ☒ ORP (A)

☒ TURBIDITY (B) ☐ 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 240 mV ± 20 mV Exp: 11/2020, Lot #: 9567

Standard B 10.0 NTU

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
10/30/17	1438	A	240	239.1	0.375	Yes	initial	JM
10/30/17	"	B	10.0	9.49	5.10	"	"	JM
10/31/17	1350	A	240	237.2	1.16	NO	final	JM
10/31/17	"	B	10.0	10.4	4.0	"	"	JM

Dade City School Board — Thursday 08/24/17

AET # 26672.00 (EO2) FACID 13/8628786

worker	J. Marquez III, GIT
vehicle	AET, IIL – Toyota Tacoma Δmi = 418 mi
weather	(87/81)°F, %R = 80%
soil	Receptor Survey

time	Description
0815	Mob to site mileage: 192189 mi
1015	Stop for Restroom/stretch
1120	Stop for Restroom / GASOline
1130	AET on-site → meet on-site contact → Brian.
1138 (1138)	Locate on-site MWs (1-13) for DTW / total depth measurements
	* MW-6 ⇒ underwater *

MW ID	DTW (ft)	D total (ft)	comments
MW-10	5.095	12.5	1" diam
MW-2	5.10	11	4" diam
MW-11	4.79	15.0	4" ll Hot odor
MW-1	4.78	11.0	4" dia
MW-12	4.89	12.5	1"
MW-4	4.52	11.0	4"
MW-3	4.81	12.0	4"
MW-9	5.36	12.5	1"
MW-A	5.02	15.0	2" low odor (well cap not secured)
MW-13	5.13	12.5	1"
MW-5	5.07	14.5	2" oil in MH cover
MW-7	5.22	13.0	2" oil in MH cover
MW-8	5.33	12.0	2" (in Parking Space)

1245 in Parking Space

Thursday 08/24/17

1246	raining on-site Restroom
1255	Site photos
1300	off-site for receptor Survey – Due west of Railroad track – Due south of 4th st SW
1300	on-site MWs located outside of Area of Investigation (AOI)

MW ID	DTW	D total	FP	diameter comments
Southside of building Southof (AOI) MW-15	5.51	12.5	none	2" MW cap degraded/replaced MW-cap
westside of Trolley garage Bldg 7001 MW-16	5.83	12.5	none	2"
MW-17	5.85	11.5		2" replaced MW cap
MW-18	5.86	12.5	none	degrading 2"
MW-19	5.88	13.0		2"

1351	AST area w/ 7 small tanks in 15'x15' concrete depression – located on SW side of Building 7001
1515	AET complete Receptor Survey/Demob ⇒ HQ
2130	AET @ HQ
2200	complete field Report

E.O.D

mi final = 192607 mi

08/24/17

APPENDIX E

SOIL & GROUNDWATER ANALYTICAL REPORTS

REVISED
ANALYTICAL REPORT

ETL PROJECT ID: 17-4105 1/17/2018 - Revision 1

ANDRES SANCHEZ
ADVANCED ENVIRONMENTAL TECHNOLOGIES
4265 NEW TAMPA HIGHWAY
LAKELAND, FL 33815
TEL: (863) 619-9708
FAX: (863) 619-7467

CLIENT PROJECT NAME: DADE CNTY SCHOOL BD-TRANSPORTATION
CLIENT PROJECT ID: 26672.00
FACILITY ID: 13/8628726

Enclosed are the analytical results for sample(s) received by Environmental Testing Laboratories on December 20, 2017. Results reported herein are reported on an as received basis and conform to current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Sample analyses performed by Environmental Testing Laboratories, Inc. (ETL) unless otherwise noted. ETL is accredited through NELAC and the Florida Department of Health, Certification #E87684. Scope of analyses: RCRA/CERCLA Metals, General Chemistry, Extractable Organics, and Volatile Organics. Effective Dates: February 14, 2002 through June 30, 2018.

Authorized for release by:

Table of Contents

Laboratory Qualifiers

!	Data deviate from historically established concentration ranges.
#	Surrogate compound inadvertently omitted.
$	Due to dilution, surrogate compound was not detected.
*	Not reported due to interference
?	Data are rejected as should not be used.
A	Value reported is the arithmetic mean (average) of two or more determinations.
B	Results based upon colony counts outside the acceptable range.
D	Measurement made in the field.
E	Extra samples were taken at composite stations.
F	When reporting species, F indicates the female sex.
H	Value based on fied kit determination; results may not be accurate.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J	Estimated value.
K	Off-scale low. Actual value is known to be less than the value given.
L	Off-scale high. Actual value is known to be greater than the value given.
M	Presence of material is verified but not quantified; the actual value is less than the value given.
N	Presumptive evidence of presence of material.
O	Sampled, but analysis lost or not performed.
Q	Sample held beyond the accepted holding time.
R	Significant rain in the past 48 hours.
S1	Surrogate recovery reported is outside of laboratory established QA/QC Limits
S2	Analyte recovery reported is outside of laboratory established QA/QC Limits
S3	Analyte precision reported is outside of laboratory established QA/QC Limits
T	Value reported is less than the laboratory method detection limit.
U	Compound was analyzed for but not detected.
V	Indicates that the analyte was detected in both the sample and the associated method blank.
Y	Laboratory analysis was from an improperly preserved sample. Data may not be accurate.
Z	Too many colonies were present; numeric value represents the filtration volume.

Project Narrative

#E87684

Environmental Testing Laboratories, Inc. is accredited through NELAC and the Florida Department of Health.

Solid samples are reported on a dry weight basis unless otherwise noted.

Please refer to Section 4.0 of the ETL Quality Assurance Manual for a measure of uncertainty.

All analyses are performed using EPA or FL-DEP methods and certified to meet NELAC requirements, except where noted.

Analysis Samples

SPLP extraction date: 01/02/2018, Find Ma EPH/VPH speciation results in the subcontract data section of this report as analyzed by FTS Analytical of Tampa, FL. Revision 1 issued to incorporate all these results.

Analytical Method Summary

E87684

Environmental Testing Laboratories Inc.
412 W. Walcott Street, Thomasville, GA 31792
(229) 228-2592

Semi-volatiles low level for PAH only (EPA 1312/8270/PAH Low Leve l\	
ICP (EPA 6010)	SW-846 Final Update III
GC/MS (EPA 8260)	SW-846 Final Update III
Semivolatiles low level for PAH only (EPA 8270/PAH Low Level)	
GC/FID (FDEP FL-PRO)	Florida Department of Environmental Protection

Sample Summary

Laboratory Sample ID	Client Sample ID	Matrix	End Date / Time Sampled		Grab / Composite	Percent Moisture
223310	SB-31 @ 4'	SOILS	12/19/2017	12:25	G	5.49
223311	SB-32 @ 1'-2'	SOILS	12/19/2017	16:45	G	9.57
223312	SB-32 @ 4'	SOILS	12/19/2017	17:10	G	4.69
223313	SB-22 @ 1'-2'	SOILS	12/19/2017	18:00	G	3.92
223314	SB-22 @ 4'	SOILS	12/19/2017	18:15	G	4.79
223315	SB-26 @ 1'-2'	SOILS	12/19/2017	17:25	G	2.44
223316	SB-26 @ 4'	SOILS	12/19/2017	17:40	G	6.51
223317	PREBURN	SOILS	12/19/2017	17:40	G	12.1

Executive Summary

Analyte	Analytical Method	Result	Units	Qualifiers	Result Comments
SB-31 @ 4' (223310)					
Naphthalene	EPA 8270/PAH Low Level	0.52	mg/Kg		
Acenaphthylene	EPA 8270/PAH Low Level	0.019	mg/Kg	I	
Acenaphthene	EPA 8270/PAH Low Level	0.058	mg/Kg	I	
Fluorene	EPA 8270/PAH Low Level	0.20	mg/Kg		
Phenanthrene	EPA 8270/PAH Low Level	0.67	mg/Kg		
Fluoranthene	EPA 8270/PAH Low Level	0.12	mg/Kg		
1-Methylnaphthalene	EPA 8270/PAH Low Level	1.4	mg/Kg		
2-Methylnaphthalene	EPA 8270/PAH Low Level	1.7	mg/Kg		
Pyrene	EPA 8270/PAH Low Level	0.010	mg/Kg	I	
Benzo(a)anthracene	EPA 8270/PAH Low Level	0.057	mg/Kg	I	
Chrysene	EPA 8270/PAH Low Level	0.053	mg/Kg	I	
Benzo(b)fluoranthene	EPA 8270/PAH Low Level	0.13	mg/Kg		
Benzo(k)fluoranthene	EPA 8270/PAH Low Level	0.053	mg/Kg	I	
Benzo(a)pyrene	EPA 8270/PAH Low Level	0.085	mg/Kg		
Indeno(1,2,3-cd)pyrene	EPA 8270/PAH Low Level	0.075	mg/Kg		
Dibenzo(a,h)anthracene	EPA 8270/PAH Low Level	0.016	mg/Kg	I	
Benzo(g,h,i)perylene	EPA 8270/PAH Low Level	0.062	mg/Kg	I	
Total Recoverable Pet. Hydrocarbons	FDEP FL-PRO	4300	mg/Kg		
SB-32 @ 1'-2' (223311)					
Total Recoverable Pet. Hydrocarbons	FDEP FL-PRO	61	mg/Kg		
Anthracene	EPA 8270/PAH Low Level	0.010	mg/Kg	I	
Fluoranthene	EPA 8270/PAH Low Level	0.20	mg/Kg		
Pyrene	EPA 8270/PAH Low Level	0.18	mg/Kg		
Benzo(a)anthracene	EPA 8270/PAH Low Level	0.17	mg/Kg		
Benzo(b)fluoranthene	EPA 8270/PAH Low Level	0.33	mg/Kg		
Benzo(k)fluoranthene	EPA 8270/PAH Low Level	0.12	mg/Kg		
Benzo(a)pyrene	EPA 8270/PAH Low Level	0.23	mg/Kg		
Indeno(1,2,3-cd)pyrene	EPA 8270/PAH Low Level	0.20	mg/Kg		
Dibenzo(a,h)anthracene	EPA 8270/PAH Low Level	0.045	mg/Kg	I	
Benzo(g,h,i)perylene	EPA 8270/PAH Low Level	0.20	mg/Kg		
SB-32 @ 4' (223312)					
Total Recoverable Pet. Hydrocarbons	FDEP FL-PRO	1700	mg/Kg		
Naphthalene	EPA 8270/PAH Low Level	0.070	mg/Kg	I	

Executive Summary

Analyte	Analytical Method	Result	Units	Qualifiers	Result Comments
SB-32 @ 4' (223312)					
Acenaphthylene	EPA 8270/PAH Low Level	0.020	mg/Kg	I	
Acenaphthene	EPA 8270/PAH Low Level	0.017	mg/Kg	I	
Fluorene	EPA 8270/PAH Low Level	0.052	mg/Kg	I	
Phenanthrene	EPA 8270/PAH Low Level	0.068	mg/Kg	I	
Anthracene	EPA 8270/PAH Low Level	0.012	mg/Kg	I	
Fluoranthene	EPA 8270/PAH Low Level	0.057	mg/Kg	I	
1-Methylnaphthalene	EPA 8270/PAH Low Level	0.21	mg/Kg		
2-Methylnaphthalene	EPA 8270/PAH Low Level	0.073	mg/Kg		
Pyrene	EPA 8270/PAH Low Level	0.12	mg/Kg		
Benzo(a)anthracene	EPA 8270/PAH Low Level	0.037	mg/Kg	I	
Chrysene	EPA 8270/PAH Low Level	0.061	mg/Kg	I	
Benzo(b)fluoranthene	EPA 8270/PAH Low Level	0.16	mg/Kg		
Benzo(k)fluoranthene	EPA 8270/PAH Low Level	0.052	mg/Kg	I	
Benzo(a)pyrene	EPA 8270/PAH Low Level	0.12	mg/Kg		
Indeno(1,2,3-cd)pyrene	EPA 8270/PAH Low Level	0.10	mg/Kg		
Dibenzo(a,h)anthracene	EPA 8270/PAH Low Level	0.023	mg/Kg	I	
Benzo(g,h,i)perylene	EPA 8270/PAH Low Level	0.089	mg/Kg		
Pyrene	EPA 1312/8270/PAH Low Level	0.18	ug/L	I	
SB-22 @ 1'-2' (223313)					
Anthracene	EPA 8270/PAH Low Level	0.011	mg/Kg	I	
Fluoranthene	EPA 8270/PAH Low Level	0.037	mg/Kg	I	
Pyrene	EPA 8270/PAH Low Level	0.031	mg/Kg	I	
Chrysene	EPA 8270/PAH Low Level	0.017	mg/Kg	I	
Benzo(b)fluoranthene	EPA 8270/PAH Low Level	0.027	mg/Kg	I	
Benzo(k)fluoranthene	EPA 8270/PAH Low Level	0.0094	mg/Kg	I	
Benzo(a)pyrene	EPA 8270/PAH Low Level	0.015	mg/Kg	I	
Indeno(1,2,3-cd)pyrene	EPA 8270/PAH Low Level	0.015	mg/Kg	I	
Benzo(g,h,i)perylene	EPA 8270/PAH Low Level	0.011	mg/Kg	I	
SB-26 @ 1'-2' (223315)					
Total Recoverable Pet. Hydrocarbons	FDEP FL-PRO	55	mg/Kg		
Anthracene	EPA 8270/PAH Low Level	0.018	mg/Kg	I	
Fluoranthene	EPA 8270/PAH Low Level	0.017	mg/Kg	I	
Pyrene	EPA 8270/PAH Low Level	0.012	mg/Kg	I	

Executive Summary

Analyte	Analytical Method	Result	Units	Qualifiers	Result Comments
SB-26 @ 1'-2' (223315)					
SB-26 @ 4' (223316)					
Phenanthrene	EPA 8270/PAH Low Level	0.024	mg/Kg	I	
Fluoranthene	EPA 8270/PAH Low Level	0.018	mg/Kg	I	
Pyrene	EPA 8270/PAH Low Level	0.013	mg/Kg	I	
PREBURN (223317)					
Arsenic	EPA 6010	0.39	mg/Kg	I	
Cadmium	EPA 6010	0.030	mg/Kg	I	
Chromium	EPA 6010	6.0	mg/Kg	V	
Lead	EPA 6010	0.78	mg/Kg		

Analytical Data

Client Sample ID: SB-31 @ 4'
Sample Location:
Date Collected: 12/19/2017 12:25 PM

Laboratory Sample ID: 223310
Matrix: SOILS
Percent Moisture: 5.49

Analytical Method: EPA 8260
GC/MS

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Benzene	1.0	0.00048	U	mg/Kg	0.00048	0.0044	12/20/2017 9:35:00 PM
Ethylbenzene	1.0	0.00013	U	mg/Kg	0.00013	0.0044	12/20/2017 9:35:00 PM
Methyl-t-butyl ether	1.0	0.00058	U	mg/Kg	0.00058	0.0044	12/20/2017 9:35:00 PM
Toluene	1.0	0.00035	U	mg/Kg	0.00035	0.0044	12/20/2017 9:35:00 PM
Xylenes- Total	1.0	0.0012	U	mg/Kg	0.0012	0.014	12/20/2017 9:35:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
1,2-Dichloroethane-d4	1.0	109			80% - 136%	12/20/2017 9:35:00 PM
4-Bromofluorobenzene	1.0	991	S1		51% - 145%	12/20/2017 9:35:00 PM
Dibromofluoromethane	1.0	101			70% - 130%	12/20/2017 9:35:00 PM
Toluene-d8	1.0	130	S1		76% - 120%	12/20/2017 9:35:00 PM

Analytical Method: EPA 8270/PAH Low Level
Semivolatiles low level for PAH only

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
1-Methylnaphthalene	1.0	1.4		mg/Kg	0.0077	0.071	12/23/2017 11:50:00 AM
2-Methylnaphthalene	1.0	1.7		mg/Kg	0.0083	0.071	12/23/2017 11:50:00 AM
Acenaphthene	1.0	0.058	I	mg/Kg	0.017	0.071	12/23/2017 11:50:00 AM
Acenaphthylene	1.0	0.019	I	mg/Kg	0.0081	0.071	12/23/2017 11:50:00 AM
Anthracene	1.0	0.0074	U	mg/Kg	0.0074	0.071	12/23/2017 11:50:00 AM
Benzo(a)anthracene	1.0	0.057	I	mg/Kg	0.010	0.071	12/23/2017 11:50:00 AM
Benzo(a)pyrene	1.0	0.085		mg/Kg	0.0095	0.071	12/23/2017 11:50:00 AM
Benzo(b)fluoranthene	1.0	0.13		mg/Kg	0.010	0.071	12/23/2017 11:50:00 AM
Benzo(g,h,i)perylene	1.0	0.062	I	mg/Kg	0.010	0.071	12/23/2017 11:50:00 AM
Benzo(k)fluoranthene	1.0	0.053	I	mg/Kg	0.0093	0.071	12/23/2017 11:50:00 AM
Chrysene	1.0	0.053	I	mg/Kg	0.012	0.071	12/23/2017 11:50:00 AM
Dibenzo(a,h)anthracene	1.0	0.016	I	mg/Kg	0.012	0.071	12/23/2017 11:50:00 AM
Fluoranthene	1.0	0.12		mg/Kg	0.0095	0.071	12/23/2017 11:50:00 AM
Fluorene	1.0	0.20		mg/Kg	0.0089	0.071	12/23/2017 11:50:00 AM
Indeno(1,2,3-cd)pyrene	1.0	0.075		mg/Kg	0.0073	0.071	12/23/2017 11:50:00 AM
Naphthalene	1.0	0.52		mg/Kg	0.011	0.071	12/23/2017 11:50:00 AM
Phenanthrene	1.0	0.67		mg/Kg	0.015	0.071	12/23/2017 11:50:00 AM
Pyrene	1.0	0.010	I	mg/Kg	0.0087	0.071	12/23/2017 11:50:00 AM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
2-Fluorobiphenyl	1.0	71.2			26% - 110%	12/23/2017 11:50:00 AM
Nitrobenzene-d5	1.0	104			12% - 104%	12/23/2017 11:50:00 AM

PQL: Practical Quantitation Limit RL: Report Limit MDL: Method Detection Limit DF: Dilution Factor

Analytical Data

p-Terphenyl-d14	1.0	91.5		39% - 120%	12/23/2017 11:50:00 AM

Analytical Method: FDEP FL-PRO GC/FID

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Total Recoverable Pet. Hydrocarbons	20	4300		mg/Kg	44	360	12/23/2017 11:56:00 AM
Surrogate	**DF**	**% Recovery**	**Qualifier**	**Units**	**Limits**		**Analysis Date**
Nonatriacontane(C39)	20	0	$		60% - 118%		12/23/2017 11:56:00 AM
Ortho-terphenyl	20	0	$		62% - 109%		12/23/2017 11:56:00 AM

Analytical Data

Client Sample ID: SB-32 @ 1'-2'
Sample Location:
Date Collected: 12/19/2017 04:45 PM

Laboratory Sample ID: 223311
Matrix: SOILS
Percent Moisture: 9.57

Analytical Method: EPA 1312/8270/PAH Low Level
Semi-volatiles low level for PAH only

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
1-Methylnaphthalene	1.0	0.21	U	ug/L	0.21	2.0	1/6/2018 2:25:00 AM
2-Methylnaphthalene	1.0	0.21	U	ug/L	0.21	2.0	1/6/2018 2:25:00 AM
Acenaphthene	1.0	0.26	U	ug/L	0.26	2.0	1/6/2018 2:25:00 AM
Acenaphthylene	1.0	0.19	U	ug/L	0.19	2.0	1/6/2018 2:25:00 AM
Anthracene	1.0	0.19	U	ug/L	0.19	2.0	1/6/2018 2:25:00 AM
Benzo(a)anthracene	1.0	0.10	U	ug/L	0.10	0.20	1/6/2018 2:25:00 AM
Benzo(a)pyrene	1.0	0.090	U	ug/L	0.090	0.20	1/6/2018 2:25:00 AM
Benzo(b)fluoranthene	1.0	0.088	U	ug/L	0.088	0.10	1/6/2018 2:25:00 AM
Benzo(g,h,i)perylene	1.0	0.34	U	ug/L	0.34	2.0	1/6/2018 2:25:00 AM
Benzo(k)fluoranthene	1.0	0.083	U	ug/L	0.083	0.20	1/6/2018 2:25:00 AM
Chrysene	1.0	0.21	U	ug/L	0.21	2.0	1/6/2018 2:25:00 AM
Dibenzo(a,h)anthracene	1.0	0.057	U	ug/L	0.057	0.20	1/6/2018 2:25:00 AM
Fluoranthene	1.0	0.17	U	ug/L	0.17	2.0	1/6/2018 2:25:00 AM
Fluorene	1.0	0.16	U	ug/L	0.16	2.0	1/6/2018 2:25:00 AM
Indeno(1,2,3-cd)pyrene	1.0	0.047	U	ug/L	0.047	0.20	1/6/2018 2:25:00 AM
Naphthalene	1.0	0.13	U	ug/L	0.13	2.0	1/6/2018 2:25:00 AM
Phenanthrene	1.0	0.26	U	ug/L	0.26	2.0	1/6/2018 2:25:00 AM
Pyrene	1.0	0.18	U	ug/L	0.18	2.0	1/6/2018 2:25:00 AM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
2-Fluorobiphenyl	1.0				31% - 130%	1/6/2018 2:25:00 AM
Nitrobenzene-d5	1.0				22% - 127%	1/6/2018 2:25:00 AM
p-Terphenyl-d14	1.0				24% - 150%	1/6/2018 2:25:00 AM

Analytical Method: EPA 8260
GC/MS

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Benzene	1.0	0.00049	U	mg/Kg	0.00049	0.0045	12/20/2017 10:00:00 PM
Ethylbenzene	1.0	0.00012	U	mg/Kg	0.00012	0.0045	12/20/2017 10:00:00 PM
Methyl-t-butyl ether	1.0	0.00060	U	mg/Kg	0.00060	0.0045	12/20/2017 10:00:00 PM
Toluene	1.0	0.00035	U	mg/Kg	0.00035	0.0045	12/20/2017 10:00:00 PM
Xylenes- Total	1.0	0.0012	U	mg/Kg	0.0012	0.013	12/20/2017 10:00:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
1,2-Dichloroethane-d4	1.0	109			80% - 136%	12/20/2017 10:00:00 PM
4-Bromofluorobenzene	1.0	106			51% - 145%	12/20/2017 10:00:00 PM
Dibromofluoromethane	1.0	99.5			70% - 130%	12/20/2017 10:00:00 PM

PQL: Practical Quantitation Limit RL: Report Limit MDL: Method Detection Limit DF: Dilution Factor

Analytical Data

Toluene-d8	1.0	99.2		76% - 120%	12/20/2017 10:00:00 PM

Analytical Method: EPA 8270/PAH Low Level
Semivolatiles low level for PAH only

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
1-Methylnaphthalene	1.0	0.0081	U	mg/Kg	0.0081	0.074	12/23/2017 12:27:00 PM
2-Methylnaphthalene	1.0	0.0086	U	mg/Kg	0.0086	0.074	12/23/2017 12:27:00 PM
Acenaphthene	1.0	0.018	U	mg/Kg	0.018	0.074	12/23/2017 12:27:00 PM
Acenaphthylene	1.0	0.0085	U	mg/Kg	0.0085	0.074	12/23/2017 12:27:00 PM
Anthracene	1.0	**0.010**	I	mg/Kg	0.0077	0.074	12/23/2017 12:27:00 PM
Benzo(a)anthracene	1.0	**0.17**		mg/Kg	0.011	0.074	12/23/2017 12:27:00 PM
Benzo(a)pyrene	1.0	**0.23**		mg/Kg	0.010	0.074	12/23/2017 12:27:00 PM
Benzo(b)fluoranthene	1.0	**0.33**		mg/Kg	0.011	0.074	12/23/2017 12:27:00 PM
Benzo(g,h,i)perylene	1.0	**0.20**		mg/Kg	0.011	0.074	12/23/2017 12:27:00 PM
Benzo(k)fluoranthene	1.0	**0.12**		mg/Kg	0.0097	0.074	12/23/2017 12:27:00 PM
Chrysene	1.0	0.012	U	mg/Kg	0.012	0.074	12/23/2017 12:27:00 PM
Dibenzo(a,h)anthracene	1.0	**0.045**	I	mg/Kg	0.012	0.074	12/23/2017 12:27:00 PM
Fluoranthene	1.0	**0.20**		mg/Kg	0.010	0.074	12/23/2017 12:27:00 PM
Fluorene	1.0	0.0093	U	mg/Kg	0.0093	0.074	12/23/2017 12:27:00 PM
Indeno(1,2,3-cd)pyrene	1.0	**0.20**		mg/Kg	0.0076	0.074	12/23/2017 12:27:00 PM
Naphthalene	1.0	0.011	U	mg/Kg	0.011	0.074	12/23/2017 12:27:00 PM
Phenanthrene	1.0	0.015	U	mg/Kg	0.015	0.074	12/23/2017 12:27:00 PM
Pyrene	1.0	**0.18**		mg/Kg	0.0091	0.074	12/23/2017 12:27:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
2-Fluorobiphenyl	1.0	89.3			26% - 110%	12/23/2017 12:27:00 PM
Nitrobenzene-d5	1.0	102			12% - 104%	12/23/2017 12:27:00 PM
p-Terphenyl-d14	1.0	100			39% - 120%	12/23/2017 12:27:00 PM

Analytical Method: FDEP FL-PRO
GC/FID

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Total Recoverable Pet. Hydrocarbons	1.0	**61**		mg/Kg	2.3	19	12/22/2017 9:58:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
Nonatriacontane(C39)	1.0	107			60% - 118%	12/22/2017 9:58:00 PM
Ortho-terphenyl	1.0	99.9			62% - 109%	12/22/2017 9:58:00 PM

Analytical Data

Client Sample ID: SB-32 @ 4'
Sample Location:
Date Collected: 12/19/2017 05:10 PM

Laboratory Sample ID: 223312
Matrix: SOILS
Percent Moisture: 4.69

Analytical Method: EPA 1312/8270/PAH Low Level
Semi-volatiles low level for PAH only

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
1-Methylnaphthalene	1.0	0.21	U	ug/L	0.21	2.0	1/6/2018 3:01:00 AM
2-Methylnaphthalene	1.0	0.21	U	ug/L	0.21	2.0	1/6/2018 3:01:00 AM
Acenaphthene	1.0	0.26	U	ug/L	0.26	2.0	1/6/2018 3:01:00 AM
Acenaphthylene	1.0	0.19	U	ug/L	0.19	2.0	1/6/2018 3:01:00 AM
Anthracene	1.0	0.19	U	ug/L	0.19	2.0	1/6/2018 3:01:00 AM
Benzo(a)anthracene	1.0	0.10	U	ug/L	0.10	0.20	1/6/2018 3:01:00 AM
Benzo(a)pyrene	1.0	0.090	U	ug/L	0.090	0.20	1/6/2018 3:01:00 AM
Benzo(b)fluoranthene	1.0	0.088	U	ug/L	0.088	0.10	1/6/2018 3:01:00 AM
Benzo(g,h,i)perylene	1.0	0.34	U	ug/L	0.34	2.0	1/6/2018 3:01:00 AM
Benzo(k)fluoranthene	1.0	0.083	U	ug/L	0.083	0.20	1/6/2018 3:01:00 AM
Chrysene	1.0	0.21	U	ug/L	0.21	2.0	1/6/2018 3:01:00 AM
Dibenzo(a,h)anthracene	1.0	0.057	U	ug/L	0.057	0.20	1/6/2018 3:01:00 AM
Fluoranthene	1.0	0.17	U	ug/L	0.17	2.0	1/6/2018 3:01:00 AM
Fluorene	1.0	0.16	U	ug/L	0.16	2.0	1/6/2018 3:01:00 AM
Indeno(1,2,3-cd)pyrene	1.0	0.047	U	ug/L	0.047	0.20	1/6/2018 3:01:00 AM
Naphthalene	1.0	0.13	U	ug/L	0.13	2.0	1/6/2018 3:01:00 AM
Phenanthrene	1.0	0.26	U	ug/L	0.26	2.0	1/6/2018 3:01:00 AM
Pyrene	1.0	**0.18**	I	ug/L	0.18	2.0	1/6/2018 3:01:00 AM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
2-Fluorobiphenyl	1.0				31% - 130%	1/6/2018 3:01:00 AM
Nitrobenzene-d5	1.0				22% - 127%	1/6/2018 3:01:00 AM
p-Terphenyl-d14	1.0				24% - 150%	1/6/2018 3:01:00 AM

Analytical Method: EPA 8260
GC/MS

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Benzene	1.0	0.00048	U	mg/Kg	0.00048	0.0045	12/20/2017 10:25:00 PM
Ethylbenzene	1.0	0.00013	U	mg/Kg	0.00013	0.0045	12/20/2017 10:25:00 PM
Methyl-t-butyl ether	1.0	0.00059	U	mg/Kg	0.00059	0.0045	12/20/2017 10:25:00 PM
Toluene	1.0	0.00035	U	mg/Kg	0.00035	0.0045	12/20/2017 10:25:00 PM
Xylenes- Total	1.0	0.0012	U	mg/Kg	0.0012	0.014	12/20/2017 10:25:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
1,2-Dichloroethane-d4	1.0	111			80% - 136%	12/20/2017 10:25:00 PM
4-Bromofluorobenzene	1.0	442	S1		51% - 145%	12/20/2017 10:25:00 PM
Dibromofluoromethane	1.0	100			70% - 130%	12/20/2017 10:25:00 PM

PQL: Practical Quantitation Limit RL: Report Limit MDL: Method Detection Limit DF: Dilution Factor

Analytical Data

Toluene-d8	1.0	104		76% - 120%	12/20/2017 10:25:00 PM

Analytical Method: EPA 8270/PAH Low Level
Semivolatiles low level for PAH only

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
1-Methylnaphthalene	1.0	0.21		mg/Kg	0.0077	0.070	12/23/2017 1:04:00 PM
2-Methylnaphthalene	1.0	0.073		mg/Kg	0.0082	0.070	12/23/2017 1:04:00 PM
Acenaphthene	1.0	0.017	I	mg/Kg	0.017	0.070	12/23/2017 1:04:00 PM
Acenaphthylene	1.0	0.020	I	mg/Kg	0.0081	0.070	12/23/2017 1:04:00 PM
Anthracene	1.0	0.012	I	mg/Kg	0.0073	0.070	12/23/2017 1:04:00 PM
Benzo(a)anthracene	1.0	0.037	I	mg/Kg	0.010	0.070	12/23/2017 1:04:00 PM
Benzo(a)pyrene	1.0	0.12		mg/Kg	0.0094	0.070	12/23/2017 1:04:00 PM
Benzo(b)fluoranthene	1.0	0.16		mg/Kg	0.010	0.070	12/23/2017 1:04:00 PM
Benzo(g,h,i)perylene	1.0	0.089		mg/Kg	0.010	0.070	12/23/2017 1:04:00 PM
Benzo(k)fluoranthene	1.0	0.052	I	mg/Kg	0.0092	0.070	12/23/2017 1:04:00 PM
Chrysene	1.0	0.061	I	mg/Kg	0.012	0.070	12/23/2017 1:04:00 PM
Dibenzo(a,h)anthracene	1.0	0.023	I	mg/Kg	0.012	0.070	12/23/2017 1:04:00 PM
Fluoranthene	1.0	0.057	I	mg/Kg	0.0094	0.070	12/23/2017 1:04:00 PM
Fluorene	1.0	0.052	I	mg/Kg	0.0088	0.070	12/23/2017 1:04:00 PM
Indeno(1,2,3-cd)pyrene	1.0	0.10		mg/Kg	0.0072	0.070	12/23/2017 1:04:00 PM
Naphthalene	1.0	0.070	I	mg/Kg	0.010	0.070	12/23/2017 1:04:00 PM
Phenanthrene	1.0	0.068	I	mg/Kg	0.015	0.070	12/23/2017 1:04:00 PM
Pyrene	1.0	0.12		mg/Kg	0.0086	0.070	12/23/2017 1:04:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
2-Fluorobiphenyl	1.0	96.9			26% - 110%	12/23/2017 1:04:00 PM
Nitrobenzene-d5	1.0	102			12% - 104%	12/23/2017 1:04:00 PM
p-Terphenyl-d14	1.0	91.0			39% - 120%	12/23/2017 1:04:00 PM

Analytical Method: FDEP FL-PRO
GC/FID

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Total Recoverable Pet. Hydrocarbons	10	1700		mg/Kg	22	180	12/23/2017 1:12:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
Nonatriacontane(C39)	10	0	$		60% - 118%	12/23/2017 1:12:00 PM
Ortho-terphenyl	10	0	$		62% - 109%	12/23/2017 1:12:00 PM

Analytical Data

Client Sample ID: SB-22 @ 1'-2'
Sample Location:
Date Collected: 12/19/2017 06:00 PM

Laboratory Sample ID: 223313
Matrix: SOILS
Percent Moisture: 3.92

Analytical Method: EPA 8260
GC/MS

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Benzene	1.0	0.00048	U	mg/Kg	0.00048	0.0044	12/20/2017 10:49:00 PM
Ethylbenzene	1.0	0.00012	U	mg/Kg	0.00012	0.0044	12/20/2017 10:49:00 PM
Methyl-t-butyl ether	1.0	0.00058	U	mg/Kg	0.00058	0.0044	12/20/2017 10:49:00 PM
Toluene	1.0	0.00034	U	mg/Kg	0.00034	0.0044	12/20/2017 10:49:00 PM
Xylenes- Total	1.0	0.0011	U	mg/Kg	0.0011	0.014	12/20/2017 10:49:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
1,2-Dichloroethane-d4	1.0	111			80% - 136%	12/20/2017 10:49:00 PM
4-Bromofluorobenzene	1.0	101			51% - 145%	12/20/2017 10:49:00 PM
Dibromofluoromethane	1.0	98.7			70% - 130%	12/20/2017 10:49:00 PM
Toluene-d8	1.0	99.0			76% - 120%	12/20/2017 10:49:00 PM

Analytical Method: EPA 8270/PAH Low Level
Semivolatiles low level for PAH only

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
1-Methylnaphthalene	1.0	0.0076	U	mg/Kg	0.0076	0.070	12/23/2017 1:41:00 PM
2-Methylnaphthalene	1.0	0.0081	U	mg/Kg	0.0081	0.070	12/23/2017 1:41:00 PM
Acenaphthene	1.0	0.017	U	mg/Kg	0.017	0.070	12/23/2017 1:41:00 PM
Acenaphthylene	1.0	0.0080	U	mg/Kg	0.0080	0.070	12/23/2017 1:41:00 PM
Anthracene	1.0	**0.011**	I	mg/Kg	0.0073	0.070	12/23/2017 1:41:00 PM
Benzo(a)anthracene	1.0	0.010	U	mg/Kg	0.010	0.070	12/23/2017 1:41:00 PM
Benzo(a)pyrene	1.0	**0.015**	I	mg/Kg	0.0094	0.070	12/23/2017 1:41:00 PM
Benzo(b)fluoranthene	1.0	**0.027**	I	mg/Kg	0.010	0.070	12/23/2017 1:41:00 PM
Benzo(g,h,i)perylene	1.0	**0.011**	I	mg/Kg	0.010	0.070	12/23/2017 1:41:00 PM
Benzo(k)fluoranthene	1.0	**0.0094**	I	mg/Kg	0.0092	0.070	12/23/2017 1:41:00 PM
Chrysene	1.0	**0.017**	I	mg/Kg	0.011	0.070	12/23/2017 1:41:00 PM
Dibenzo(a,h)anthracene	1.0	0.011	U	mg/Kg	0.011	0.070	12/23/2017 1:41:00 PM
Fluoranthene	1.0	**0.037**	I	mg/Kg	0.0094	0.070	12/23/2017 1:41:00 PM
Fluorene	1.0	0.0087	U	mg/Kg	0.0087	0.070	12/23/2017 1:41:00 PM
Indeno(1,2,3-cd)pyrene	1.0	**0.015**	I	mg/Kg	0.0072	0.070	12/23/2017 1:41:00 PM
Naphthalene	1.0	0.010	U	mg/Kg	0.010	0.070	12/23/2017 1:41:00 PM
Phenanthrene	1.0	0.015	U	mg/Kg	0.015	0.070	12/23/2017 1:41:00 PM
Pyrene	1.0	**0.031**	I	mg/Kg	0.0085	0.070	12/23/2017 1:41:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
2-Fluorobiphenyl	1.0	90.1			26% - 110%	12/23/2017 1:41:00 PM
Nitrobenzene-d5	1.0	94.0			12% - 104%	12/23/2017 1:41:00 PM

PQL: Practical Quantitation Limit RL: Report Limit MDL: Method Detection Limit DF: Dilution Factor

Analytical Data

p-Terphenyl-d14	1.0	92.5		39% - 120%	12/23/2017 1:41:00 PM

Analytical Method: FDEP FL-PRO GC/FID

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Total Recoverable Pet. Hydrocarbons	1.0	2.2	U	mg/Kg	2.2	18	12/22/2017 11:12:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
Nonatriacontane(C39)	1.0	85.8			60% - 118%	12/22/2017 11:12:00 PM
Ortho-terphenyl	1.0	94.2			62% - 109%	12/22/2017 11:12:00 PM

Analytical Data

Client Sample ID: SB-22 @ 4'
Sample Location:
Date Collected: 12/19/2017 06:15 PM

Laboratory Sample ID: 223314
Matrix: SOILS
Percent Moisture: 4.79

Analytical Method: EPA 8260
GC/MS

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Benzene	1.0	0.00049	U	mg/Kg	0.00049	0.0045	12/20/2017 11:14:00 PM
Ethylbenzene	1.0	0.00013	U	mg/Kg	0.00013	0.0045	12/20/2017 11:14:00 PM
Methyl-t-butyl ether	1.0	0.00060	U	mg/Kg	0.00060	0.0045	12/20/2017 11:14:00 PM
Toluene	1.0	0.00036	U	mg/Kg	0.00036	0.0045	12/20/2017 11:14:00 PM
Xylenes- Total	1.0	0.0012	U	mg/Kg	0.0012	0.014	12/20/2017 11:14:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
1,2-Dichloroethane-d4	1.0	113			80% - 136%	12/20/2017 11:14:00 PM
4-Bromofluorobenzene	1.0	101			51% - 145%	12/20/2017 11:14:00 PM
Dibromofluoromethane	1.0	102			70% - 130%	12/20/2017 11:14:00 PM
Toluene-d8	1.0	101			76% - 120%	12/20/2017 11:14:00 PM

Analytical Method: EPA 8270/PAH Low Level
Semivolatiles low level for PAH only

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
1-Methylnaphthalene	1.0	0.0077	U	mg/Kg	0.0077	0.070	12/23/2017 2:18:00 PM
2-Methylnaphthalene	1.0	0.0082	U	mg/Kg	0.0082	0.070	12/23/2017 2:18:00 PM
Acenaphthene	1.0	0.017	U	mg/Kg	0.017	0.070	12/23/2017 2:18:00 PM
Acenaphthylene	1.0	0.0081	U	mg/Kg	0.0081	0.070	12/23/2017 2:18:00 PM
Anthracene	1.0	0.0074	U	mg/Kg	0.0074	0.070	12/23/2017 2:18:00 PM
Benzo(a)anthracene	1.0	0.010	U	mg/Kg	0.010	0.070	12/23/2017 2:18:00 PM
Benzo(a)pyrene	1.0	0.0095	U	mg/Kg	0.0095	0.070	12/23/2017 2:18:00 PM
Benzo(b)fluoranthene	1.0	0.010	U	mg/Kg	0.010	0.070	12/23/2017 2:18:00 PM
Benzo(g,h,i)perylene	1.0	0.010	U	mg/Kg	0.010	0.070	12/23/2017 2:18:00 PM
Benzo(k)fluoranthene	1.0	0.0092	U	mg/Kg	0.0092	0.070	12/23/2017 2:18:00 PM
Chrysene	1.0	0.012	U	mg/Kg	0.012	0.070	12/23/2017 2:18:00 PM
Dibenzo(a,h)anthracene	1.0	0.012	U	mg/Kg	0.012	0.070	12/23/2017 2:18:00 PM
Fluoranthene	1.0	0.0095	U	mg/Kg	0.0095	0.070	12/23/2017 2:18:00 PM
Fluorene	1.0	0.0088	U	mg/Kg	0.0088	0.070	12/23/2017 2:18:00 PM
Indeno(1,2,3-cd)pyrene	1.0	0.0072	U	mg/Kg	0.0072	0.070	12/23/2017 2:18:00 PM
Naphthalene	1.0	0.011	U	mg/Kg	0.011	0.070	12/23/2017 2:18:00 PM
Phenanthrene	1.0	0.015	U	mg/Kg	0.015	0.070	12/23/2017 2:18:00 PM
Pyrene	1.0	0.0086	U	mg/Kg	0.0086	0.070	12/23/2017 2:18:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
2-Fluorobiphenyl	1.0	88.9			26% - 110%	12/23/2017 2:18:00 PM
Nitrobenzene-d5	1.0	74.9			12% - 104%	12/23/2017 2:18:00 PM

PQL: Practical Quantitation Limit RL: Report Limit MDL: Method Detection Limit DF: Dilution Factor

Analytical Data

p-Terphenyl-d14	1.0	104		39% - 120%	12/23/2017 2:18:00 PM

Analytical Method: FDEP FL-PRO GC/FID

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Total Recoverable Pet. Hydrocarbons	1.0	2.2	U	mg/Kg	2.2	18	12/22/2017 11:50:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
Nonatriacontane(C39)	1.0	103			60% - 118%	12/22/2017 11:50:00 PM
Ortho-terphenyl	1.0	93.6			62% - 109%	12/22/2017 11:50:00 PM

Analytical Data

Client Sample ID: SB-26 @ 1'-2'
Sample Location:
Date Collected: 12/19/2017 05:25 PM

Laboratory Sample ID: 223315
Matrix: SOILS
Percent Moisture: 2.44

Analytical Method: EPA 8260
GC/MS

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Benzene	1.0	0.00048	U	mg/Kg	0.00048	0.0045	12/20/2017 11:39:00 PM
Ethylbenzene	1.0	0.00012	U	mg/Kg	0.00012	0.0045	12/20/2017 11:39:00 PM
Methyl-t-butyl ether	1.0	0.00059	U	mg/Kg	0.00059	0.0045	12/20/2017 11:39:00 PM
Toluene	1.0	0.00035	U	mg/Kg	0.00035	0.0045	12/20/2017 11:39:00 PM
Xylenes- Total	1.0	0.0011	U	mg/Kg	0.0011	0.013	12/20/2017 11:39:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
1,2-Dichloroethane-d4	1.0	111			80% - 136%	12/20/2017 11:39:00 PM
4-Bromofluorobenzene	1.0	102			51% - 145%	12/20/2017 11:39:00 PM
Dibromofluoromethane	1.0	102			70% - 130%	12/20/2017 11:39:00 PM
Toluene-d8	1.0	98.1			76% - 120%	12/20/2017 11:39:00 PM

Analytical Method: EPA 8270/PAH Low Level
Semivolatiles low level for PAH only

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
1-Methylnaphthalene	1.0	0.0075	U	mg/Kg	0.0075	0.069	12/23/2017 2:55:00 PM
2-Methylnaphthalene	1.0	0.0080	U	mg/Kg	0.0080	0.069	12/23/2017 2:55:00 PM
Acenaphthene	1.0	0.016	U	mg/Kg	0.016	0.069	12/23/2017 2:55:00 PM
Acenaphthylene	1.0	0.0079	U	mg/Kg	0.0079	0.069	12/23/2017 2:55:00 PM
Anthracene	1.0	**0.018**	I	mg/Kg	0.0072	0.069	12/23/2017 2:55:00 PM
Benzo(a)anthracene	1.0	0.0099	U	mg/Kg	0.0099	0.069	12/23/2017 2:55:00 PM
Benzo(a)pyrene	1.0	0.0092	U	mg/Kg	0.0092	0.069	12/23/2017 2:55:00 PM
Benzo(b)fluoranthene	1.0	0.0099	U	mg/Kg	0.0099	0.069	12/23/2017 2:55:00 PM
Benzo(g,h,i)perylene	1.0	0.010	U	mg/Kg	0.010	0.069	12/23/2017 2:55:00 PM
Benzo(k)fluoranthene	1.0	0.0090	U	mg/Kg	0.0090	0.069	12/23/2017 2:55:00 PM
Chrysene	1.0	0.011	U	mg/Kg	0.011	0.069	12/23/2017 2:55:00 PM
Dibenzo(a,h)anthracene	1.0	0.011	U	mg/Kg	0.011	0.069	12/23/2017 2:55:00 PM
Fluoranthene	1.0	**0.017**	I	mg/Kg	0.0092	0.069	12/23/2017 2:55:00 PM
Fluorene	1.0	0.0086	U	mg/Kg	0.0086	0.069	12/23/2017 2:55:00 PM
Indeno(1,2,3-cd)pyrene	1.0	0.0071	U	mg/Kg	0.0071	0.069	12/23/2017 2:55:00 PM
Naphthalene	1.0	0.010	U	mg/Kg	0.010	0.069	12/23/2017 2:55:00 PM
Phenanthrene	1.0	0.014	U	mg/Kg	0.014	0.069	12/23/2017 2:55:00 PM
Pyrene	1.0	**0.012**	I	mg/Kg	0.0084	0.069	12/23/2017 2:55:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
2-Fluorobiphenyl	1.0	91.9			26% - 110%	12/23/2017 2:55:00 PM
Nitrobenzene-d5	1.0	72.3			12% - 104%	12/23/2017 2:55:00 PM

PQL: Practical Quantitation Limit RL: Report Limit MDL: Method Detection Limit DF: Dilution Factor

Analytical Data

p-Terphenyl-d14	1.0	82.3		39% - 120%	12/23/2017 2:55:00 PM

Analytical Method: FDEP FL-PRO GC/FID

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Total Recoverable Pet. Hydrocarbons	1.0	55		mg/Kg	2.2	17	12/23/2017 1:44:00 AM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
Nonatriacontane(C39)	1.0	92.1			60% - 118%	12/23/2017 1:44:00 AM
Ortho-terphenyl	1.0	94.1			62% - 109%	12/23/2017 1:44:00 AM

Analytical Data

Client Sample ID: SB-26 @ 4'
Sample Location:
Date Collected: 12/19/2017 05:40 PM

Laboratory Sample ID: 223316
Matrix: SOILS
Percent Moisture: 6.51

Analytical Method: EPA 8260
GC/MS

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Benzene	1.0	0.00050	U	mg/Kg	0.00050	0.0047	12/21/2017 12:03:00 AM
Ethylbenzene	1.0	0.00013	U	mg/Kg	0.00013	0.0047	12/21/2017 12:03:00 AM
Methyl-t-butyl ether	1.0	0.00062	U	mg/Kg	0.00062	0.0047	12/21/2017 12:03:00 AM
Toluene	1.0	0.00036	U	mg/Kg	0.00036	0.0047	12/21/2017 12:03:00 AM
Xylenes- Total	1.0	0.0012	U	mg/Kg	0.0012	0.014	12/21/2017 12:03:00 AM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
1,2-Dichloroethane-d4	1.0	111			80% - 136%	12/21/2017 12:03:00 AM
4-Bromofluorobenzene	1.0	101			51% - 145%	12/21/2017 12:03:00 AM
Dibromofluoromethane	1.0	102			70% - 130%	12/21/2017 12:03:00 AM
Toluene-d8	1.0	98.6			76% - 120%	12/21/2017 12:03:00 AM

Analytical Method: EPA 8270/PAH Low Level
Semivolatiles low level for PAH only

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
1-Methylnaphthalene	1.0	0.0078	U	mg/Kg	0.0078	0.072	12/23/2017 3:32:00 PM
2-Methylnaphthalene	1.0	0.0083	U	mg/Kg	0.0083	0.072	12/23/2017 3:32:00 PM
Acenaphthene	1.0	0.017	U	mg/Kg	0.017	0.072	12/23/2017 3:32:00 PM
Acenaphthylene	1.0	0.0082	U	mg/Kg	0.0082	0.072	12/23/2017 3:32:00 PM
Anthracene	1.0	0.0075	U	mg/Kg	0.0075	0.072	12/23/2017 3:32:00 PM
Benzo(a)anthracene	1.0	0.010	U	mg/Kg	0.010	0.072	12/23/2017 3:32:00 PM
Benzo(a)pyrene	1.0	0.0096	U	mg/Kg	0.0096	0.072	12/23/2017 3:32:00 PM
Benzo(b)fluoranthene	1.0	0.010	U	mg/Kg	0.010	0.072	12/23/2017 3:32:00 PM
Benzo(g,h,i)perylene	1.0	0.010	U	mg/Kg	0.010	0.072	12/23/2017 3:32:00 PM
Benzo(k)fluoranthene	1.0	0.0094	U	mg/Kg	0.0094	0.072	12/23/2017 3:32:00 PM
Chrysene	1.0	0.012	U	mg/Kg	0.012	0.072	12/23/2017 3:32:00 PM
Dibenzo(a,h)anthracene	1.0	0.012	U	mg/Kg	0.012	0.072	12/23/2017 3:32:00 PM
Fluoranthene	1.0	**0.018**	I	mg/Kg	0.0096	0.072	12/23/2017 3:32:00 PM
Fluorene	1.0	0.0090	U	mg/Kg	0.0090	0.072	12/23/2017 3:32:00 PM
Indeno(1,2,3-cd)pyrene	1.0	0.0074	U	mg/Kg	0.0074	0.072	12/23/2017 3:32:00 PM
Naphthalene	1.0	0.011	U	mg/Kg	0.011	0.072	12/23/2017 3:32:00 PM
Phenanthrene	1.0	**0.024**	I	mg/Kg	0.015	0.072	12/23/2017 3:32:00 PM
Pyrene	1.0	**0.013**	I	mg/Kg	0.0088	0.072	12/23/2017 3:32:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
2-Fluorobiphenyl	1.0	92.2			26% - 110%	12/23/2017 3:32:00 PM
Nitrobenzene-d5	1.0	77.1			12% - 104%	12/23/2017 3:32:00 PM

PQL: Practical Quantitation Limit RL: Report Limit MDL: Method Detection Limit DF: Dilution Factor

Analytical Data

p-Terphenyl-d14	1.0	102		39% - 120%	12/23/2017 3:32:00 PM

Analytical Method: FDEP FL-PRO GC/FID

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Total Recoverable Pet. Hydrocarbons	1.0	2.2	U	mg/Kg	2.2	18	12/23/2017 2:22:00 AM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
Nonatriacontane(C39)	1.0	100			60% - 118%	12/23/2017 2:22:00 AM
Ortho-terphenyl	1.0	100			62% - 109%	12/23/2017 2:22:00 AM

Analytical Data

Client Sample ID: PREBURN
Sample Location:
Date Collected: 12/19/2017 05:40 PM

Laboratory Sample ID: 223317
Matrix: SOILS
Percent Moisture: 12.1

Analytical Method: EPA 6010
ICP

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Arsenic	1.0	**0.39**	I	mg/Kg	0.17	1.7	1/5/2018 11:41:00 AM
Cadmium	1.0	**0.030**	I	mg/Kg	0.021	0.34	1/5/2018 11:41:00 AM
Chromium	1.0	**6.0**	V	mg/Kg	0.046	0.67	1/5/2018 11:41:00 AM
Lead	1.0	**0.78**		mg/Kg	0.15	0.34	1/5/2018 11:41:00 AM

PQL: Practical Quantitation Limit RL: Report Limit MDL: Method Detection Limit DF: Dilution Factor

Data Chronicle

Client Sample ID: SB-31 @ 4'
Sample Location:
Date Collected: 12/19/2017 12:25 PM
Laboratory Sample ID: 223310
Matrix: SOILS
Percent Moisture: 5.49

Prep	Analysis	Analytical Method	Dilution	Batch	Prepared	Analyzed	Analyst	Lab
N/A	RES	EPA 8260	1.0	SMSVA122017	12/20/2017 9:35:00 PM	12/20/2017 9:35:00 PM	MTA	E87684
N/A	RES	EPA 8270/PAH Low Level	1.0	SPAHA122217	12/22/2017 8:00:00 AM	12/23/2017 11:50:00 AM	BW	E87684
N/A	RES	FDEP FL-PRO	20	SPROA122217	12/22/2017 9:00:00 AM	12/23/2017 11:56:00 AM	BW	E87684

Client Sample ID: SB-32 @ 1'-2'
Sample Location:
Date Collected: 12/19/2017 04:45 PM
Laboratory Sample ID: 223311
Matrix: SOILS
Percent Moisture: 9.57

Prep	Analysis	Analytical Method	Dilution	Batch	Prepared	Analyzed	Analyst	Lab
N/A	RES	EPA 1312/8270/PAH Low Level	1.0	WPAHZ010518	1/5/2018 10:00:00 AM	1/6/2018 2:25:00 AM	BW	E87684
N/A	RES	EPA 8260	1.0	SMSVA122017	12/20/2017 10:00:00 PM	12/20/2017 10:00:00 PM	MTA	E87684
N/A	RES	EPA 8270/PAH Low Level	1.0	SPAHA122217	12/22/2017 8:00:00 AM	12/23/2017 12:27:00 PM	BW	E87684
N/A	RES	FDEP FL-PRO	1.0	SPROA122217	12/22/2017 9:00:00 AM	12/22/2017 9:58:00 PM	BW	E87684

Client Sample ID: SB-32 @ 4'
Sample Location:
Date Collected: 12/19/2017 05:10 PM
Laboratory Sample ID: 223312
Matrix: SOILS
Percent Moisture: 4.69

Prep	Analysis	Analytical Method	Dilution	Batch	Prepared	Analyzed	Analyst	Lab
N/A	RES	EPA 1312/8270/PAH Low Level	1.0	WPAHZ010518	1/5/2018 10:00:00 AM	1/6/2018 3:01:00 AM	BW	E87684
N/A	RES	EPA 8260	1.0	SMSVA122017	12/20/2017 10:25:00 PM	12/20/2017 10:25:00 PM	MTA	E87684
N/A	RES	EPA 8270/PAH Low Level	1.0	SPAHA122217	12/22/2017 8:00:00 AM	12/23/2017 1:04:00 PM	BW	E87684
N/A	RES	FDEP FL-PRO	10	SPROA122217	12/22/2017 9:00:00 AM	12/23/2017 1:12:00 PM	BW	E87684

Client Sample ID: SB-22 @ 1'-2'
Sample Location:
Date Collected: 12/19/2017 06:00 PM
Laboratory Sample ID: 223313
Matrix: SOILS
Percent Moisture: 3.92

Prep	Analysis	Analytical Method	Dilution	Batch	Prepared	Analyzed	Analyst	Lab
N/A	RES	EPA 8260	1.0	SMSVA122017	12/20/2017 10:49:00 PM	12/20/2017 10:49:00 PM	MTA	E87684
N/A	RES	EPA 8270/PAH Low Level	1.0	SPAHA122217	12/22/2017 8:00:00 AM	12/23/2017 1:41:00 PM	BW	E87684
N/A	RES	FDEP FL-PRO	1.0	SPROA122217	12/22/2017 9:00:00 AM	12/22/2017 11:12:00 PM	BW	E87684

Data Chronicle

Client Sample ID: SB-22 @ 4'
Sample Location:
Date Collected: 12/19/2017 06:15 PM
Laboratory Sample ID: 223314
Matrix: SOILS
Percent Moisture: 4.79

Prep	Analysis	Analytical Method	Dilution	Batch	Prepared	Analyzed	Analyst	Lab
N/A	RES	EPA 8260	1.0	SMSVA122017	12/20/2017 11:14:00 PM	12/20/2017 11:14:00 PM	MTA	E87684
N/A	RES	EPA 8270/PAH Low Level	1.0	SPAHA122217	12/22/2017 8:00:00 AM	12/23/2017 2:18:00 PM	BW	E87684
N/A	RES	FDEP FL-PRO	1.0	SPROA122217	12/22/2017 9:00:00 AM	12/22/2017 11:50:00 PM	BW	E87684

Client Sample ID: SB-26 @ 1'-2'
Sample Location:
Date Collected: 12/19/2017 05:25 PM
Laboratory Sample ID: 223315
Matrix: SOILS
Percent Moisture: 2.44

Prep	Analysis	Analytical Method	Dilution	Batch	Prepared	Analyzed	Analyst	Lab
N/A	RES	EPA 8260	1.0	SMSVA122017	12/20/2017 11:39:00 PM	12/20/2017 11:39:00 PM	MTA	E87684
N/A	RES	EPA 8270/PAH Low Level	1.0	SPAHA122217	12/22/2017 8:00:00 AM	12/23/2017 2:55:00 PM	BW	E87684
N/A	RES	FDEP FL-PRO	1.0	SPROA122217	12/22/2017 9:00:00 AM	12/23/2017 1:44:00 AM	BW	E87684

Client Sample ID: SB-26 @ 4'
Sample Location:
Date Collected: 12/19/2017 05:40 PM
Laboratory Sample ID: 223316
Matrix: SOILS
Percent Moisture: 6.51

Prep	Analysis	Analytical Method	Dilution	Batch	Prepared	Analyzed	Analyst	Lab
N/A	RES	EPA 8260	1.0	SMSVA122017	12/21/2017 12:03:00 AM	12/21/2017 12:03:00 AM	MTA	E87684
N/A	RES	EPA 8270/PAH Low Level	1.0	SPAHA122217	12/22/2017 8:00:00 AM	12/23/2017 3:32:00 PM	BW	E87684
N/A	RES	FDEP FL-PRO	1.0	SPROA122217	12/22/2017 9:00:00 AM	12/23/2017 2:22:00 AM	BW	E87684

Client Sample ID: PREBURN
Sample Location:
Date Collected: 12/19/2017 05:40 PM
Laboratory Sample ID: 223317
Matrix: SOILS
Percent Moisture: 12.1

Prep	Analysis	Analytical Method	Dilution	Batch	Prepared	Analyzed	Analyst	Lab
N/A	RES	EPA 6010	1.0	SMA010318	1/3/2018 4:20:00 PM	1/5/2018 11:41:00 AM	BW	E87684

QUALITY ASSURANCE / QUALITY CONTROL DATA

Preparation Batch ID: SMA010318 | Analysis Method: EPA 6010 | Preparation Type: 3050

Method Batch ID: MSMA010318 | Preparation Date: 1/3/2018 4:20:00 PM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MB	**Lab Sample ID: SMA010318MB**			**Client Sample ID: SMA010318MB**				**Date Analyzed: 1/5/2018 11:26:00 AM**				
Cadmium	0.016	0.25	0.016	U	mg/Kg							
Selenium	0.43	1.3	0.43	U	mg/Kg							
Lead	0.11	0.25	0.11	U	mg/Kg							
Chromium	0.035	0.50	0.22	I	mg/Kg							
Copper	0.031	0.25	0.031	U	mg/Kg							
Arsenic	0.13	1.3	0.13	U	mg/Kg							
Zinc	0.18	1.3	0.34	I	mg/Kg							
Nickel	0.063	0.50	0.063	U	mg/Kg							
Manganese	0.011	0.25	0.011	U	mg/Kg							
QA/QC Type: LCS	**Lab Sample ID: SMA010318LCS**			**Client Sample ID: SMA010318LCS**				**Date Analyzed: 1/5/2018 11:28:00 AM**				
Lead	0.11	0.25	20.7		mg/Kg	20.0	104	80.0	-	120		
Cadmium	0.016	0.25	20.5		mg/Kg	20.0	102	80.0	-	120		
Chromium	0.035	0.50	20.4		mg/Kg	20.0	102	80.0	-	120		
Zinc	0.18	1.3	20.3		mg/Kg	20.0	102	80.0	-	120		
Selenium	0.43	1.3	18.8		mg/Kg	20.0	94.0	80.0	-	120		
Copper	0.031	0.25	20.0		mg/Kg	20.0	100	80.0	-	120		
Arsenic	0.13	1.3	19.5		mg/Kg	20.0	97.5	80.0	-	120		
Manganese	0.011	0.25	20.0		mg/Kg	20.0	100	80.0	-	120		
Nickel	0.063	0.50	19.9		mg/Kg	20.0	99.5	80.0	-	120		
QA/QC Type: LCSD	**Lab Sample ID: SMA010318LCSD**			**Client Sample ID: SMA010318LCSD**				**Date Analyzed: 1/5/2018 11:30:00 AM**				
Zinc	0.18	1.3	20.4		mg/Kg	20.0	102	80.0	-	120	0.49	20.0
Cadmium	0.016	0.25	20.5		mg/Kg	20.0	102	80.0	-	120	0	20.0
Chromium	0.035	0.50	20.5		mg/Kg	20.0	102	80.0	-	120	0.49	20.0
Lead	0.11	0.25	20.7		mg/Kg	20.0	104	80.0	-	120	0	20.0
Arsenic	0.13	1.3	19.4		mg/Kg	20.0	97.0	80.0	-	120	0.51	20.0
Nickel	0.063	0.50	19.8		mg/Kg	20.0	99.0	80.0	-	120	0.50	20.0
Manganese	0.011	0.25	20.0		mg/Kg	20.0	100	80.0	-	120	0	20.0
Copper	0.031	0.25	20.0		mg/Kg	20.0	100	80.0	-	120	0	20.0
Selenium	0.43	1.3	19.6		mg/Kg	20.0	98.0	80.0	-	120	4.2	20.0
QA/QC Type: MS	**Lab Sample ID: SMA010318MS**			**Client Sample ID: 223667MS**				**Date Analyzed: 1/5/2018 11:57:00 AM**				
Zinc	0.18	1.3	112		mg/Kg	20.0	80.0	75.0	-	125		
Nickel	0.062	0.49	19.7		mg/Kg	20.0	87.5	75.0	-	125		

QUALITY ASSURANCE / QUALITY CONTROL DATA

Preparation Batch ID: SMA010318 Analysis Method: EPA 6010 Preparation Type: 3050

Method Batch ID: MSMA010318 Preparation Date: 1/3/2018 4:20:00 PM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MS	Lab Sample ID: SMA010318MS			Client Sample ID: 223667MS				Date Analyzed: 1/5/2018 11:57:00 AM				
Arsenic	0.13	1.3	18.1		mg/Kg	20.0	88.4	75.0	-	125		
Cadmium	0.016	0.25	19.2		mg/Kg	20.0	95.2	75.0	-	125		
Copper	0.030	0.25	57.2		mg/Kg	20.0	86.0	75.0	-	125		
Selenium	0.42	1.3	17.5		mg/Kg	20.0	87.5	75.0	-	125		
Lead	0.11	0.25	21.9		mg/Kg	20.0	93.0	75.0	-	125		
Chromium	0.034	0.49	30.2		mg/Kg	20.0	91.0	75.0	-	125		
QA/QC Type: MSD	Lab Sample ID: SMA010318MSD			Client Sample ID: 223667MSD				Date Analyzed: 1/5/2018 11:59:00 AM				
Nickel	0.061	0.48	19.6		mg/Kg	20.0	87.0	75.0	-	125	0.51	20.0
Arsenic	0.13	1.3	18.1		mg/Kg	20.0	88.4	75.0	-	125	0	20.0
Zinc	0.17	1.3	114		mg/Kg	20.0	90.0	75.0	-	125	1.8	20.0
Copper	0.030	0.24	58.0		mg/Kg	20.0	90.0	75.0	-	125	1.4	20.0
Cadmium	0.015	0.24	19.2		mg/Kg	20.0	95.2	75.0	-	125	0	20.0
Chromium	0.034	0.48	30.2		mg/Kg	20.0	91.0	75.0	-	125	0	20.0
Lead	0.11	0.24	21.8		mg/Kg	20.0	92.5	75.0	-	125	0.46	20.0
Selenium	0.42	1.3	17.2		mg/Kg	20.0	86.0	75.0	-	125	1.7	20.0
QA/QC Type: DUP	Lab Sample ID: SMA010318DUP			Client Sample ID: 223519DUP				Date Analyzed: 1/5/2018 11:50:00 AM				
Nickel	0.075	0.60	4.1		mg/Kg							20.0
Zinc	0.22	1.6	3.0		mg/Kg						15	20.0
Chromium	0.042	0.60	2.8		mg/Kg							20.0
Arsenic	0.16	1.6	0.30	I	mg/Kg							20.0
Manganese	0.013	0.30	7.7		mg/Kg						7.5	20.0
Cadmium	0.019	0.30	0.019	U	mg/Kg						0	20.0
Selenium	0.52	1.6	0.52	U	mg/Kg						0	20.0
Lead	0.13	0.30	2.7		mg/Kg							20.0
Copper	0.037	0.30	0.69		mg/Kg							20.0

Comments:

Preparation Batch ID: SMSVA122017 Analysis Method: EPA 8260 Preparation Type: 5035 (Low)

Method Batch ID: MSMSVA122017 Preparation Date: 12/20/2017 4:38:00 PM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit

QUALITY ASSURANCE / QUALITY CONTROL DATA

Preparation Batch ID: SMSVA122017 | Analysis Method: EPA 8260 | Preparation Type: 5035 (Low)

Method Batch ID: MSMSVA122017 | Preparation Date: 12/20/2017 4:38:00 PM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MB	**Lab Sample ID: SMSVA122017MB**			**Client Sample ID: SMSVA122017MB**				**Date Analyzed: 12/20/2017 4:38:00 PM**				
Benzene	0.00054	0.0050	0.00054	U	mg/Kg							
Ethylbenzene	0.00014	0.0050	0.00014	U	mg/Kg							
Methyl-t-butyl ether	0.00066	0.0050	0.00066	U	mg/Kg							
Toluene	0.00039	0.0050	0.00039	U	mg/Kg							
Xylenes- Total	0.0013	0.015	0.0013	U	mg/Kg							
Toluene-d8			48.7		ug/kg	50.0	97.4	76.0	-	120		
4-Bromofluorobenzene			51.3		ug/kg	50.0	103	51.0	-	145		
Dibromofluoromethane			53.3		ug/kg	50.0	107	70.0	-	130		
1,2-Dichloroethane-d4			51.6		ug/kg	50.0	103	80.0	-	136		
QA/QC Type: LCS	**Lab Sample ID: SMSVA122017LCS**			**Client Sample ID: SMSVA122017LCS**				**Date Analyzed: 12/20/2017 3:00:00 PM**				
Benzene	0.00054	0.0050	0.058		mg/Kg	0.060	96.7	82.0	-	121		
Ethylbenzene	0.00014	0.0050	0.060		mg/Kg	0.060	100	82.0	-	119		
Methyl-t-butyl ether	0.00066	0.0050	0.063		mg/Kg	0.060	105	80.0	-	126		
Toluene	0.00039	0.0050	0.058		mg/Kg	0.060	96.7	83.0	-	118		
Xylenes- Total	0.0013	0.015	0.179		mg/Kg	0.180	99.4	83.0	-	119		
Toluene-d8			50.7		ug/kg	50.0	101	76.0	-	120		
4-Bromofluorobenzene			53.8		ug/kg	50.0	108	51.0	-	145		
Dibromofluoromethane			53.3		ug/kg	50.0	107	70.0	-	130		
1,2-Dichloroethane-d4			51.8		ug/kg	50.0	104	80.0	-	136		
QA/QC Type: LCSD	**Lab Sample ID: SMSVA122017LCSD**			**Client Sample ID: SMSVA122017LCSD**				**Date Analyzed: 12/20/2017 3:25:00 PM**				
Benzene	0.00054	0.0050	0.057		mg/Kg	0.060	95.0	82.0	-	121	1.7	20.0
Ethylbenzene	0.00014	0.0050	0.061		mg/Kg	0.060	102	82.0	-	119	1.7	19.0
Methyl-t-butyl ether	0.00066	0.0050	0.064		mg/Kg	0.060	107	80.0	-	126	1.6	23.0
Toluene	0.00039	0.0050	0.058		mg/Kg	0.060	96.7	83.0	-	118	0	18.0
Xylenes- Total	0.0013	0.015	0.178		mg/Kg	0.180	98.9	83.0	-	119	0.56	18.0
Toluene-d8			49.9		ug/kg	50.0	99.8	76.0	-	120		
4-Bromofluorobenzene			53.9		ug/kg	50.0	108	51.0	-	145		
Dibromofluoromethane			53.1		ug/kg	50.0	106	70.0	-	130		
1,2-Dichloroethane-d4			51.2		ug/kg	50.0	102	80.0	-	136		
QA/QC Type: MS	**Lab Sample ID: SMSVA122017MS**			**Client Sample ID: 223281MS**				**Date Analyzed: 12/21/2017 8:02:00 PM**				
Benzene	0.00050	0.0046	0.126		mg/Kg	0.063	76.2	52.0	-	120		
Ethylbenzene	0.00013	0.0046	0.045		mg/Kg	0.063	71.4	38.0	-	130		

QUALITY ASSURANCE / QUALITY CONTROL DATA

Preparation Batch ID: SMSVA122017 | Analysis Method: EPA 8260 | Preparation Type: 5035 (Low)

Method Batch ID: MSMSVA122017 | Preparation Date: 12/20/2017 4:38:00 PM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MS	Lab Sample ID: SMSVA122017MS			Client Sample ID: 223281MS			Date Analyzed: 12/21/2017 8:02:00 PM					
Methyl-t-butyl ether	0.00061	0.0046	0.051		mg/Kg	0.063	81.0	54.0	-	128		
Toluene	0.00036	0.0046	0.063		mg/Kg	0.063	77.8	55.0	-	113		
Xylenes- Total	0.0012	0.014	0.242		mg/Kg	0.189	78.3	46.0	-	121		
Toluene-d8			51.8		ug/kg	50.0	104	76.0	-	120		
4-Bromofluorobenzene			53.9		ug/kg	50.0	108	51.0	-	145		
Dibromofluoromethane			50.2		ug/kg	50.0	100	70.0	-	130		
1,2-Dichloroethane-d4			46.4		ug/kg	50.0	92.8	80.0	-	136		
QA/QC Type: DUP	Lab Sample ID: SMSVA122017DUP			Client Sample ID: 223282DUP			Date Analyzed: 12/21/2017 7:37:00 PM					
Benzene	0.00064	0.0059	0.00064	US3	mg/Kg						53	34.0
Ethylbenzene	0.00017	0.0059	0.00017	U	mg/Kg						0	46.0
Methyl-t-butyl ether	0.00079	0.0059	0.00079	U	mg/Kg						0	37.0
Toluene	0.00046	0.0059	0.00046	U	mg/Kg						0	29.0
Xylenes- Total	0.0016	0.018	0.0016	U	mg/Kg						0	37.0
Toluene-d8			47.0		ug/kg	50.0	94.0	76.0	-	120		
4-Bromofluorobenzene			56.2		ug/kg	50.0	112	51.0	-	145		
Dibromofluoromethane			51.8		ug/kg	50.0	104	70.0	-	130		
1,2-Dichloroethane-d4			50.6		ug/kg	50.0	101	80.0	-	136		

Comments:

Preparation Batch ID: SPAHA122217 | Analysis Method: EPA 8270/PAH Low Level | Preparation Type: 3550

Method Batch ID: MSPAHA122217 | Preparation Date: 12/22/2017 8:00:00 AM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MB	Lab Sample ID: SPAHA122217MB			Client Sample ID: SPAHA122217MB			Date Analyzed: 12/23/2017 2:36:00 AM					
Naphthalene	0.010	0.067	0.010	U	mg/Kg							
Acenaphthylene	0.0077	0.067	0.0077	U	mg/Kg							
Acenaphthene	0.016	0.067	0.016	U	mg/Kg							
Fluorene	0.0084	0.067	0.0084	U	mg/Kg							
Phenanthrene	0.014	0.067	0.014	U	mg/Kg							
Anthracene	0.0070	0.067	0.0070	U	mg/Kg							
Fluoranthene	0.0090	0.067	0.0090	U	mg/Kg							

QUALITY ASSURANCE / QUALITY CONTROL DATA

Preparation Batch ID: SPAHA122217 | Analysis Method: EPA 8270/PAH Low Level | Preparation Type: 3550

Method Batch ID: MSPAHA122217 | Preparation Date: 12/22/2017 8:00:00 AM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MB	Lab Sample ID: SPAHA122217MB			Client Sample ID: SPAHA122217MB			Date Analyzed: 12/23/2017 2:36:00 AM					
1-Methylnaphthalene	0.0073	0.067	0.0073	U	mg/Kg							
2-Methylnaphthalene	0.0078	0.067	0.0078	U	mg/Kg							
Pyrene	0.0082	0.067	0.0082	U	mg/Kg							
Benzo(a)anthracene	0.0097	0.067	0.0097	U	mg/Kg							
Chrysene	0.011	0.067	0.011	U	mg/Kg							
Benzo(b)fluoranthene	0.0097	0.067	0.0097	U	mg/Kg							
Benzo(k)fluoranthene	0.0088	0.067	0.0088	U	mg/Kg							
Benzo(a)pyrene	0.0090	0.067	0.0090	U	mg/Kg							
Indeno(1,2,3-cd)pyrene	0.0069	0.067	0.0069	U	mg/Kg							
Dibenzo(a,h)anthracene	0.011	0.067	0.011	U	mg/Kg							
Benzo(g,h,i)perylene	0.0098	0.067	0.0098	U	mg/Kg							
Nitrobenzene-d5			94.4		%	100	94.4	12.0	-	104		
2-Fluorobiphenyl			100		%	100	100	26.0	-	110		
p-Terphenyl-d14			116		%	100	116	39.0	-	120		
QA/QC Type: LCS	Lab Sample ID: SPAHA122217LCS			Client Sample ID: SPAHA122217LCS			Date Analyzed: 12/23/2017 1:23:00 AM					
Naphthalene	0.010	0.067	1.45		mg/Kg	1.67	86.8	40.0	-	106		
Acenaphthylene	0.0077	0.067	1.52		mg/Kg	1.67	91.0	38.0	-	115		
Acenaphthene	0.016	0.067	1.47		mg/Kg	1.67	88.0	46.0	-	121		
Fluorene	0.0084	0.067	1.50		mg/Kg	1.67	89.8	46.0	-	123		
Phenanthrene	0.014	0.067	1.59		mg/Kg	1.67	95.2	52.0	-	129		
Anthracene	0.0070	0.067	1.58		mg/Kg	1.67	94.6	47.0	-	124		
Fluoranthene	0.0090	0.067	1.69		mg/Kg	1.67	101	45.0	-	125		
1-Methylnaphthalene	0.0073	0.067	1.55		mg/Kg	1.67	92.8	39.0	-	113		
2-Methylnaphthalene	0.0078	0.067	1.47		mg/Kg	1.67	88.0	39.0	-	110		
Pyrene	0.0082	0.067	1.69		mg/Kg	1.67	101	47.0	-	129		
Benzo(a)anthracene	0.0097	0.067	1.73		mg/Kg	1.67	104	45.0	-	129		
Chrysene	0.011	0.067	1.63		mg/Kg	1.67	97.6	44.0	-	129		
Benzo(b)fluoranthene	0.0097	0.067	1.75		mg/Kg	1.67	105	45.0	-	122		
Benzo(k)fluoranthene	0.0088	0.067	1.72		mg/Kg	1.67	103	43.0	-	124		
Benzo(a)pyrene	0.0090	0.067	1.71		mg/Kg	1.67	102	39.0	-	116		
Indeno(1,2,3-cd)pyrene	0.0069	0.067	1.48		mg/Kg	1.67	88.6	41.0	-	125		
Dibenzo(a,h)anthracene	0.011	0.067	1.48		mg/Kg	1.67	88.6	40.0	-	123		
Benzo(g,h,i)perylene	0.0098	0.067	1.29		mg/Kg	1.67	77.2	34.0	-	120		
Nitrobenzene-d5			83.2		%	100	83.2	12.0	-	104		

QUALITY ASSURANCE / QUALITY CONTROL DATA

Preparation Batch ID: SPAHA122217 | Analysis Method: EPA 8270/PAH Low Level | Preparation Type: 3550

Method Batch ID: MSPAHA122217 | Preparation Date: 12/22/2017 8:00:00 AM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: LCS	Lab Sample ID: SPAHA122217LCS			Client Sample ID: SPAHA122217LCS			Date Analyzed: 12/23/2017 1:23:00 AM					
2-Fluorobiphenyl			86.3		%	100	86.3	26.0	-	110		
p-Terphenyl-d14			91.8		%	100	91.8	39.0	-	120		
QA/QC Type: LCSD	Lab Sample ID: SPAHA122217LCSD			Client Sample ID: SPAHA122217LCSD			Date Analyzed: 12/23/2017 1:59:00 AM					
Naphthalene	0.010	0.067	1.23		mg/Kg	1.67	73.7	40.0	-	106	16	33.0
Acenaphthylene	0.0077	0.067	1.27		mg/Kg	1.67	76.0	38.0	-	115	18	38.0
Acenaphthene	0.016	0.067	1.24		mg/Kg	1.67	74.3	46.0	-	121	17	38.0
Fluorene	0.0084	0.067	1.22		mg/Kg	1.67	73.1	46.0	-	123	21	38.0
Phenanthrene	0.014	0.067	1.31		mg/Kg	1.67	78.4	52.0	-	129	19	39.0
Anthracene	0.0070	0.067	1.26		mg/Kg	1.67	75.4	47.0	-	124	23	38.0
Fluoranthene	0.0090	0.067	1.38		mg/Kg	1.67	82.6	45.0	-	125	20	40.0
1-Methylnaphthalene	0.0073	0.067	1.30		mg/Kg	1.67	77.8	39.0	-	113	18	37.0
2-Methylnaphthalene	0.0078	0.067	1.25		mg/Kg	1.67	74.9	39.0	-	110	16	36.0
Pyrene	0.0082	0.067	1.39		mg/Kg	1.67	83.2	47.0	-	129	19	41.0
Benzo(a)anthracene	0.0097	0.067	1.48		mg/Kg	1.67	88.6	45.0	-	129	16	42.0
Chrysene	0.011	0.067	1.34		mg/Kg	1.67	80.2	44.0	-	129	20	42.0
Benzo(b)fluoranthene	0.0097	0.067	1.49		mg/Kg	1.67	89.2	45.0	-	122	16	39.0
Benzo(k)fluoranthene	0.0088	0.067	1.41		mg/Kg	1.67	84.4	43.0	-	124	20	40.0
Benzo(a)pyrene	0.0090	0.067	1.44		mg/Kg	1.67	86.2	39.0	-	116	17	39.0
Indeno(1,2,3-cd)pyrene	0.0069	0.067	1.25		mg/Kg	1.67	74.9	41.0	-	125	17	42.0
Dibenzo(a,h)anthracene	0.011	0.067	1.22		mg/Kg	1.67	73.1	40.0	-	123	19	42.0
Benzo(g,h,i)perylene	0.0098	0.067	1.07		mg/Kg	1.67	64.1	34.0	-	120	19	43.0
Nitrobenzene-d5			87.9		%	100	87.9	12.0	-	104		
2-Fluorobiphenyl			91.3		%	100	91.3	26.0	-	110		
p-Terphenyl-d14			106		%	100	106	39.0	-	120		
QA/QC Type: MS	Lab Sample ID: SPAHA122217MS			Client Sample ID: 223285MS			Date Analyzed: 12/23/2017 4:46:00 PM					
Naphthalene	0.012	0.081	1.67		mg/Kg	2.01	83.1	6.70	-	125		
Acenaphthylene	0.0093	0.081	1.88		mg/Kg	2.01	93.5	28.0	-	111		
Acenaphthene	0.019	0.081	1.81		mg/Kg	2.01	90.0	35.0	-	115		
Fluorene	0.010	0.081	1.88		mg/Kg	2.01	93.5	35.0	-	117		
Phenanthrene	0.017	0.081	1.97		mg/Kg	2.01	98.0	39.0	-	125		
Anthracene	0.0084	0.081	1.96		mg/Kg	2.01	97.5	37.0	-	118		
Fluoranthene	0.011	0.081	2.04		mg/Kg	2.01	101	34.0	-	122		
1-Methylnaphthalene	0.0088	0.081	1.88		mg/Kg	2.01	93.5	27.0	-	110		

QUALITY ASSURANCE / QUALITY CONTROL DATA

Preparation Batch ID: SPAHA122217 | Analysis Method: EPA 8270/PAH Low Level | Preparation Type: 3550

Method Batch ID: MSPAHA122217 | Preparation Date: 12/22/2017 8:00:00 AM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MS	Lab Sample ID: SPAHA122217MS			Client Sample ID: 223285MS			Date Analyzed: 12/23/2017 4:46:00 PM					
2-Methylnaphthalene	0.0094	0.081	1.75		mg/Kg	2.01	87.1	30.0	-	103		
Pyrene	0.0099	0.081	2.06		mg/Kg	2.01	102	35.0	-	126		
Benzo(a)anthracene	0.012	0.081	2.12		mg/Kg	2.01	105	33.0	-	123		
Chrysene	0.013	0.081	2.01		mg/Kg	2.01	100	31.0	-	125		
Benzo(b)fluoranthene	0.012	0.081	2.12		mg/Kg	2.01	105	30.0	-	121		
Benzo(k)fluoranthene	0.011	0.081	2.08		mg/Kg	2.01	103	30.0	-	121		
Benzo(a)pyrene	0.011	0.081	2.14		mg/Kg	2.01	106	27.0	-	109		
Indeno(1,2,3-cd)pyrene	0.0083	0.081	1.71		mg/Kg	2.01	85.1	30.0	-	117		
Dibenzo(a,h)anthracene	0.013	0.081	1.85		mg/Kg	2.01	92.0	30.0	-	115		
Benzo(g,h,i)perylene	0.012	0.081	1.41		mg/Kg	2.01	70.1	22.0	-	111		
Nitrobenzene-d5			92.4		%	100	92.4	12.0	-	104		
2-Fluorobiphenyl			109		%	100	109	26.0	-	110		
p-Terphenyl-d14			88.4		%	100	88.4	39.0	-	120		
QA/QC Type: MSD	Lab Sample ID: SPAHA122217MSD			Client Sample ID: 223285MSD			Date Analyzed: 12/23/2017 5:23:00 PM					
Naphthalene	0.020	0.13	1.83		mg/Kg	2.01	91.0	6.70	-	125	9.1	59.0
Acenaphthylene	0.016	0.13	1.88		mg/Kg	2.01	93.5	28.0	-	111	0	41.0
Acenaphthene	0.032	0.13	1.75		mg/Kg	2.01	87.1	35.0	-	115	3.4	40.0
Fluorene	0.017	0.13	1.74		mg/Kg	2.01	86.6	35.0	-	117	7.7	41.0
Phenanthrene	0.029	0.13	1.97		mg/Kg	2.01	98.0	39.0	-	125	0	43.0
Anthracene	0.014	0.13	1.92		mg/Kg	2.01	95.5	37.0	-	118	2.1	40.0
Fluoranthene	0.018	0.13	2.06		mg/Kg	2.01	102	34.0	-	122	0.98	44.0
1-Methylnaphthalene	0.014	0.13	1.92		mg/Kg	2.01	95.5	27.0	-	110	2.1	42.0
2-Methylnaphthalene	0.016	0.13	1.83		mg/Kg	2.01	91.0	30.0	-	103	4.5	36.0
Pyrene	0.017	0.13	2.06		mg/Kg	2.01	102	35.0	-	126	0	46.0
Benzo(a)anthracene	0.019	0.13	2.21		mg/Kg	2.01	110	33.0	-	123	4.2	45.0
Chrysene	0.023	0.13	2.06		mg/Kg	2.01	102	31.0	-	125	2.5	47.0
Benzo(b)fluoranthene	0.019	0.13	2.24		mg/Kg	2.01	111	30.0	-	121	5.5	46.0
Benzo(k)fluoranthene	0.018	0.13	2.22		mg/Kg	2.01	110	30.0	-	121	6.5	46.0
Benzo(a)pyrene	0.018	0.13	2.26	S2	mg/Kg	2.01	112	27.0	-	109	5.5	41.0
Indeno(1,2,3-cd)pyrene	0.014	0.13	1.96		mg/Kg	2.01	97.5	30.0	-	117	14	44.0
Dibenzo(a,h)anthracene	0.023	0.13	1.94		mg/Kg	2.01	96.5	30.0	-	115	4.7	42.0
Benzo(g,h,i)perylene	0.020	0.13	1.61		mg/Kg	2.01	80.1	22.0	-	111	13	44.0
Nitrobenzene-d5			71.0		%	100	71.0	12.0	-	104		
2-Fluorobiphenyl			82.9		%	100	82.9	26.0	-	110		

QUALITY ASSURANCE / QUALITY CONTROL DATA

Preparation Batch ID: SPAHA122217 Analysis Method: EPA 8270/PAH Low Level Preparation Type: 3550

Method Batch ID: MSPAHA122217 Preparation Date: 12/22/2017 8:00:00 AM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MSD Lab Sample ID: SPAHA122217MSD Client Sample ID: 223285MSD Date Analyzed: 12/23/2017 5:23:00 PM												
p-Terphenyl-d14			108		%	100	108	39.0	-	120		
QA/QC Type: DUP Lab Sample ID: SPAHA122217DUP Client Sample ID: 223281DUP Date Analyzed: 12/23/2017 4:09:00 PM												
Naphthalene	0.010	0.070	0.010	U	mg/Kg						0	59.0
Acenaphthylene	0.0081	0.070	0.0081	U	mg/Kg						0	41.0
Acenaphthene	0.017	0.070	0.017	U	mg/Kg						0	40.0
Fluorene	0.0088	0.070	0.0088	U	mg/Kg						0	41.0
Phenanthrene	0.015	0.070	0.015	U	mg/Kg						0	43.0
Anthracene	0.0073	0.070	0.0073	U	mg/Kg						0	40.0
Fluoranthene	0.0094	0.070	0.0094	U	mg/Kg						0	44.0
1-Methylnaphthalene	0.0077	0.070	0.0077	US3	mg/Kg						58	42.0
2-Methylnaphthalene	0.0082	0.070	0.0082	US3	mg/Kg						52	36.0
Pyrene	0.0086	0.070	0.0086	U	mg/Kg						0	46.0
Benzo(a)anthracene	0.010	0.070	0.010	U	mg/Kg						0	45.0
Chrysene	0.012	0.070	0.012	U	mg/Kg						0	47.0
Benzo(b)fluoranthene	0.010	0.070	0.010	U	mg/Kg						0	46.0
Benzo(k)fluoranthene	0.0092	0.070	0.0092	U	mg/Kg						0	46.0
Benzo(a)pyrene	0.0094	0.070	0.0094	U	mg/Kg						0	41.0
Indeno(1,2,3-cd)pyrene	0.0072	0.070	0.0072	U	mg/Kg						0	44.0
Dibenzo(a,h)anthracene	0.012	0.070	0.012	U	mg/Kg						0	42.0
Benzo(g,h,i)perylene	0.010	0.070	0.010	U	mg/Kg						0	44.0
Nitrobenzene-d5			91.2		%	100	91.2	12.0	-	104		
2-Fluorobiphenyl			106		%	100	106	26.0	-	110		
p-Terphenyl-d14			118		%	100	118	39.0	-	120		

Comments:

Preparation Batch ID: SPROA122217 Analysis Method: FDEP FL-PRO Preparation Type: 3550

Method Batch ID: MSPROA122217 Preparation Date: 12/22/2017 9:00:00 AM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MB Lab Sample ID: SPROA122217MB Client Sample ID: SPROA122217MB Date Analyzed: 12/22/2017 8:43:00 PM												
Total Recoverable Pet. Hydrocarbons	2.1	17	2.1	U	mg/Kg							

QUALITY ASSURANCE / QUALITY CONTROL DATA

Preparation Batch ID: SPROA122217 | Analysis Method: FDEP FL-PRO | Preparation Type: 3550

Method Batch ID: MSPROA122217 | Preparation Date: 12/22/2017 9:00:00 AM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MB	Lab Sample ID: SPROA122217MB			Client Sample ID: SPROA122217MB				Date Analyzed: 12/22/2017 8:43:00 PM				
Ortho-terphenyl			97.1		%	100	97.1	62.0	-	109		
Nonatriacontane(C39)			100		%	100	100	60.0	-	118		
QA/QC Type: LCS	Lab Sample ID: SPROA122217LCS			Client Sample ID: SPROA122217LCS				Date Analyzed: 12/22/2017 7:27:00 PM				
Total Recoverable Pet. Hydrocarbons	2.1	17	36.5		mg/Kg	28.3	129	63.0	-	153		
Ortho-terphenyl			92.3		%	100	92.3	62.0	-	109		
Nonatriacontane(C39)			104		%	100	104	60.0	-	118		
QA/QC Type: LCSD	Lab Sample ID: SPROA122217LCSD			Client Sample ID: SPROA122217LCSD				Date Analyzed: 12/22/2017 8:05:00 PM				
Total Recoverable Pet. Hydrocarbons	2.1	17	34.2		mg/Kg	28.3	121	63.0	-	153	6.5	25.0
Ortho-terphenyl			97.1		%	100	97.1	62.0	-	109		
Nonatriacontane(C39)			104		%	100	104	60.0	-	118		
QA/QC Type: MS	Lab Sample ID: SPROA122217MS			Client Sample ID: 223315MS				Date Analyzed: 12/23/2017 3:38:00 AM				
Total Recoverable Pet. Hydrocarbons	2.2	17	91.9		mg/Kg	29.0	127	62.0	-	204		
Ortho-terphenyl			97.2		%	100	97.2	62.0	-	109		
Nonatriacontane(C39)			116		%	100	116	60.0	-	118		
QA/QC Type: MSD	Lab Sample ID: SPROA122217MSD			Client Sample ID: 223315MSD				Date Analyzed: 12/23/2017 4:16:00 AM				
Total Recoverable Pet. Hydrocarbons	2.2	17	102		mg/Kg	29.0	162	62.0	-	204	10	25.0
Ortho-terphenyl			94.7		%	100	94.7	62.0	-	109		
Nonatriacontane(C39)			118		%	100	118	60.0	-	118		
QA/QC Type: DUP	Lab Sample ID: SPROA122217DUP			Client Sample ID: 223310DUP				Date Analyzed: 12/23/2017 12:34:00 PM				
Total Recoverable Pet. Hydrocarbons	44	360	4900		mg/Kg						13	25.0
Ortho-terphenyl			0	S1	%	100	0	62.0	-	109		
Nonatriacontane(C39)			0	S1	%	100	0	60.0	-	118		

Comments:

QUALITY ASSURANCE / QUALITY CONTROL DATA

Preparation Batch ID: WPAHZ010518 | Analysis Method: EPA 1312/8270/PAH Low Level | Preparation Type: 3510

Method Batch ID: MWPAHZ010518 | Preparation Date: 1/5/2018 10:00:00 AM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MB	Lab Sample ID: WPAHZ010518MB			Client Sample ID: WPAHZ010518MB			Date Analyzed: 1/5/2018 10:47:00 PM					
Naphthalene	0.13	2.0	0.13	U	ug/L							
Acenaphthylene	0.19	2.0	0.19	U	ug/L							
Acenaphthene	0.26	2.0	0.26	U	ug/L							
Fluorene	0.16	2.0	0.16	U	ug/L							
Phenanthrene	0.26	2.0	0.26	U	ug/L							
Anthracene	0.19	2.0	0.19	U	ug/L							
Fluoranthene	0.17	2.0	0.17	U	ug/L							
1-Methylnaphthalene	0.21	2.0	0.21	U	ug/L							
2-Methylnaphthalene	0.21	2.0	0.21	U	ug/L							
Pyrene	0.18	2.0	0.18	U	ug/L							
Benzo(a)anthracene	0.10	0.20	0.10	U	ug/L							
Chrysene	0.21	2.0	0.21	U	ug/L							
Benzo(b)fluoranthene	0.088	0.10	0.088	U	ug/L							
Benzo(k)fluoranthene	0.083	0.20	0.083	U	ug/L							
Benzo(a)pyrene	0.090	0.20	0.090	U	ug/L							
Indeno(1,2,3-cd)pyrene	0.047	0.20	0.047	U	ug/L							
Dibenzo(a,h)anthracene	0.057	0.20	0.057	U	ug/L							
Benzo(g,h,i)perylene	0.34	2.0	0.34	U	ug/L							
Nitrobenzene-d5			114		%	120	95.0	22.0	-	127		
2-Fluorobiphenyl			119		%	120	99.2	31.0	-	130		
p-Terphenyl-d14			106		%	120	88.3	24.0	-	150		
QA/QC Type: LCS	Lab Sample ID: WPAHZ010518LCS			Client Sample ID: WPAHZ010518LCS			Date Analyzed: 1/5/2018 8:58:00 PM					
Naphthalene	0.13	2.0	44.0		ug/L	50.0	88.0	30.0	-	150		
Acenaphthylene	0.19	2.0	45.4		ug/L	50.0	90.8	30.0	-	150		
Acenaphthene	0.26	2.0	45.7		ug/L	50.0	91.4	30.0	-	150		
Fluorene	0.16	2.0	45.9		ug/L	50.0	91.8	30.0	-	150		
Phenanthrene	0.26	2.0	48.5		ug/L	50.0	97.0	30.0	-	150		
Anthracene	0.19	2.0	49.0		ug/L	50.0	98.0	30.0	-	150		
Fluoranthene	0.17	2.0	50.3		ug/L	50.0	101	30.0	-	150		
1-Methylnaphthalene	0.21	2.0	46.3		ug/L	50.0	92.6	30.0	-	150		
2-Methylnaphthalene	0.21	2.0	43.7		ug/L	50.0	87.4	30.0	-	150		
Pyrene	0.18	2.0	51.3		ug/L	50.0	103	30.0	-	150		
Benzo(a)anthracene	0.10	0.20	52.8		ug/L	50.0	106	30.0	-	150		
Chrysene	0.21	2.0	42.5		ug/L	50.0	85.0	30.0	-	150		

QUALITY ASSURANCE / QUALITY CONTROL DATA

Preparation Batch ID: WPAHZ010518 | Analysis Method: EPA 1312/8270/PAH Low Level | Preparation Type: 3510

Method Batch ID: MWPAHZ010518 | Preparation Date: 1/5/2018 10:00:00 AM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: LCS	Lab Sample ID: WPAHZ010518LCS			Client Sample ID: WPAHZ010518LCS			Date Analyzed: 1/5/2018 8:58:00 PM					
Benzo(b)fluoranthene	0.088	0.10	52.1		ug/L	50.0	104	30.0	-	150		
Benzo(k)fluoranthene	0.083	0.20	51.8		ug/L	50.0	104	30.0	-	150		
Benzo(a)pyrene	0.090	0.20	52.5		ug/L	50.0	105	30.0	-	150		
Indeno(1,2,3-cd)pyrene	0.047	0.20	57.0		ug/L	50.0	114	30.0	-	150		
Dibenzo(a,h)anthracene	0.057	0.20	46.4		ug/L	50.0	92.8	30.0	-	150		
Benzo(g,h,i)perylene	0.34	2.0	42.4		ug/L	50.0	84.8	30.0	-	150		
Nitrobenzene-d5			105		%	120	87.5	22.0	-	127		
2-Fluorobiphenyl			110		%	120	91.7	31.0	-	130		
p-Terphenyl-d14			127		%	120	106	24.0	-	150		
QA/QC Type: LCSD	Lab Sample ID: WPAHZ010518LCSD			Client Sample ID: WPAHZ010518LCSD			Date Analyzed: 1/5/2018 9:34:00 PM					
Naphthalene	0.13	2.0	49.7		ug/L	50.0	99.4	30.0	-	150	12	30.0
Acenaphthylene	0.19	2.0	51.2		ug/L	50.0	102	30.0	-	150	12	30.0
Acenaphthene	0.26	2.0	51.3		ug/L	50.0	103	30.0	-	150	12	30.0
Fluorene	0.16	2.0	51.0		ug/L	50.0	102	30.0	-	150	11	30.0
Phenanthrene	0.26	2.0	54.6		ug/L	50.0	109	30.0	-	150	12	30.0
Anthracene	0.19	2.0	55.2		ug/L	50.0	110	30.0	-	150	12	30.0
Fluoranthene	0.17	2.0	55.2		ug/L	50.0	110	30.0	-	150	9.3	30.0
1-Methylnaphthalene	0.21	2.0	52.6		ug/L	50.0	105	30.0	-	150	13	30.0
2-Methylnaphthalene	0.21	2.0	49.6		ug/L	50.0	99.2	30.0	-	150	13	30.0
Pyrene	0.18	2.0	55.6		ug/L	50.0	111	30.0	-	150	8.0	30.0
Benzo(a)anthracene	0.10	0.20	56.4		ug/L	50.0	113	30.0	-	150	6.6	30.0
Chrysene	0.21	2.0	43.0		ug/L	50.0	86.0	30.0	-	150	1.2	30.0
Benzo(b)fluoranthene	0.088	0.10	55.5		ug/L	50.0	111	30.0	-	150	6.3	30.0
Benzo(k)fluoranthene	0.083	0.20	55.4		ug/L	50.0	111	30.0	-	150	6.7	30.0
Benzo(a)pyrene	0.090	0.20	56.3		ug/L	50.0	113	30.0	-	150	7.0	30.0
Indeno(1,2,3-cd)pyrene	0.047	0.20	53.3		ug/L	50.0	107	30.0	-	150	6.7	30.0
Dibenzo(a,h)anthracene	0.057	0.20	50.5		ug/L	50.0	101	30.0	-	150	8.5	30.0
Benzo(g,h,i)perylene	0.34	2.0	46.4		ug/L	50.0	92.8	30.0	-	150	9.0	30.0
Nitrobenzene-d5			120		%	120	100	22.0	-	127		
2-Fluorobiphenyl			125		%	120	104	31.0	-	130		
p-Terphenyl-d14			142		%	120	118	24.0	-	150		

Comments:

South Rates

Chain of Custody Record

Company: AET, llc - L	Environmental Testing Laboratories, Inc. 412 W. Walcott Street, Thomasville, GA 31792-4359, 229/228-2592 (telephone), 229/228-2594 (telefax), www.etl-inc.com	Page 1 of 1
Address: 4265 New Tampa Hwy - Lakeland FL		Project Name: Dade County School Board
Telephone Number: / Telefax Number: /		Project Number: 26672.00 (E02)
Sampled by [Print Name(s)] / Affiliation: Justinano Marquez III, BIT / AET, llc	Analyses Requested	Project Manager: A. Sanchez
Sampler(s) Signature(s): J. Marquez		Facility ID Number: 13/8628726
		REQUESTED DUE DATE: STD 'TAT'

Item No.	Field ID No.	Sample Date	Sample Time	Grab or Composite	Matrix (see Codes)	Number of Containers	SPLP VOC 1312/8260	MA GPH 8015	MA VPH 8015	BTEXM 8260	PAH/TRAH 8270_[illegible]	SPLP Bulk	RCRA 6010			Remarks	Lab Number
	SB-31@4'	12/19/17	1225	G	SO	10	1	3	1	3	1	1	1				223310
	SB-32@1-2'	"	1645	"	"	"	↓	↓	↓	↓	↓	↓				times on Jars	311
	SB-32@4'	"	1710	"	"	"	↓	↓	↓	↓	↓	↓				"	312
	SB-22@1-2'	"	1800	"	"	"	↓	↓	↓	↓	↓	↓					313
	SB-22@4'	"	1815	"	"	"	↓	↓	↓	↓	↓	↓					314
	SB-26@1-2'	"	1725	"	"	"	↓	↓	↓	↓	↓	↓					315
	SB-26@4'	"	1740	"	"	"	↓	↓	↓	↓	↓	↓					316
IDW	Prebura	"	1740	"	"	1							X				317

Shipment Method: Express | Total Number of Containers: 71 | ← Preservatives (see Codes) | ICE: ☒ Yes ☐ No

Out: 12/19/17	Via: FEDEX	Item No.	Relinquished by / Affiliation	Date	Time	Accepted by / Affiliation	Date	Time
Returned: / /	Via:		J. Marquez III, BIT / AET	12/19/17	2030	Fed-Ex	12/19/17	2030
Additional Comments:			Fed-Ex	12/20/17	10:10			
		Cooler Number(s) / Temperature(s) (°C)		Sampling Kit Number		Received in Lab By: KDM	12/20/17	10:10

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Wastewater O = Other (specify)

PRESERVATIVE CODES: H = Hydrochloric acid S = Sulfuric acid N = Nitric Na = Sodium Hydroxide O = Other (specify)

PRESERVATIVE CODES: SOIL VOCS MS = Methanol / Sodium Bisulfate MD = Methanol / DI Water

ETL PROJECT NO. 17-4105

ENVIRONMENTAL TESTING LABORATORIES inc

Project Receipt Summary

17-4105

Project Details

Client: ADVANCED ENVIRONMENTAL TECHNOLOGIES

Project Name: DADE COUNTY SCHOOL BOARD

Shipping and Receiving

Date/Time Received: 12/20/2017 10:10:00 AM

Sampling Personnel: J MARQUEZ

Shipping Method: Federal Express

Shipping Tracking Number: 100189213286000317920

If present, were cooler custody seals intact?

○ Yes ○ No ◉ N/A

If present, were sample bottle custody seals intact

○ Yes ○ No ◉ N/A

Thermal Preservation

Cooler Temp Method: Sample Temperature

Thermometer ID: 160372413

Number of Coolers: 1

Were cooler temperatues in compliance? (0.1-6.0C)

◉ Yes ○ No ○ N/A

Cooler Temperatures: 4.4

Chain of Custody

Was the chain-of-custody received in coolers?	◉ Yes	○ No	○ N/A
Was the chain-of-custody signed and properly relinquished?	◉ Yes	○ No	○ N/A
Does the chain-of-custody agree with samples and analyses?	○ Yes	◉ No	○ N/A

Container Receipt

Were samples received in appropriate bottleware for analyses?	◉ Yes	○ No	○ N/A
Was sufficient volume submitted for analyses requested?	◉ Yes	○ No	○ N/A
Were samples received within method holding times?	◉ Yes	○ No	○ N/A
Were VOA vials received with zero headspace?	○ Yes	○ No	◉ N/A
Were aqeuous samples received at an acceptable pH?	○ Yes	○ No	◉ N/A

pH Test Strip Lot: HC689794

Comments

- CLIENT SENT IN 2 SETS OF BTEXM INSTEAD OF 1 SET OF BTEXM AND 1 SET OF MAVPH FOR 223316

I certify I have answered the questions contained herein to the best of my knowledge and have affixed labels with unique IDs onto each sample container received. I certify any discrepancies regarding the samples as received by the laboratory have been documented completely in the comments section of this form.

Kevin Moran

Project Sample Detail

Lab Sample ID	Client Sample ID	Matrix	SPLP	TRPH Speciation	MaVPH MaEPH
223310	**SB-31@4'**	**SOILS**	☐	☐	☐
223310-A1 (BTEXM)					
223310-A2 (BTEXM)					
223310-A3 (BTEXM)					
223310-A4 (MaVPH)					
223310-A5 (MaVPH)					
223310-A6 (MaVPH)					
223310-B1 (PAH/TRPH/%M)					
223310-B2 (MaEPH)					
223310-D1 (SPLP VOC)					
223310-D2 (SPLP Bulk)					
223311	**SB-32@1-2'**	**SOILS**	☐	☐	☐
223311-A1 (BTEXM)					
223311-A2 (BTEXM)					
223311-A3 (BTEXM)					
223311-A4 (MaVPH)					
223311-A5 (MaVPH)					
223311-A6 (MaVPH)					
223311-B1 (PAH/TRPH/%M)					
223311-B2 (MaEPH)					
223311-D1 (SPLP VOC)					
223311-D2 (SPLP Bulk)					
223312	**SB-32@4'**	**SOILS**	☐	☐	☐
223312-A1 (BTEXM)					
223312-A2 (BTEXM)					
223312-A3 (BTEXM)					
223312-A4 (MaVPH)					
223312-A5 (MaVPH)					
223312-A6 (MaVPH)					
223312-B1 (PAH/TRPH/%M)					
223312-B2 (MaEPH)					
223312-D1 (SPLP VOC)					
223312-D2 (SPLP Bulk)					
223313	**SB-22@1-2'**	**SOILS**	☐	☐	☐
223313-A1 (BTEXM)					
223313-A2 (BTEXM)					
223313-A3 (BTEXM)					
223313-A4 (MaVPH)					

Project Sample Detail

Lab Sample ID	Client Sample ID	Matrix	SPLP	TRPH Speciation	MaVPH MaEPH
223313-A5 (MaVPH)					
223313-A6 (MaVPH)					
223313-B1 (PAH/TRPH/%M)					
223313-B2 (MaEPH)					
223313-D1 (SPLP VOC)					
223313-D2 (SPLP Bulk)					
223314	**SB-22@4'**	**SOILS**	☐	☐	☐
223314-A1 (MaVPH)					
223314-A2 (MaVPH)					
223314-A3 (MaVPH)					
223314-A4 (BTEXM)					
223314-A5 (BTEXM)					
223314-A6 (BTEXM)					
223314-B1 (MaEPH)					
223314-B2 (PAH/TRPH/%M)					
223314-D1 (SPLP VOC)					
223314-D2 (SPLP Bulk)					
223315	**SB-26@1-2'**	**SOILS**	☐	☐	☐
223315-A1 (MaVPH)					
223315-A2 (MaVPH)					
223315-A3 (MaVPH)					
223315-A4 (BTEXM)					
223315-A5 (BTEXM)					
223315-A6 (BTEXM)					
223315-B1 (PAH/TRPH/%M)					
223315-B2 (MaEPH)					
223315-D1 (SPLP VOC)					
223315-D2 (SPLP Bulk)					
223316	**SB-26@4'**	**SOILS**	☐	☐	☐
223316-A1 (MaVPH)					
223316-A2 (MaVPH)					
223316-A3 (MaVPH)					
223316-A4 (BTEXM)					
223316-A5 (BTEXM)					
223316-A6 (BTEXM)					
223316-B1 (MaEPH)					
223316-B2 (PAH/TRPH/%M)					
223316-D1 (SPLP VOC)					

ENVIRONMENTAL TESTING LABORATORIES INC

Project Receipt Summary

17-4105

Project Sample Detail

Lab Sample ID	Client Sample ID	Matrix	SPLP	TRPH Speciation	MaVPH MaEPH
223316-D2 (SPLP Bulk)					
223317	**PREBURN**	**SOILS**	☐	☐	☐
223317-C1 (4-RCRA)					

ENVIRONMENTAL TESTING LABORATORIES INC

Project Receipt Summary

17-4105

Project Bottle Count Summary

Container Type	Preservative	Number of Containers
25g Encore Sampler	NONE	7
40mL VOA Vial	MeOH/ICE	28
40mL VOA Vial w/ Stirbar	DiH2O/ICE	14
Glass Jar	NONE	21
HDPE Plastic	HNO3	1
	Total	71

Sub Contracted Data

Analytical Report

L8A0006

Project

Dade Cnty School

BD-Transportation

Project Number

010218A

January 16, 2018
Environmental Testing Laboratories-Thomasville
412 W.Walcott Street
Thomasville, Georgia 31792

Minority Women Business Enterprise
Small Disadvantaged Business Enterprise

Minority Women Business Enterprise
Small Disadvantaged Business Enterprise

1412 Tech Blvd
Tampa, FL 33619

Phone #: 813-620-2000
Website: www.ftsanalytical.com

January 16, 2018

Brad Williams
Environmental Testing Laboratories-Thomasville
412 W.Walcott Street
Thomasville, Georgia 31792

RE: Dade Cnty School BD-Transportation

We are reporting the results of the analyses performed on the samples recieved on 1/2/2018 under the project name referenced above and identified as the lab Work Order L8A0006. All results being reported under this Report apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontracted lab, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reporting using all other available quality control methods.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by FTS Analytical Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise agreed upon. The samples received, and described as recorded in Work Order L8A0006 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise agreed upon. We reserve the right to return to you any unused samples, extracts, or solutions if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding standard practices, controlled/regulated substances, etc.)

We thank you for selecting FTS Analytical to serve your analytical needs. If you have any questions concerning this report, please do not hesitate to contact us at any time. We will be happy to help.

Sincerely,

J. Derek Rounsley For Derek Rounsley
Project Manager

MWBE SDBE
NELAC DoD Accredited

Environmental Testing Laboratories-Thomasville	Project: Dade Cnty School BD-Transportation	
412 W.Walcott Street	Project Number: 010218A	**Reported:**
Thomasville, Georgia 31792	Project Manager: Brad Williams	1/16/18 16:32

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
L8A0006-01	223310	Solid	19-Dec-2017 12:25	02-Jan-2018 14:10
L8A0006-02	223312	Solid	19-Dec-2017 17:10	02-Jan-2018 14:10

Environmental Testing Laboratories-Thomasville	Project: Dade Cnty School BD-Transportation	
412 W.Walcott Street	Project Number: 010218A	**Reported:**
Thomasville, Georgia 31792	Project Manager: Brad Williams	1/16/18 16:32

Hits Summary

(Not Including Subcontracted Analysis)

Sample: 223310

Lab ID: L8A0006-01

Analyte	Result	Qual	PQL	MDL	Units	Dil	Date Analyzed	CAS #	Method
% Solids	**86.9**		0.100	0.100	%	1	1/2/18 14:44		SM 2540G
C11-C22 Aromatic Hyd. (Unadjusted)	**1370**		386	193	mg/Kg dry	20	1/12/18 5:57		MA-DEP EPH
C5-C8 Aliphatic Hyd. (Unadjusted)	**3.67**		2.39	1.21	mg/Kg dry	50	1/3/18 16:46	C5-C8ALIPH-U	MA-DEP VPH
C19-C36 Aliphatic Hyd.	**367**		363	181	mg/Kg dry	20	1/11/18 23:28		MA-DEP EPH
C9-C10 Aromatic Hyd. (Unadjusted)	**11.5**		0.796	0.414	mg/Kg dry	50	1/3/18 16:46	C9-C10AROM-U	MA-DEP VPH
C9-C12 Aliphatic Hyd. (Unadjusted)	**27.8**		2.39	1.21	mg/Kg dry	50	1/3/18 16:46	C9-C12ALIPH-U	MA-DEP VPH
C9-C18 Aliphatic Hyd.	**1340**		272	136	mg/Kg dry	20	1/11/18 23:28	C9-C18ALIPH	MA-DEP EPH
Percent Moisture	**13.1**		0.100	0.100	%	1	1/2/18 14:44		SM 2540G

Sample: 223312

Lab ID: L8A0006-02

Analyte	Result	Qual	PQL	MDL	Units	Dil	Date Analyzed	CAS #	Method
% Solids	**95.2**		0.100	0.100	%	1	1/2/18 14:44		SM 2540G
C11-C22 Aromatic Hyd. (Unadjusted)	**43.7**		16.3	8.16	mg/Kg dry	1	1/12/18 6:29		MA-DEP EPH
C5-C8 Aliphatic Hyd. (Unadjusted)	**3.43**		2.54	1.28	mg/Kg dry	50	1/3/18 17:25	C5-C8ALIPH-U	MA-DEP VPH
C19-C36 Aliphatic Hyd.	**44.3**		15.4	7.68	mg/Kg dry	1	1/12/18 0:00		MA-DEP EPH
C9-C10 Aromatic Hyd. (Unadjusted)	**7.95**		0.845	0.439	mg/Kg dry	50	1/3/18 17:25	C9-C10AROM-U	MA-DEP VPH
C9-C12 Aliphatic Hyd. (Unadjusted)	**17.4**		2.54	1.28	mg/Kg dry	50	1/3/18 17:25	C9-C12ALIPH-U	MA-DEP VPH
C9-C18 Aliphatic Hyd.	**86.6**		11.5	5.76	mg/Kg dry	1	1/12/18 0:00	C9-C18ALIPH	MA-DEP EPH
Percent Moisture	**4.81**		0.100	0.100	%	1	1/2/18 14:44		SM 2540G

Environmental Testing Laboratories-Thomasville	Project: Dade Cnty School BD-Transportation	
412 W.Walcott Street	Project Number: 010218A	**Reported:**
Thomasville, Georgia 31792	Project Manager: Brad Williams	1/16/18 16:32

Sample Results

Client Sample ID: 223310
Lab Sample ID: L8A0006-01 (Solid) **Sampled:12/19/17 12:25**

Analyte	Result	Qual	PQL	MDL	Units	Dil	Date Prepared	Date Analyzed	CAS #
MADEP EPH									
Laboratory:FTS - Florida									Analyst:BTJ
C11-C22 Aromatic Hyd. (Unadjusted)	**1370**		386	193	mg/Kg dry	20	1/2/18 10:24	1/12/18 5:57	
C19-C36 Aliphatic Hyd.	**367**		363	181	mg/Kg dry	20	1/2/18 10:24	1/11/18 23:28	
C9-C18 Aliphatic Hyd.	**1340**		272	136	mg/Kg dry	20	1/2/18 10:24	1/11/18 23:28	C9-C18ALIPH
Surrogate: 1-Chlorooctadecane (SUR)			*73%*	*40-140*				1/11/18 22:55	3386-33-2
Surrogate: 2-Fluorobiphenyl (B-SUR)			*77%*	*40-140*				1/12/18 5:24	321-60-8
Surrogate: o-Terphenyl (SUR)			*89%*	*40-140*				1/12/18 5:24	84-15-1
MADEP VPH									
Laboratory:FTS - Florida									Analyst:JFL
C5-C8 Aliphatic Hyd. (Unadjusted)	**3.67**		2.39	1.21	mg/Kg dry	50	1/3/18 12:06	1/3/18 16:46	C5-C8ALIPH-U
C9-C10 Aromatic Hyd. (Unadjusted)	**11.5**		0.796	0.414	mg/Kg dry	50	1/3/18 12:06	1/3/18 16:46	C9-C10AROM-U
C9-C12 Aliphatic Hyd. (Unadjusted)	**27.8**		2.39	1.21	mg/Kg dry	50	1/3/18 12:06	1/3/18 16:46	C9-C12ALIPH-U
Surrogate: 2,5-Dibromotoluene (SUR)			*91%*	*70-130*				1/3/18 16:46	615-59-8
Surrogate: 2,5-Dibromotoluene (PID) (SUR)			*91%*	*70-130*				1/3/18 16:46	615-59-8
Percent Moisture by Method 2540G									
Laboratory:FTS - Florida									Analyst:MAB
% Solids	**86.9**		0.100	0.100	%	1	1/2/18 14:44	1/2/18 14:44	
Percent Moisture	**13.1**		0.100	0.100	%	1	1/2/18 14:44	1/2/18 14:44	

Environmental Testing Laboratories-Thomasville	Project: Dade Cnty School BD-Transportation	
412 W.Walcott Street	Project Number: 010218A	**Reported:**
Thomasville, Georgia 31792	Project Manager: Brad Williams	1/16/18 16:32

Sample Results
(Continued)

Client Sample ID: 223312
Lab Sample ID: L8A0006-02 (Solid) **Sampled:12/19/17 17:10**

Analyte	Result	Qual	PQL	MDL	Units	Dil	Date Prepared	Date Analyzed	CAS #
MADEP EPH									
Laboratory:FTS - Florida									Analyst:BTJ
C11-C22 Aromatic Hyd. (Unadjusted)	**43.7**		16.3	8.16	mg/Kg dry	1	1/2/18 10:24	1/12/18 6:29	
C19-C36 Aliphatic Hyd.	**44.3**		15.4	7.68	mg/Kg dry	1	1/2/18 10:24	1/12/18 0:00	
C9-C18 Aliphatic Hyd.	**86.6**		11.5	5.76	mg/Kg dry	1	1/2/18 10:24	1/12/18 0:00	C9-C18ALIPH
Surrogate: 1-Chlorooctadecane (SUR)			*76%*	*40-140*				1/12/18 0:00	3386-33-2
Surrogate: 2-Fluorobiphenyl (B-SUR)			*81%*	*40-140*				1/12/18 6:29	321-60-8
Surrogate: o-Terphenyl (SUR)			*84%*	*40-140*				1/12/18 6:29	84-15-1
MADEP VPH									
Laboratory:FTS - Florida									Analyst:JFL
C5-C8 Aliphatic Hyd. (Unadjusted)	**3.43**		2.54	1.28	mg/Kg dry	50	1/3/18 12:06	1/3/18 17:25	C5-C8ALIPH-U
C9-C10 Aromatic Hyd. (Unadjusted)	**7.95**		0.845	0.439	mg/Kg dry	50	1/3/18 12:06	1/3/18 17:25	C9-C10AROM-U
C9-C12 Aliphatic Hyd. (Unadjusted)	**17.4**		2.54	1.28	mg/Kg dry	50	1/3/18 12:06	1/3/18 17:25	C9-C12ALIPH-U
Surrogate: 2,5-Dibromotoluene (SUR)			*84%*	*70-130*				1/3/18 17:25	615-59-8
Surrogate: 2,5-Dibromotoluene (PID) (SUR)			*83%*	*70-130*				1/3/18 17:25	615-59-8
Percent Moisture by Method 2540G									
Laboratory:FTS - Florida									Analyst:MAB
% Solids	**95.2**		0.100	0.100	%	1	1/2/18 14:44	1/2/18 14:44	
Percent Moisture	**4.81**		0.100	0.100	%	1	1/2/18 14:44	1/2/18 14:44	

Environmental Testing Laboratories-Thomasville
412 W.Walcott Street
Thomasville, Georgia 31792

Project: Dade Cnty School BD-Transportation
Project Number: 010218A
Project Manager: Brad Williams

Reported:
1/16/18 16:32

Quality Control

MADEP VPH

Analyte	Result	Qual	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8A0016											
Blank (B8A0016-BLK1)					Prepared & Analyzed: 1/3/2018						
C5-C8 Aliphatic Hyd. (Unadjusted)	0.0380	U	0.0750	0.0380	mg/Kg wet						
C9-C10 Aromatic Hyd. (Unadjusted)	0.0130	U	0.0250	0.0130	mg/Kg wet						
C9-C12 Aliphatic Hyd. (Unadjusted)	0.0380	U	0.0750	0.0380	mg/Kg wet						
Surrogate: 2,5-Dibromotoluene (SUR)			*0.0412*		*mg/Kg wet*	*0.0400*		*103*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID) (SUR)			*0.0436*		*mg/Kg wet*	*0.0400*		*109*	*70-130*		
LCS (B8A0016-BS1)					Prepared & Analyzed: 1/3/2018						
C5-C8 Aliphatic Hyd. (Unadjusted)	0.254		0.0750	0.0380	mg/Kg wet	0.300		85	70-130		
C9-C10 Aromatic Hyd. (Unadjusted)	0.0549		0.0250	0.0130	mg/Kg wet	0.0500		110	70-130		
C9-C12 Aliphatic Hyd. (Unadjusted)	0.388		0.0750	0.0380	mg/Kg wet	0.400		97	70-130		
Surrogate: 2,5-Dibromotoluene (SUR)			*0.0474*		*mg/Kg wet*	*0.0500*		*95*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID) (SUR)			*0.0425*		*mg/Kg wet*	*0.0500*		*85*	*70-130*		
LCS Dup (B8A0016-BSD1)					Prepared & Analyzed: 1/3/2018						
C5-C8 Aliphatic Hyd. (Unadjusted)	0.236		0.0750	0.0380	mg/Kg wet	0.300		79	70-130	7	25
C9-C10 Aromatic Hyd. (Unadjusted)	0.0607		0.0250	0.0130	mg/Kg wet	0.0500		121	70-130	10	25
C9-C12 Aliphatic Hyd. (Unadjusted)	0.327		0.0750	0.0380	mg/Kg wet	0.400		82	70-130	17	25
Surrogate: 2,5-Dibromotoluene (SUR)			*0.0378*		*mg/Kg wet*	*0.0500*		*76*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID) (SUR)			*0.0368*		*mg/Kg wet*	*0.0500*		*74*	*70-130*		

Environmental Testing Laboratories-Thomasville
412 W.Walcott Street
Thomasville, Georgia 31792

Project: Dade Cnty School BD-Transportation
Project Number: 010218A
Project Manager: Brad Williams

Reported:
1/16/18 16:32

Quality Control
(Continued)

MADEP EPH

Analyte	Result	Qual	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8A0007											
Blank (B8A0007-BLK1)					Prepared & Analyzed: 1/2/2018						
C11-C22 Aromatic Hyd. (Unadjusted)	8.50	U	17.0	8.50	mg/Kg wet						
C19-C36 Aliphatic Hyd.	8.00	U	16.0	8.00	mg/Kg wet						
C9-C18 Aliphatic Hyd.	6.00	U	12.0	6.00	mg/Kg wet						
Surrogate: 1-Chlorooctadecane (SUR)			*2.84*		*mg/Kg wet*	*5.00*		*57*	*40-140*		
Surrogate: 2-Fluorobiphenyl (B-SUR)			*3.97*		*mg/Kg wet*	*5.00*		*79*	*40-140*		
Surrogate: o-Terphenyl (SUR)			*3.39*		*mg/Kg wet*	*5.00*		*68*	*40-140*		
LCS (B8A0007-BS1)					Prepared & Analyzed: 1/2/2018						
C11-C22 Aromatic Hyd. (Unadjusted)	44.3		17.0	8.50	mg/Kg wet	85.0		52	40-140		
C19-C36 Aliphatic Hyd.	27.7		16.0	8.00	mg/Kg wet	40.0		69	40-140		
C9-C18 Aliphatic Hyd.	12.7		12.0	6.00	mg/Kg wet	30.0		42	40-140		
Surrogate: 1-Chlorooctadecane (SUR)			*3.28*		*mg/Kg wet*	*5.00*		*66*	*40-140*		
Surrogate: 2-Fluorobiphenyl (B-SUR)			*3.99*		*mg/Kg wet*	*5.00*		*80*	*40-140*		
Surrogate: o-Terphenyl (SUR)			*3.50*		*mg/Kg wet*	*5.00*		*70*	*40-140*		
LCS Dup (B8A0007-BSD1)					Prepared & Analyzed: 1/2/2018						
C11-C22 Aromatic Hyd. (Unadjusted)	50.1		17.0	8.50	mg/Kg wet	85.0		59	40-140	12	25
C19-C36 Aliphatic Hyd.	26.0		16.0	8.00	mg/Kg wet	40.0		65	40-140	6	25
C9-C18 Aliphatic Hyd.	12.3		12.0	6.00	mg/Kg wet	30.0		41	40-140	3	25
Surrogate: 1-Chlorooctadecane (SUR)			*3.02*		*mg/Kg wet*	*5.00*		*60*	*40-140*		
Surrogate: 2-Fluorobiphenyl (B-SUR)			*3.88*		*mg/Kg wet*	*5.00*		*78*	*40-140*		
Surrogate: o-Terphenyl (SUR)			*3.86*		*mg/Kg wet*	*5.00*		*77*	*40-140*		

Environmental Testing Laboratories-Thomasville	Project: Dade Cnty School BD-Transportation	
412 W.Walcott Street	Project Number: 010218A	**Reported:**
Thomasville, Georgia 31792	Project Manager: Brad Williams	1/16/18 16:32

Quality Control
(Continued)

Percent Moisture by Method 2540G

Analyte	Result	Qual	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8A0008											
Duplicate (B8A0008-DUP1)		**Source: L8A0006-01**			Prepared & Analyzed: 1/2/2018						
% Solids	87.2		0.100	0.100	%		86.9			0.3	20
Percent Moisture	12.8		0.100	0.100	%		13.1			2	20

Environmental Testing Laboratories-Thomasville	Project: Dade Cnty School BD-Transportation	
412 W.Walcott Street	Project Number: 010218A	**Reported:**
Thomasville, Georgia 31792	Project Manager: Brad Williams	1/16/18 16:32

List of Certifications for FTS - Florida

Number	Description	Code	Facility	Expires
E84098	FL MICROBIOLOGY Lakeland CERT	LFLNELAC	FTSL	06/30/2018
E871002	Xenco FL CERT	FLNELAC	FTSL	06/30/2018
E87429	FL NELAC CERT Tampa	AFLNELAC	FTSL	06/30/2018
LI0-135	DoD CERTIFICATE	DOD	FTSL	11/28/2017
P330-07-00105	USDA CERTIFICATE	USDA	FTSL	

Notes and Definitions

Item	Definition
U	Compound was not detected.
Dry	Sample results reported on a dry weight basis.
I	Value estimated to be between the Laboratory Detection and Reporting Limit
J	QC Failure see Case Narrative
L	Concentration exceeds calibration range
N	Tentatively Identified Compound
Q	Hold time exceeded
V	Analyte equal to or above detection limit in the method blank
TNTC	Bacteria is present but Too Numerous To Count

RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.

Chain of Custody Record

L8A0006

Company:	Environmental Testing Laboratories, Inc
Address:	412 W. Walcott, Thomasville, GA 31792
Telephone: (229)-228-2592	Telefax: (229)-228-2594
Sampled by [Print Name(s)] / Affiliation	
Sampler(s) Signature(s)	

Environmental Testing Laboratories, Inc.
ETL ENVIRONMENTAL TESTING LABORATORIES INC
412 W. Walcott Street
Thomasville, GA 31792-4359
229/228-2592 (Telephone)
229/228-2594 (TeleFax)
www.etl-inc.com

Page 1 of 1	
Project Name:	
Project Number:	010218A
Project Manager:	bwilliams@etl-inc.com
Facility ID Number:	
Requested Due Date	STANDARD

Analyses Requested

Item No.	Field ID No.	Sample Date	Sample Time	Grab / Composite	Matrix (See Codes)	Number of Containers	MaVPH (EPA 8015)	MaEPH (EPA 8015)	Remarks	Lab Number
1	223310	12/19/17	12:25	G	Soil	4	3	1		
2	223312	12/19/17	17:10	G	Soil	4	3	1		
Shipment Method				Total Number of Containers		8	MEOH	NONE	←Preservative (see Codes)	ICE: ☐ Yes ☐ No

Out:	/ /	Via:
Returned:	/ /	Via:
Additional Comments:		

Item No.	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
	[signature]	1/2/18	1000	[signature]	1/2/18	10:15
	[signature]	1/2/18	12:25	[signature]	1-2-18	12:25
	[signature]	1-2-18	14:10	[signature]	1/2/18	14:10

Cooler Number(s) / Temperature(s) °C	Sampling Kit Number	Received in Lab By:
4.7		

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Wastewater O = Other (Specify)

Preservative Codes: H = Hydrochloric Acid S = Sulfuric Acid N = Nitric Acid Na = Sodium Hydroxide O = Other (Specify)
MS = Methanol / Sodium Bisulfate MD = Methanol / DI Water

ETL Project No.

REVISED
ANALYTICAL REPORT

ETL PROJECT ID: 18-2153 **7/18/2018 - Revision 1**

ANDRES SANCHEZ
ADVANCED ENVIRONMENTAL TECHNOLOGIES
4265 NEW TAMPA HIGHWAY
LAKELAND, FL 33815
TEL: (863) 619-9708
FAX: (863) 619-7467

CLIENT PROJECT NAME: DADE CNTY SCHOOL BD-TRANSPORTATION
CLIENT PROJECT ID: 26672.00
FACILITY ID: 13/8628726

Enclosed are the analytical results for sample(s) received by Environmental Testing Laboratories on June 26, 2018. Results reported herein are reported on an as received basis and conform to current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Sample analyses performed by Environmental Testing Laboratories, Inc. (ETL) unless otherwise noted. ETL is accredited through NELAC and the Florida Department of Health, Certification #E87684. Scope of analyses: RCRA/CERCLA Metals, General Chemistry, Extractable Organics, and Volatile Organics. Effective Dates: February 14, 2002 through June 30, 2019.

Authorized for release by:

Table of Contents

Laboratory Qualifiers

!	Data deviate from historically established concentration ranges.
#	Surrogate compound inadvertently omitted.
$	Due to dilution, surrogate compound was not detected.
*****	Not reported due to interference
?	Data are rejected as should not be used.
A	Value reported is the arithmetic mean (average) of two or more determinations.
B	Results based upon colony counts outside the acceptable range.
D	Measurement made in the field.
E	Extra samples were taken at composite stations.
F	When reporting species, F indicates the female sex.
H	Value based on fied kit determination; results may not be accurate.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J	Estimated value.
K	Off-scale low. Actual value is known to be less than the value given.
L	Off-scale high. Actual value is known to be greater than the value given.
M	Presence of material is verified but not quantified; the actual value is less than the value given.
N	Presumptive evidence of presence of material.
O	Sampled, but analysis lost or not performed.
Q	Sample held beyond the accepted holding time.
R	Significant rain in the past 48 hours.
S1	Surrogate recovery reported is outside of laboratory established QA/QC Limits
S2	Analyte recovery reported is outside of laboratory established QA/QC Limits
S3	Analyte precision reported is outside of laboratory established QA/QC Limits
T	Value reported is less than the laboratory method detection limit.
U	Compound was analyzed for but not detected.
V	Indicates that the analyte was detected in both the sample and the associated method blank.
Y	Laboratory analysis was from an improperly preserved sample. Data may not be accurate.
Z	Too many colonies were present; numeric value represents the filtration volume.

Project Narrative

#E87684

Environmental Testing Laboratories, Inc. is accredited through NELAC and the Florida Department of Health.

Solid samples are reported on a dry weight basis unless otherwise noted.

Please refer to Section 4.0 of the ETL Quality Assurance Manual for a measure of uncertainty.

All analyses are performed using EPA or FL-DEP methods and certified to meet NELAC requirements, except where noted.

Analysis Samples	Revision 1 issued to include Ma EPH/ VPH - Please find results for lab# 231439, SB-31RR @ 4' Ma EPH/VPH in the subcontract data section of this report as anlayzed by Xenco labs of Tampa, FL.

Analytical Method Summary

E87684 **Environmental Testing Laboratories Inc.**
412 W. Walcott Street, Thomasville, GA 31792
(229) 228-2592

GC/MS (EPA 8260)

SW-846 Final Update III

Semivolatiles low level for PAH only (EPA 8270/PAH Low Level)

GC/FID (FDEP FL-PRO)

Florida Department of Environmental Protection

Sample Summary

Laboratory Sample ID	Client Sample ID	Matrix	End Date / Time Sampled		Grab / Composite	Percent Moisture
231439	SB-31 R @4'	SOILS	6/25/2018	15:15	G	4.69
231440	SB-32 RR@1-2'	SOILS	6/25/2018	15:30	G	13.7
231441	SB-32 RR @4'	SOILS	6/25/2018	15:37	G	5.85

Executive Summary

Analyte	Analytical Method	Result	Units	Qualifiers	Result Comments
SB-31 R @4' (231439)					
Total Recoverable Pet. Hydrocarbons	FDEP FL-PRO	5700	mg/Kg		
Naphthalene	EPA 8270/PAH Low Level	0.60	mg/Kg		
Phenanthrene	EPA 8270/PAH Low Level	0.82	mg/Kg		
Fluoranthene	EPA 8270/PAH Low Level	0.25	mg/Kg		
1-Methylnaphthalene	EPA 8270/PAH Low Level	1.8	mg/Kg		
2-Methylnaphthalene	EPA 8270/PAH Low Level	3.0	mg/Kg		
Pyrene	EPA 8270/PAH Low Level	0.70	mg/Kg		
Benzo(a)anthracene	EPA 8270/PAH Low Level	0.10	mg/Kg		
Chrysene	EPA 8270/PAH Low Level	0.078	mg/Kg		
Benzo(b)fluoranthene	EPA 8270/PAH Low Level	0.13	mg/Kg		
Benzo(k)fluoranthene	EPA 8270/PAH Low Level	0.057	mg/Kg	I	
Benzo(a)pyrene	EPA 8270/PAH Low Level	0.092	mg/Kg		
Indeno(1,2,3-cd)pyrene	EPA 8270/PAH Low Level	0.12	mg/Kg		
Dibenzo(a,h)anthracene	EPA 8270/PAH Low Level	0.028	mg/Kg	I	
Benzo(g,h,i)perylene	EPA 8270/PAH Low Level	0.12	mg/Kg		
SB-32 RR@1-2' (231440)					
Total Recoverable Pet. Hydrocarbons	FDEP FL-PRO	24	mg/Kg		
Phenanthrene	EPA 8270/PAH Low Level	0.019	mg/Kg	I	
Fluoranthene	EPA 8270/PAH Low Level	0.071	mg/Kg	I	
Pyrene	EPA 8270/PAH Low Level	0.074	mg/Kg	I	
Chrysene	EPA 8270/PAH Low Level	0.074	mg/Kg	I	
Benzo(b)fluoranthene	EPA 8270/PAH Low Level	0.13	mg/Kg		
Benzo(k)fluoranthene	EPA 8270/PAH Low Level	0.049	mg/Kg	I	
Benzo(a)pyrene	EPA 8270/PAH Low Level	0.10	mg/Kg		
Indeno(1,2,3-cd)pyrene	EPA 8270/PAH Low Level	0.11	mg/Kg		
Dibenzo(a,h)anthracene	EPA 8270/PAH Low Level	0.041	mg/Kg	I	
Benzo(g,h,i)perylene	EPA 8270/PAH Low Level	0.12	mg/Kg		
SB-32 RR @4' (231441)					
Total Recoverable Pet. Hydrocarbons	FDEP FL-PRO	5400	mg/Kg		
Naphthalene	EPA 8270/PAH Low Level	0.78	mg/Kg		
Fluorene	EPA 8270/PAH Low Level	1.4	mg/Kg		
Phenanthrene	EPA 8270/PAH Low Level	1.2	mg/Kg		
Fluoranthene	EPA 8270/PAH Low Level	0.20	mg/Kg		

Executive Summary

Analyte	Analytical Method	Result	Units	Qualifiers	Result Comments
SB-32 RR @4' (231441)					
1-Methylnaphthalene	EPA 8270/PAH Low Level	2.7	mg/Kg		
2-Methylnaphthalene	EPA 8270/PAH Low Level	3.1	mg/Kg		
Pyrene	EPA 8270/PAH Low Level	0.65	mg/Kg		
Chrysene	EPA 8270/PAH Low Level	0.046	mg/Kg	I	
Benzo(b)fluoranthene	EPA 8270/PAH Low Level	0.074	mg/Kg		
Benzo(k)fluoranthene	EPA 8270/PAH Low Level	0.034	mg/Kg	I	
Benzo(a)pyrene	EPA 8270/PAH Low Level	0.062	mg/Kg	I	
Indeno(1,2,3-cd)pyrene	EPA 8270/PAH Low Level	0.064	mg/Kg	I	
Dibenzo(a,h)anthracene	EPA 8270/PAH Low Level	0.020	mg/Kg	I	
Benzo(g,h,i)perylene	EPA 8270/PAH Low Level	0.076	mg/Kg		

Analytical Data

Client Sample ID: SB-31 R @4'
Sample Location:
Date Collected: 06/25/2018 03:15 PM

Laboratory Sample ID: 231439
Matrix: SOILS
Percent Moisture: 4.69

Analytical Method: EPA 8260
GC/MS

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Benzene	1.0	0.0010	U	mg/Kg	0.0010	0.0044	6/28/2018 11:57:00 AM
Ethylbenzene	1.0	0.00085	U	mg/Kg	0.00085	0.0044	6/28/2018 11:57:00 AM
Methyl-t-butyl ether	1.0	0.00059	U	mg/Kg	0.00059	0.0044	6/28/2018 11:57:00 AM
Toluene	1.0	0.0010	U	mg/Kg	0.0010	0.0044	6/28/2018 11:57:00 AM
Xylenes- Total	1.0	0.0021	U	mg/Kg	0.0021	0.014	6/28/2018 11:57:00 AM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
1,2-Dichloroethane-d4	1.0	103			80% - 136%	6/28/2018 11:57:00 AM
4-Bromofluorobenzene	1.0	192	S1		51% - 145%	6/28/2018 11:57:00 AM
Dibromofluoromethane	1.0	98.0			70% - 130%	6/28/2018 11:57:00 AM
Toluene-d8	1.0	101			76% - 120%	6/28/2018 11:57:00 AM

Analytical Method: EPA 8270/PAH Low Level
Semivolatiles low level for PAH only

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
1-Methylnaphthalene	1.0	**1.8**		mg/Kg	0.012	0.070	6/27/2018 5:08:00 PM
2-Methylnaphthalene	1.0	**3.0**		mg/Kg	0.017	0.070	6/27/2018 5:08:00 PM
Acenaphthene	1.0	0.015	U	mg/Kg	0.015	0.070	6/27/2018 5:08:00 PM
Acenaphthylene	1.0	0.0095	U	mg/Kg	0.0095	0.070	6/27/2018 5:08:00 PM
Anthracene	1.0	0.0084	U	mg/Kg	0.0084	0.070	6/27/2018 5:08:00 PM
Benzo(a)anthracene	1.0	**0.10**		mg/Kg	0.0073	0.070	6/27/2018 5:08:00 PM
Benzo(a)pyrene	1.0	**0.092**		mg/Kg	0.0059	0.070	6/27/2018 5:08:00 PM
Benzo(b)fluoranthene	1.0	**0.13**		mg/Kg	0.0066	0.070	6/27/2018 5:08:00 PM
Benzo(g,h,i)perylene	1.0	**0.12**		mg/Kg	0.0089	0.070	6/27/2018 5:08:00 PM
Benzo(k)fluoranthene	1.0	**0.057**	I	mg/Kg	0.0042	0.070	6/27/2018 5:08:00 PM
Chrysene	1.0	**0.078**		mg/Kg	0.0083	0.070	6/27/2018 5:08:00 PM
Dibenzo(a,h)anthracene	1.0	**0.028**	I	mg/Kg	0.0085	0.070	6/27/2018 5:08:00 PM
Fluoranthene	1.0	**0.25**		mg/Kg	0.0071	0.070	6/27/2018 5:08:00 PM
Fluorene	1.0	0.0080	U	mg/Kg	0.0080	0.070	6/27/2018 5:08:00 PM
Indeno(1,2,3-cd)pyrene	1.0	**0.12**		mg/Kg	0.0091	0.070	6/27/2018 5:08:00 PM
Naphthalene	1.0	**0.60**		mg/Kg	0.019	0.070	6/27/2018 5:08:00 PM
Phenanthrene	1.0	**0.82**		mg/Kg	0.013	0.070	6/27/2018 5:08:00 PM
Pyrene	1.0	**0.70**		mg/Kg	0.0079	0.070	6/27/2018 5:08:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
2-Fluorobiphenyl	1.0	40.8			26% - 110%	6/27/2018 5:08:00 PM
Nitrobenzene-d5	1.0	69.5			12% - 104%	6/27/2018 5:08:00 PM

PQL: Practical Quantitation Limit **RL: Report Limit** **MDL: Method Detection Limit** **DF: Dilution Factor**

Analytical Data

p-Terphenyl-d14	1.0	112		39% - 120%	6/27/2018 5:08:00 PM

Analytical Method: FDEP FL-PRO GC/FID

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Total Recoverable Pet. Hydrocarbons	20	**5700**		mg/Kg	36	360	7/3/2018 6:03:00 PM
Surrogate	**DF**	**% Recovery**	**Qualifier**	**Units**	**Limits**		**Analysis Date**
Nonatriacontane(C39)	20				60% - 118%		7/3/2018 6:03:00 PM
Ortho-terphenyl	20				62% - 109%		7/3/2018 6:03:00 PM

Analytical Data

Client Sample ID: SB-32 RR@1-2'
Sample Location:
Date Collected: 06/25/2018 03:30 PM

Laboratory Sample ID: 231440
Matrix: SOILS
Percent Moisture: 13.7

Analytical Method: EPA 8260
GC/MS

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Benzene	1.0	0.0013	U	mg/Kg	0.0013	0.0053	6/28/2018 11:07:00 AM
Ethylbenzene	1.0	0.0010	U	mg/Kg	0.0010	0.0053	6/28/2018 11:07:00 AM
Methyl-t-butyl ether	1.0	0.00071	U	mg/Kg	0.00071	0.0053	6/28/2018 11:07:00 AM
Toluene	1.0	0.0013	U	mg/Kg	0.0013	0.0053	6/28/2018 11:07:00 AM
Xylenes- Total	1.0	0.0025	U	mg/Kg	0.0025	0.016	6/28/2018 11:07:00 AM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
1,2-Dichloroethane-d4	1.0	103			80% - 136%	6/28/2018 11:07:00 AM
4-Bromofluorobenzene	1.0	86.3			51% - 145%	6/28/2018 11:07:00 AM
Dibromofluoromethane	1.0	99.8			70% - 130%	6/28/2018 11:07:00 AM
Toluene-d8	1.0	95.8			76% - 120%	6/28/2018 11:07:00 AM

Analytical Method: EPA 8270/PAH Low Level
Semivolatiles low level for PAH only

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
1-Methylnaphthalene	1.0	0.013	U	mg/Kg	0.013	0.078	6/27/2018 5:45:00 PM
2-Methylnaphthalene	1.0	0.019	U	mg/Kg	0.019	0.078	6/27/2018 5:45:00 PM
Acenaphthene	1.0	0.016	U	mg/Kg	0.016	0.078	6/27/2018 5:45:00 PM
Acenaphthylene	1.0	0.011	U	mg/Kg	0.011	0.078	6/27/2018 5:45:00 PM
Anthracene	1.0	0.0093	U	mg/Kg	0.0093	0.078	6/27/2018 5:45:00 PM
Benzo(a)anthracene	1.0	0.0081	U	mg/Kg	0.0081	0.078	6/27/2018 5:45:00 PM
Benzo(a)pyrene	1.0	**0.10**		mg/Kg	0.0065	0.078	6/27/2018 5:45:00 PM
Benzo(b)fluoranthene	1.0	**0.13**		mg/Kg	0.0073	0.078	6/27/2018 5:45:00 PM
Benzo(g,h,i)perylene	1.0	**0.12**		mg/Kg	0.0098	0.078	6/27/2018 5:45:00 PM
Benzo(k)fluoranthene	1.0	**0.049**	I	mg/Kg	0.0046	0.078	6/27/2018 5:45:00 PM
Chrysene	1.0	**0.074**	I	mg/Kg	0.0092	0.078	6/27/2018 5:45:00 PM
Dibenzo(a,h)anthracene	1.0	**0.041**	I	mg/Kg	0.0094	0.078	6/27/2018 5:45:00 PM
Fluoranthene	1.0	**0.071**	I	mg/Kg	0.0079	0.078	6/27/2018 5:45:00 PM
Fluorene	1.0	0.0088	U	mg/Kg	0.0088	0.078	6/27/2018 5:45:00 PM
Indeno(1,2,3-cd)pyrene	1.0	**0.11**		mg/Kg	0.010	0.078	6/27/2018 5:45:00 PM
Naphthalene	1.0	0.021	U	mg/Kg	0.021	0.078	6/27/2018 5:45:00 PM
Phenanthrene	1.0	**0.019**	I	mg/Kg	0.014	0.078	6/27/2018 5:45:00 PM
Pyrene	1.0	**0.074**	I	mg/Kg	0.0087	0.078	6/27/2018 5:45:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
2-Fluorobiphenyl	1.0	105			26% - 110%	6/27/2018 5:45:00 PM
Nitrobenzene-d5	1.0	81.9			12% - 104%	6/27/2018 5:45:00 PM

PQL: Practical Quantitation Limit **RL: Report Limit** **MDL: Method Detection Limit** **DF: Dilution Factor**

Analytical Data

p-Terphenyl-d14	1.0	104		39% - 120%	6/27/2018 5:45:00 PM

Analytical Method: FDEP FL-PRO GC/FID

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Total Recoverable Pet. Hydrocarbons	1.0	**24**		mg/Kg	2.0	20	6/27/2018 10:55:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
Nonatriacontane(C39)	1.0	111			60% - 118%	6/27/2018 10:55:00 PM
Ortho-terphenyl	1.0	106			62% - 109%	6/27/2018 10:55:00 PM

Analytical Data

Client Sample ID: SB-32 RR @4'
Sample Location:
Date Collected: 06/25/2018 03:37 PM

Laboratory Sample ID: 231441
Matrix: SOILS
Percent Moisture: 5.85

Analytical Method: EPA 8260
GC/MS

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Benzene	1.0	0.0011	U	mg/Kg	0.0011	0.0044	6/28/2018 12:47:00 PM
Ethylbenzene	1.0	0.00084	U	mg/Kg	0.00084	0.0044	6/28/2018 12:47:00 PM
Methyl-t-butyl ether	1.0	0.00058	U	mg/Kg	0.00058	0.0044	6/28/2018 12:47:00 PM
Toluene	1.0	0.0011	U	mg/Kg	0.0011	0.0044	6/28/2018 12:47:00 PM
Xylenes- Total	1.0	0.0021	U	mg/Kg	0.0021	0.013	6/28/2018 12:47:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
1,2-Dichloroethane-d4	1.0	106			80% - 136%	6/28/2018 12:47:00 PM
4-Bromofluorobenzene	1.0	2100	S1		51% - 145%	6/28/2018 12:47:00 PM
Dibromofluoromethane	1.0	94.9			70% - 130%	6/28/2018 12:47:00 PM
Toluene-d8	1.0	102			76% - 120%	6/28/2018 12:47:00 PM

Analytical Method: EPA 8270/PAH Low Level
Semivolatiles low level for PAH only

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
1-Methylnaphthalene	1.0	**2.7**		mg/Kg	0.012	0.071	6/27/2018 6:22:00 PM
2-Methylnaphthalene	1.0	**3.1**		mg/Kg	0.017	0.071	6/27/2018 6:22:00 PM
Acenaphthene	1.0	0.015	U	mg/Kg	0.015	0.071	6/27/2018 6:22:00 PM
Acenaphthylene	1.0	0.0097	U	mg/Kg	0.0097	0.071	6/27/2018 6:22:00 PM
Anthracene	1.0	0.0085	U	mg/Kg	0.0085	0.071	6/27/2018 6:22:00 PM
Benzo(a)anthracene	1.0	0.0074	U	mg/Kg	0.0074	0.071	6/27/2018 6:22:00 PM
Benzo(a)pyrene	1.0	**0.062**	I	mg/Kg	0.0059	0.071	6/27/2018 6:22:00 PM
Benzo(b)fluoranthene	1.0	**0.074**		mg/Kg	0.0067	0.071	6/27/2018 6:22:00 PM
Benzo(g,h,i)perylene	1.0	**0.076**		mg/Kg	0.0090	0.071	6/27/2018 6:22:00 PM
Benzo(k)fluoranthene	1.0	**0.034**	I	mg/Kg	0.0042	0.071	6/27/2018 6:22:00 PM
Chrysene	1.0	**0.046**	I	mg/Kg	0.0084	0.071	6/27/2018 6:22:00 PM
Dibenzo(a,h)anthracene	1.0	**0.020**	I	mg/Kg	0.0086	0.071	6/27/2018 6:22:00 PM
Fluoranthene	1.0	**0.20**		mg/Kg	0.0072	0.071	6/27/2018 6:22:00 PM
Fluorene	1.0	**1.4**		mg/Kg	0.0081	0.071	6/27/2018 6:22:00 PM
Indeno(1,2,3-cd)pyrene	1.0	**0.064**	I	mg/Kg	0.0092	0.071	6/27/2018 6:22:00 PM
Naphthalene	1.0	**0.78**		mg/Kg	0.019	0.071	6/27/2018 6:22:00 PM
Phenanthrene	1.0	**1.2**		mg/Kg	0.013	0.071	6/27/2018 6:22:00 PM
Pyrene	1.0	**0.65**		mg/Kg	0.0080	0.071	6/27/2018 6:22:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
2-Fluorobiphenyl	1.0	70.4			26% - 110%	6/27/2018 6:22:00 PM
Nitrobenzene-d5	1.0	81.7			12% - 104%	6/27/2018 6:22:00 PM

PQL: Practical Quantitation Limit **RL: Report Limit** **MDL: Method Detection Limit** **DF: Dilution Factor**

Analytical Data

p-Terphenyl-d14	1.0	135	S1	39% - 120%	6/27/2018 6:22:00 PM

Analytical Method: FDEP FL-PRO GC/FID

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Total Recoverable Pet. Hydrocarbons	20	**5400**		mg/Kg	36	360	7/3/2018 5:25:00 PM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
Nonatriacontane(C39)	20				60% - 118%	7/3/2018 5:25:00 PM
Ortho-terphenyl	20				62% - 109%	7/3/2018 5:25:00 PM

Data Chronicle

Client Sample ID: SB-31 R @4' **Laboratory Sample ID:** 231439
Sample Location: **Matrix:** SOILS
Date Collected: 06/25/2018 03:15 PM **Percent Moisture:** 4.69

Prep	Analysis	Analytical Method	Dilution	Batch	Prepared	Analyzed	Analyst	Lab
N/A	RES	EPA 8260	1.0	SMSVA062818	6/28/2018 11:57:00 AM	6/28/2018 11:57:00 AM	MTA	E87684
N/A	RES	EPA 8270/PAH Low Level	1.0	SPAHA062618	6/26/2018 1:00:00 PM	6/27/2018 5:08:00 PM	BW	E87684
N/A	RES	FDEP FL-PRO	20	SPROA062718	6/27/2018 2:00:00 PM	7/3/2018 6:03:00 PM	BW	E87684

Client Sample ID: SB-32 RR@1-2' **Laboratory Sample ID:** 231440
Sample Location: **Matrix:** SOILS
Date Collected: 06/25/2018 03:30 PM **Percent Moisture:** 13.7

Prep	Analysis	Analytical Method	Dilution	Batch	Prepared	Analyzed	Analyst	Lab
N/A	RES	EPA 8260	1.0	SMSVA062818	6/28/2018 11:07:00 AM	6/28/2018 11:07:00 AM	MTA	E87684
N/A	RES	EPA 8270/PAH Low Level	1.0	SPAHA062618	6/26/2018 1:00:00 PM	6/27/2018 5:45:00 PM	BW	E87684
N/A	RES	FDEP FL-PRO	1.0	SPROA062718	6/27/2018 2:00:00 PM	6/27/2018 10:55:00 PM	BW	E87684

Client Sample ID: SB-32 RR @4' **Laboratory Sample ID:** 231441
Sample Location: **Matrix:** SOILS
Date Collected: 06/25/2018 03:37 PM **Percent Moisture:** 5.85

Prep	Analysis	Analytical Method	Dilution	Batch	Prepared	Analyzed	Analyst	Lab
N/A	RES	EPA 8260	1.0	SMSVA062818	6/28/2018 12:47:00 PM	6/28/2018 12:47:00 PM	MTA	E87684
N/A	RES	EPA 8270/PAH Low Level	1.0	SPAHA062618	6/26/2018 1:00:00 PM	6/27/2018 6:22:00 PM	BW	E87684
N/A	RES	FDEP FL-PRO	20	SPROA062718	6/27/2018 2:00:00 PM	7/3/2018 5:25:00 PM	BW	E87684

QUALITY ASSURANCE / QUALITY CONTROL DATA

J

Preparation Batch ID: SMSVA062818 | Analysis Method: EPA 8260 | Preparation Type: 5035 (Low)

Method Batch ID: MSMSVA062818 | Preparation Date: 6/28/2018 10:43:00 AM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MB	Lab Sample ID: SMSVA062818MB				Client Sample ID: SMSVA062818MB			Date Analyzed: 6/28/2018 10:43:00 AM				
Benzene	0.0012	0.0050	0.0012	U	mg/Kg							
Ethylbenzene	0.00096	0.0050	0.00096	U	mg/Kg							
Methyl-t-butyl ether	0.00067	0.0050	0.00067	U	mg/Kg							
Toluene	0.0012	0.0050	0.0012	U	mg/Kg							
Xylenes- Total	0.0024	0.015	0.0024	U	mg/Kg							
Toluene-d8			48.4		ug/kg	50.0	96.8	76.0	-	120		
4-Bromofluorobenzene			42.0		ug/kg	50.0	84.0	51.0	-	145		
Dibromofluoromethane			47.8		ug/kg	50.0	95.6	70.0	-	130		
1,2-Dichloroethane-d4			50.6		ug/kg	50.0	101	80.0	-	136		
QA/QC Type: LCS	Lab Sample ID: SMSVA062818LCS				Client Sample ID: SMSVA062818LCS			Date Analyzed: 6/28/2018 9:06:00 AM				
Benzene	0.0012	0.0050	0.057		mg/Kg	0.060	95.0	82.0	-	121		
Ethylbenzene	0.00096	0.0050	0.060		mg/Kg	0.060	100	82.0	-	119		
Methyl-t-butyl ether	0.00067	0.0050	0.051		mg/Kg	0.060	85.0	80.0	-	126		
Toluene	0.0012	0.0050	0.057		mg/Kg	0.060	95.0	83.0	-	118		
Xylenes- Total	0.0024	0.015	0.177		mg/Kg	0.180	98.3	83.0	-	119		
Toluene-d8			50.7		ug/kg	50.0	101	76.0	-	120		
4-Bromofluorobenzene			45.1		ug/kg	50.0	90.2	51.0	-	145		
Dibromofluoromethane			50.3		ug/kg	50.0	101	70.0	-	130		
1,2-Dichloroethane-d4			48.9		ug/kg	50.0	97.8	80.0	-	136		
QA/QC Type: LCSD	Lab Sample ID: SMSVA062818LCSD				Client Sample ID: SMSVA062818LCSD			Date Analyzed: 6/28/2018 9:30:00 AM				
Benzene	0.0012	0.0050	0.058		mg/Kg	0.060	96.7	82.0	-	121	1.7	20.0
Ethylbenzene	0.00096	0.0050	0.060		mg/Kg	0.060	100	82.0	-	119	0	19.0
Methyl-t-butyl ether	0.00067	0.0050	0.048		mg/Kg	0.060	80.0	80.0	-	126	6.1	23.0
Toluene	0.0012	0.0050	0.058		mg/Kg	0.060	96.7	83.0	-	118	1.7	18.0
Xylenes- Total	0.0024	0.015	0.178		mg/Kg	0.180	98.9	83.0	-	119	0.56	18.0
Toluene-d8			50.7		ug/kg	50.0	101	76.0	-	120		
4-Bromofluorobenzene			45.3		ug/kg	50.0	90.6	51.0	-	145		
Dibromofluoromethane			49.3		ug/kg	50.0	98.6	70.0	-	130		
1,2-Dichloroethane-d4			49.1		ug/kg	50.0	98.2	80.0	-	136		
QA/QC Type: MS	Lab Sample ID: SMSVA062818MS				Client Sample ID: 231441MS			Date Analyzed: 6/28/2018 1:12:00 PM				
Benzene	0.0011	0.0046	0.049		mg/Kg	0.064	76.6	52.0	-	120		
Ethylbenzene	0.00087	0.0046	0.048		mg/Kg	0.064	75.0	38.0	-	130		

QUALITY ASSURANCE / QUALITY CONTROL DATA

J

Preparation Batch ID: SMSVA062818 | Analysis Method: EPA 8260 | Preparation Type: 5035 (Low)

Method Batch ID: MSMSVA062818 | Preparation Date: 6/28/2018 10:43:00 AM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MS	Lab Sample ID: SMSVA062818MS				Client Sample ID: 231441MS						Date Analyzed: 6/28/2018 1:12:00 PM	
Methyl-t-butyl ether	0.00061	0.0046	0.038		mg/Kg	0.064	59.4	54.0	-	128		
Toluene	0.0011	0.0046	0.066		mg/Kg	0.064	103	55.0	-	113		
Xylenes- Total	0.0022	0.014	0.096		mg/Kg	0.191	50.3	46.0	-	121		
Toluene-d8			45.9		ug/kg	50.0	91.8	76.0	-	120		
4-Bromofluorobenzene			1030	S1	ug/kg	50.0	2060	51.0	-	145		
Dibromofluoromethane			46.9		ug/kg	50.0	93.8	70.0	-	130		
1,2-Dichloroethane-d4			46.4		ug/kg	50.0	92.8	80.0	-	136		
QA/QC Type: DUP	Lab Sample ID: SMSVA062818DUP				Client Sample ID: 231440DUP						Date Analyzed: 6/28/2018 11:32:00 AM	
Benzene	0.0013	0.0052	0.0013	U	mg/Kg						0	34.0
Ethylbenzene	0.0010	0.0052	0.0010	U	mg/Kg						0	46.0
Methyl-t-butyl ether	0.00071	0.0052	0.00071	U	mg/Kg						0	37.0
Toluene	0.0013	0.0052	0.0013	U	mg/Kg						0	29.0
Xylenes- Total	0.0025	0.016	0.0025	U	mg/Kg						0	37.0
Toluene-d8			50.1		ug/kg	50.0	100	76.0	-	120		
4-Bromofluorobenzene			45.4		ug/kg	50.0	90.8	51.0	-	145		
Dibromofluoromethane			48.1		ug/kg	50.0	96.2	70.0	-	130		
1,2-Dichloroethane-d4			49.0		ug/kg	50.0	98.0	80.0	-	136		

Comments: •4-Bromofluorobenzene surrogate in volatiles analysis for 31439, 231441 exhibited elevated recovery due to co-eluting non-target analytes present within the sample matrix.

Preparation Batch ID: SPAHA062618 | Analysis Method: EPA 8270/PAH Low Level | Preparation Type: 3550

Method Batch ID: MSPAHA062618 | Preparation Date: 6/26/2018 1:00:00 PM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MB	Lab Sample ID: SPAHA062618MB				Client Sample ID: SPAHA062618MB						Date Analyzed: 6/27/2018 8:29:00 AM	
Naphthalene	0.018	0.067	0.018	U	mg/Kg							
Acenaphthylene	0.0091	0.067	0.0091	U	mg/Kg							
Acenaphthene	0.014	0.067	0.014	U	mg/Kg							
Fluorene	0.0076	0.067	0.0076	U	mg/Kg							
Phenanthrene	0.012	0.067	0.012	U	mg/Kg							
Anthracene	0.0080	0.067	0.0080	U	mg/Kg							
Fluoranthene	0.0068	0.067	0.0068	U	mg/Kg							

QUALITY ASSURANCE / QUALITY CONTROL DATA

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Preparation Batch ID: SPAHA062618 | Analysis Method: EPA 8270/PAH Low Level | Preparation Type: 3550

Method Batch ID: MSPAHA062618 | Preparation Date: 6/26/2018 1:00:00 PM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MB	Lab Sample ID: SPAHA062618MB				Client Sample ID: SPAHA062618MB						Date Analyzed: 6/27/2018 8:29:00 AM	
1-Methylnaphthalene	0.011	0.067	0.011	U	mg/Kg							
2-Methylnaphthalene	0.016	0.067	0.016	U	mg/Kg							
Pyrene	0.0075	0.067	0.0075	U	mg/Kg							
Benzo(a)anthracene	0.0070	0.067	0.0070	U	mg/Kg							
Chrysene	0.0079	0.067	0.0079	U	mg/Kg							
Benzo(b)fluoranthene	0.0063	0.067	0.0063	U	mg/Kg							
Benzo(k)fluoranthene	0.0040	0.067	0.0040	U	mg/Kg							
Benzo(a)pyrene	0.0056	0.067	0.0056	U	mg/Kg							
Indeno(1,2,3-cd)pyrene	0.0087	0.067	0.0087	U	mg/Kg							
Dibenzo(a,h)anthracene	0.0081	0.067	0.0081	U	mg/Kg							
Benzo(g,h,i)perylene	0.0085	0.067	0.0085	U	mg/Kg							
Nitrobenzene-d5			91.3		%	100	91.3	12.0	-	104		
2-Fluorobiphenyl			106		%	100	106	26.0	-	110		
p-Terphenyl-d14			115		%	100	115	39.0	-	120		
QA/QC Type: LCS	Lab Sample ID: SPAHA062618LCS				Client Sample ID: SPAHA062618LCS						Date Analyzed: 6/27/2018 7:16:00 AM	
Naphthalene	0.018	0.067	1.46		mg/Kg	1.67	87.4	40.0	-	106		
Acenaphthylene	0.0091	0.067	1.60		mg/Kg	1.67	95.8	38.0	-	115		
Acenaphthene	0.014	0.067	1.49		mg/Kg	1.67	89.2	46.0	-	121		
Fluorene	0.0076	0.067	1.52		mg/Kg	1.67	91.0	46.0	-	123		
Phenanthrene	0.012	0.067	1.63		mg/Kg	1.67	97.6	52.0	-	129		
Anthracene	0.0080	0.067	1.54		mg/Kg	1.67	92.2	47.0	-	124		
Fluoranthene	0.0068	0.067	1.57		mg/Kg	1.67	94.0	45.0	-	125		
1-Methylnaphthalene	0.011	0.067	1.41		mg/Kg	1.67	84.4	39.0	-	113		
2-Methylnaphthalene	0.016	0.067	1.51		mg/Kg	1.67	90.4	39.0	-	110		
Pyrene	0.0075	0.067	1.59		mg/Kg	1.67	95.2	47.0	-	129		
Benzo(a)anthracene	0.0070	0.067	1.62		mg/Kg	1.67	97.0	45.0	-	129		
Chrysene	0.0079	0.067	1.48		mg/Kg	1.67	88.6	44.0	-	129		
Benzo(b)fluoranthene	0.0063	0.067	1.54		mg/Kg	1.67	92.2	45.0	-	122		
Benzo(k)fluoranthene	0.0040	0.067	1.53		mg/Kg	1.67	91.6	43.0	-	124		
Benzo(a)pyrene	0.0056	0.067	1.42		mg/Kg	1.67	85.0	39.0	-	116		
Indeno(1,2,3-cd)pyrene	0.0087	0.067	1.36		mg/Kg	1.67	81.4	41.0	-	125		
Dibenzo(a,h)anthracene	0.0081	0.067	1.29		mg/Kg	1.67	77.2	40.0	-	123		
Benzo(g,h,i)perylene	0.0085	0.067	1.28		mg/Kg	1.67	76.6	34.0	-	120		
Nitrobenzene-d5			98.3		%	100	98.3	12.0	-	104		

QUALITY ASSURANCE / QUALITY CONTROL DATA

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Preparation Batch ID: SPAHA062618 | Analysis Method: EPA 8270/PAH Low Level | Preparation Type: 3550

Method Batch ID: MSPAHA062618 | Preparation Date: 6/26/2018 1:00:00 PM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: LCS	Lab Sample ID: SPAHA062618LCS				Client Sample ID: SPAHA062618LCS						Date Analyzed: 6/27/2018 7:16:00 AM	
2-Fluorobiphenyl			114	S1	%	100	114	26.0	-	110		
p-Terphenyl-d14			111		%	100	111	39.0	-	120		
QA/QC Type: LCSD	Lab Sample ID: SPAHA062618LCSD				Client Sample ID: SPAHA062618LCSD						Date Analyzed: 6/27/2018 7:53:00 AM	
Naphthalene	0.018	0.067	1.28		mg/Kg	1.67	76.6	40.0	-	106	13	33.0
Acenaphthylene	0.0091	0.067	1.40		mg/Kg	1.67	83.8	38.0	-	115	13	38.0
Acenaphthene	0.014	0.067	1.30		mg/Kg	1.67	77.8	46.0	-	121	14	38.0
Fluorene	0.0076	0.067	1.35		mg/Kg	1.67	80.8	46.0	-	123	12	38.0
Phenanthrene	0.012	0.067	1.52		mg/Kg	1.67	91.0	52.0	-	129	7.0	39.0
Anthracene	0.0080	0.067	1.45		mg/Kg	1.67	86.8	47.0	-	124	6.0	38.0
Fluoranthene	0.0068	0.067	1.46		mg/Kg	1.67	87.4	45.0	-	125	7.3	40.0
1-Methylnaphthalene	0.011	0.067	1.24		mg/Kg	1.67	74.3	39.0	-	113	13	37.0
2-Methylnaphthalene	0.016	0.067	1.28		mg/Kg	1.67	76.6	39.0	-	110	16	36.0
Pyrene	0.0075	0.067	1.50		mg/Kg	1.67	89.8	47.0	-	129	5.8	41.0
Benzo(a)anthracene	0.0070	0.067	1.54		mg/Kg	1.67	92.2	45.0	-	129	5.1	42.0
Chrysene	0.0079	0.067	1.41		mg/Kg	1.67	84.4	44.0	-	129	4.8	42.0
Benzo(b)fluoranthene	0.0063	0.067	1.48		mg/Kg	1.67	88.6	45.0	-	122	4.0	39.0
Benzo(k)fluoranthene	0.0040	0.067	1.46		mg/Kg	1.67	87.4	43.0	-	124	4.7	40.0
Benzo(a)pyrene	0.0056	0.067	1.37		mg/Kg	1.67	82.0	39.0	-	116	3.6	39.0
Indeno(1,2,3-cd)pyrene	0.0087	0.067	1.31		mg/Kg	1.67	78.4	41.0	-	125	3.7	42.0
Dibenzo(a,h)anthracene	0.0081	0.067	1.24		mg/Kg	1.67	74.3	40.0	-	123	4.0	42.0
Benzo(g,h,i)perylene	0.0085	0.067	1.23		mg/Kg	1.67	73.7	34.0	-	120	4.0	43.0
Nitrobenzene-d5			87.0		%	100	87.0	12.0	-	104		
2-Fluorobiphenyl			99.4		%	100	99.4	26.0	-	110		
p-Terphenyl-d14			106		%	100	106	39.0	-	120		
QA/QC Type: MS	Lab Sample ID: SPAHA062618MS				Client Sample ID: MSPAHA062618MSMS						Date Analyzed: 6/27/2018 7:36:00 PM	
Naphthalene	0.018	0.067	1.37		mg/Kg	1.67	82.0	6.70	-	125		
Acenaphthylene	0.0091	0.067	1.54		mg/Kg	1.67	92.2	28.0	-	111		
Acenaphthene	0.014	0.067	1.44		mg/Kg	1.67	86.2	35.0	-	115		
Fluorene	0.0076	0.067	1.50		mg/Kg	1.67	89.8	35.0	-	117		
Phenanthrene	0.012	0.067	1.63		mg/Kg	1.67	97.6	39.0	-	125		
Anthracene	0.0080	0.067	1.57		mg/Kg	1.67	94.0	37.0	-	118		
Fluoranthene	0.0068	0.067	1.59		mg/Kg	1.67	95.2	34.0	-	122		
1-Methylnaphthalene	0.011	0.067	1.35		mg/Kg	1.67	80.8	27.0	-	110		

QUALITY ASSURANCE / QUALITY CONTROL DATA

J

Preparation Batch ID: SPAHA062618 | Analysis Method: EPA 8270/PAH Low Level | Preparation Type: 3550

Method Batch ID: MSPAHA062618 | Preparation Date: 6/26/2018 1:00:00 PM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MS	Lab Sample ID: SPAHA062618MS				Client Sample ID: MSPAHA062618MSMS			Date Analyzed: 6/27/2018 7:36:00 PM				
2-Methylnaphthalene	0.016	0.067	1.40		mg/Kg	1.67	83.8	30.0	-	103		
Pyrene	0.0075	0.067	1.60		mg/Kg	1.67	95.3	35.0	-	126		
Benzo(a)anthracene	0.0070	0.067	1.58		mg/Kg	1.67	94.1	33.0	-	123		
Chrysene	0.0079	0.067	1.53		mg/Kg	1.67	91.6	31.0	-	125		
Benzo(b)fluoranthene	0.0063	0.067	1.56		mg/Kg	1.67	93.4	30.0	-	121		
Benzo(k)fluoranthene	0.0040	0.067	1.55		mg/Kg	1.67	92.8	30.0	-	121		
Benzo(a)pyrene	0.0056	0.067	1.43		mg/Kg	1.67	85.6	27.0	-	109		
Indeno(1,2,3-cd)pyrene	0.0087	0.067	1.34		mg/Kg	1.67	80.2	30.0	-	117		
Dibenzo(a,h)anthracene	0.0081	0.067	1.36		mg/Kg	1.67	81.4	30.0	-	115		
Benzo(g,h,i)perylene	0.0085	0.067	1.31		mg/Kg	1.67	78.4	22.0	-	111		
Nitrobenzene-d5			81.2		%	100	81.2	12.0	-	104		
2-Fluorobiphenyl			104		%	100	104	26.0	-	110		
p-Terphenyl-d14			107		%	100	107	39.0	-	120		
QA/QC Type: MSD	Lab Sample ID: SPAHA062618MSD				Client Sample ID: MSPAHA062618MSDMSD			Date Analyzed: 6/27/2018 8:13:00 PM				
Naphthalene	0.018	0.067	1.26		mg/Kg	1.67	75.4	6.70	-	125	8.4	59.0
Acenaphthylene	0.0091	0.067	1.41		mg/Kg	1.67	84.4	28.0	-	111	8.8	41.0
Acenaphthene	0.014	0.067	1.35		mg/Kg	1.67	80.8	35.0	-	115	6.5	40.0
Fluorene	0.0076	0.067	1.42		mg/Kg	1.67	85.0	35.0	-	117	5.5	41.0
Phenanthrene	0.012	0.067	1.57		mg/Kg	1.67	94.0	39.0	-	125	3.8	43.0
Anthracene	0.0080	0.067	1.52		mg/Kg	1.67	91.0	37.0	-	118	3.2	40.0
Fluoranthene	0.0068	0.067	1.52		mg/Kg	1.67	91.0	34.0	-	122	4.5	44.0
1-Methylnaphthalene	0.011	0.067	1.23		mg/Kg	1.67	73.7	27.0	-	110	9.3	42.0
2-Methylnaphthalene	0.016	0.067	1.27		mg/Kg	1.67	76.0	30.0	-	103	9.7	36.0
Pyrene	0.0075	0.067	1.55		mg/Kg	1.67	92.3	35.0	-	126	3.2	46.0
Benzo(a)anthracene	0.0070	0.067	1.55		mg/Kg	1.67	92.3	33.0	-	123	1.9	45.0
Chrysene	0.0079	0.067	1.47		mg/Kg	1.67	88.0	31.0	-	125	4.0	47.0
Benzo(b)fluoranthene	0.0063	0.067	1.46		mg/Kg	1.67	87.4	30.0	-	121	6.6	46.0
Benzo(k)fluoranthene	0.0040	0.067	1.51		mg/Kg	1.67	90.4	30.0	-	121	2.6	46.0
Benzo(a)pyrene	0.0056	0.067	1.34		mg/Kg	1.67	80.2	27.0	-	109	6.5	41.0
Indeno(1,2,3-cd)pyrene	0.0087	0.067	1.34		mg/Kg	1.67	80.2	30.0	-	117	0	44.0
Dibenzo(a,h)anthracene	0.0081	0.067	1.42		mg/Kg	1.67	85.0	30.0	-	115	4.3	42.0
Benzo(g,h,i)perylene	0.0085	0.067	1.25		mg/Kg	1.67	74.9	22.0	-	111	4.7	44.0
Nitrobenzene-d5			76.6		%	100	76.6	12.0	-	104		
2-Fluorobiphenyl			93.3		%	100	93.3	26.0	-	110		

Preparation Batch ID: SPAHA062618 Analysis Method: EPA 8270/PAH Low Level Preparation Type: 3550

Method Batch ID: MSPAHA062618 Preparation Date: 6/26/2018 1:00:00 PM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MSD	Lab Sample ID: SPAHA062618MSD				Client Sample ID: MSPAHA062618MSDMSD					Date Analyzed: 6/27/2018 8:13:00 PM		
p-Terphenyl-d14			104		%	100	104	39.0	-	120		

Comments:

Preparation Batch ID: SPROA062718 Analysis Method: FDEP FL-PRO Preparation Type: 3550

Method Batch ID: MSPROA062718 Preparation Date: 6/27/2018 2:00:00 PM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MB	Lab Sample ID: SPROA062718MB				Client Sample ID: SPROA062718MB					Date Analyzed: 6/27/2018 9:08:00 PM		
Total Recoverable Pet. Hydrocarbons	1.7	17	1.7	U	mg/Kg							
Ortho-terphenyl			99.8		%	100	99.8	62.0	-	109		
Nonatriacontane(C39)			77.3		%	100	77.3	60.0	-	118		
QA/QC Type: LCS	Lab Sample ID: SPROA062718LCS				Client Sample ID: SPROA062718LCS					Date Analyzed: 6/27/2018 7:56:00 PM		
Total Recoverable Pet. Hydrocarbons	1.7	17	21.9		mg/Kg	28.3	77.4	63.0	-	153		
Ortho-terphenyl			0	S1	%	100	0	62.0	-	109		
Nonatriacontane(C39)			1.73	S1	%	100	1.73	60.0	-	118		
QA/QC Type: LCSD	Lab Sample ID: SPROA062718LCSD				Client Sample ID: SPROA062718LCSD					Date Analyzed: 6/27/2018 8:32:00 PM		
Total Recoverable Pet. Hydrocarbons	1.7	17	20.3		mg/Kg	28.3	71.7	63.0	-	153	7.6	25.0
Ortho-terphenyl			0	S1	%	100	0	62.0	-	109		
Nonatriacontane(C39)			1.94	S1	%	100	1.94	60.0	-	118		
QA/QC Type: MS	Lab Sample ID: SPROA062718MS				Client Sample ID: 231440MS					Date Analyzed: 6/28/2018 12:40:00 AM		
Total Recoverable Pet. Hydrocarbons	2.0	20	55.6		mg/Kg	32.8	96.3	62.0	-	204		
Ortho-terphenyl			93.1		%	100	93.1	62.0	-	109		
Nonatriacontane(C39)			134	S1	%	100	134	60.0	-	118		
QA/QC Type: MSD	Lab Sample ID: SPROA062718MSD				Client Sample ID: 231440MSD					Date Analyzed: 6/28/2018 1:15:00 AM		
Total Recoverable Pet. Hydrocarbons	2.0	20	46.5		mg/Kg	32.8	68.6	62.0	-	204	18	25.0
Ortho-terphenyl			21.4	S1	%	100	21.4	62.0	-	109		
Nonatriacontane(C39)			29.3	S1	%	100	29.3	60.0	-	118		

QUALITY ASSURANCE / QUALITY CONTROL DATA

J

Preparation Batch ID: SPROA062718 | Analysis Method: FDEP FL-PRO | Preparation Type: 3550

Method Batch ID: MSPROA062718 | Preparation Date: 6/27/2018 2:00:00 PM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: DUP	Lab Sample ID: SPROA062718DUP				Client Sample ID: 231439DUP						Date Analyzed: 7/3/2018 6:41:00 PM	
Total Recoverable Pet. Hydrocarbons	36	360	4800		mg/Kg						17	25.0
Ortho-terphenyl			$	S1	%	100	0	62.0	-	109		
Nonatriacontane(C39)			$	S1	%	100	0	60.0	-	118		

Comments: **Surrogate compounds were inadvertently left out of the LCS/LCSD pair, being the compounds of interest all passed data is considered viable and useable as reported.**

PRP ~~FDEP~~ South Region Rates

Chain of Custody Record

Company: AET/IIL	Environmental Testing Laboratories, Inc. 412 W. Walcott Street, Thomasville, GA 31792-4359, 229/228-2592 (telephone), 229/228-2594 (telefax), www.etl-inc.com	Page 1 of 1
Address: 4265 New Tampa Hwy		Project Name: Dade Cnty School Board
Telephone Number: / Telefax Number: /		Project Number: 26672.00
Sampled by [Print Name(s)] / Affiliation: J. Marquez III, GIT/AET		Project Manager: A. Sanchez
Sampler(s) Signature(s): J. Marquez		Facility ID Number: 13/8628726
		REQUESTED DUE DATE: STD / TAT

Analyses Requested

Item No.	Field ID No.	Sample Date	Sample Time	Grab or Composite	Matrix (see Codes)	Number of Containers	BTEX/MTBE 8021	PAH/TRPH	MADEP Speciation							Remarks	Lab Number
	SB-31 RRE 4'	6/25/18	1515	G	SO	4	X	X	X								231439
	SB-32 RRE 1-2'	↓	1530	↓	↓	4	X	X									440
	SB-32 RRE @4'	↓	1537	↓	↓	4	X	X									441

Shipment Method		Total Number of Containers: 12	Preservatives (see Codes) ICE: ☒ Yes ☐ No
Out: / /	Via: Fed Ex Express		
Returned: / /	Via:		

Item No.	Relinquished by / Affiliation	Date	Time	Accepted by / Affiliation	Date	Time
	J. Marquez III, GIT/AET	6/25/18	1735	Fed Ex		
	Fed Ex	6/26/18	1010			

Additional Comments:

Cooler Number(s) / Temperature(s) (°C)	Sampling Kit Number	Received in Lab By:	Date	Time
1 on ice @ 3.4		[signature]	6/26/18	1010

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Wastewater O = Other (specify)

PRESERVATIVE CODES: H = Hydrochloric acid S = Sulfuric acid N = Nitric Na = Sodium Hydroxide O = Other (specify)

PRESERVATIVE CODES: SOIL VOCS MS = Methanol / Sodium Bisulfate MD = Methanol / DI Water

ETL PROJECT NO. 18-2153

ENVIRONMENTAL TESTING LABORATORIES INC

Project Receipt Summary

18-2153

Project Details

Client: ADVANCED ENVIRONMENTAL TECHNOLOGIES

Project Name: DADE CNTY SCHOOL BOARD

Shipping and Receiving

Date/Time Received: 6/26/2018 10:10:00 AM

Sampling Personnel: J MARQUEZ

Shipping Method: Federal Express

Shipping Tracking Number: 100189211376000317920

If present, were cooler custody seals intact?
○ Yes ○ No ◉ N/A

If present, were sample bottle custody seals intact
○ Yes ○ No ◉ N/A

Thermal Preservation

Cooler Temp Method: Sample Temperature

Thermometer ID: 160372413

Number of Coolers: 1

Were cooler temperatues in compliance? (0.1-6.0C)
◉ Yes ○ No ○ N/A

Cooler Temperatures: 3.4

Chain of Custody

Was the chain-of-custody received in coolers?	◉ Yes	○ No	○ N/A
Was the chain-of-custody signed and properly relinquished?	◉ Yes	○ No	○ N/A
Does the chain-of-custody agree with samples and analyses?	○ Yes	◉ No	○ N/A

Container Receipt

Were samples received in appropriate bottleware for analyses?	◉ Yes	○ No	○ N/A
Was sufficient volume submitted for analyses requested?	◉ Yes	○ No	○ N/A
Were samples received within method holding times?	◉ Yes	○ No	○ N/A
Were VOA vials received with zero headspace?	○ Yes	○ No	◉ N/A
Were aqeuous samples received at an acceptable pH?	○ Yes	○ No	◉ N/A

pH Test Strip Lot: HC730269

Comments

- NO MADEP SPECIATION BOTTLES RECEIVED WITH SB-31R

I certify I have answered the questions contained herein to the best of my knowledge and have affixed labels with unique IDs onto each sample container received. I certify any discrepancies regarding the samples as received by the laboratory have been documented completely in the comments section of this form.

Kevin Moran

ENVIRONMENTAL TESTING LABORATORIES INC

Project Receipt Summary

18-2153

Project Sample Detail

Lab Sample ID	Client Sample ID	Matrix	SPLP	TRPH Speciation	MaVPH MaEPH
231439	**SB-31 R @4'**	**SOILS**	☐	☐	☐
231439-A1 (BTEXM)					
231439-A2 (BTEXM)					
231439-A3 (BTEXM)					
231439-B1 (PAH/TRPH/%M)					
231440	**SB-32 RR@1-2'**	**SOILS**	☐	☐	☐
231440-A1 (BTEXM)					
231440-A2 (BTEXM)					
231440-A3 (BTEXM)					
231440-B1 (PAH/TRPH/%M)					
231441	**SB-32 RR @4'**	**SOILS**	☐	☐	☐
231441-A1 (BTEXM)					
231441-A2 (BTEXM)					
231441-A3 (BTEXM)					
231441-B1 (PAH/TRPH/%M)					

ENVIRONMENTAL TESTING LABORATORIES INC

Project Receipt Summary

18-2153

Project Bottle Count Summary

Container Type	Preservative	Number of Containers
40mL VOA Vial	MeOH/ICE	3
40mL VOA Vial w/ Stirbar	DiH2O/ICE	6
Glass Jar	NONE	3
	Total	12

Sub Contracted Data

Analytical Report 591487

for

Environmental Testing Laboratories, Inc.

Project Manager: Brad Williams

7-5-18

18-JUL-18

Xenco Laboratories
1412 Tech Blvd.
Tampa, FL 33619
Ph:(813) 620-2000 Fax:(813) 620-2033

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

18-JUL-18

Project Manager: **Brad Williams**
Environmental Testing Laboratories, Inc.
412 W. Walcott Street
Thomasville, GA 31792

Reference: XENCO Report No(s): **591487**
7-5-18
Project Address:

Brad Williams:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 591487. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 591487 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Derek Rounsley
Project Manager

Sample Cross Reference 591487

Environmental Testing Laboratories, Inc., Thomasville, G

7-5-18

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
231439	S	06-25-18 15:15		591487-001

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Hits Summary 591487

Environmental Testing Laboratories, Inc., Thomasville, GA

7-5-18

Below is a summary of the analytes which were found to be present in the samples associated with this work order. This should only be used in conjunction with the included analytical results.

Sample ID: 231439 **Sample ID: 591487-001** **Date/Time Sampled: 06/25/2018 15:15** **Matrix: Solid**

Analyte Name	Method	CAS No.	Dil.	Result	RL/PQL	MDL	Units	Qual
C11 to C22 Aromatics	MA EPH	C11C22	1	517	96.5	48.2	mg/kg	
C19 to C36Aliphatic Hydrocarbons	MA EPH	ALHYDRC19C36	1	349	182	90.8	mg/kg	
C5 to C8 Aliphatic Hydrocarbons	VPH	ALHYDRC5C8	29	7.86	1.00	1.00	mg/kg	
C9 to C10 Aromatic Hydrocarbons	VPH	HYDC9C10	286	87.1	1.67	1.67	mg/kg	
C9 to C12 Aliphatic Hydrocarbons	VPH	ALHYDRC9C12	29	123	1.34	1.34	mg/kg	
C9 to C18 Aliphatic Hydrocarbons	MA EPH	ALHYDRC9C18	1	995	136	68.1	mg/kg	
Percent Moisture	SM2540G	MOIST	1	14.3			%	

Environmental Testing Laboratories, Inc., Thomasville, GA

7-5-18

Sample Id: **231439** Matrix: Solid Date Received:07.09.18 09.07

Lab Sample Id: 591487-001 Date Collected: 06.25.18 15.15

Analytical Method: EPH by MADEP Method Prep Method: SW3550

Tech: JAI % Moisture: 14.31

Analyst: BRJ Date Prep: 07.09.18 20.00 Basis: Dry Weight

Seq Number: 3056463

Parameter	Cas Number	Result	RL	MDL	Flag	Units	Analysis Date	Dil
C9 to C18 Aliphatic Hydrocarbons	ALHYDRC9C1	**995**	136	68.1		mg/kg	07.16.18 09.23	10
C19 to C36Aliphatic Hydrocarbons	ALHYDRC19C	**349**	182	90.8		mg/kg	07.16.18 09.23	10
C11 to C22 Aromatics	C11C22	**517**	96.5	48.2		mg/kg	07.16.18 09.23	5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctadecane	3386-33-2	74	%	40-140	07.16.18 09.23	
o-Terphenyl	84-15-1	108	%	40-140	07.16.18 09.23	
2-Fluorobiphenyl	321-60-8	83	%	40-140	07.16.18 09.23	

Analytical Method: VPH Prep Method: SW5035A

Tech: JNL % Moisture: 14.31

Analyst: JNL Date Prep: 07.10.18 14.02 Basis: Dry Weight

Seq Number: 3055983

Parameter	Cas Number	Result	RL	MDL	Flag	Units	Analysis Date	Dil
C5 to C8 Aliphatic Hydrocarbons	ALHYDRC5C8	**7.86**	1.00	1.00		mg/kg	07.10.18 20.28	50
C9 to C12 Aliphatic Hydrocarbons	ALHYDRC9C1	**123**	1.34	1.34		mg/kg	07.10.18 20.28	50
C9 to C10 Aromatic Hydrocarbons	HYDC9C10	**87.1**	1.67	1.67		mg/kg	07.10.18 21.07	500

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
2,5-Dibromotoluene	615-59-8	101	%	70-130	07.10.18 20.28	
2,5-Dibromotoluene (PID)	615-59-8	101	%	70-130	07.10.18 20.28	

CHRONOLOGY OF HOLDING TIMES

Analytical Method : EPH by MADEP Method
Work Order #: **591487**
Date Received: 07/09/18

Client : Environmental Testing Laboratories, I
Project ID:

Field Sample ID	Lab Sample ID	Date Collected	Date Extracted	Max Holding Time Extracted (Days)	Time Held Extracted (Days)	Date Analyzed	Max Holding Time Analyzed (Days)	Time Held Analyzed (Days)	Q
231439	591487-001	06/25/18	07/09/18	14	14	07/16/18	40	7	P

CHRONOLOGY OF HOLDING TIMES

Analytical Method : Percent Moisture by SM2540G
Work Order #: **591487**
Date Received: 07/09/18

Client : Environmental Testing Laboratories, I
Project ID:

Field Sample ID	Lab Sample ID	Date Collected	Date Extracted	Max Holding Time Extracted (Days)	Time Held Extracted (Days)	Date Analyzed	Max Holding Time Analyzed (Days)	Time Held Analyzed (Days)	Q
231439	591487-001	06/25/18				07/09/18	180	14	P

CHRONOLOGY OF HOLDING TIMES

Analytical Method : VPH
Work Order #: **591487**
Date Received: 07/09/18

Client : Environmental Testing Laboratories, I
Project ID:

Field Sample ID	Lab Sample ID	Date Collected	Date Extracted	Max Holding Time Extracted (Days)	Time Held Extracted (Days)	Date Analyzed	Max Holding Time Analyzed (Days)	Time Held Analyzed (Days)	Q
231439	591487-001	06/25/18				07/10/18	28	15	P

F = These samples were analyzed outside the recommended holding time.
P = Samples analyzed within the recommended holding time.

FLORIDA flagging criteria

Data were reviewed by the
Department Supervisor and QA Director

A Value reported is the mean (average) of two or more determinations.

B Results based upon colony counts outside the acceptable range.

J Estimated value; value not accurate. All results with a "J" qualifier require comment.
- J1: Surrogate Recoveries exceed established QA/QC Limits
- J2: No known QA/QC exists.
- J3: Reported value failed to meet established QA/QC limits or the sample matrix interfered with the ability to make an accurate determination
- J4: The data is questionable due to improper laboratory or field protocols

Q Sample held beyond the accepted holding time

T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes, only and shall not be used in statistical analysis.

U Compound was analyzed for but not detected at the MDL Level.

V Analyte was detected in both the sample and the associated method blank.

Y Laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.

I The reported value is between the laboratory MDL and the laboratory PQL.

R Significant rain in the past 48 hours.

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 591487

Environmental Testing Laboratories, Inc.

7-5-18

Analytical Method: **Percent Moisture by SM2540G**

Seq Number: 3055985 Matrix: Solid

Parent Sample Id: 591487-001 MD Sample Id: 591487-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Percent Moisture	14.3	14.0	2	20	%	07.09.18 10:10	

Analytical Method: **EPH by MADEP Method** Prep Method: SW3550

Seq Number: 3056463 Matrix: Solid Date Prep: 07.09.18

MB Sample Id: 7658137-1-BLK LCS Sample Id: 7658137-1-BKS LCSD Sample Id: 7658137-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
C9 to C18 Aliphatic Hydrocarbons	<6.00	30.0	19.9	66	20.1	67	40-140	1	25	mg/kg	07.16.18 09:23	
C19 to C36Aliphatic Hydrocarbons	<8.00	40.0	35.3	88	35.5	89	40-140	1	25	mg/kg	07.16.18 09:23	
C11 to C22 Aromatics	10.2	85.0	86.4	102	88.6	104	40-140	3	25	mg/kg	07.16.18 09:23	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctadecane	80		101		100		40-140	%	07.16.18 09:23
o-Terphenyl	89		116		109		40-140	%	07.16.18 09:23
2-Fluorobiphenyl	93		120		123		40-140	%	07.16.18 09:23

Analytical Method: **VPH** Prep Method: SW5035A

Seq Number: 3055983 Matrix: Solid Date Prep: 07.10.18

MB Sample Id: 7658097-1-BLK LCS Sample Id: 7658097-1-BKS LCSD Sample Id: 7658097-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
C5 to C8 Aliphatic Hydrocarbons	<0.0300	0.300	0.271	90	0.294	98	70-130	8	25	mg/kg	07.10.18 17:51	
C9 to C12 Aliphatic Hydrocarbons	<0.0400	0.400	0.379	95	0.386	97	70-130	2	25	mg/kg	07.10.18 17:51	
C9 to C10 Aromatic Hydrocarbons	<0.00500	0.0500	0.0526	105	0.0557	111	70-130	6	25	mg/kg	07.10.18 17:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
2,5-Dibromotoluene	89		90		93		70-130	%	07.10.18 17:51
2,5-Dibromotoluene (PID)	91		86		88		70-130	%	07.10.18 17:51

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike

Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added

LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec

Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

Xenco

Chain of Custody Record

591487

Company: Environmental Testing Lab

Address:

Telephone Number: Telefax Number:

Sampled by [Print Name(s)] / Affiliation

Sampler(s) Signature(s)

Environmental Testing Laboratories, Inc.
412 W. Walcott Street
Thomasville, GA 31792-4359
229/228-2592 (telephone)
229/228-2594 (telefax)
www.etl-inc.com

Page 1 of 1

Project Name: 7-5-18

Project Number:

Project Manager:

Facility ID Number:

REQUESTED DUE DATE
/ /

Analyses Requested

Item No.	Field ID No.	Sample Date	Sample Time	Grab or Composite	Matrix (see Codes)	Number of Containers	Ma EPH	Ma VPH							Remarks	Lab Number
	231439	6/25/18	15:15	C	SO	4	X	X								
Shipment Method				Total Number of Containers											← Preservatives (see Codes)	ICE: ☑ Yes ☐ No

Out: / /	Via:	Item No.	Relinquished by / Affiliation	Date	Time	Accepted by / Affiliation	Date	Time
Returned: / /	Via:			7/5/18	18:00		7/9/18	9:07

Additional Comments:

Need by 7/13/18

Cooler Number(s) / Temperature(s) (*C)	Sampling Kit Number	Received in Lab By:		

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Wastewater O = Other (specify)

PRESERVATIVE CODES: H = Hydrochloric acid S = Sulfuric acid N = Nitric Na = Sodium Hydroxide O = Other (specify)

PRESERVATIVE CODES: SOIL VOCS MS = Methanol / Sodium Bisulfate MD = Methanol / DI Water

ETL PROJECT NO.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Environmental Testing Laboratories, Inc.

Date/ Time Received: 07/09/2018 09:07:00 AM

Work Order #: 591487

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-20

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	11.4
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6*Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**Yes**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Lourdes Arevalo Date: 07/09/2018

Checklist reviewed by: Derek Rounsley Date: 07/11/2018

FINAL
ANALYTICAL REPORT

ETL PROJECT ID: 18-3060 **9/26/2018 - Revision 0**

ANDRES SANCHEZ
ADVANCED ENVIRONMENTAL TECHNOLOGIES
4265 NEW TAMPA HIGHWAY
LAKELAND, FL 33815
TEL: (863) 619-9708
FAX: (863) 619-7467

CLIENT PROJECT NAME: DADE CNTY SCHOOL BD-TRANSPORTATION
CLIENT PROJECT ID: 26672.00
FACILITY ID: 13/8628726

Enclosed are the analytical results for sample(s) received by Environmental Testing Laboratories on September 06, 2018. Results reported herein are reported on an as received basis and conform to current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Sample analyses performed by Environmental Testing Laboratories, Inc. (ETL) unless otherwise noted. ETL is accredited through NELAC and the Florida Department of Health, Certification #E87684. Scope of analyses: RCRA/CERCLA Metals, General Chemistry, Extractable Organics, and Volatile Organics. Effective Dates: February 14, 2002 through June 30, 2019.

Authorized for release by:

ENVIRONMENTAL TESTING LABORATORIES INC

412 W. Walcott Street | Thomasville, GA 31792 | Phone: (229)-228-2592 | Fax: (229)-228-2594

Table of Contents

Laboratory Qualifiers

!	Data deviate from historically established concentration ranges.
#	Surrogate compound inadvertently omitted.
$	Due to dilution, surrogate compound was not detected.
*****	Not reported due to interference
?	Data are rejected as should not be used.
A	Value reported is the arithmetic mean (average) of two or more determinations.
B	Results based upon colony counts outside the acceptable range.
D	Measurement made in the field.
E	Extra samples were taken at composite stations.
F	When reporting species, F indicates the female sex.
H	Value based on fied kit determination; results may not be accurate.
I	The reported value is between the laboratory method detection limit and the laboratory practical
J	Estimated value.
K	Off-scale low. Actual value is known to be less than the value given.
L	Off-scale high. Actual value is known to be greater than the value given.
M	Presence of material is verified but not quantified; the actual value is less than the value given.
N	Presumptive evidence of presence of material.
O	Sampled, but analysis lost or not performed.
Q	Sample held beyond the accepted holding time.
R	Significant rain in the past 48 hours.
S1	Surrogate recovery reported is outside of laboratory established QA/QC Limits
S2	Analyte recovery reported is outside of laboratory established QA/QC Limits
S3	Analyte precision reported is outside of laboratory established QA/QC Limits
T	Value reported is less than the laboratory method detection limit.
U	Compound was analyzed for but not detected.
V	Indicates that the analyte was detected in both the sample and the associated method blank.
Y	Laboratory analysis was from an improperly preserved sample. Data may not be accurate.
Z	Too many colonies were present; numeric value represents the filtration volume.

Project Narrative

#E87684

Environmental Testing Laboratories, Inc. is accredited through NELAC and the Florida Department of Health.

Solid samples are reported on a dry weight basis unless otherwise noted.

Please refer to Section 4.0 of the ETL Quality Assurance Manual for a measure of uncertainty.

All analyses are performed using EPA or FL-DEP methods and certified to meet NELAC requirements, except where noted.

Analysis Samples

Find results for TRPH Speciation using method Ma EPH/VPH as analyzed by Xenco of Tampa,FL in the subcontract data section of this report.

Analytical Method Summary

E87684 **Environmental Testing Laboratories Inc.**
412 W. Walcott Street, Thomasville, GA 31792
(229) 228-2592

GC/FID (FDEP FL-PRO)	Florida Department of Environmental Protection

Sample Summary

Laboratory Sample ID	Client Sample ID	Matrix	End Date / Time Sampled	Grab / Composite	Percent Moisture
234655	SB-31RR	SOILS	9/5/2018 12:24	G	4.93

Executive Summary

Analyte	Analytical Method	Result	Units	Qualifiers	Result Comments
SB-31RR (234655)					
Total Recoverable Pet. Hydrocarbons	FDEP FL-PRO	1300	mg/Kg		

Analytical Data

Client Sample ID: SB-31RR
Sample Location:
Date Collected: 09/05/2018 12:24 PM

Laboratory Sample ID: 234655
Matrix: SOILS
Percent Moisture: 4.93

Analytical Method: FDEP FL-PRO
GC/FID

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Total Recoverable Pet. Hydrocarbons	1.0	1300		mg/Kg	1.8	18	9/8/2018 8:41:00 AM

Surrogate	DF	% Recovery	Qualifier	Units	Limits	Analysis Date
Nonatriacontane(C39)	1.0	105			60% - 118%	9/8/2018 8:41:00 AM
Ortho-terphenyl	1.0	96.0			62% - 109%	9/8/2018 8:41:00 AM

PQL: Practical Quantitation Limit RL: Report Limit MDL: Method Detection Limit DF: Dilution Factor

Data Chronicle

Client Sample ID: SB-31RR
Sample Location:
Date Collected: 09/05/2018 12:24 PM

Laboratory Sample ID: 234655
Matrix: SOILS
Percent Moisture: 4.93

Prep	Analysis	Analytical Method	Dilution	Batch	Prepared	Analyzed	Analyst	Lab
N/A	RES	FDEP FL-PRO	1.0	SPROA090718	9/7/2018 12:00:00 PM	9/8/2018 8:41:00 AM	BW	E87684

QUALITY ASSURANCE / QUALITY CONTROL DATA

J

Preparation Batch ID: SPROA090718 | Analysis Method: FDEP FL-PRO | Preparation Type: 3550

Method Batch ID: MSPROA090718 | Preparation Date: 9/7/2018 12:00:00 PM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MB	Lab Sample ID: SPROA090718MB				Client Sample ID: SPROA090718MB						Date Analyzed: 9/7/2018 8:55:00 PM	
Total Recoverable Pet. Hydrocarbons	1.7	17	1.7	U	mg/Kg							
Ortho-terphenyl			98.7		%	100	98.7	62.0	-	109		
Nonatriacontane(C39)			111		%	100	111	60.0	-	118		
QA/QC Type: LCS	Lab Sample ID: SPROA090718LCS				Client Sample ID: SPROA090718LCS						Date Analyzed: 9/7/2018 7:45:00 PM	
Total Recoverable Pet. Hydrocarbons	1.7	17	24.2		mg/Kg	28.3	85.5	63.0	-	153		
Ortho-terphenyl			103		%	100	103	62.0	-	109		
Nonatriacontane(C39)			90.4		%	100	90.4	60.0	-	118		
QA/QC Type: LCSD	Lab Sample ID: SPROA090718LCSD				Client Sample ID: SPROA090718LCSD						Date Analyzed: 9/7/2018 8:21:00 PM	
Total Recoverable Pet. Hydrocarbons	1.7	17	24.4		mg/Kg	28.3	86.2	63.0	-	153	0.82	25.0
Ortho-terphenyl			81.3		%	100	81.3	62.0	-	109		
Nonatriacontane(C39)			108		%	100	108	60.0	-	118		
QA/QC Type: MS	Lab Sample ID: SPROA090718MS				Client Sample ID: 234237MS						Date Analyzed: 9/8/2018 11:03:00 AM	
Total Recoverable Pet. Hydrocarbons	1.9	19	24.4		mg/Kg	31.3	78.0	62.0	-	204		
Ortho-terphenyl			104		%	100	104	62.0	-	109		
Nonatriacontane(C39)			113		%	100	113	60.0	-	118		
QA/QC Type: MSD	Lab Sample ID: SPROA090718MSD				Client Sample ID: 234237MSD						Date Analyzed: 9/8/2018 11:39:00 AM	
Total Recoverable Pet. Hydrocarbons	1.9	19	23.9		mg/Kg	31.3	76.4	62.0	-	204	2.1	25.0
Ortho-terphenyl			96.2		%	100	96.2	62.0	-	109		
Nonatriacontane(C39)			112		%	100	112	60.0	-	118		
QA/QC Type: DUP	Lab Sample ID: SPROA090718DUP				Client Sample ID: 234228DUP						Date Analyzed: 9/8/2018 10:28:00 AM	
Total Recoverable Pet. Hydrocarbons	2.0	20	2.0	U	mg/Kg						0	25.0
Ortho-terphenyl			104		%	100	104	62.0	-	109		
Nonatriacontane(C39)			85.8		%	100	85.8	60.0	-	118		

Comments:

Chain of Custody Record

Environmental Testing Laboratories, Inc.
412 W. Walcott Street
Thomasville, GA 31792-4359
229/228-2592 (telephone)
229/228-2594 (telefax)
ENVIRONMENTAL TESTING LABORATORIES, INC.
www.etl-inc.com

Company: AET-L
Address: 4265 New Tampa Hwy Lakeland, Fl
Telephone Number: Telefax Number:
Sampled by [Print Name(s)] / Affiliation: H POPO Lou / AET
Sampler(s) Signature(s): [signature]

Page of
Project Name: Dade County Schools
Project Number: 26672.00
Project Manager: A. Sanchez
Facility ID Number: 13/8628726
REQUESTED DUE DATE / /

Analyses Requested: 8270 / FL-PRO / Metals / PAH; 8015 Alkanes; 8015 MaEPH

Item No.	Field ID No.	Sample Date	Sample Time	Grab or Composite	Matrix (see Codes)	Number of Containers	8270/FL-PRO/Metals/PAH	8015 Alkanes	8015 MaEPH							Remarks	Lab Number
	SB-31RR	9/5	12:24	WFt	SO	5											234685

Shipment Method — Out: / / Via: — Returned: / / Via:
Total Number of Containers: 5
← Preservatives (see Codes) ICE: ☒ Yes ☐ No

Item No.	Relinquished by / Affiliation	Date	Time	Accepted by / Affiliation	Date	Time
	H POPO Lou / AET	9/6	7:00	[signature]	9-6-18	0725
	[signature]	9-6-18	0925	[signature]	9-6-18	0925
	[signature]	9-6-18	12:40			

Additional Comments: MADEP SPECIATION

Cooler Number(s) / Temperature(s) (°C)	Sampling Kit Number	Received in Lab By:	Date	Time
1/ 2.4 / 4.4		[signature]	9-6-18	12:40

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Wastewater O = Other (specify)
PRESERVATIVE CODES: H = Hydrochloric acid S = Sulfuric acid N = Nitric Na = Sodium Hydroxide O = Other (specify)
PRESERVATIVE CODES: SOIL VOCS MS = Methanol / Sodium Bisulfate MD = Methanol / DI Water

ETL PROJECT NO. 18-3060

ENVIRONMENTAL TESTING LABORATORIES INC

Project Receipt Summary

18-3060

Project Details

Client: ADVANCED ENVIRONMENTAL TECHNOLOGIES

Project Name: DADE COUNTY SCHOOLS

Shipping and Receiving

Date/Time Received: 9/6/2018 12:40:00 PM

Sampling Personnel: HP

Shipping Method: Laboratory Courier

Shipping Tracking Number:

If present, were cooler custody seals intact?
○ Yes ○ No ◉ N/A

If present, were sample bottle custody seals intact
○ Yes ○ No ◉ N/A

Thermal Preservation

Cooler Temp Method: Sample Temperature

Thermometer ID: 16032413

Number of Coolers: 1

Were cooler temperatues in compliance? (0.1-6.0C)
◉ Yes ○ No ○ N/A

Cooler Temperatures: 4.4

Chain of Custody

Was the chain-of-custody received in coolers?	◉ Yes	○ No	○ N/A
Was the chain-of-custody signed and properly relinquished?	◉ Yes	○ No	○ N/A
Does the chain-of-custody agree with samples and analyses?	◉ Yes	○ No	○ N/A

Container Receipt

Were samples received in appropriate bottleware for analyses?	◉ Yes	○ No	○ N/A
Was sufficient volume submitted for analyses requested?	◉ Yes	○ No	○ N/A
Were samples received within method holding times?	◉ Yes	○ No	○ N/A
Were VOA vials received with zero headspace?	○ Yes	○ No	◉ N/A
Were aqeuous samples received at an acceptable pH?	○ Yes	○ No	◉ N/A

pH Test Strip Lot: HC730269

Comments

I certify I have answered the questions contained herein to the best of my knowledge and have affixed labels with unique IDs onto each sample container received. I certify any discrepancies regarding the samples as received by the laboratory have been documented completely in the comments section of this form.

Kevin Moran

ENVIRONMENTAL TESTING LABORATORIES INC

Project Receipt Summary

18-3060

Project Sample Detail

Lab Sample ID	Client Sample ID	Matrix	SPLP	TRPH Speciation	MaVPH MaEPH
234655	**SB31RR**	**SOILS**	☐	☐	☐
234655-A1 (MaVPH)					
234655-A2 (MaVPH)					
234655-A3 (MaVPH)					
234655-B1 (PAH/TRPH/%M)					
234655-B2 (MaEPH)					