AECOM
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813 610 0080

February 16, 2017

Wilbur Mayorga, P.E., Chief
Environmental Monitoring & Restoration Division
Miami-Dade County Department of Regulatory and Economic Resources
701 NW 1st Court, 4th Floor
Miami, Florida 33136

Re: Project Update - FPL Former Cutler Power Plant Property
HWR-442/File-16360/IW-79

Dear Mr. Mayorga:

Florida Power & Light Company (FPL) provides this project update for the former Cutler power plant property located near 14925 SW 67th Avenue, Miami-Dade County, Florida. The attached information is in accordance with the following correspondence and discussions:

- Department of Regulatory and Economic Resources (RER) - Division of Environmental Resources Management (DERM) letter dated October 17, 2016 concerning the approved Remedial Action Plan Addendum (RAPA);
- AECOM letter dated November 15, 2016 in response to the previous DERM letter; and
- Meeting conducted between DERM and FPL on January 4, 2017.

Groundwater sampling associated with the Interim Monitoring Only Plan was conducted at the Cutler property in December 2016. The results of this work are detailed in the report prepared by Tierra Consulting and this is provided as **APPENDIX A**. As with previous sampling events, groundwater impacts remain defined within the Cutler property. Sampling will continue on a semiannual basis in accordance with the approved plan.

As requested during our meeting with DERM on January 4, two (2) originals of the full size (24"x36") revised set of Engineering Control Plans (Grading Plans), Stormwater Pollution Prevention Plans and the Engineering Control Plan Sheet (Figure 2) all signed and sealed by a Professional Engineer registered in the State of Florida are being submitted with this letter as **APPENDIX B**. A site map showing additional details, map revisions and modifications to the RAPA may be provided to DERM for review by a subsequent property owner. This is consistent with the implementation of remedial actions. As discussed during our meeting, FPL requests an extension of two years to implement the engineering controls proposed in the approved RAPA.

Please contact us if there are any questions or if you have need for additional information.

Sincerely,

Ben T. Foster, P.G.
Program Manager

Vivek Kamath, P.E.
Senior Project Engineer

cc: Randal Voyles, FPL
Mark Jones, FPL
Dean Girard, FPL
Scott Zednek, Tierra Consulting

List of Appendices:

1. Appendix A:
    - Year 1 Event 1 Interim Groundwater Monitoring Only Report, prepared by Tierra Consulting Group, Inc., dated February 7, 2017

2. Appendix B:
    - Grading Plan and Detail Sheet (8 Sheets), prepared by Ross Engineering, Inc.
    - Stormwater Pollution Prevent Plan (7 Sheets), prepared by Ross Engineering, Inc.
    - Figure 2 (rev.1) – Engineering Control Plan, prepared by Ross Engineering, Inc.

APPENDIX A

TIERRA CONSULTING GROUP, INC.
ENVIRONMENTAL ENGINEERING & CONSULTING
5815 NORTH ANDREWS WAY, STE. B, FORT LAUDERDALE, FL 33309
TELEPHONE (954) 202-9226

LICENSED ENGINEERING, ASBESTOS & GEOLOGICAL BUSINESS

February 7, 2017

Mr. Wilbur Mayorga, P.E., Chief
Miami-Dade County Department of Regulatory & Economic Resources
701 NW 1st Court, 4th Floor
Miami, Florida 33136

RE: Year 1 Event 1 Interim Groundwater Monitoring Only Report
Florida Power & Light Company
Former Cutler Power Plant Property, Miami, Florida
HWR-442/File-16360/IW-79

Dear Mr. Mayorga,

Florida Power & Light Company (FPL) is pleased to present the Year 1 Event 1 Semi-Annual Groundwater Monitoring Report for the Former Cutler Power Plant Property. The objective of the work is to monitor groundwater quality during the interim period prior to implementation of proposed engineering and institutional controls. A copy of the approved Interim Groundwater Monitoring Only Plan (IMOP) is included as **Attachment A.**

Prior to conducting the groundwater sampling, replacement monitoring wells were installed because wells MW-A2, MW-D1, MW-B5, MW-D5, and MW-D6 had been previously destroyed by demolition activities. Florida-licensed water well contractors, JAEE Environmental Services Inc. (License #11313) and Enviro-Drill Inc. (License #11031) installed replacement wells MW-A2R, MW-D1R, MW-B5R, MW-D5R, and MW-D6R on December 9 and 13, 2016. The wells were constructed with 10 feet of 0.010-inch slotted screen and extended to depths between 12 and 20 feet below land surface (bls). The well completion reports are provided in **Attachment B.** Monitoring well construction details are provided in **Table 1** and the well locations are depicted on **Figure 1**.

Prior to collecting the samples, depth to water was measured in the monitoring wells and compared with top-of-casing (TOC) elevations to determine the groundwater elevation at each well. TOC elevations for the replacement wells were surveyed by a professional surveyor, AR Toussaint & Associates, and a copy of the specific purpose survey is provided as **Attachment C**. A summary of groundwater elevation data is provided in **Table 2** and depicted on **Figure 2**.

On December 20, 2016, groundwater samples were collected from monitoring wells MW-A2R, MW-B5, MW-B8, MW-B11, MW-C6, MW-D1, MW-D5, MW-D6, MW-E2, MW-E11, MW-E7, MW-E7DD, MW-G2, and MW-G8. The sampling was conducted in accordance with DEP-SOP-001/01 FS 2200 as provided by Chapter 62-160 FAC, and analyzed at a National Environmental Laboratory Accreditation Conference (NELAC)-certified environmental laboratory, Jupiter Environmental Labs, Inc. [Florida DOH certification number E86546]. The collected samples were analyzed for antimony, arsenic, nickel, vanadium, and polycyclic aromatic hydrocarbons

(PAHs). The laboratory analytical reports, chain of custody, groundwater sampling logs, and calibration logs are provided as **Attachment D**.

A cumulative summary of the groundwater analytical results is provided in **Tables 3** and **4** and the detected concentrations of vanadium and arsenic are presented on **Figures 3** and **4,** respectively. The analytical results were generally consistent with previous sampling events. The results show that concentrations of target analytes met their respective Groundwater Cleanup Target Levels (GCTLs) listed in Chapter 62-777, Florida Administrative Code (F.A.C.) at the property boundaries. The next sampling event will be conducted in June 2017 and the results will be provided by July 30, 2017.

Please contact me or Pete LaForge at 954-202-9226 with any questions or if you require additional information.

Geological Certification

The geological services addressed herein, as defined in Chapter 492, Florida Statutes and in accordance with applicable provisions of Chapter 62-701 of the Florida Administrative Code, have been performed by and under the responsible charge of the professional geologist named below. These geological services are based upon the named professional's knowledge, information and belief, and in accordance with commonly accepted procedures consistent with applicable standards of practice. This certification is not a guaranty or warranty, either expressed or implied.

Sincerely,

Scott Zednek

Scott C. Zednek, P.G.
Florida License No. 0002086

SCOTT C. ZEDNEK
LICENSE
PG000 2086
2-7-17
STATE OF
FLORIDA
PROFESSIONAL GEOLOGIST

Enclosure

TABLES

Table 1
Well Construction Details
Florida Power & Light Company
Former Cutler Power Plant Property
HWR-442/File-16360/IW-79
Miami, Florida

Well ID	Permit Number	Installation Date	Installation Method	TOC Elevation (Feet)	Diameter (inches)	Total Depth (Feet)	Screened Interval (Feet bls)
MW-A2R	13-59-13304	12/13/2016	HSA	15.91	2	18	8 - 18
MW-B5R	13-59-13237	12/9/2016	HSA	6.87	2	13	3 - 13
MW-B8	13-59-8847	4/19/2013	HSA	3.56	2	11	1 - 11
MW-B11	13-59-8841	4/19/2013	HSA	3.15	2	11	1 - 11
MW-C6	13-59-8925	5/25/2013	HSA	4.97	2	12.1	2.1 - 12.1
MW-D1R	13-59-13237	12/9/2016	HSA	17.03	2	20	10 - 20
MW-D5R	13-59-13237	12/9/2016	HSA	8.20	2	12	2 - 12
MW-D6R	13-59-13237	12/9/2016	HSA	6.72	2	12	2 - 12
MW-E2	13-59-12467	1/15/2016	HSA	15.05	2	18	8 - 18
MW-E7	13-59-8927	5/25/2013	HSA	7.31	2	11.7	1.7 - 11.7
MW-E7DD	13-59-9023	5/28/2013	HSA	6.57	2	69.6	64.6 - 69.6
MW-E11	13-59-8843	4/19/2013	HSA	2.59	2	10.8	0.8 - 10.8
MW-G2	13-59-8840	4/19/2013	HSA	11.41	2	17.9	7.9 - 17.9
MW-G8	13-59-8842	4/19/2013	HSA	5.97	2	10.8	0.8 - 10.8

Notes:
bls- below land surface
TOC- Top of Casing Elevation (feet-relative NGVD29)
NGVD29- National Geodetic Vertical Datum of 1929
HAS- Hollow Stem Auger

Table 2
Groundwater Elevations
Florida Power & Light Company
Former Cutler Power Plant Property
HWR-442/File-16360/IW-79
Miami, Florida

Well ID	Screened Interval	TOC Elevation	12/20/2016	
			Depth to Water	Water Table Elevation
	(Feet bls)	(feet)	(feet)	(feet)
MW-A2R	8 - 18	15.91	14.53	1.38
MW-B5R	3 - 13	6.87	5.80	1.07
MW-B8	1 - 11	3.56	2.47	1.09
MW-B11	1 - 11	3.15	2.03	1.12
MW-C6	2.1 - 12.1	4.97	4.14	0.83
MW-D1R	10 - 20	17.03	15.71	1.32
MW-D5R	2 - 12	8.20	7.04	1.16
MW-D6R	2 - 12	6.72	5.70	1.02
MW-E2	8 - 18	15.05	13.65	1.40
MW-E7	1.7 - 11.7	7.31	4.87	2.44
MW-E7DD	64.6 - 69.6	6.57	4.90	1.67
MW-E11	0.8 - 10.8	2.59	1.37	1.22
MW-G2	7.9 - 17.9	11.41	9.84	1.57
MW-G8	0.8 - 10.8	5.97	5.61	0.36

Notes:
bls- below land surface
TOC- Top of Casing Elevation (feet-relative to NGVD29)
NGVD29- National Geodetic Vertical Datum of 1929

Table 3
Summary of Metals Analytical Results
Florida Power & Light Company
Former Cutler Power Plant Property
HWR-442/File-16360/IW-79
Miami, Florida

Monitoring Well	Analyte	Antimony	Arsenic	Nickel	Vanadium
	GCTL	**6**	**10**	**100**	**49**
	NADC	**60**	**100**	**1000**	**490**
	Units/Sample Date	**ug/L**	**ug/L**	**ug/L**	**ug/L**
MW-A2R	4/23/2013	0.95 U	1.6i	0.59i	5.1i
	1/21/2014	0.95 U	1.1i	0.77i	4.6
	12/20/2016	0.95 U	0.65 U	0.25i	1.2i
MW-B11	4/24/2013	0.95 U	0.70i	1.2i	1.6i
	1/22/2014	0.95 U	0.65 U	1.2i	1.7i
	12/20/2016	0.95 U	4.1	1.8i	4.3
MW-B5/MW-B5R	4/23/2013	0.95 U	2.5i	1.5i	4.9i
	1/21/2014	0.95 U	1.8i	2.1	6.4
	12/20/2016	0.95 U	1.6i	2.1	48
MW-B8	4/23/2013	0.95 U	0.90i	1.9i	1.3i
	1/22/2014	0.95 U	1.2i	2	2.2
	12/20/2016	0.95 U	0.65 U	0.77i	2.9
MW-C6	5/14/2013	NA	NA	NA	**760**
	6/5/2013	NA	NA	NA	**620**
	12/20/2016	0.95U	2.1	24	**450**
MW-1D/MW-D1R	4/24/2013	0.95 U	2.3i	1.6i	**9.6**
	1/21/2014	0.95 U	**12**	1.5i	**28**
	1/30/2014	NA	8.6	NA	NA
	12/20/2016	0.95 U	0.65 U	1.0i	9.9
MW-D5/MW-D5R	5-Jun-13	NA	NA	NA	2.2
	22-Jan-14	0.95 U	**110**	1.4i	3.4
	12/20/2016	0.95 U	**<u>240</u>**	2.2	0.28i
MW-D6R	5/14/2013	NA	NA	NA	**310**
	6/5/2013	NA	NA	NA	**<u>1200</u>**
	1/22/2014	0.95 U	2.8	9.4	**300**
	12/20/2016	3.1	5.0	7.9	**<u>850 L</u>**
MW-E11	4/24/2013	1.2i	0.87i	2.2i	0.78i
	1/22/2014	2.4	1.5i	0.86i	7.2
	12/20/2016	0.95 U	2.8	4.1	21
MW-E2	1/19/2016	NA	NA	NA	**103**
	12/20/2016	3.3	4.8	2.0	**120**
MW-E7	5/14/2013	NA	NA	NA	40
	1/23/2014	0.95	3.3	34.0	34
	12/20/2016	0.95 U	2.7	38	**50**
MW-E7DD	6/5/2013	NA	NA	NA	3.6
	1/22/2014	2.6	1.5i	0.95i	1.6i
	12/20/2016	0.95 U	1.0i	0.80i	2.8
MW-G2	4/24/2013	0.95 U	1.9i	1.9i	1.6i
	1/21/2014	0.95 U	0.96i	2	1.2i
	12/20/2016	0.95 U	0.65 U	2.9	2.4
MW-G8	4/24/2013	0.95 U	0.65 U	1.3i	0.81i
	1/21/2014	0.95 U	0.65 U	0.88i	0.91i
	12/20/2016	0.95 U	0.65 U	2.2	1.3i

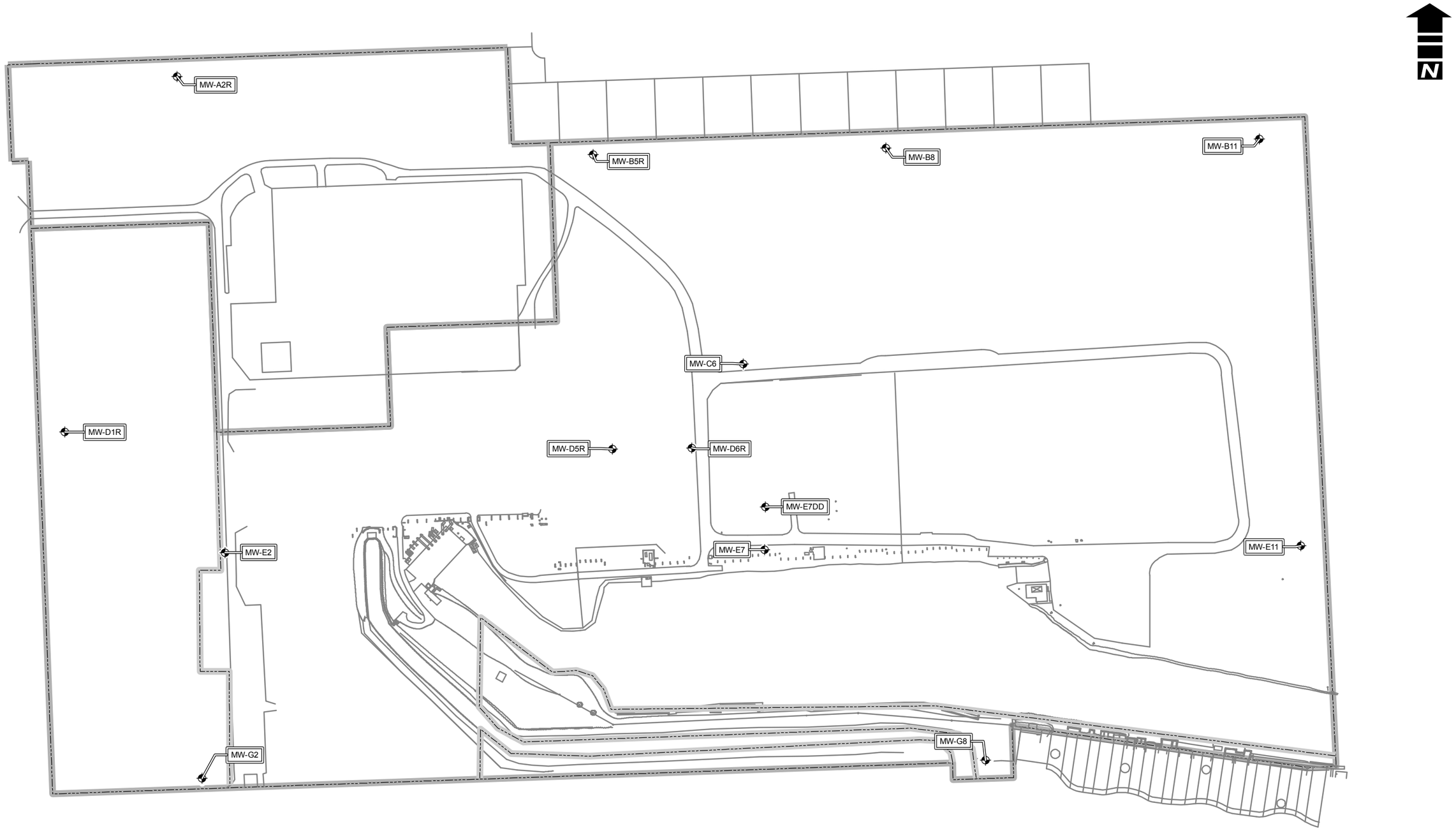
Notes:
GCTL- Groundwater Cleanup Target Levels as provided by Chapter 62-777 FAC
NADC-Natural Attenuation Default Source as provided by Chapter 62-777 FAC
ug/L- micrograms per liter
U- indicates that the compound was analyzed for but not detected above the MDL
i- indicates that the reported value is between the laboratory method detection limit and the practical quantitation limit
L- Reported value is above the calibration range
Bold text indicates concentration exceeds GCTL
Bold and underlined text indicates concentration exceeds NADC
NA- Not Analyzed

Table 4
Summary of Polycyclic Aromatic Hydrocarbon and Total Recoverable Hydrocarbon Analytical Results
Florida Power & Light Company
Former Cutler Power Plant Property
HWR-442/File-16360/IW-79
Miami, Florida

Monitoring Well	Analyte	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	TRPH
	GCTL	**28**	**28**	**20**	**210**	**2100**	**0.05**	**0.2**	**0.05**	**210**	**0.5**	**4.8**	**0.005**	**280**	**280**	**0.05**	**14**	**210**	**210**	**5000**
	NADC	**280**	**280**	**200**	**2100**	**21000**	**5**	**20**	**5**	**2100**	**50**	**480**	**0.5**	**2800**	**2800**	**5**	**140**	**2100**	**2100**	**50000**
	Units/Sample Date	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
MW-A2R	4/23/2013	0.050 U	0.050 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U	0.025 U	0.025 U	0.015 U	0.050 U	0.025 U	0.025 U	225
	1/21/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	46 U
	12/20/2016	0.047 U	0.047 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.023 U	0.023 U	NA
MW-B11	4/24/2013	0.050 U	0.050 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U	0.025 U	0.025 U	0.015 U	0.050 U	0.025 U	0.025 U	256
	1/22/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	46 U
	12/20/2016	0.047 U	0.047 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.023 U	0.023 U	NA
MW-B5/MW-B5R	4/23/2013	0.050 U	0.050 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U	0.025 U	0.025 U	0.015 U	0.050 U	0.025 U	0.025 U	254
	1/21/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	46 U
	12/20/2016	0.047 U	0.047 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.023 U	0.023 U	NA
MW-B8	4/23/2013	0.050 U	0.050 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U	0.025 U	0.025 U	0.015 U	0.050 U	0.025 U	0.025 U	97
	1/22/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	46 U
	12/20/2016	0.047 U	0.047 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.023 U	0.023 U	NA
MW-C6	1/22/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	46 U
	12/20/2016	0.047 U	0.047 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.065i	0.023 U	0.023 U	NA
MW-1D/MW-D1R	4/24/2013	0.050 U	0.050 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U	0.025 U	0.025 U	0.015 U	0.050 U	0.025 U	0.025 U	46 U
	1/21/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	46 U
	12/20/2016	0.047 U	0.047 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.023 U	0.023 U	NA
MW-D5/MW-D5R	1/22/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	73i
	12/20/2016	0.047 U	0.047 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.023 U	0.023 U	NA
MW-D6/MW-D6R	1/22/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	121
	12/20/2016	0.047 U	0.047 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.023 U	0.023 U	NA
MW-E11	4/24/2013	0.050 U	0.050 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U	0.025 U	0.025 U	0.015 U	0.050 U	0.025 U	0.025 U	66i
	1/22/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	46 U
	12/20/2016	0.047 U	0.047 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.023 U	0.023 U	NA
MW-E2	12/20/2016	0.047 U	0.047 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.023 U	0.023 U	NA
MW-E7	1/23/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	46 U
	12/20/2016	0.047 U	0.047 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.023 U	0.023 U	NA
MW-E7DD	1/22/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	109
	12/20/2016	0.047 U	0.047 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.023 U	0.023 U	NA
MW-G2	4/24/2013	0.050 U	0.050 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U	0.025 U	0.025 U	0.015 U	0.050 U	0.025 U	0.025 U	66i
	12/20/2016	0.047 U	0.047 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.023 U	0.023 U	NA
MW-G8	4/24/2013	0.050 U	0.050 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U	0.025 U	0.025 U	0.015 U	0.050 U	0.025 U	0.025 U	46 U
	1/21/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	237
	12/20/2016	0.047 U	0.047 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.023 U	0.023 U	NA

Notes:
GCTL- Groundwater Cleanup Target Levels as provided by Chapter 62-777 FAC
NADC-Natural Attenuation Default Source as provided by Chapter 62-777 FAC
ug/L- micrograms per liter
U- indicates that the compound was analyzed for but not detected above the MDL
i- indicates that the reported value is between the laboratory method detection limit and thepractical quantitation limit.
NA- Not Analyzed
TRPH- total recoverable petroleum hydrocarbons

FIGURES



tierra consulting group

TIERRA CONSULTING GROUP, INC.
PHONE: (954) 202-9226
WWW.TIERRACONSULTING.COM

SITE PLAN

Florida Power & Light Company
Former Cutler Power Plant Property
HWR-442/File-16360/IW-79
Miami, Florida

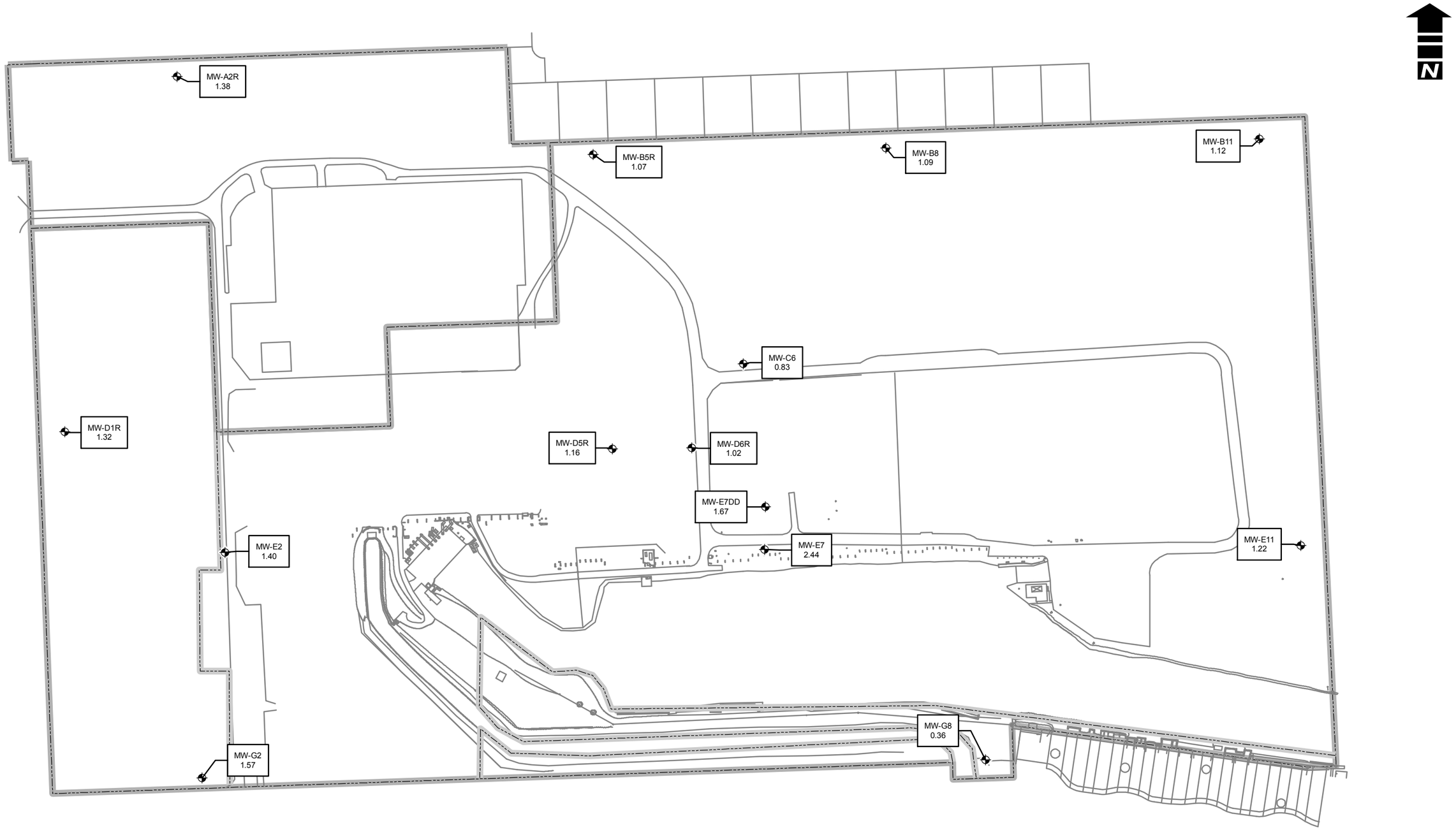
LEGEND:

MONITORING WELL

SCALE:

200 100 0 200
Feet

FIGURE 1



tierra consulting group

TIERRA CONSULTING GROUP, INC.
PHONE: (954) 202-9226
WWW.TIERRACONSULTING.COM

GROUNDWATER ELEVATIONS (DECEMBER 2016)

Florida Power & Light Company
Former Cutler Power Plant Property
HWR-442/File-16360/IW-79
Miami, Florida

LEGEND:

MONITORING WELL

NOTES:

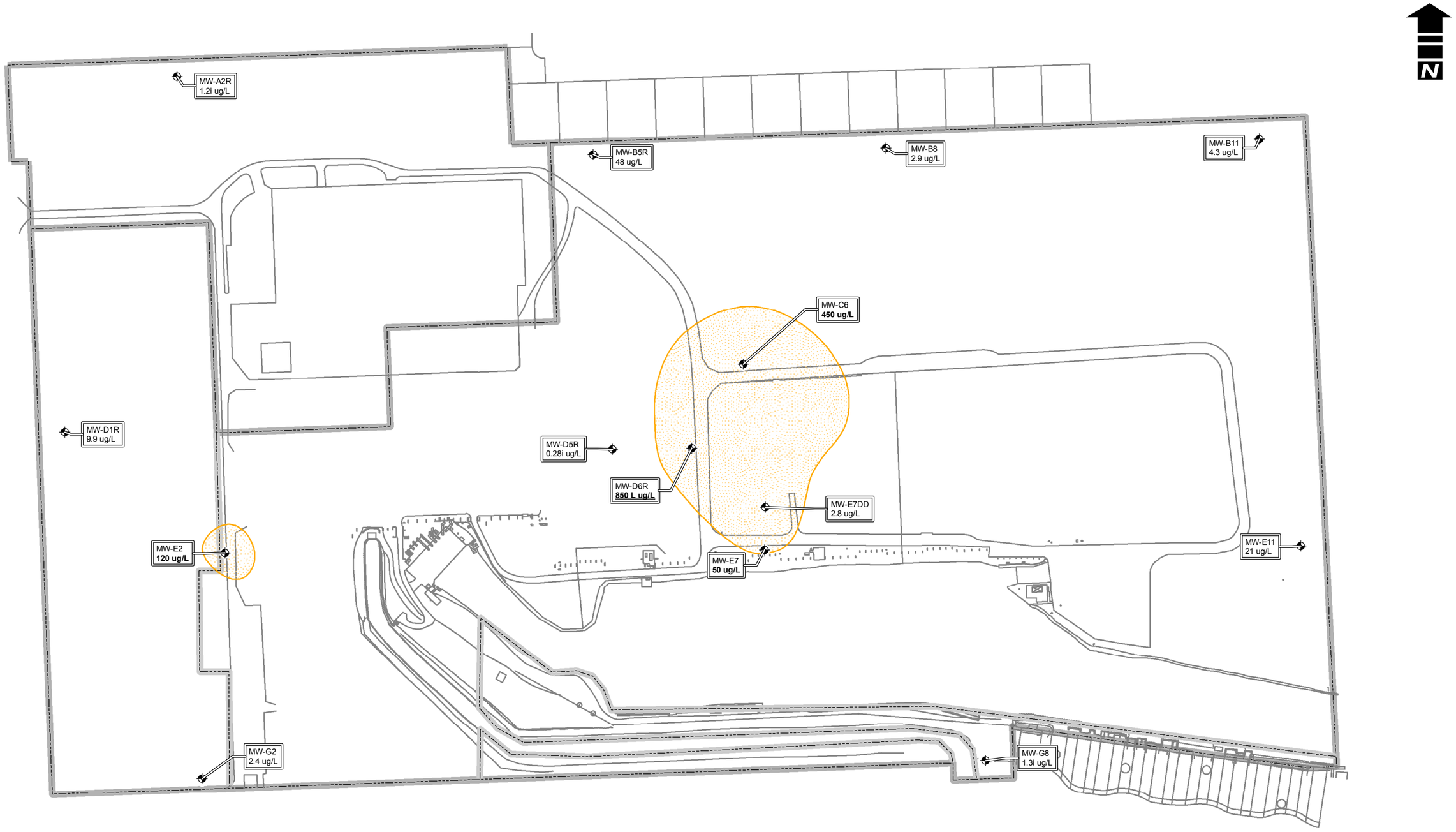
Top of Casing Elevation in feet and relative to National Geodetic Vertical Datum of 1929 (NGVD29)

MW-G2 1.57 — Monitoring Well; Top of Casing Elevation (feet-relative NGVD29)

SCALE:

200 100 0 200
Feet

FIGURE 2



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TIERRA CONSULTING GROUP, INC.
PHONE: (954) 202-9226
WWW.TIERRACONSULTING.COM

VANADIUM IN GROUNDWATER (DECEMBER 2016)

Florida Power & Light Company
Former Cutler Power Plant Property
HWR-442/File-16360/IW-79
Miami, Florida

LEGEND:

MONITORING WELL

EXTENT OF VANADIUM EXCEEDING 49 ug/L

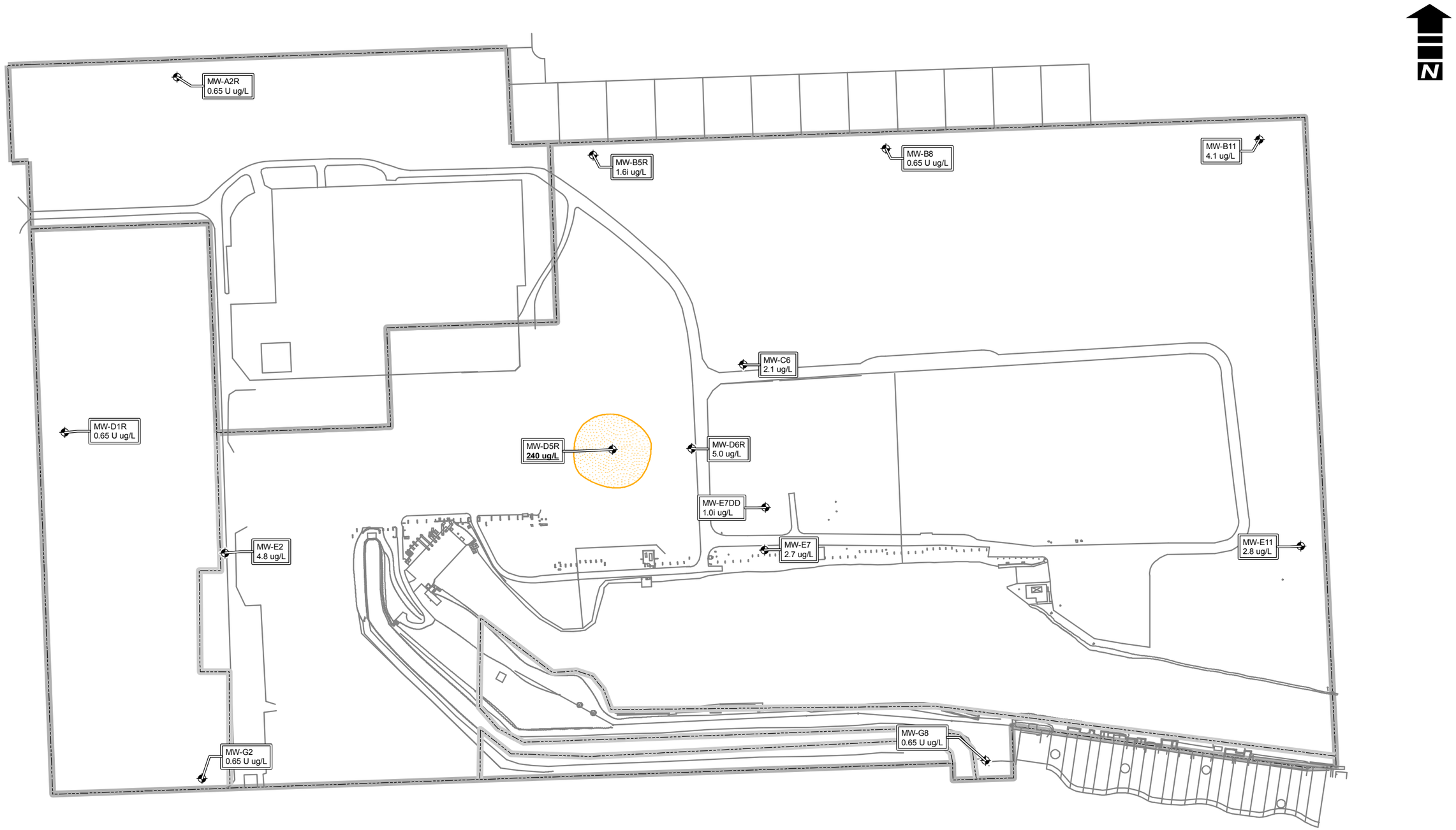
NOTES:

ug/L- micrograms per liter
U- indicates that the compound was analyzed for but not detected above the MDL
i- indicates that the reported value is between the laboratory method detection limit and the practical quantitation limit
L- Reported value is above the calibration range
Bold text indicates concentration exceeds GCTL
Bold and underlined text indicates concentration exceeds NADC

SCALE:

200 100 0 200
Feet

FIGURE 3



tierra consulting group

TIERRA CONSULTING GROUP, INC.
PHONE: (954) 202-9226
WWW.TIERRACONSULTING.COM

ARSENIC IN GROUNDWATER (DECEMBER 2016)

Florida Power & Light Company
Former Cutler Power Plant Property
HWR-442/File-16360/IW-79
Miami, Florida

LEGEND:

MONITORING WELL

EXTENT OF ARSENIC EXCEEDING 10 ug/L

NOTES:

ug/L- micrograms per liter
U- indicates that the compound was analyzed for but not detected above the MDL
i- indicates that the reported value is between the laboratory method detection limit and the practical quantitation limit
L- Reported value is above the calibration range
Bold text indicates concentration exceeds GCTL
Bold and underlined text indicates concentration exceeds NADC

SCALE:

200 100 0 200
Feet

FIGURE 4

ATTACHMENT A

INTERIM GROUNDWATER MONITORING ONLY PLAN (IMOP)

(***AECOM, JULY 7, 2016***)

Interim Groundwater Monitoring Only Plan (IMOP)

July 7, 2016

Florida Power & Light Company
Former Cutler Power Plant Property
HWR-442/File-16360/IW-79
Miami, Florida

Table of Contents

1. Objective 1

2. Interim Groundwater Monitoring Only Plan 1

2.1 Groundwater Sampling Location and Schedule 1

2.2 Groundwater Elevation Contours 1

2.3 Groundwater Sampling Activities 1

2.4 Groundwater Sample Analysis 1

2.5 Report Preparation 2

Figures

1 Site Vicinity Map

1A Monitoring Only Plan – Well Location Map

1. Objective

The main objective of this Interim Groundwater Monitoring Only (IMOP) is to monitor the groundwater quality during the interim period prior to implementation of the proposed engineering and institutional controls at the former Cutler Plant (Site) currently owned by the Florida Power & Light Company (FPL). **Figure 1,** attached to this IMOP, is the Site Vicinity Map. The controls will be implemented as a part of site remediation activities approved by the Division of Environmental Resources Management (DERM) of the Miami-Dade County Department of Economic and Regulatory Resources.

2. Interim Groundwater Monitoring Only Plan

2.1 Groundwater Sampling Location and Schedule

As required by the DERM, the IMOP will be implemented prior to implementation of engineering controls on the Site. The monitoring wells listed in the Table below and illustrated on the attached **Figure 1A** shall be sampled and analyzed semi-annually for arsenic and vanadium. Polyaromatic hydrocarbons (PAHs), antimony and nickel will be analyzed on an annual basis.

2.2 Groundwater Elevation Contours

During each sampling event, the depth to water (DTW) in each monitoring well will be recorded by measuring the distance from the top of the water table to the top of the monitoring well casing using a water level indicator. The DTW measurements will be subtracted from the TOC elevations to obtain the groundwater elevation for each monitoring well. Groundwater elevations will be contoured to evaluate the site-specific groundwater flow direction.

2.3 Groundwater Sampling Activities

Groundwater samples will be collected from the monitoring wells in accordance with Florida Department of Environmental Protection's Standard Operating Procedures (FDEP-SOP) 001/01 FS 2200 guidelines. The monitoring wells will be purged and sampled utilizing a low flow peristaltic pump or submersible pump. During purging activities, field parameters including pH, temperature, conductivity, dissolved oxygen, turbidity, and depth to water measurements will be recorded. Once the field parameters stabilized each monitoring well will be sampled. The groundwater samples will be collected from the monitoring wells utilizing dedicated polyethylene tubing and submitted for analysis, under chain-of-custody record, to a State-certified laboratory in laboratory supplied bottle ware.

2.4 Groundwater Sample Analysis

The groundwater samples will be submitted to a NELAC certified environmental laboratory under a chain of custody documentation. The semi-annual groundwater samples will be analyzed for arsenic and vanadium by method SW846/6010B. The annual groundwater samples will be analyzed for arsenic, vanadium, antimony and nickel by SW846/6010B and PAHs by EPA Method 8270.

The sampling locations, frequency, and analytical parameters for groundwater monitoring only plan are summarized in the table below:

Sampling Location	Frequency	Analytical Parameters
MW-E2, MW-D5, MW-D6, MW-C6, MW-D1, MW-A2, MW-B5, MW-B8, MW-B11, MW-E11, MW-G8, MW-E7, MW-E7DD, MW-G2	Annual	Arsenic, Vanadium, Antimony, Nickel, PAH
MW-E2, MW-D5, MW-D6, MW-C6, MW-D1, MW-A2, MW-B5, MW-B8, MW-B11, MW-E11, MW-G8, MW-E7, MW-E7DD, MW-G2	Semi-annual	Arsenic, Vanadium

2.5 Report Preparation

Semi-annual and Annual Groundwater Monitoring Reports will be submitted to DERM within forty (45) days of each sampling event. The reports will summarize the details of the groundwater sampling events including FDEP groundwater sampling logs and groundwater analytical reports, conclusions, and recommendations.

FIGURES

TIERRA CONSULTING GROUP, INC.
PHONE: (954) 202-9226
WWW.TIERRACONSULTING.COM

SITE VICINITY MAP

Florida Power & Light Company
Former Cutler Power Plant Property
HWR-442/File-16360/IW-79
Miami, Florida

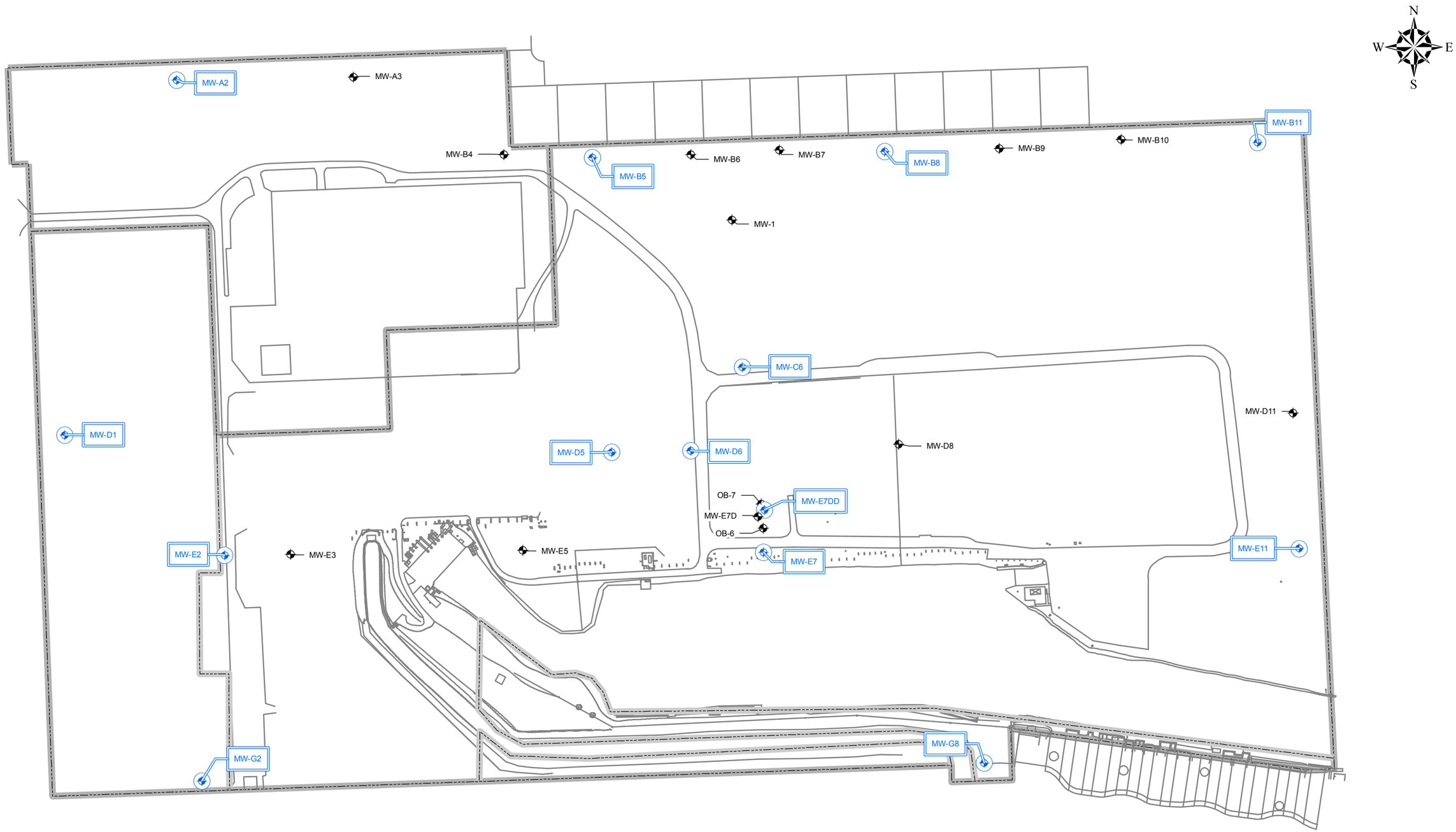
LEGEND:

FORMER PLANT PROPERTY BOUNDARY

SCALE:

300 150 0 300
Feet

FIGURE 1



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PHONE: (954) 202-9226
WWW.TIERRACONSULTING.COM

MONITORING ONLY PLAN
WELL LOCATION MAP

Florida Power & Light Company
Former Cutler Power Plant Property
HWR-442/File-16360/IW-79
Miami, Florida

LEGEND:

MONITORING WELL INCLUDED IN MOP

MONITORING WELL NOT INCLUDED IN MOP

SUBSTATION

PROPERTY BOUNDARY

SCALE:

200 100 0 200

Feet

FIGURE 1A

REVISED: 2/2/2016

ATTACHMENT B

WELL COMPLETION REPORTS

STATE OF FLORIDA WELL COMPLETION REPORT

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

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

Date Stamp

Official Use Only

1.*Permit Number 13-59-13237 *CUP/WUP Number _____ *DID Number _____ 62-524 Delineation No. _____

2.*Number of permitted wells constructed, repaired, or abandoned 4 *Number of permitted wells not constructed, repaired, or abandoned 1

3.*Owner's Name Florida Power & Light Co 4.*Completion Date 12/9/16 5. Florida Unique ID _____

6. 6525 NW 152nd Street, Palmetto Bay, Fl
*Well Location - Address, Road Name or Number, City, ZIP

7.*County Dade *Section _____ Land Grant _____ *Township _____ *Range _____

8. Latitude _____ Longitude _____

9. Data Obtained From: ____GPS ____Map ____Survey Datum: ____NAD 27 ____NAD 83 ____WGS 84

10.*Type of Work: ✔ Construction ____Repair ____Modification ____Abandonment

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

____Domestic
____Bottled Water Supply
____Public Water Supply (Limited Use/DOH)
____Public Water Supply (Community or Non-Community/DEP)
____Class I Injection
____Landscape Irrigation
____Recreation Area Irrigation
____Agricultural Irrigation
____Livestock
____Nursery Irrigation
____Commercial/Industrial
____Golf Course Irrigation
____Site Investigation
✔ Monitoring
____Test
____Earth-Coupled Geothermal
____HVAC Supply
____HVAC Return

Class V Injection: ____Recharge ____Commercial/Industrial Disposal ____Aquifer Storage and Recovery ____Drainage

Remediation: ____Recovery ____Air Sparge ____Other (Describe) _____

____Other (Describe) _____

12.*Drill Method: ✔ Auger ____Cable Tool ____Rotary ____Combination (Two or More Methods) ____Jetted ____Sonic ____Horizontal Drilling ____Hydraulic Point (Direct Push) ____Other _____

13.*Measured Static Water Level _____ ft. Measured Pumping Water Level _____ ft. After _____ Hours at _____ GPM

14.*Measuring Point (Describe) _____ Which is ____ft. ____Above ____Below Land Surface *Flowing: ____Yes ____No

15.*Casing Material: ____Black Steel ____Galvanized ✔ PVC ____Stainless Steel ____Not Cased ____Other _____

16.*Total Well Depth 20 ft. Cased Depth 10 ft. *Open Hole: From ____ To ____ ft. *Screen: From 10 To 20 ft. Slot Size .010

17.*Abandonment: ____Other (Explain) _____

From ____ft. To ____ft. No. of Bags ____ Seal Material (Check One): ____Neat Cement ____Bentonite ____Other _____
From ____ft. To ____ft. No. of Bags ____ Seal Material (Check One): ____Neat Cement ____Bentonite ____Other _____
From ____ft. To ____ft. No. of Bags ____ Seal Material (Check One): ____Neat Cement ____Bentonite ____Other _____
From ____ft. To ____ft. No. of Bags ____ Seal Material (Check One): ____Neat Cement ____Bentonite ____Other _____
From ____ft. To ____ft. No. of Bags ____ Seal Material (Check One): ____Neat Cement ____Bentonite ____Other _____

18.*Surface Casing Diameter and Depth:

Dia ____in. From ____ft. To ____ft. No. of Bags ____ Seal Material (Check One): ____Neat Cement ____Bentonite ____Other _____
Dia ____in. From ____ft. To ____ft. No. of Bags ____ Seal Material (Check One): ____Neat Cement ____Bentonite ____Other _____

19.*Primary Casing Diameter and Depth:

Dia 2 in. From 0 ft. To 10 ft. No. of Bags 2 Seal Material (Check One): ✔ Neat Cement ____Bentonite ____Other 1 well
Dia 2 in. From 0 ft. To 2 ft. No. of Bags 1 Seal Material (Check One): ✔ Neat Cement ____Bentonite ____Other 2 wells
Dia 2 in. From 0 ft. To 3 ft. No. of Bags 1 Seal Material (Check One): ✔ Neat Cement ____Bentonite ____Other 1 well
Dia ____in. From ____ft. To ____ft. No. of Bags ____ Seal Material (Check One): ____Neat Cement ____Bentonite ____Other _____
Dia ____in. From ____ft. To ____ft. No. of Bags ____ Seal Material (Check One): ____Neat Cement ____Bentonite ____Other _____

20.*Liner Casing Diameter and Depth:

Dia ____in. From ____ft. To ____ft. No. of Bags ____ Seal Material (Check One): ____Neat Cement ____Bentonite ____Other _____
Dia ____in. From ____ft. To ____ft. No. of Bags ____ Seal Material (Check One): ____Neat Cement ____Bentonite ____Other _____
Dia ____in. From ____ft. To ____ft. No. of Bags ____ Seal Material (Check One): ____Neat Cement ____Bentonite ____Other _____

21.*Telescope Casing Diameter and Depth:

Dia ____in. From ____ft. To ____ft. No. of Bags ____ Seal Material (Check One): ____Neat Cement ____Bentonite ____Other _____
Dia ____in. From ____ft. To ____ft. No. of Bags ____ Seal Material (Check One): ____Neat Cement ____Bentonite ____Other _____
Dia ____in. From ____ft. To ____ft. No. of Bags ____ Seal Material (Check One): ____Neat Cement ____Bentonite ____Other _____

22. Pump Type (If Known):
____Centrifugal ____Jet ____Submersible ____Turbine
Horsepower _____ Pump Capacity (GPM) _____
Pump Depth _____ft. Intake Depth _____ft.

23. Chemical Analysis (When Required):
Iron _____ppm Sulfate _____ppm Chloride _____ppm
____Laboratory Test ____Field Test Kit

24. Water Well Contractor:

*Contractor Name Erim Fromm *License Number 11313 E-mail Address Jaee@bellsouth.net

*Contractor's Signature _____ *Driller's Name (Print or Type) w smitherman
(I certify that the information provided in this report is accurate and true.)

*Permit No. 13-59-13237

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

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

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

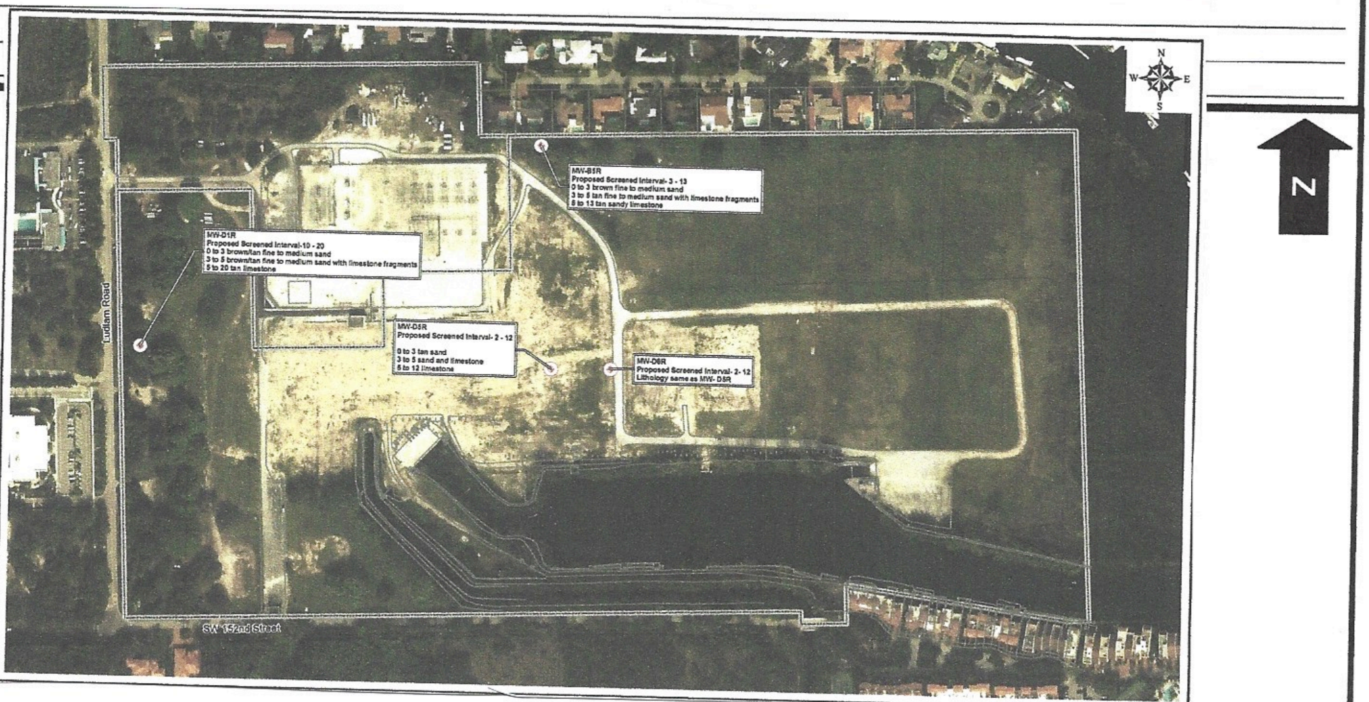
SOUTH FLORIDA WATER MANAGEMENT DISTRICT
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FL 33416-4680
PHONE: (561) 686-8800
WWW.SFWMD.GOV

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

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

From (ft.)	To (ft.)	Color	Grain Size (F, M, C)	Material
0	3	tan . brown	m / f	sands
3	5	tan / gray	m / f	sands with limestone rubble
5	20	tan		limestone

Comments:



STATE OF FLORIDA WELL COMPLETION REPORT

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

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

Date Stamp

Official Use Only

1. *Permit Number 13-59-13304 *CUP/WUP Number N/A *DID Number N/A 62-524 Delineation No. _____

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

3. *Owner's Name FLORIDA POWER & LIGHT CO ATTN PROPERTY TAX DEPT 4. *Completion Date 12/13/16 5. Florida Unique ID _____

6. 6525 SW 152 ST Palmetto Bay, FL 33157-0000
*Well Location - Address, Road Name or Number, City, ZIP

7. *County MIAMI-DADE *Section 24 Land Grant _____ *Township 55 *Range 40

8. Latitude _____ Longitude _____

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

10. *Type of Work: ☑ Construction ☐ Repair ☐ Modification ☐ Abandonment

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

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

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

Remediation: ☐ Recovery ☐ Air Sparge ☐ Other (Describe) _____

☐ Other (Describe) _____

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

13. *Measured Static Water Level 11 ft. Measured Pumping Water Level ____ ft. After ____ Hours at ____ GPM

14. *Measuring Point (Describe) TOP OF CASING Which is 0 ft. X Above ____ Below Land Surface *Flowing: ☐ Yes ☑ No

15. *Casing Material: ☐ Black Steel ☐ Galvanized ☑ PVC ☐ Stainless Steel ☐ Not Cased ☐ Other _____

16. *Total Well Depth 18 ft. Cased Depth 8 ft. *Open Hole: From ____ To ____ ft. *Screen: From 8 To 18 ft. Slot Size .010

17. *Abandonment: ☐ Other (Explain) _____

From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite Other _____
From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite Other _____
From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite Other _____
From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite Other _____
From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite Other _____

18. *Surface Casing Diameter and Depth:

Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____

19. *Primary Casing Diameter and Depth:

Dia 2 in. From 0 ft. To 18 ft. No. of Bags 1 Seal Material (Check One): ☑ Neat Cement ☐ Bentonite ☐ Other ____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____

20. *Liner Casing Diameter and Depth:

Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____

21. *Telescope Casing Diameter and Depth:

Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____

22. Pump Type (If Known):
☐ Centrifugal ☐ Jet ☐ Submersible ☐ Turbine
Horsepower ____ Pump Capacity (GPM) ____
Pump Depth ____ ft. Intake Depth ____ ft.

23. Chemical Analysis (When Required):
Iron ____ ppm Sulfate ____ ppm Chloride ____ ppm
☐ Laboratory Test ☐ Field Test Kit

24. Water Well Contractor:

*Contractor Name Mark James/Enviro-Drill, Inc. *License Number 11031 E-mail Address info@envirodrillinc.com

*Contractor's Signature _____ *Driller's Name (Print or Type) MARK SCANLON
(I certify that the information provided in this report is accurate and true.)

*Permit No. 13-59-13304

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

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

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

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

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

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

From (ft.)	To (ft.)	Color	Grain Size (F, M, C)	Material
0	18	BROWN	F, M	SAND

Comments:

***Detailed Site Map of Well Location**

N

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

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

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

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

Permit No.
Florida Unique ID 13-59-13304
Permit Stipulations Required (See Attached)
62-524 Quad No. _____ Delineation No. _____
CUP/WUP Application No. _____

ABOVE THIS LINE - FOR OFFICIAL USE ONLY

1. FLORIDA POWER & LIGHT, 700 UNIVERSE BLVD, PSX/JB JUNO BEACH, FL 33408
*Owner Legal Name if Corporation *Address *City *State *ZIP Telephone Number
2. 6525 SW 152 ST Palmetto Bay, FL.
*Well Location - Address, Road Name or Number, City
3. 33-5024-000-0020
*Parcel ID No. (PIN) or Alternate Key (Circle One) Lot Block Unit
4. 24 55 40 DADE _____ Check if 62-524: ☐ Yes ☐ No
*Section or Land Grant *Township *Range *County Subdivision
5. Enviro-Drill, Inc./Mark James 11031 954-472-3342 info@envirodrillinc.com
*Water Well Contractor *License Number *Telephone Number E-mail Address
6. 6900 SW 21ST CT. SUITE 13 DAVIE FL 33317
*Water Well Contractor's Address City State ZIP
7. *Type of Work: ☑ Construction ☐ Repair ☐ Modification ☐ Abandonment _____
*Reason for Repair, Modification, or Abandonment
8. *Number of Proposed Wells 1
9. *Specify Intended Use(s) of Well(s):

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

Class V Injection: ☐ Recharge ☐ Commercial/Industrial Disposal ☐ Aquifer Storage and Recovery ☐ Drainage
Remediation: ☐ Recovery ☐ Air Sparge ☐ Other (Describe) _____
☐ Other (Describe) _____

Date Stamp
RECEIVED
JAN 04 2017
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O.S.T.D.S. PROGRAM
Official Use Only

10. *Distance from Septic System if ≤ 200 ft. N/A 11. Facility Description UTILITY BUILDING 12. Estimated Start Date _____
13. *Estimated Well Depth 12 ft. *Estimated Casing Depth 2' ft. Primary Casing Diameter 2 in. Open Hole: From ____ To ____ ft.
14. Estimated Screen Interval. From 2 To 12' ft.
15. *Primary Casing Material: Black Steel Galvanized ✓ PVC Stainless Steel
Not Cased Other: _____
16. Secondary Casing: Telescope Casing Liner Surface Casing Diameter _____ in.
17. Secondary Casing Material: Black Steel Galvanized PVC Stainless Steel Other _____
18. *Method of Construction, Repair, or Abandonment: Auger Cable Tool Jetted Rotary Sonic
Combination (Two or More Methods) Hand Driven (Well Point, Sand Point) Hydraulic Point (Direct Push)
Horizontal Drilling Plugged by Approved Method ✓ Other (Describe) Hollow Stem Auger
19. Proposed Grouting Interval for the Primary, Secondary, and Additional Casing:
From 0 To 6" Seal Material (Bentonite ✓ Neat Cement Other _____)
From ____ To ____ Seal Material (Bentonite Neat Cement Other _____)
From ____ To ____ Seal Material (Bentonite Neat Cement Other _____)
From ____ To ____ Seal Material (Bentonite Neat Cement Other _____)
20. Indicate total number of existing wells on site _____ List number of existing unused wells on site _____
21. *Is this well or any existing well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? Yes No If yes, complete the following: CUP/WUP No. _____ District Well ID No. _____
22. Latitude _____ Longitude _____
23. Data Obtained From: GPS ✓ Map Survey Datum: ____ NAD 27 ____ NAD 83 ____ WGS 84

I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if needed, has been, or will be obtained prior to commencement of well construction. I further certify that all information provided in this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable. I agree to provide a well completion report to the District within 30 days after completion of the construction, repair, modification, or abandonment authorized by this permit, or the permit expiration, whichever occurs first.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon the well, or I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of their responsibilities as stated above. Owner consents to allowing personnel of the WMD or Delegated Authority access to the well site during the construction, repair, modification, or abandonment authorized by this permit.

Signature of Contractor _____ 11031 *License No. _____ *Signature of Owner or Agent _____ *Date _____

APPROVED
MIAMI-DADE COUNTY HEALTH DEPARTMENT
PERMIT #: 13-59-13304
DATE: 01-09-2017

BELOW THIS LINE - FOR OFFICIAL USE ONLY

Approval Granted By YVENEI CLERMONT Issue Date 1-9-2017 Expiration Date 1-9-2018 Hydrologist Approval _____ Initials
Fee Received $ 75.00 Receipt No. 13-BID-3327978 Check No. _____

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

X20170430C4.

ATTACHMENT C

SPECIFIC PURPOSE SURVEY

MONITORING WELLS & ELEVATIONS

CUTLER PLANT SITE & CUTLER PLANTATION PARCEL

S.W. 67th AVENUE & S.W. 152nd STREET

MONITORING WELL	ELEVATIONS			COORDINATES	
	GROUND	RIM	2" PVC	NORTH	EAST
(1) MW-A2R	16.1'	16.21'	15.91'	473,339.33	886,723.22
(2) MW-B5R	7.0'	7.28'	6.87'	473,161.73	887,598.30
(3) MW-D1R	17.2'	17.27'	17.03'	472,590.53	886,558.01
(4) MW-E2	15.2'	15.33'	15.05'	472,375.66	886,848.19
(5) MW-D5R	8.5'	8.64'	8.20'	472,576.66	887.649.62
(6) MW-D6R	7.0'	7.15'	6.72'	472,584.27	887,814.39

A. R. TOUSSAINT & ASSOCIATES, INC.
LAND SURVEYORS
620 N.E. 126 ST.
NORTH MIAMI, FLORIDA 33161
FLORIDA CERTIFICATE OF AUTHORIZATION NO. LB-273
PHONE 305-891-7340 EMAIL: artoussaint@aol.com

BY: Albert R. Toussaint PRES.
ALBERT R. TOUSSAINT
REGISTERED ENGINEER NO. 8939
REGISTERED SURVEYOR AND MAPPER NO. 907
STATE OF FLORIDA FLORIDA
CERTIFICATE OF AUTHORIZATION LB-273

ORDER NO: 15139 JANUARY 20, 2017 SHEET 1 OF 1

ATTACHMENT D

LABORATORY ANALYTICAL REPORT & GROUNDWATER SAMPLING LOGS

Jupiter Environmental Laboratories, Inc.
150 S. Old Dixie Highway
Jupiter, FL 33458
Phone: (561)575-0030
Fax: (561)575-4118
www.jupiterlabs.com
clientservices@jupiterlabs.com

December 28, 2016

Pete LaForge
Tierra Consulting Group, Inc.
5815 N. Andrews Way
Suite B
Fort Lauderdale, FL 33309

RE:	LOG#	1649605
	Project ID:	FPL - Cutler
	COC#	1649605

Dear Pete LaForge:

Enclosed are the analytical results for sample(s) received by the laboratory on Wednesday, December 21, 2016. Results reported herein conform to the most current NELAC standards, where applicable, unless indicated by * in the body of the report. The enclosed Chain of Custody is a component of this package and should be retained with the package and incorporated therein.

Results for all solid matrices are reported in dry weight unless otherwise noted. Results for all liquid matrices are reported as received in the laboratory unless otherwise noted. Results relate only to the samples received. 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.

Samples are disposed of after 30 days of their receipt by the laboratory unless extended storage is requested in writing. The laboratory maintains the right to charge storage fees for archived samples. This report will be archived for 5 years after which time it will be destroyed without further notice, unless prior arrangements have been made.

Certain analyses are subcontracted to outside NELAC certified laboratories, please see the Project Summary section of this report for NELAC certification numbers of laboratories used. A Statement of Qualifiers is available upon request.

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

Sincerely,

Allie Lamb

Allie Lamb for
Edward Dabrea
edabrea@jupiterlabs.com

FDOH# E86546

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Jupiter, FL 33458
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Fax: (561)575-4118

SAMPLE ANALYTE COUNT

Workorder: 1649605

Project ID: FPL - Cutler

Lab ID	Sample ID	Method	Analytes Reported
1649605001	MW-E2	EPA 200.8 (Total)	4
		EPA 8270/PAH SIM	21
1649605002	MW-D5R	EPA 200.8 (Total)	4
		EPA 8270/PAH SIM	21
1649605003	MW-D6R	EPA 200.8 (Total)	4
		EPA 8270/PAH SIM	21
1649605004	MW-C6	EPA 200.8 (Total)	4
		EPA 8270/PAH SIM	21
1649605005	MW-D1R	EPA 200.8 (Total)	4
		EPA 8270/PAH SIM	21
1649605006	MW-A2R	EPA 200.8 (Total)	4
		EPA 8270/PAH SIM	21
1649605007	MW-B5R	EPA 200.8 (Total)	4
		EPA 8270/PAH SIM	21
1649605008	MW-B8	EPA 200.8 (Total)	4
		EPA 8270/PAH SIM	21
1649605009	MW-B11	EPA 200.8 (Total)	4
		EPA 8270/PAH SIM	21
1649605010	MW-E11	EPA 200.8 (Total)	4
		EPA 8270/PAH SIM	21
1649605011	MW-G8	EPA 200.8 (Total)	4
		EPA 8270/PAH SIM	21
1649605012	MW-E7	EPA 200.8 (Total)	4
		EPA 8270/PAH SIM	21
1649605013	MW-E7DD	EPA 200.8 (Total)	4
		EPA 8270/PAH SIM	21
1649605014	MW-G2	EPA 200.8 (Total)	4
		EPA 8270/PAH SIM	21

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SAMPLE SUMMARY

Workorder: 1649605

Project ID: FPL - Cutler

Lab ID	Sample ID	Matrix	Date Collected	Date Received
1649605001	MW-E2	Aqueous Liquid	12/20/2016 13:49	12/21/2016 12:36
1649605002	MW-D5R	Aqueous Liquid	12/20/2016 11:59	12/21/2016 12:36
1649605003	MW-D6R	Aqueous Liquid	12/20/2016 11:35	12/21/2016 12:36
1649605004	MW-C6	Aqueous Liquid	12/20/2016 09:51	12/21/2016 12:36
1649605005	MW-D1R	Aqueous Liquid	12/20/2016 12:42	12/21/2016 12:36
1649605006	MW-A2R	Aqueous Liquid	12/20/2016 11:36	12/21/2016 12:36
1649605007	MW-B5R	Aqueous Liquid	12/20/2016 10:46	12/21/2016 12:36
1649605008	MW-B8	Aqueous Liquid	12/20/2016 09:23	12/21/2016 12:36
1649605009	MW-B11	Aqueous Liquid	12/20/2016 08:34	12/21/2016 12:36
1649605010	MW-E11	Aqueous Liquid	12/20/2016 09:25	12/21/2016 12:36
1649605011	MW-G8	Aqueous Liquid	12/20/2016 10:35	12/21/2016 12:36
1649605012	MW-E7	Aqueous Liquid	12/20/2016 08:50	12/21/2016 12:36
1649605013	MW-E7DD	Aqueous Liquid	12/20/2016 08:14	12/21/2016 12:36
1649605014	MW-G2	Aqueous Liquid	12/20/2016 13:40	12/21/2016 12:36

FDOH# E86546

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ANALYTICAL RESULTS

Workorder: 1649605

Project ID: FPL - Cutler

Lab ID:	**1649605001**	Date Received:	12/21/2016 12:36	Matrix:	Aqueous Liquid
Sample ID:	**MW-E2**	Date Collected:	12/20/2016 13:49		

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
Semivolatiles by EPA 8270C										
Analysis Desc: PAH List by 8270C SIM (W)					Preparation Method: EPA 3510C SIM Analytical Method: EPA 8270/PAH SIM					
1-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
2-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
Acenaphthene	U	ug/L	0.047	0.023	1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
Acenaphthylene	U	ug/L	0.047	0.023	1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
Anthracene	U	ug/L	0.047	0.023	1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
Benzo(a)anthracene	U	ug/L	0.047	0.023	1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
Benzo(a)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
Benzo(b)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
Benzo(g,h,i)perylene	U	ug/L	0.047	0.014	1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
Benzo(k)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
Chrysene	U	ug/L	0.047	0.023	1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
Dibenzo(a,h)anthracene	U	ug/L	0.047	0.0048	1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
Fluoranthene	U	ug/L	0.047	0.023	1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
Fluorene	U	ug/L	0.047	0.023	1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
Indeno(1,2,3-cd)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
Naphthalene	U	ug/L	0.093	0.047	1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
Phenanthrene	U	ug/L	0.047	0.023	1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
Pyrene	U	ug/L	0.047	0.023	1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
Nitrobenzene-d5 (S)	70	%	30-110		1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
2-Fluorobiphenyl (S)	54	%	30-110		1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
p-Terphenyl-d14 (S)	91	%	30-140		1	12/23/2016 10:24	BFM	12/23/2016 23:32	MAM	
Analysis Desc: EPA 200.8 Metals (W)					Preparation Method: EPA 200.2 mod. Analytical Method: EPA 200.8 (Total)					
Vanadium	120	ug/L	2.0	0.18	4	12/21/2016 13:38	ZS	12/21/2016 18:23	ZS	
Nickel	2.0	ug/L	2.0	0.24	4	12/21/2016 13:38	ZS	12/21/2016 18:23	ZS	
Arsenic	4.8	ug/L	2.0	0.65	4	12/21/2016 13:38	ZS	12/21/2016 18:23	ZS	
Antimony	3.3	ug/L	2.0	0.95	4	12/21/2016 13:38	ZS	12/21/2016 18:23	ZS	

FDOH# E86546

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Fax: (561)575-4118

ANALYTICAL RESULTS

Workorder: 1649605

Project ID: FPL - Cutler

Lab ID:	**1649605002**	Date Received:	12/21/2016 12:36	Matrix:	Aqueous Liquid
Sample ID:	**MW-D5R**	Date Collected:	12/20/2016 11:59		

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
Semivolatiles by EPA 8270C										
Analysis Desc: PAH List by 8270C SIM (W)					Preparation Method: EPA 3510C SIM Analytical Method: EPA 8270/PAH SIM					
1-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
2-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
Acenaphthene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
Acenaphthylene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
Anthracene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
Benzo(a)anthracene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
Benzo(a)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
Benzo(b)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
Benzo(g,h,i)perylene	U	ug/L	0.047	0.014	1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
Benzo(k)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
Chrysene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
Dibenzo(a,h)anthracene	U	ug/L	0.047	0.0048	1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
Fluoranthene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
Fluorene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
Indeno(1,2,3-cd)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
Naphthalene	U	ug/L	0.093	0.047	1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
Phenanthrene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
Pyrene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
Nitrobenzene-d5 (S)	80	%	30-110		1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
2-Fluorobiphenyl (S)	64	%	30-110		1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
p-Terphenyl-d14 (S)	99	%	30-140		1	12/23/2016 11:00	BFM	12/24/2016 05:10	MAM	
Analysis Desc: EPA 200.8 Metals (W)					Preparation Method: EPA 200.2 mod. Analytical Method: EPA 200.8 (Total)					
Vanadium	0.28i	ug/L	2.0	0.18	4	12/21/2016 13:38	ZS	12/21/2016 18:28	ZS	
Nickel	2.2	ug/L	2.0	0.24	4	12/21/2016 13:38	ZS	12/21/2016 18:28	ZS	
Arsenic	240	ug/L	2.0	0.65	4	12/21/2016 13:38	ZS	12/21/2016 18:28	ZS	
Antimony	U	ug/L	2.0	0.95	4	12/21/2016 13:38	ZS	12/21/2016 18:28	ZS	

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ANALYTICAL RESULTS

Workorder: 1649605

Project ID: FPL - Cutler

Lab ID:	**1649605003**	Date Received:	12/21/2016 12:36	Matrix:	Aqueous Liquid
Sample ID:	**MW-D6R**	Date Collected:	12/20/2016 11:35		

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
Semivolatiles by EPA 8270C										
Analysis Desc: PAH List by 8270C SIM (W)					Preparation Method: EPA 3510C SIM Analytical Method: EPA 8270/PAH SIM					
1-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
2-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
Acenaphthene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
Acenaphthylene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
Anthracene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
Benzo(a)anthracene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
Benzo(a)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
Benzo(b)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
Benzo(g,h,i)perylene	U	ug/L	0.047	0.014	1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
Benzo(k)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
Chrysene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
Dibenzo(a,h)anthracene	U	ug/L	0.047	0.0048	1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
Fluoranthene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
Fluorene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
Indeno(1,2,3-cd)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
Naphthalene	U	ug/L	0.093	0.047	1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
Phenanthrene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
Pyrene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
Nitrobenzene-d5 (S)	86	%	30-110		1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
2-Fluorobiphenyl (S)	67	%	30-110		1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
p-Terphenyl-d14 (S)	104	%	30-140		1	12/23/2016 11:00	BFM	12/24/2016 05:32	MAM	
Analysis Desc: EPA 200.8 Metals (W)					Preparation Method: EPA 200.2 mod. Analytical Method: EPA 200.8 (Total)					
Vanadium	850	ug/L	2.0	0.18	4	12/21/2016 13:38	ZS	12/21/2016 18:32	ZS	L
Nickel	7.9	ug/L	2.0	0.24	4	12/21/2016 13:38	ZS	12/21/2016 18:32	ZS	
Arsenic	5.0	ug/L	2.0	0.65	4	12/21/2016 13:38	ZS	12/21/2016 18:32	ZS	
Antimony	3.1	ug/L	2.0	0.95	4	12/21/2016 13:38	ZS	12/21/2016 18:32	ZS	

FDOH# E86546

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ANALYTICAL RESULTS

Workorder: 1649605

Project ID: FPL - Cutler

Lab ID:	**1649605004**	Date Received:	12/21/2016 12:36	Matrix:	Aqueous Liquid
Sample ID:	**MW-C6**	Date Collected:	12/20/2016 09:51		

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
Semivolatiles by EPA 8270C										
Analysis Desc: PAH List by 8270C SIM (W)					Preparation Method: EPA 3510C SIM Analytical Method: EPA 8270/PAH SIM					
1-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
2-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
Acenaphthene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
Acenaphthylene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
Anthracene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
Benzo(a)anthracene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
Benzo(a)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
Benzo(b)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
Benzo(g,h,i)perylene	U	ug/L	0.047	0.014	1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
Benzo(k)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
Chrysene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
Dibenzo(a,h)anthracene	U	ug/L	0.047	0.0048	1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
Fluoranthene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
Fluorene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
Indeno(1,2,3-cd)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
Naphthalene	0.065i	ug/L	0.093	0.047	1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
Phenanthrene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
Pyrene	U	ug/L	0.047	0.023	1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
Nitrobenzene-d5 (S)	82	%	30-110		1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
2-Fluorobiphenyl (S)	66	%	30-110		1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
p-Terphenyl-d14 (S)	98	%	30-140		1	12/23/2016 11:00	BFM	12/24/2016 05:55	MAM	
Analysis Desc: EPA 200.8 Metals (W)					Preparation Method: EPA 200.2 mod. Analytical Method: EPA 200.8 (Total)					
Vanadium	450	ug/L	2.0	0.18	4	12/21/2016 13:38	ZS	12/21/2016 18:36	ZS	
Nickel	24	ug/L	2.0	0.24	4	12/21/2016 13:38	ZS	12/21/2016 18:36	ZS	
Arsenic	2.1	ug/L	2.0	0.65	4	12/21/2016 13:38	ZS	12/21/2016 18:36	ZS	
Antimony	U	ug/L	2.0	0.95	4	12/21/2016 13:38	ZS	12/21/2016 18:36	ZS	

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ANALYTICAL RESULTS

Workorder: 1649605

Project ID: FPL - Cutler

Lab ID:	**1649605005**	Date Received:	12/21/2016 12:36	Matrix:	Aqueous Liquid
Sample ID:	**MW-D1R**	Date Collected:	12/20/2016 12:42		

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
Semivolatiles by EPA 8270C										
Analysis Desc: PAH List by 8270C SIM (W)					Preparation Method: EPA 3510C SIM Analytical Method: EPA 8270/PAH SIM					
1-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
2-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
Acenaphthene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
Acenaphthylene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
Anthracene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
Benzo(a)anthracene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
Benzo(a)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
Benzo(b)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
Benzo(g,h,i)perylene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
Benzo(k)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
Chrysene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
Dibenzo(a,h)anthracene	U	ug/L	0.047	0.0048	1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
Fluoranthene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
Fluorene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
Indeno(1,2,3-cd)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
Naphthalene	U	ug/L	0.093	0.047	1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
Phenanthrene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
Pyrene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
Nitrobenzene-d5 (S)	80	%	30-110		1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
2-Fluorobiphenyl (S)	52	%	30-110		1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
p-Terphenyl-d14 (S)	89	%	30-140		1	12/23/2016 13:03	BFM	12/27/2016 23:42	MAM	
Analysis Desc: EPA 200.8 Metals (W)					Preparation Method: EPA 200.2 mod. Analytical Method: EPA 200.8 (Total)					
Vanadium	9.9	ug/L	2.0	0.18	4	12/21/2016 13:38	ZS	12/21/2016 18:41	ZS	
Nickel	1.0i	ug/L	2.0	0.24	4	12/21/2016 13:38	ZS	12/21/2016 18:41	ZS	
Arsenic	U	ug/L	2.0	0.65	4	12/21/2016 13:38	ZS	12/21/2016 18:41	ZS	
Antimony	U	ug/L	2.0	0.95	4	12/21/2016 13:38	ZS	12/21/2016 18:41	ZS	

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ANALYTICAL RESULTS

Workorder: 1649605

Project ID: FPL - Cutler

Lab ID:	**1649605006**	Date Received:	12/21/2016 12:36	Matrix:	Aqueous Liquid
Sample ID:	**MW-A2R**	Date Collected:	12/20/2016 11:36		

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
Semivolatiles by EPA 8270C										
Analysis Desc: PAH List by 8270C SIM (W)					Preparation Method: EPA 3510C SIM Analytical Method: EPA 8270/PAH SIM					
1-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
2-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
Acenaphthene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
Acenaphthylene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
Anthracene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
Benzo(a)anthracene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
Benzo(a)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
Benzo(b)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
Benzo(g,h,i)perylene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
Benzo(k)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
Chrysene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
Dibenzo(a,h)anthracene	U	ug/L	0.047	0.0048	1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
Fluoranthene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
Fluorene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
Indeno(1,2,3-cd)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
Naphthalene	U	ug/L	0.093	0.047	1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
Phenanthrene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
Pyrene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
Nitrobenzene-d5 (S)	69	%	30-110		1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
2-Fluorobiphenyl (S)	46	%	30-110		1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
p-Terphenyl-d14 (S)	82	%	30-140		1	12/23/2016 13:03	BFM	12/28/2016 00:05	MAM	
Analysis Desc: EPA 200.8 Metals (W)					Preparation Method: EPA 200.2 mod. Analytical Method: EPA 200.8 (Total)					
Vanadium	1.2i	ug/L	2.0	0.18	4	12/21/2016 13:38	ZS	12/21/2016 18:45	ZS	
Nickel	0.25i	ug/L	2.0	0.24	4	12/21/2016 13:38	ZS	12/21/2016 18:45	ZS	
Arsenic	U	ug/L	2.0	0.65	4	12/21/2016 13:38	ZS	12/21/2016 18:45	ZS	
Antimony	U	ug/L	2.0	0.95	4	12/21/2016 13:38	ZS	12/21/2016 18:45	ZS	

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ANALYTICAL RESULTS

Workorder: 1649605

Project ID: FPL - Cutler

Lab ID:	**1649605007**	Date Received:	12/21/2016 12:36	Matrix:	Aqueous Liquid
Sample ID:	**MW-B5R**	Date Collected:	12/20/2016 10:46		

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
Semivolatiles by EPA 8270C										
Analysis Desc: PAH List by 8270C SIM (W)					Preparation Method: EPA 3510C SIM Analytical Method: EPA 8270/PAH SIM					
1-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
2-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
Acenaphthene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
Acenaphthylene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
Anthracene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
Benzo(a)anthracene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
Benzo(a)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
Benzo(b)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
Benzo(g,h,i)perylene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
Benzo(k)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
Chrysene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
Dibenzo(a,h)anthracene	U	ug/L	0.047	0.0048	1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
Fluoranthene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
Fluorene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
Indeno(1,2,3-cd)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
Naphthalene	U	ug/L	0.093	0.047	1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
Phenanthrene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
Pyrene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
Nitrobenzene-d5 (S)	99	%	30-110		1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
2-Fluorobiphenyl (S)	66	%	30-110		1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
p-Terphenyl-d14 (S)	100	%	30-140		1	12/23/2016 13:03	BFM	12/28/2016 00:27	MAM	
Analysis Desc: EPA 200.8 Metals (W)					Preparation Method: EPA 200.2 mod. Analytical Method: EPA 200.8 (Total)					
Vanadium	48	ug/L	2.0	0.18	4	12/21/2016 13:38	ZS	12/21/2016 18:49	ZS	
Nickel	2.1	ug/L	2.0	0.24	4	12/21/2016 13:38	ZS	12/21/2016 18:49	ZS	
Arsenic	1.6i	ug/L	2.0	0.65	4	12/21/2016 13:38	ZS	12/21/2016 18:49	ZS	
Antimony	U	ug/L	2.0	0.95	4	12/21/2016 13:38	ZS	12/21/2016 18:49	ZS	

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ANALYTICAL RESULTS

Workorder: 1649605

Project ID: FPL - Cutler

Lab ID:	**1649605008**	Date Received:	12/21/2016 12:36	Matrix:	Aqueous Liquid
Sample ID:	**MW-B8**	Date Collected:	12/20/2016 09:23		

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
Semivolatiles by EPA 8270C										
Analysis Desc: PAH List by 8270C SIM (W)					Preparation Method: EPA 3510C SIM Analytical Method: EPA 8270/PAH SIM					
1-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
2-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
Acenaphthene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
Acenaphthylene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
Anthracene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
Benzo(a)anthracene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
Benzo(a)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
Benzo(b)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
Benzo(g,h,i)perylene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
Benzo(k)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
Chrysene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
Dibenzo(a,h)anthracene	U	ug/L	0.047	0.0048	1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
Fluoranthene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
Fluorene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
Indeno(1,2,3-cd)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
Naphthalene	U	ug/L	0.093	0.047	1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
Phenanthrene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
Pyrene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
Nitrobenzene-d5 (S)	92	%	30-110		1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
2-Fluorobiphenyl (S)	59	%	30-110		1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
p-Terphenyl-d14 (S)	88	%	30-140		1	12/23/2016 13:03	BFM	12/28/2016 00:50	MAM	
Analysis Desc: EPA 200.8 Metals (W)					Preparation Method: EPA 200.2 mod. Analytical Method: EPA 200.8 (Total)					
Vanadium	2.9	ug/L	2.0	0.18	4	12/21/2016 13:38	ZS	12/21/2016 18:54	ZS	
Nickel	0.77i	ug/L	2.0	0.24	4	12/21/2016 13:38	ZS	12/21/2016 18:54	ZS	
Arsenic	U	ug/L	2.0	0.65	4	12/21/2016 13:38	ZS	12/21/2016 18:54	ZS	
Antimony	U	ug/L	2.0	0.95	4	12/21/2016 13:38	ZS	12/21/2016 18:54	ZS	

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ANALYTICAL RESULTS

Workorder: 1649605

Project ID: FPL - Cutler

Lab ID:	**1649605009**	Date Received:	12/21/2016 12:36	Matrix:	Aqueous Liquid
Sample ID:	**MW-B11**	Date Collected:	12/20/2016 08:34		

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
Semivolatiles by EPA 8270C										
Analysis Desc: PAH List by 8270C SIM (W)					Preparation Method: EPA 3510C SIM Analytical Method: EPA 8270/PAH SIM					
1-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
2-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
Acenaphthene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
Acenaphthylene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
Anthracene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
Benzo(a)anthracene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
Benzo(a)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
Benzo(b)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
Benzo(g,h,i)perylene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
Benzo(k)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
Chrysene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
Dibenzo(a,h)anthracene	U	ug/L	0.047	0.0048	1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
Fluoranthene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
Fluorene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
Indeno(1,2,3-cd)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
Naphthalene	U	ug/L	0.093	0.047	1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
Phenanthrene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
Pyrene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
Nitrobenzene-d5 (S)	86	%	30-110		1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
2-Fluorobiphenyl (S)	47	%	30-110		1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
p-Terphenyl-d14 (S)	71	%	30-140		1	12/23/2016 13:03	BFM	12/28/2016 01:12	MAM	
Analysis Desc: EPA 200.8 Metals (W)					Preparation Method: EPA 200.2 mod. Analytical Method: EPA 200.8 (Total)					
Vanadium	4.3	ug/L	2.0	0.18	4	12/21/2016 13:38	ZS	12/21/2016 18:58	ZS	
Nickel	1.8i	ug/L	2.0	0.24	4	12/21/2016 13:38	ZS	12/21/2016 18:58	ZS	
Arsenic	4.1	ug/L	2.0	0.65	4	12/21/2016 13:38	ZS	12/21/2016 18:58	ZS	
Antimony	U	ug/L	2.0	0.95	4	12/21/2016 13:38	ZS	12/21/2016 18:58	ZS	

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ANALYTICAL RESULTS

Workorder: 1649605

Project ID: FPL - Cutler

Lab ID:	**1649605010**	Date Received:	12/21/2016 12:36	Matrix:	Aqueous Liquid
Sample ID:	**MW-E11**	Date Collected:	12/20/2016 09:25		

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
Semivolatiles by EPA 8270C										
Analysis Desc: PAH List by 8270C SIM (W)					Preparation Method: EPA 3510C SIM Analytical Method: EPA 8270/PAH SIM					
1-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
2-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
Acenaphthene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
Acenaphthylene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
Anthracene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
Benzo(a)anthracene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
Benzo(a)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
Benzo(b)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
Benzo(g,h,i)perylene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
Benzo(k)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
Chrysene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
Dibenzo(a,h)anthracene	U	ug/L	0.047	0.0048	1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
Fluoranthene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
Fluorene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
Indeno(1,2,3-cd)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
Naphthalene	U	ug/L	0.093	0.047	1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
Phenanthrene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
Pyrene	U	ug/L	0.047	0.023	1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
Nitrobenzene-d5 (S)	102	%	30-110		1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
2-Fluorobiphenyl (S)	58	%	30-110		1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
p-Terphenyl-d14 (S)	91	%	30-140		1	12/23/2016 13:03	BFM	12/28/2016 01:35	MAM	
Analysis Desc: EPA 200.8 Metals (W)					Preparation Method: EPA 200.2 mod. Analytical Method: EPA 200.8 (Total)					
Vanadium	21	ug/L	2.0	0.18	4	12/21/2016 13:38	ZS	12/21/2016 19:03	ZS	
Nickel	4.1	ug/L	2.0	0.24	4	12/21/2016 13:38	ZS	12/21/2016 19:03	ZS	
Arsenic	2.8	ug/L	2.0	0.65	4	12/21/2016 13:38	ZS	12/21/2016 19:03	ZS	
Antimony	U	ug/L	2.0	0.95	4	12/21/2016 13:38	ZS	12/21/2016 19:03	ZS	

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ANALYTICAL RESULTS

Workorder: 1649605

Project ID: FPL - Cutler

Lab ID:	**1649605011**	Date Received:	12/21/2016 12:36	Matrix:	Aqueous Liquid
Sample ID:	**MW-G8**	Date Collected:	12/20/2016 10:35		

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
Semivolatiles by EPA 8270C										
Analysis Desc: PAH List by 8270C SIM (W)					Preparation Method: EPA 3510C SIM Analytical Method: EPA 8270/PAH SIM					
1-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	
2-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	
Acenaphthene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	
Acenaphthylene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	
Anthracene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	
Benzo(a)anthracene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	
Benzo(a)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	
Benzo(b)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	
Benzo(g,h,i)perylene	U	ug/L	0.047	0.014	1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	
Benzo(k)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	
Chrysene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	
Dibenzo(a,h)anthracene	U	ug/L	0.047	0.0048	1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	
Fluoranthene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	
Fluorene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	
Indeno(1,2,3-cd)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	
Naphthalene	U	ug/L	0.093	0.047	1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	
Phenanthrene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	
Pyrene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	
Nitrobenzene-d5 (S)	111	%	30-110		1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	J1
2-Fluorobiphenyl (S)	68	%	30-110		1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	
p-Terphenyl-d14 (S)	98	%	30-140		1	12/23/2016 14:22	BFM	12/28/2016 01:57	MAM	
Analysis Desc: EPA 200.8 Metals (W)					Preparation Method: EPA 200.2 mod. Analytical Method: EPA 200.8 (Total)					
Vanadium	1.3i	ug/L	2.0	0.18	4	12/21/2016 13:38	ZS	12/21/2016 19:33	ZS	
Nickel	2.2	ug/L	2.0	0.24	4	12/21/2016 13:38	ZS	12/21/2016 19:33	ZS	
Arsenic	U	ug/L	2.0	0.65	4	12/21/2016 13:38	ZS	12/21/2016 19:33	ZS	
Antimony	U	ug/L	2.0	0.95	4	12/21/2016 13:38	ZS	12/21/2016 19:33	ZS	

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ANALYTICAL RESULTS

Workorder: 1649605

Project ID: FPL - Cutler

Lab ID:	**1649605012**	Date Received:	12/21/2016 12:36	Matrix:	Aqueous Liquid
Sample ID:	**MW-E7**	Date Collected:	12/20/2016 08:50		

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
Semivolatiles by EPA 8270C										
Analysis Desc: PAH List by 8270C SIM (W)					Preparation Method: EPA 3510C SIM Analytical Method: EPA 8270/PAH SIM					
1-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
2-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
Acenaphthene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
Acenaphthylene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
Anthracene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
Benzo(a)anthracene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
Benzo(a)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
Benzo(b)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
Benzo(g,h,i)perylene	U	ug/L	0.047	0.014	1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
Benzo(k)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
Chrysene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
Dibenzo(a,h)anthracene	U	ug/L	0.047	0.0048	1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
Fluoranthene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
Fluorene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
Indeno(1,2,3-cd)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
Naphthalene	U	ug/L	0.093	0.047	1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
Phenanthrene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
Pyrene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
Nitrobenzene-d5 (S)	103	%	30-110		1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
2-Fluorobiphenyl (S)	63	%	30-110		1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
p-Terphenyl-d14 (S)	94	%	30-140		1	12/23/2016 14:22	BFM	12/28/2016 02:20	MAM	
Analysis Desc: EPA 200.8 Metals (W)					Preparation Method: EPA 200.2 mod. Analytical Method: EPA 200.8 (Total)					
Vanadium	50	ug/L	2.0	0.18	4	12/21/2016 13:38	ZS	12/21/2016 19:38	ZS	
Nickel	38	ug/L	2.0	0.24	4	12/21/2016 13:38	ZS	12/21/2016 19:38	ZS	
Arsenic	2.7	ug/L	2.0	0.65	4	12/21/2016 13:38	ZS	12/21/2016 19:38	ZS	
Antimony	U	ug/L	2.0	0.95	4	12/21/2016 13:38	ZS	12/21/2016 19:38	ZS	

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ANALYTICAL RESULTS

Workorder: 1649605

Project ID: FPL - Cutler

Lab ID:	**1649605013**	Date Received:	12/21/2016 12:36	Matrix:	Aqueous Liquid
Sample ID:	**MW-E7DD**	Date Collected:	12/20/2016 08:14		

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
Semivolatiles by EPA 8270C										
Analysis Desc: PAH List by 8270C SIM (W)					Preparation Method: EPA 3510C SIM Analytical Method: EPA 8270/PAH SIM					
1-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
2-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
Acenaphthene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
Acenaphthylene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
Anthracene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
Benzo(a)anthracene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
Benzo(a)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
Benzo(b)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
Benzo(g,h,i)perylene	U	ug/L	0.047	0.014	1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
Benzo(k)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
Chrysene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
Dibenzo(a,h)anthracene	U	ug/L	0.047	0.0048	1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
Fluoranthene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
Fluorene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
Indeno(1,2,3-cd)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
Naphthalene	U	ug/L	0.093	0.047	1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
Phenanthrene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
Pyrene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
Nitrobenzene-d5 (S)	102	%	30-110		1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
2-Fluorobiphenyl (S)	67	%	30-110		1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
p-Terphenyl-d14 (S)	95	%	30-140		1	12/23/2016 14:22	BFM	12/28/2016 02:42	MAM	
Analysis Desc: EPA 200.8 Metals (W)					Preparation Method: EPA 200.2 mod. Analytical Method: EPA 200.8 (Total)					
Vanadium	2.8	ug/L	2.0	0.18	4	12/21/2016 13:38	ZS	12/21/2016 19:42	ZS	
Nickel	0.80i	ug/L	2.0	0.24	4	12/21/2016 13:38	ZS	12/21/2016 19:42	ZS	
Arsenic	1.0i	ug/L	2.0	0.65	4	12/21/2016 13:38	ZS	12/21/2016 19:42	ZS	
Antimony	U	ug/L	2.0	0.95	4	12/21/2016 13:38	ZS	12/21/2016 19:42	ZS	

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ANALYTICAL RESULTS

Workorder: 1649605

Project ID: FPL - Cutler

Lab ID:	**1649605014**	Date Received:	12/21/2016 12:36	Matrix:	Aqueous Liquid
Sample ID:	**MW-G2**	Date Collected:	12/20/2016 13:40		

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
Semivolatiles by EPA 8270C										
Analysis Desc: PAH List by 8270C SIM (W)					Preparation Method: EPA 3510C SIM Analytical Method: EPA 8270/PAH SIM					
1-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
2-Methylnaphthalene	U	ug/L	0.093	0.047	1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
Acenaphthene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
Acenaphthylene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
Anthracene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
Benzo(a)anthracene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
Benzo(a)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
Benzo(b)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
Benzo(g,h,i)perylene	U	ug/L	0.047	0.014	1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
Benzo(k)fluoranthene	U	ug/L	0.047	0.014	1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
Chrysene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
Dibenzo(a,h)anthracene	U	ug/L	0.047	0.0048	1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
Fluoranthene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
Fluorene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
Indeno(1,2,3-cd)pyrene	U	ug/L	0.047	0.014	1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
Naphthalene	U	ug/L	0.093	0.047	1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
Phenanthrene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
Pyrene	U	ug/L	0.047	0.023	1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
Nitrobenzene-d5 (S)	107	%	30-110		1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
2-Fluorobiphenyl (S)	70	%	30-110		1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
p-Terphenyl-d14 (S)	104	%	30-140		1	12/23/2016 14:22	BFM	12/28/2016 03:05	MAM	
Analysis Desc: EPA 200.8 Metals (W)					Preparation Method: EPA 200.2 mod. Analytical Method: EPA 200.8 (Total)					
Vanadium	2.4	ug/L	2.0	0.18	4	12/21/2016 13:38	ZS	12/21/2016 19:46	ZS	
Nickel	2.9	ug/L	2.0	0.24	4	12/21/2016 13:38	ZS	12/21/2016 19:46	ZS	
Arsenic	U	ug/L	2.0	0.65	4	12/21/2016 13:38	ZS	12/21/2016 19:46	ZS	
Antimony	U	ug/L	2.0	0.95	4	12/21/2016 13:38	ZS	12/21/2016 19:46	ZS	

FDOH# E86546

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 1649605

Project ID: FPL - Cutler

PARAMETER QUALIFIERS

J1	Surrogate recovery was outside defined limits.
L	Off-scale high. Reported value is above the calibration range.

PROJECT COMMENTS

1649605	A reported value of U indicates that the compound was analyzed for but not detected above the MDL. A value flagged with an "i" flag indicates that the reported value is between the laboratory method detection limit and the practical quantitation limit.

FDOH# E86546

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QUALITY CONTROL DATA

Workorder: 1649605

Project ID: FPL - Cutler

QC Batch: MXX/8177 Analysis Method: EPA 200.8 (Total)

QC Batch Method: EPA 200.2 mod.

Associated Lab Samples: 1649605001 1649605002 1649605003 1649605004 1649605005 1649605006 1649605007 1649605008 1649605009 1649605010 1649605011 1649605012 1649605013 1649605014

METHOD BLANK: 109682

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Vanadium	ug/L	U	0.046	
Nickel	ug/L	U	0.059	
Arsenic	ug/L	U	0.16	
Antimony	ug/L	U	0.24	

LABORATORY CONTROL SAMPLE & LCSD: 109683 109684

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Vanadium	ug/L	50	50	50	99	101	85-115	0	20	
Nickel	ug/L	50	48	48	95.4	96	85-115	0	20	
Arsenic	ug/L	50	49	49	97.2	97.8	85-115	0	20	
Antimony	ug/L	50	50	55	101	111	85-115	9.52	20	

MATRIX SPIKE SAMPLE: 109686 Original: 1649605010

Parameter	Units	Original Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Vanadium	ug/L	21	50	68	94.8	70-130	
Nickel	ug/L	4.1	50	52	95.7	70-130	
Arsenic	ug/L	2.8	50	49	92.8	70-130	
Antimony	ug/L	0.12	50	55	110	70-130	

MATRIX SPIKE SAMPLE: 109688 Original: 1649605014

Parameter	Units	Original Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Vanadium	ug/L	2.4	50	53	101	70-130	
Nickel	ug/L	2.9	50	52	98.8	70-130	
Arsenic	ug/L	0.6	50	51	101	70-130	
Antimony	ug/L	0.11	50	37	74.7	70-130	

FDOH# E86546

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QUALITY CONTROL DATA

Workorder: 1649605

Project ID: FPL - Cutler

SAMPLE DUPLICATE: 109685 Original: 1649605010

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Vanadium	ug/L	21	21	0	20	
Nickel	ug/L	4.1	5.6	30.9	20	
Arsenic	ug/L	2.8	2.8	0	20	
Antimony	ug/L	0.12	U	15.4	20	

SAMPLE DUPLICATE: 109687 Original: 1649605014

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Vanadium	ug/L	2.4	2.4	0	20	
Nickel	ug/L	2.9	1.1i	90	20	P1
Arsenic	ug/L	0.6	U	3.39	20	
Antimony	ug/L	0.11	U	78.5	20	P1

FDOH# E86546

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QUALITY CONTROL DATA

Workorder: 1649605

Project ID: FPL - Cutler

QC Batch: XXX/9548 Analysis Method: EPA 8270/PAH SIM

QC Batch Method: EPA 3510C SIM

Associated Lab Samples: 1649550001, 1649550002, 1649550003, 1649550004, 1649550005, 1649550006, 1649550007, 1649550008, 1649561001, 1649589001, 1649589002, 1649589003, 1649605001, 1649605002, 1649605003, 1649605004, 1649606001, 1649606002, 1649623001

METHOD BLANK: 109749

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Semivolatiles by EPA 8270C				
Nitrobenzene-d5 (S)	%	90	30-110	
2-Fluorobiphenyl (S)	%	71	30-110	
p-Terphenyl-d14 (S)	%	74	30-140	
Naphthalene	ug/L	U	0.050	
2-Methylnaphthalene	ug/L	U	0.050	
1-Methylnaphthalene	ug/L	U	0.050	
Acenaphthylene	ug/L	U	0.025	
Acenaphthene	ug/L	U	0.025	
Fluorene	ug/L	U	0.025	
Phenanthrene	ug/L	U	0.025	
Anthracene	ug/L	U	0.025	
Fluoranthene	ug/L	U	0.025	
Pyrene	ug/L	U	0.025	
Benzo(a)anthracene	ug/L	U	0.025	
Chrysene	ug/L	U	0.025	
Benzo(b)fluoranthene	ug/L	U	0.015	
Benzo(k)fluoranthene	ug/L	U	0.015	
Benzo(a)pyrene	ug/L	U	0.015	
Dibenzo(a,h)anthracene	ug/L	U	0.0051	
Indeno(1,2,3-cd)pyrene	ug/L	U	0.015	
Benzo(g,h,i)perylene	ug/L	U	0.015	

LABORATORY CONTROL SAMPLE & LCSD: 109750 109751

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Semivolatiles by EPA 8270C										
Nitrobenzene-d5 (S)	%				94	92	30-110	3	40	
2-Fluorobiphenyl (S)	%				78	69	30-110	13	40	
p-Terphenyl-d14 (S)	%				69	72	30-140	5	40	
Naphthalene	ug/L	1	0.682	0.640	68	64	30-140	6	40	
2-Methylnaphthalene	ug/L	1	0.708	0.613	71	61	30-140	14	40	
1-Methylnaphthalene	ug/L	1	0.690	0.587	69	59	30-140	16	40	

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QUALITY CONTROL DATA

Workorder: 1649605

Project ID: FPL - Cutler

LABORATORY CONTROL SAMPLE & LCSD: 109750 109751

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Acenaphthylene	ug/L	1	1.08	1.00	108	100	30-120	8	40	
Acenaphthene	ug/L	1	0.741	0.683	74	68	30-120	8	40	
Fluorene	ug/L	1	0.829	0.795	83	79	30-140	4	40	
Phenanthrene	ug/L	1	0.761	0.705	76	71	30-120	8	40	
Anthracene	ug/L	1	1.01	0.937	101	94	30-140	7	40	
Fluoranthene	ug/L	1	1.08	0.984	108	98	30-120	9	40	
Pyrene	ug/L	1	0.720	0.745	72	75	40-140	3	40	
Benzo(a)anthracene	ug/L	1	1.08	1.10	108	110	30-120	2	40	
Chrysene	ug/L	1	0.790	0.801	79	80	30-140	1	40	
Benzo(b)fluoranthene	ug/L	1	1.02	0.898	102	90	30-140	13	40	
Benzo(k)fluoranthene	ug/L	1	0.612	0.694	61	69	30-140	13	40	
Benzo(a)pyrene	ug/L	1	0.963	0.935	96	94	30-140	3	40	
Dibenzo(a,h)anthracene	ug/L	1	0.852	0.784	85	78	30-140	8	40	
Indeno(1,2,3-cd)pyrene	ug/L	1	0.988	0.906	99	91	30-140	9	40	
Benzo(g,h,i)perylene	ug/L	1	0.806	0.718	81	72	30-120	12	40	

FDOH# E86546

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QUALITY CONTROL DATA

Workorder: 1649605

Project ID: FPL - Cutler

QC Batch: XXX/9558 Analysis Method: EPA 8270/PAH SIM

QC Batch Method: EPA 3510C SIM

Associated Lab Samples: 1649605005 1649605006 1649605007 1649605008 1649605009 1649605010 1649605011 1649605012 1649605013 1649605014

METHOD BLANK: 109881

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Semivolatiles by EPA 8270C				
Nitrobenzene-d5 (S)	%	78	30-110	
2-Fluorobiphenyl (S)	%	61	30-110	
p-Terphenyl-d14 (S)	%	106	30-140	
Naphthalene	ug/L	0.053i	0.050	V
2-Methylnaphthalene	ug/L	U	0.050	
1-Methylnaphthalene	ug/L	U	0.050	
Acenaphthylene	ug/L	U	0.025	
Acenaphthene	ug/L	U	0.025	
Fluorene	ug/L	U	0.025	
Phenanthrene	ug/L	U	0.025	
Anthracene	ug/L	U	0.025	
Fluoranthene	ug/L	U	0.025	
Pyrene	ug/L	U	0.025	
Benzo(a)anthracene	ug/L	U	0.025	
Chrysene	ug/L	U	0.025	
Benzo(b)fluoranthene	ug/L	U	0.015	
Benzo(k)fluoranthene	ug/L	U	0.015	
Benzo(a)pyrene	ug/L	U	0.015	
Dibenzo(a,h)anthracene	ug/L	U	0.0051	
Indeno(1,2,3-cd)pyrene	ug/L	U	0.015	
Benzo(g,h,i)perylene	ug/L	U	0.015	

LABORATORY CONTROL SAMPLE & LCSD: 109882 109883

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Semivolatiles by EPA 8270C										
Nitrobenzene-d5 (S)	%				53	79	30-110	39	40	
2-Fluorobiphenyl (S)	%				43	65	30-110	41	40	J1
p-Terphenyl-d14 (S)	%				86	88	30-140	2	40	
Naphthalene	ug/L	1	0.417	0.619	42	62	30-140	39	40	
2-Methylnaphthalene	ug/L	1	0.418	0.610	42	61	30-140	37	40	
1-Methylnaphthalene	ug/L	1	0.433	0.636	43	64	30-140	38	40	
Acenaphthylene	ug/L	1	0.455	0.659	46	66	30-120	37	40	
Acenaphthene	ug/L	1	0.435	0.628	44	63	30-120	36	40	

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QUALITY CONTROL DATA

Workorder: 1649605

Project ID: FPL - Cutler

LABORATORY CONTROL SAMPLE & LCSD: 109882 109883

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluorene	ug/L	1	0.480	0.711	48	71	30-140	39	40	
Phenanthrene	ug/L	1	0.437	0.631	44	63	30-120	36	40	
Anthracene	ug/L	1	0.473	0.670	47	67	30-140	34	40	
Fluoranthene	ug/L	1	0.561	0.611	56	61	30-120	9	40	
Pyrene	ug/L	1	0.551	0.600	55	60	40-140	9	40	
Benzo(a)anthracene	ug/L	1	0.661	0.642	66	64	30-120	3	40	
Chrysene	ug/L	1	0.716	0.690	72	69	30-140	4	40	
Benzo(b)fluoranthene	ug/L	1	0.980	0.946	98	95	30-140	4	40	
Benzo(k)fluoranthene	ug/L	1	0.690	0.687	69	69	30-140	0.4	40	
Benzo(a)pyrene	ug/L	1	0.713	0.719	71	72	30-140	0.8	40	
Dibenzo(a,h)anthracene	ug/L	1	0.792	0.768	79	77	30-140	3	40	
Indeno(1,2,3-cd)pyrene	ug/L	1	0.777	0.783	78	78	30-140	0.8	40	
Benzo(g,h,i)perylene	ug/L	1	0.714	0.702	71	70	30-120	2	40	

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 1649605

Project ID: FPL - Cutler

QUALITY CONTROL PARAMETER QUALIFIERS

J1	Surrogate recovery was outside defined limits.
P1	RPD value not applicable for sample concentrations less than 5 times the PQL.
V	Indicates that the analyte was detected in both the sample and the associated method blank.

FDOH# E86546

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 1649605

Project ID: FPL - Cutler

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
1649605001	**MW-E2**	EPA 200.2 mod.	MXX/8177	EPA 200.8 (Total)	MMS/7416
1649605002	**MW-D5R**	EPA 200.2 mod.	MXX/8177	EPA 200.8 (Total)	MMS/7416
1649605003	**MW-D6R**	EPA 200.2 mod.	MXX/8177	EPA 200.8 (Total)	MMS/7416
1649605004	**MW-C6**	EPA 200.2 mod.	MXX/8177	EPA 200.8 (Total)	MMS/7416
1649605005	**MW-D1R**	EPA 200.2 mod.	MXX/8177	EPA 200.8 (Total)	MMS/7416
1649605006	**MW-A2R**	EPA 200.2 mod.	MXX/8177	EPA 200.8 (Total)	MMS/7416
1649605007	**MW-B5R**	EPA 200.2 mod.	MXX/8177	EPA 200.8 (Total)	MMS/7416
1649605008	**MW-B8**	EPA 200.2 mod.	MXX/8177	EPA 200.8 (Total)	MMS/7416
1649605009	**MW-B11**	EPA 200.2 mod.	MXX/8177	EPA 200.8 (Total)	MMS/7416
1649605010	**MW-E11**	EPA 200.2 mod.	MXX/8177	EPA 200.8 (Total)	MMS/7416
1649605011	**MW-G8**	EPA 200.2 mod.	MXX/8177	EPA 200.8 (Total)	MMS/7416
1649605012	**MW-E7**	EPA 200.2 mod.	MXX/8177	EPA 200.8 (Total)	MMS/7416
1649605013	**MW-E7DD**	EPA 200.2 mod.	MXX/8177	EPA 200.8 (Total)	MMS/7416
1649605014	**MW-G2**	EPA 200.2 mod.	MXX/8177	EPA 200.8 (Total)	MMS/7416
1649605001	**MW-E2**	EPA 3510C SIM	XXX/9548	EPA 8270/PAH SIM	XMS/5144
1649605002	**MW-D5R**	EPA 3510C SIM	XXX/9548	EPA 8270/PAH SIM	XMS/5144
1649605003	**MW-D6R**	EPA 3510C SIM	XXX/9548	EPA 8270/PAH SIM	XMS/5144
1649605004	**MW-C6**	EPA 3510C SIM	XXX/9548	EPA 8270/PAH SIM	XMS/5144
1649605005	**MW-D1R**	EPA 3510C SIM	XXX/9558	EPA 8270/PAH SIM	XMS/5146
1649605006	**MW-A2R**	EPA 3510C SIM	XXX/9558	EPA 8270/PAH SIM	XMS/5146
1649605007	**MW-B5R**	EPA 3510C SIM	XXX/9558	EPA 8270/PAH SIM	XMS/5146
1649605008	**MW-B8**	EPA 3510C SIM	XXX/9558	EPA 8270/PAH SIM	XMS/5146
1649605009	**MW-B11**	EPA 3510C SIM	XXX/9558	EPA 8270/PAH SIM	XMS/5146
1649605010	**MW-E11**	EPA 3510C SIM	XXX/9558	EPA 8270/PAH SIM	XMS/5146
1649605011	**MW-G8**	EPA 3510C SIM	XXX/9558	EPA 8270/PAH SIM	XMS/5146
1649605012	**MW-E7**	EPA 3510C SIM	XXX/9558	EPA 8270/PAH SIM	XMS/5146
1649605013	**MW-E7DD**	EPA 3510C SIM	XXX/9558	EPA 8270/PAH SIM	XMS/5146
1649605014	**MW-G2**	EPA 3510C SIM	XXX/9558	EPA 8270/PAH SIM	XMS/5146

FDOH# E86546

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J.E.L. Log # 1649605
P.O. # _____
Quote # _____

Company Name: Tierra Consulting Group
Address: 5815 N. Andrews Way Suite B
City: Ft. Lauderdale State: FL Zip: 33309
Sampling Site Address: Miami FL
Attn: Pete LaForge Email: on-file
Project Name: FPL-Cutler Project #
Sampler Name/Signature: [signature]

LAB ANALYSIS

Requested Turnaround Time
Note: Rush requests subject to acceptance by the laboratory
X Standard
___ Expedited
Due___/___/___

#	Sample Label (Client ID)	Collected Date	Collected Time	Matrix Code*	# of Cont	Arsenic	Antimony	Nickel	Vanadium	PAHs	Field Filtered (Y/N)	Comments
1	MW-E2	12.20.16	1349	GW	2	X	X	X	X	X		
2	MW-D5R	12.20.16	1159									
3	MW-D6R	12.20.16	1135									
4	MW-C6	12.20.16	951									
5	MW-D1R	12.20.16	1242									
6	MW-A2R	12.20.16	1136									
7	MW-B5R	12.20.16	1046									
8	MW-B8	12.20.16	923									
9	MW-B11	12.20.16	834									
10	MW-E11	12.20.16	925									

Parameters

Pres Codes

Matrix Codes*
S Soil/Solid Sediment; SW Surface Water
GW Ground Water; SL Sludge
WW Waste Water; O Other (Please Specify)
DW Drinking Water

Pres Codes
A- none; I- Ice
B- HNO_3; O- Other
C- H_2SO_4; M- MeOH
D- NaOH; N- $Na_2S_2O_3$
E- HCl; Z- ZnAc

Relinquished by	Date	Time	Received by	Date	Time
[signature]	12/20/16	1621	[signature]	12/20/16	17:00
[signature]	12/21/16	10:38	[signature]	12/21/16	10:38
[signature]	12/21/16	1236	[signature]	12/21/16	1236

QA/QC level with report
None ___1___2___3___ See price guide for applicable fees

FDEP Dry Cleaning ☐ FDEP UST Pre-Approval ☐
SFWMD ☐ ADaPT ☐ DOT ☐

Temp Control: 3.6 °C

649605

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J.E.L. Log # 1649605
P.O. # _____
Quote # _____

Company Name
Address
City State, Zip
Sampling Site Address
Attn: Email
Project Name Project #
Sampler Name/Signature

SEE SHEET #1

LAB ANALYSIS

Requested Turnaround Time
Note: Rush requests subject to acceptance by the laboratory
X Standard
___ Expedited
Due___/___/___

#	Sample Label (Client ID)	Collected Date	Collected Time	Matrix Code*	# of Cont	Pres Codes	Arsenic	Antimony	Nickel	Vanadium	PAHs							Field Filtered (Y/N)	Comments
1	MW-G8	12.20.16	1035	GW	2		X	X	X	X	X								
2	MW-E7	↓	850	↓	↓		↓	↓	↓	↓	↓								
3	MW-E7DD	↓	814	↓	↓		↓	↓	↓	↓	↓								
4	MW-G2	↓	1340	↓	↓		↓	↓	↓	↓	↓								
5																			
6																			
7																			
8																			
9																			
0																			

Matrix Codes*

S	Soil/Solid Sediment	SW	Surface Water
GW	Ground Water	SL	Sludge
WW	Waste Water	O	Other (Please Specify)
DW	Drinking Water		

Pres Codes

A-	none	I-	Ice
B-	HNO_3	O-	Other
C-	H_2SO_4	M-	MeOH
D-	NaOH	N-	$Na_2S_2O_3$
E-	HCl	Z-	ZnAc

Relinquished by	Date	Time	Received by	Date	Time
[signature]	12.20.16	1621	[signature]	12/20/16	17:00
[signature]	12/21/16	10:38	[signature] Ace	12/21/16	10:38
Ace	12/21/16	1236	[signature]	12/21/16	1236

QA/QC level with report
None ___1___2___3___ See price guide for applicable fees

FDEP Dry Cleaning ❑ FDEP UST Pre-Approval ❑
SFWMD ❑ ADaPT ❑ DOT ❑

Temp Control: 3.6 °C

649605

SAMPLE RECEIPT CONFIRMATION SHEET

Client Information

SDG:	1649605	**Req:**	992
Client:	TIERRA C.G.	**Project:**	Pete LaForge
Level:	1	**Date Rec'd:**	12/21/2016 12:36:00 PM
Rec'd via:	courier		

Cooler Check

ID	Temp	# of samples	Security Tape Present	Security Tape Intact	Method of Receipt	Comments
	3.6	14	☐	☐		

Checked By: CF

Sample Verification

Loose Caps?	No	**All Samples on COC accounted For?**	Yes
Broken Containers?	No	**All Samples on COC?**	Yes
pH Verified?	Yes	**Written on Internal COC?**	Yes
pH Strip Lot #	HC681919	**Sample Vol. Suff. For Analysis?**	Yes
Acid Preserved Samples Lot #	13179	**Samples Rec'd W/I Hold Time?**	Yes
Base Preserved Samples Lot #		**Are All Samples to be Analyzed?**	Yes
Samples Received From	courier	**Correct Sample Containers?**	Yes
Soil Origin (Domestic/Foreign		**COC Comments written on COC?**	No
Site Location/Project on COC?	Yes	**Samplers Initials on COC?**	Yes
Client Project # on COC?	No	**Sample Date/Time Indicated?**	Yes
Project Mgr. Indicated on COC	Yes	**TAT Requested:**	STD
COC relinquished/Dated by Client?	Yes	**Client Requests Verbal Results?**	No
COC Received/Dated by JEL	Yes		
JEL to Conduct ALL Analyses?	Yes		

Subcontract Analysis

Parameter	Via	Lab Name	Comments

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: FP&L - CUTLER P/P		SITE LOCATION: Miami FL	
WELL NO: MW- 42R	SAMPLE ID: MW- 42R		DATE: 12/20/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH: 8 feet to 8 feet	STATIC DEPTH TO WATER (feet): 14.53	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
VWELL = (18.00 feet – 14.53 feet) X 0.16 gallons/foot = 0.56 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
VEQ'T = 0.01 gallons + 0.0014 gallons/foot X 20 feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16	PURGING INITIATED AT: 11:20	PURGING ENDED AT: 11:36	TOTAL VOLUME PURGED (gallons): 3.20

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 mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
11:25	1.00	1.00	0.20	14.53	7.82	27.0	780	1.60	12.3	CLEAR	NONE
11:30	1.00	2.00	0.20	14.53	7.79	27.0	783	1.26	11.6	CLEAR	NONE
11:33	0.60	2.60	0.20	14.53	7.77	27.0	785	1.20	11.2	CLEAR	NONE
11:36	0.60	3.20	0.20	14.53	7.76	27.0	786	1.17	10.8	CLEAR	NONE

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: C. MURRAY - TCG	SAMPLER(S) SIGNATURE(S): C. MURRAY	SAMPLING INITIATED AT: 11:36	SAMPLING ENDED AT: 11:44
PUMP OR TUBING DEPTH IN WELL (feet): 16	TUBING MATERIAL CODE: LDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP (Y) N	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-	1	AG	1L	UNP. ICE	-	7.76	PAH	APP	200
42R									
	1	PE	0.125L	HNO3 ICE	-	<2	METALS	APP	50

REMARKS:

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

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

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

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: FPL - CUTLER PIP		SITE LOCATION: Miami FL	
WELL NO: MW-B5R	SAMPLE ID: MW-B5R		DATE: 12/20/16

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): 5.80	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) 1 WELL = (13.00 feet – 5.80 feet) X 0.16 gallons/foot = 1.15 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) 1 EQUIPMENT = 0.01 gallons + (0.0014 gallons/foot X 20 feet) 0.25 gallons 0.29 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 7	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 7	PURGING INITIATED AT: 10:15	PURGING ENDED AT: 10:46	TOTAL VOLUME PURGED (gallons): 3.40

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)
10:21	1.20	1.20	0.20	6.12	7.84	25.9	1,128	1.21	38.6	CLOUDY	NONE
10:26	1.00	2.20	0.20	6.29	7.82	25.9	1,120	1.05	33.1	CLOUDY	NONE
10:31	0.60	2.80	0.20	6.39	7.81	25.9	1,113	0.96	29.7	CLOUDY	NONE
10:34	0.60	3.40	0.20	6.46	7.81	25.9	1,109	0.91	26.3	CLOUDY	NONE
10:37	0.60	4.00	0.20	6.50	7.80	26.0	1,105	0.86	24.9	CLOUDY	NONE
10:40	0.60	4.60	0.20	6.53	7.79	26.0	1,101	0.81	23.7	CLOUDY	NONE
10:43	0.60	5.20	0.20	6.55	7.79	26.0	1,098	0.77	22.1	CLOUDY	NONE
10:46	0.60	5.80	0.20	6.57	7.78	26.0	1,096	0.75	20.8	CLOUDY	NONE

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: C. MURRAY - TEG	SAMPLER(S) SIGNATURE(S): C. MURRAY	SAMPLING INITIATED AT: ~~10:34~~ 10:46	SAMPLING ENDED AT: ~~10:42~~ 10:54
PUMP OR TUBING DEPTH IN WELL (feet): 7	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm

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

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-B5R	1	AG	1L	UNP. ICE	-	7.78	DAP'S	APP	200
	1	PE	0.125L	HNO_3 ICE	-	<2	METALS	APP	50

REMARKS: MW-B5R WAS PURGED IN EXCESS OF FIVE VOLUMES W/O REACHING THE 20NTU STANDARD FOR TURBIDITY

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

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

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

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: FPL - CUTLER PIP		SITE LOCATION: Miami FL	
WELL NO: MW-B8	SAMPLE ID: MW-B8		DATE: 12/20/16

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): 2.47	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
V WELL = (11.00 feet – 2.47 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)
V EQ'T = 0.0 gallons + 0.0014 gallons/foot X 20 feet) + 0.25 gallons = 0.29 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 4.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 4.5	PURGING INITIATED AT: 9:05	PURGING ENDED AT: 9:23	TOTAL VOLUME PURGED (gallons): 3.60	

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 mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
9:12	1.40	1.40	0.20	2.71	7.94	25.5	1,594	1.25	3.93	CLEAR	NONE
9:17	1.00	2.40	0.20	2.86	7.89	25.5	1,600	1.06	3.40	CLEAR	NONE
9:20	0.60	3.00	0.20	2.92	7.86	25.5	1,605	0.99	3.21	CLEAR	NONE
9:23	0.60	3.60	0.20	2.94	7.84	25.5	1,611	0.96	3.16	CLEAR	NONE

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: C. MURRAY - TCG	SAMPLER(S) SIGNATURE(S): C. MURRAY	SAMPLING INITIATED AT: 9:23	SAMPLING ENDED AT: 9:31
PUMP OR TUBING DEPTH IN WELL (feet): 4.5	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP (Y) N	TUBING Y N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-B8	1	AG	1L	UNP. + ICE	–	7.84	PAH'S	APP	200
	1	PE	0.125L	HNO3 + ICE	–	<2	METALS	APP	50

REMARKS:

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

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

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

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: FPL - CUTLER P/P		SITE LOCATION: Miami, FL	
WELL NO: MW-B11	SAMPLE ID: MW-B11		DATE: 12/20/16

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): 2.03	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
V_{WELL} = (11.00 feet – 2.03 feet) x 0.16 gallons/foot = 1.44 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
V_{EQ} = 0.01 gallons + (0.0014 gallons/foot X 20 feet) + 0.25 gallons = 0.29 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 4	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 4	PURGING INITIATED AT: 8:15	PURGING ENDED AT: 8:34	TOTAL VOLUME PURGED (gallons): 3.80

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 mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
8:23	1.60	1.60	0.20	2.49	7.85	25.4	8,902	1.36	8.83	CLEAR	NONE
8:28	1.00	2.60	0.20	2.76	7.84	25.4	9,013	1.17	8.51	CLEAR	NONE
8:31	0.60	3.20	0.20	2.91	7.84	25.4	9,061	1.12	8.08	CLEAR	NONE
8:34	0.60	3.80	0.20	3.07	7.83	25.4	9,138	1.08	7.96	CLEAR	NONE

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: C. MURRAY - TCG	SAMPLER(S) SIGNATURE(S): C. MURRAY	SAMPLING INITIATED AT: 8:34	SAMPLING ENDED AT: 8:42
PUMP OR TUBING DEPTH IN WELL (feet): 4	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP (Y) N	TUBING Y N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-B11	1	AG	1L	UNP+ICE	~~7.0~~ -	7.85	PAHS	APP	200
	1	PE	0.125L	HNO3+ICE	-	<2	METALS	APP	50

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

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

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: FPL-Cutler		SITE LOCATION: Miami FL	
WELL NO: MW-C6	SAMPLE ID:		DATE: 12/20/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 2.1 feet to 12.1 feet	STATIC DEPTH TO WATER (feet): 4.14	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (12.1 feet – 4.14 feet) X 0.16 gallons/foot = 1.2736 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): 5.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 5.5	PURGING INITIATED AT: 934	PURGING ENDED AT: 951	TOTAL VOLUME PURGED (gallons): 3.8

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)
941	1.4	1.4	0.2	4.14	7.07	26.74	1180	1.61	3.79	Clear	none
943	0.6	2.0	0.2	4.15	7.06	26.78	1150	0.91	2.06	↓	↓
945	0.6	2.6	0.2	4.16	7.05	26.77	1130	0.88	1.80	↓	↓
948	0.6	3.2	0.2	4.16	7.05	26.80	1108	0.87	1.90	↓	↓
951	0.6	3.8	0.2	4.16	7.05		1105	0.87	1.85	↓	↓

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: Pete Laforge / TGG	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 9.57	SAMPLING ENDED AT: 956
PUMP OR TUBING DEPTH IN WELL (feet): 5.5	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	1	AG	1L	ICE	—	—	PAHs	APP	200-400
	1	PE	125ml	HNO3	—	<2	Metals	APP	200-400

REMARKS:

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

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

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

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: FPL - Cutler	SITE LOCATION: Miami, FL
WELL NO: MW - 01R	SAMPLE ID:	DATE: 12/20/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 15.71	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20 feet – 15.71 feet) X 0.16 gallons/foot = 0.6864 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): 17	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17	PURGING INITIATED AT: 1220	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1227	0.7	0.7	0.1	15.72	7.34	27.05	842	1.55	73.1	Cloudy	none
1230	0.3	1.0	0.1	15.73	7.06	26.99	807	1.01	25.2	Clear	none
1233	0.3	1.3	0.1	15.74	7.03	26.87	814	0.91	19.3	↓	↓
1236	0.3	1.6	0.1	15.74	7.03	26.88	823	0.87	16.1		
1239	0.3	1.9	0.1	15.74	6.99	26.90	817	0.87	15.7		
1242	0.3	2.2	0.1	15.74	6.99	26.90	820	0.86	15.4		

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Pete Laforce TCG	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1242	SAMPLING ENDED AT: 1247
PUMP OR TUBING DEPTH IN WELL (feet): 17	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N (replaced))	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	1	AG	1L	ICE	—	—	PAHs	APP	200-400
	1	PE	125mL	HNO3	—	<2	Metals	APP	200-400

REMARKS:

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

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

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

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: FPL-Cutler		SITE LOCATION: Miami, FL	
WELL NO: MW-D5R	SAMPLE ID:		DATE: 12/20/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 7.04	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (12 feet – 7.04 feet) X 0.16 gallons/foot = 0.2727 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): 8.25	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 8.25	PURGING INITIATED AT: 1145	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1150	0.5	0.5	0.1	7.08	7.12	26.41	1300	1.25	28.4	Clear	none
1153	0.3	0.8	0.1	7.10	7.03	26.53	1290	0.94	18.7	↓	↓
1156	0.3	1.1	0.1	7.10	7.04	26.55	1280	0.93	17.9		
1159	0.3	1.4	0.1	7.10	7.04	26.55	1280	0.92	17.7		

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: Pete LaFosse / TCG	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1159	SAMPLING ENDED AT: 1209
PUMP OR TUBING DEPTH IN WELL (feet): 8.25	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	1	AG	1L	ICE	—	—	PAHs	APP	200-400
	1	PE	125ml	HNO3	—	<2	metals	APP	200-400

REMARKS:

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

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

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

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

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

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: FPL- Cutler		SITE LOCATION: Miami FL	
WELL NO: MW-D6R	SAMPLE ID:		DATE: 12/20/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 5.70	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (12 feet – 5.70 feet) X 0.16 gallons/foot = 1.008 gallons

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 7	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 7	PURGING INITIATED AT: 1058	PURGING ENDED AT: 1135	TOTAL VOLUME PURGED (gallons): 7.0

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1103	1.0	1.0	0.2	5.70	7.27	27.45	1320	1.81	128 ~~128.7R~~	Cloudy ~~Clear~~	none
1106	0.6	1.6	0.2	5.70	7.15	27.88	1310	1.02	78.4		
1109	0.6	2.2	0.2	5.70	7.12	28.01	1290	0.99	62.1		
1112	0.6	2.8	0.2	5.70	7.12	28.12	1290	0.98	60.5		
1115	0.6	3.4	0.2	5.70	7.12	28.36	1290	0.98	42.7		
1118	0.6	4.0	0.2	5.71	7.09	28.31	1300	0.98	30.1	Clear	none
1121	0.6	4.6	0.2	5.71	7.09	28.28	1310	0.97	28.6		
1124	0.6	5.2	0.2	5.71	7.07	28.21	1310	0.97	23.7		
1127	0.6	5.8	0.2	5.72	7.08	28.23	1300	0.96	20.2		
1130	0.6	6.4	0.2	5.72	7.07	28.21	1290	0.96	19.5		
1133	0.3	6.7	0.1	5.72	7.06	28.22	1290	0.95	18.8		

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: Pete LaForge / TLG	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1135	SAMPLING ENDED AT: 1140
PUMP OR TUBING DEPTH IN WELL (feet): 7	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	1	AG	1L	ICE	—	—	PAHs	APP	200-400
	1	PE	125ml	HNO3	—	<2	metals	APP	200-400

REMARKS:

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

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

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

Revision Date: February 12, 2009

1135 - 0.3 7.0 0.1 5.73 7.06 28.22 1290 0.94 18.5

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: FPL- Cutler	SITE LOCATION: Miami FL	
WELL NO: MW-E2	SAMPLE ID:	DATE: 12/20/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 8 feet to 18 feet	STATIC DEPTH TO WATER (feet): 13.65	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (18 feet – 13.65 feet) X 0.16 gallons/foot = 0.696 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): 15	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 15	PURGING INITIATED AT: 1315	PURGING ENDED AT: 1349	TOTAL VOLUME PURGED (gallons): 3.4

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1325	1.0	1.0	0.1	13.67	7.31	27.90	607	1.15	31.4	Cloudy	none
1328	0.3	1.3	0.1	13.67	7.15	27.93	615	0.89	29.9		
1331	0.3	1.6	0.1	13.68	7.14	27.93	616	0.88	29.7		
1334	0.3	1.9	0.1	13.68	7.12	27.94	615	0.87	29.6		
1337	0.3	2.2	0.1	13.68	7.11	27.95	618	0.85	25.1		
1340	0.3	2.5	0.1	13.68	7.09	27.95	622	0.83	20.4	Clear	
1343	0.3	2.8	0.1	13.68	7.09	27.95	625	0.82	18.5		
1346	0.3	3.1	0.1	13.69	7.09	27.97	625	0.82	18.1		
1349	0.3	3.4	0.1	13.69	7.08	27.97	625	0.82	17.8		

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: Pete LaBrie / TCG	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1349	SAMPLING ENDED AT: 1355
PUMP OR TUBING DEPTH IN WELL (feet): 15	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	1	AG	1 L	ICE	—	—	PAHs	APP	200-400
	1	PE	125 mL	HNO3	—	<2	metals	APP	200-400

REMARKS:

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

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

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

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: FPL - Cutler		SITE LOCATION: Miami FL	
WELL NO: MW-E7	SAMPLE ID:		DATE: 12/20/16

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 1.7 feet to 11.7 feet	STATIC DEPTH TO WATER (feet): 4.87	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (11.7 feet – 4.87 feet) X 0.16 gallons/foot = 1.0928 gallons

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6	PURGING INITIATED AT: 818	PURGING ENDED AT: 850	TOTAL VOLUME PURGED (gallons): 3.2

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)
829	1.1	1.1	0.1	4.87	6.98	26.71	982	0.89	19.4	clear	none
832	0.3	1.4	0.1	4.87	6.97	26.83	979	0.76	11.6	↓	↓
835	0.3	1.7	0.1	4.87	7.01	26.90	944	0.75	5.96	↓	↓
838	0.3	2.0	0.1	4.87	7.01	26.91	908	0.74	7.41	↓	↓
841	0.3	2.3	0.1	4.87	7.01	26.90	899	0.67	6.19	↓	↓
844	0.3	2.6	0.1	4.87	7.02	26.90	896	0.68	4.11	↓	↓
847	0.3	2.9	0.1	4.87	7.02	26.89	897	0.67	4.15	↓	↓
850	0.3	3.2	0.1	4.87	7.03	26.89	896	0.67	4.16	↓	↓

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: Pete LaForce TCB	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 850	SAMPLING ENDED AT: 857
PUMP OR TUBING DEPTH IN WELL (feet): 6	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	1	AG	1L	ICE	—	—	PAHs	APP	200-400
	1	PE	125ml	HNO3	—	<2	metals	APP	200-400

REMARKS:

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

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

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

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

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

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: FPL-Cutler		SITE LOCATION: Miami FL	
WELL NO: MW-E7DD	SAMPLE ID:		DATE: 12/20/16

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 69.8 feet to 69.8 feet	STATIC DEPTH TO WATER (feet): 4.90	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X 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 + (0.0026 gallons/foot X 80 feet) + 0.25 gallons = 0.458 gallons

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

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
7:15	0.5	0.5	0.1	4.90	6.92	26.10	0.732	1.96	86.3	Cloudy	none
7:18	0.3	0.8	0.1	4.91	6.88	26.08	0.747	1.18	88.7		
7:21	0.3	1.1	0.1	4.91	6.88	26.10	16100	0.84	81.2		
7:25	0.4	1.5	0.1	4.91	6.87	26.11	16100	0.83	57.3		
7:28	0.5	2.0	0.1	4.91	6.88	26.11	16100	0.82	52.1		
7:31	0.3	2.3	0.1	4.91	6.88	26.11	16100	0.82	52.7		
7:34	0.3	2.6	0.1	4.92	6.88	26.11	16100	0.82	50.3		
7:37	0.3	2.9	0.1	4.92	6.89	26.12	16100	0.81	50.8		
7:40	0.3	3.2	0.1	4.92	6.89	26.12	16100	0.81	50.1		
7:43	0.3	3.5	0.1	4.92	6.88	26.12	16100	0.81	48.2		
7:47	0.3	3.8	0.1	4.92	6.88	26.12	16100	0.81	47.1		

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: Pete LaForge / TCG	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 814	SAMPLING ENDED AT: 820
PUMP OR TUBING DEPTH IN WELL (feet): 62.	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	1	AG	1L	ICE	—	—	PAHS	APP	200-400
	1	PE	125mL	HNO3	—	<2	metals	APP	200-400

REMARKS: Sheet 1 of 2

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

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

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

Revision Date: February 12, 2009

Sheet 2 of 2

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: FPL - Cutler		SITE LOCATION: Miami FL	
WELL NO: MW-E7DD	SAMPLE ID:		DATE: 12/20/16

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

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

SEE SHEET X

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):

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)
7:50	0.3	4.1	0.1	4.92	6.88	26.12	16160	0.82	68.1	cloudy	none
7:53	0.3	4.4	0.1	4.92	6.88	26.11	16160	0.82	72.3		
7:56	0.3	4.7	0.1	4.92	6.88	26.11	16160	0.82	61.9		
7:59	0.3	5.0	0.1	4.92	6.88	26.11	16160	0.82	61.2		
8:02	0.3	5.3	0.1	4.92	6.87	26.12	16160	0.81	60.4		
8:05	0.3	5.6	0.1	4.92	6.87	26.12	16100	0.81	59.3		
8:08	0.3	5.9	0.1	4.92	6.87	26.12	16160	0.81	59.8		
8:11	0.3	6.2	0.1	4.92	6.88	26.12	16160	0.81	59.1		
8:14	0.3	6.5	0.1	4.92	6.88	26.12	16160	0.81	59.2		

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:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y N	TUBING Y N (replaced)	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

See Sheet X

REMARKS:

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

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

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

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: PPL - Cutler		SITE LOCATION: Miami FL	
WELL NO: MW-E11	SAMPLE ID:		DATE: 12/20/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 0.6 feet to 10.6 feet	STATIC DEPTH TO WATER (feet): 1.37	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (10.6 feet – 1.37 feet) X 0.16 gallons/foot = 1.4768 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): 3	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 3	PURGING INITIATED AT: 902	PURGING ENDED AT: 925	TOTAL VOLUME PURGED (gallons): 4.6

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)
910	1.6	1.6	0.2	1.37	6.93	25.19	36700	6.96	15.1	clear	none
913	0.6	2.2	0.2	1.37	6.92	25.03	36900	0.70	15.2	clear	none
916	0.6	2.8	0.2	1.38	6.91	25.00	37000	0.66	12.7	clear	nil
919	0.6	3.4	0.2	1.38	6.91	24.99	37000	0.67	11.9	clear	none
922	0.6	4.0	0.2	1.38	6.90	24.97	37100	0.66	~~10.9~~	clear	none
925	0.6	4.6	0.2	1.38	6.91	24.96	37100	6.65	11.4	clear	none

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Pete LaFore / JTC	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 925	SAMPLING ENDED AT: 930
PUMP OR TUBING DEPTH IN WELL (feet): 3	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING (Y) N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD*	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	1	AG	1L	ICE	—	—	PAHs	APP	200-400
	1	PE	125ml	HNO_3	—	<2	Metals	APP	200-400

REMARKS:

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

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

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

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: RP&L - CUTLER		SITE LOCATION: Miami FL	
WELL NO: MW-G2	SAMPLE ID: MW-G2		DATE: 12/20/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH: 7 feet to 17 feet	STATIC DEPTH TO WATER (feet): 9.84	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
V_{well} = (17.00 feet – 9.84 feet) X 0.16 gallons/foot = 1.15 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
V_{eq} = 0.01 gallons + 0.0014 gallons/foot X 20 feet) + 0.25 gallons 0.29 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 11	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 11	PURGING INITIATED AT: 13:15	PURGING ENDED AT: 13:32	TOTAL VOLUME PURGED (gallons): 3.40

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)
13:21	1.20	1.20	0.20	9.92	7.81	26.6	646	1.36	18.0	CLEAR	NONE
13:26	1.00	2.20	0.20	9.94	7.78	26.6	640	1.07	16.2	CLEAR	NONE
1329	0.60	2.80	0.20	9.95	7.76	26.6	637	1.01	15.6	CLEAR	NONE
13:32	0.60	3.40	0.20	9.96	7.74	26.6	634	0.98	15.1	CLEAR	NONE

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: C. Meirzan - TRC	SAMPLER(S) SIGNATURE(S): C. Meirzan	SAMPLING INITIATED AT: 13:32	SAMPLING ENDED AT: 13:40
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP (Y) N	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-G2	1	AG	1L	UNPR. + ICE	–	7.74	PAH'S	APP	200
	1	PE	0.125L	HNO_3 + ICE	–	<2	METALS	APP	50

REMARKS:

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

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

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

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: FPL-Cutler		SITE LOCATION: Miami FL	
WELL NO: MW-~~G2~~ G8	SAMPLE ID:		DATE: 12/20/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 5.8 feet to 10.8 feet	STATIC DEPTH TO WATER (feet): 5.61	PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (10.8 feet – 5.61 feet) X 0.16 gallons/foot = 0.8304 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): 6.75	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6.75	PURGING INITIATED AT: 1018	PURGING ENDED AT: 1035	TOTAL VOLUME PURGED (gallons): 3.4

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1023	1.0	1.0	0.2	5.61	7.31	27.02	13600	2.14	18.6	Clear	none
1026	0.6	1.6	0.2	5.61	7.25	27.15	14600	1.18	16.1	↓	↓
1029	0.6	2.2	0.2	5.61	7.25	26.82	14900	1.09	15.4		
1032	0.6	2.8	0.2	5.61	7.24	26.78	15000	1.07	15.1		
1035	0.6	3.4	0.2	5.61	7.24	26.79	15000	1.02	14.8		

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: Pete LaFone / TGG	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1035	SAMPLING ENDED AT: 1042
PUMP OR TUBING DEPTH IN WELL (feet): 6.75	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	1	AG	1L	~~HCL~~	—	—	PAHs	APP	200-400
	1	PE	125mL	HNO_3	—	<2	metals	APP	200-400

REMARKS:

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

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

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

Revision Date: February 12, 2009

FPYL - CUTLER
12/20/16

FT 1000 General Field Testing and Measurement

Field Instrument Calibration Records

INSTRUMENT (MAKE/MODEL#) HACH - 2100 Q **INSTRUMENT #** 16030CO 48233

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP

☑ TURBIDITY ☐ RESIDUAL CL ☐ DO ☐ OTHER _____

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

Standard A HACH - 1.00 NTU - A5050 - 2/2017

Standard B HACH - 20 NTU - A6193 - 10/2017

Standard C HACH - 100 NTU - A6195 - 10/2017

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
16/12/20	7:05	A	1.00	1.02	2%	YES	IC	CM
			NTU	NTU				
16/12/20	7:09	B	20	20.3	1.5%	YES	IC	CM
			NTU	NTU				
16/12/20	7:12	C	100	99.5	0.5%	YES	ICV	CM
			NTU	NTU				
			CCV DURING SAMPLE EVENT					
16/12/20	13:21	B	20	20.5	2.5%	YES	CCV	CM
@MW-G2			NTU	NTU				
			CCV FOLLOWING SAMPLE EVENT					
16/12/20	14:10	A	1.00	1.03	3%	YES	CCV	CM
			NTU	NTU				
16/12/20	14:13	C	100	99.1	0.9%	YES	CCV	CM
			NTU	NTU				

FPIL-CC-1CEN
12/20/16

FT 1000 General Field Testing and Measurement

Field Instrument Calibration Records

INSTRUMENT (MAKE/MODEL#) VSI-556 **INSTRUMENT #** 06H1774AY

PARAMETER: *[check only one]*

☐ TEMPERATURE ☑ CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP

☐ TURBIDITY ☐ RESIDUAL CL ☐ DO ☐ OTHER _____

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

Standard A HANNA INST. - 84 uS/cm - #8732 - 3/2018

Standard B HANNA INST - 80,000 uS/cm #7829 - 6/2019

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
16/12/20	7:15	A	84	86	2.4%	YES	IC	CM
			uS/cm	uS/cm				
16/12/20	7:17	B	80,000	79,690	0.4%	YES	ICV	CM
			uS/cm	uS/cm				
			CCV	DURING	SAMPLE	EVENT		
16/12/20	13:22	A	84	85	1.2%	YES	CCV	CM
@ MW-G2			uS/cm	uS/cm				
		CCV	FOLLOWING		SAMPLE	EVENT		
16/12/20	14:18	A	84	83	1.2%	YES	CCV	CM
			uS/cm	uS/cm				
16/12/20	14:21	B	80,000	79,605	0.5%	YES	CCV	CM
			uS/cm	uS/cm				

FP&L - CUTLER 2
12/20/16

FT 1000 General Field Testing and Measurement

Field Instrument Calibration Records

INSTRUMENT (MAKE/MODEL#) VSI-556 **INSTRUMENT #** 06H1774AM

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☑ pH ☐ ORP

☐ TURBIDITY ☐ RESIDUAL CL ☐ DO ☐ OTHER _____

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

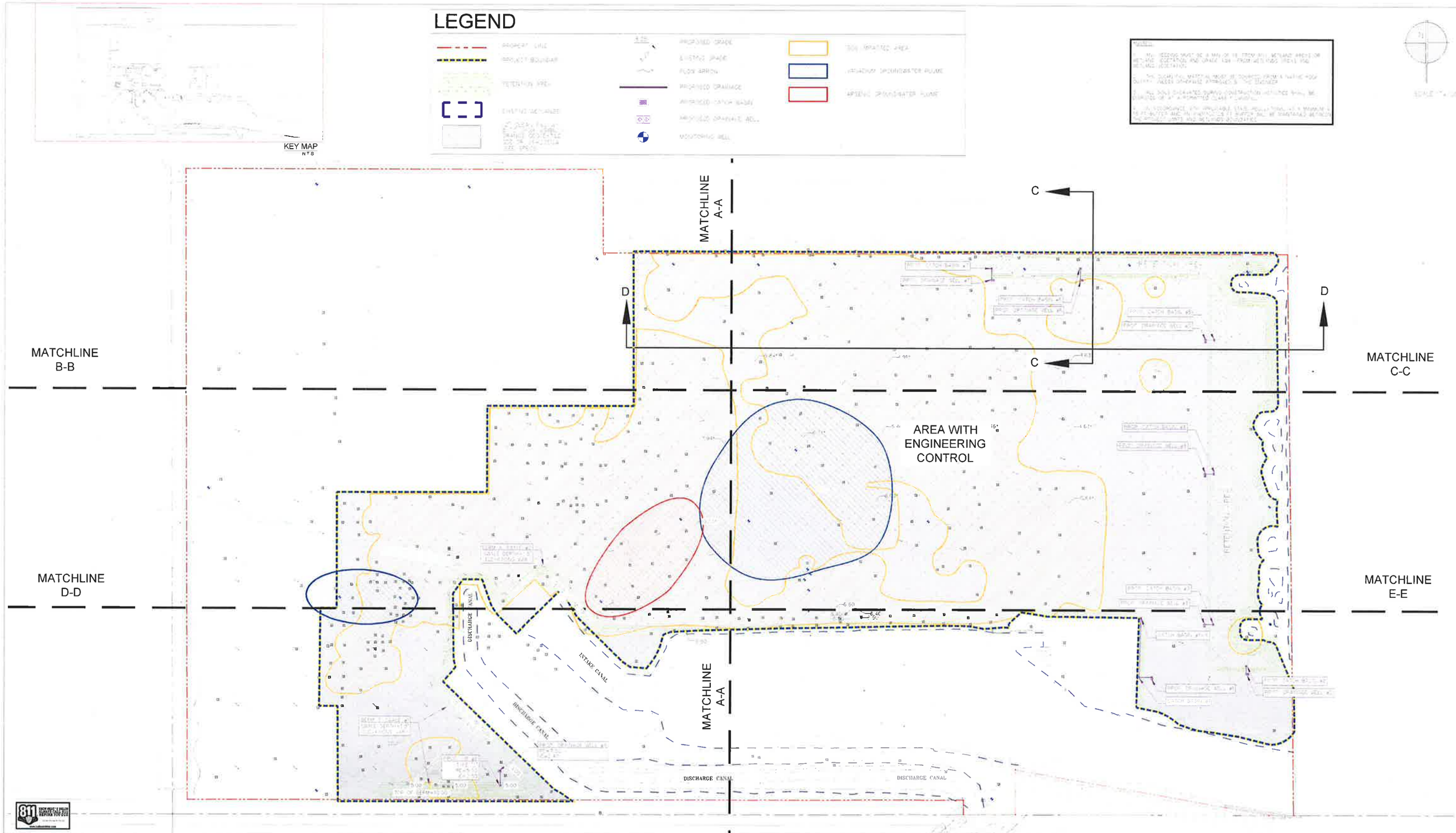
Standard A CALTEST - 4.00 SU - #8732, 3/2018

Standard B PINE - 7.00 SU - 6GF077, 6/2018

Standard C PINE - 10.0 SU - 250BC53, 2/2017

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
16/12/20	7:20	B	7.00	7.03	0.4%	YES	IC	CM
			SU					
16/12/20	7:23	A	4.00	3.98	0.5%	YES	IC	CM
			SU	SU				
16/12/20	7:25	C	10.0	9.98	0.2%	YES	ICV	CM
			SU	SU				
		CCV DURING SAMPLE EVENT						
16/12/20	13:28	B	7.00	7.04	0.6%	YES	CCV	CM
@MW-62			SU	SU				
		CCV FOLLOWING SAMPLE EVENT						
16/12/20	14:25	A	4.00	3.99	0.25%	YES	CCV	CM
			SU	SU				
16/12/20	14:28	C	10.0	9.96	0.4%	YES	CCV	CM
			SU					

APPENDIX B



DCS 2/15/2017
DESIGNED BY DATE
DCS 2/15/2017
DRAWN BY DATE
MP 2/15/2017
CHECKED BY DATE
RP 2/15/2017
APPROVED BY DATE

No.	DATE	REVISIONS

FPL

FORMER FPL CUTLER POWER PLANT PARCEL
PALMETTO BAY, FLORIDA

RE
Ross Engineering, Inc.
17670 NW 78TH AVE, SUITE 214
MIAMI, FLORIDA 33015
(786)468-8304 (305)392-1019 FAX
CERTIFICATE OF AUTHORIZATION No. 9808

ROBERT J. ROSS, P.E.
STATE OF FLORIDA
REGISTRATION NO. 59825
DATE 2/15/2017

GRADING PLAN (OVERALL)

SCALE: 1"=100'
SHEET No. C-2

LEGEND

PROPERTY LINE
PROJECT BOUNDARY
DETENTION AREA
EXISTING WETLANDS
PROPOSED SWALE
EXISTING SWALE
FLOW ARROW
PROPOSED DRAINAGE
PROPOSED CATCH BASIN
PROPOSED DRAINAGE WELL
MONITORING WELL
SOIL IMPACTED AREA
VANADIUM GROUNDWATER PLUME
ARSENIC GROUNDWATER PLUME

NOTES:

1. ALL SEEDING MUST BE A MIN. OF 15 FT FROM ANY WETLANDS AREAS OR WETLAND VEGETATION AND UPGRADE AWAY FROM WETLANDS AREAS AND WETLAND VEGETATION.
2. THE CLEAN FILL MATERIAL MUST BE SOURCED FROM A LAKE ROCK QUARRY UNLESS OTHERWISE APPROVED BY THE ENGINEER.
3. ALL ZONE 5 EXCAVATED DURING CONSTRUCTION ACTIVITIES SHALL BE DISPOSED OF AT A PERMITTED CLASS I LANDFILL.
4. IN ACCORDANCE WITH APPLICABLE STATE REGULATIONS, AT A MINIMUM A 15 FT BUFFER AND AN AVERAGE 25 FT BUFFER WILL BE MAINTAINED BETWEEN THE PROJECT LIMITS AND WETLANDS BOUNDARIES.

DCS	2/15/2017		
DESIGNED BY	DATE		
DCS	2/15/2017		
DRAWN BY	DATE		
MP	2/15/2017		
CHECKED BY	DATE		
FP	2/15/2017		
APPROVED BY	DATE	No.	DATE	REVISIONS

FPL

FORMER FPL CUTLER POWER PLANT PARCEL
PALMETTO BAY, FLORIDA

RE
ROSS ENGINEERING, INC.
17670 NW 78TH AVE, SUITE 214
MIAMI, FLORIDA 33015
(786)468-8304 (305)392-1019 FAX
CERTIFICATE OF AUTHORIZATION No. 9808

ROBERT J. ROSS, P.E.
STATE OF FLORIDA
REGISTRATION No. 59485
DATE: 2/15/2017

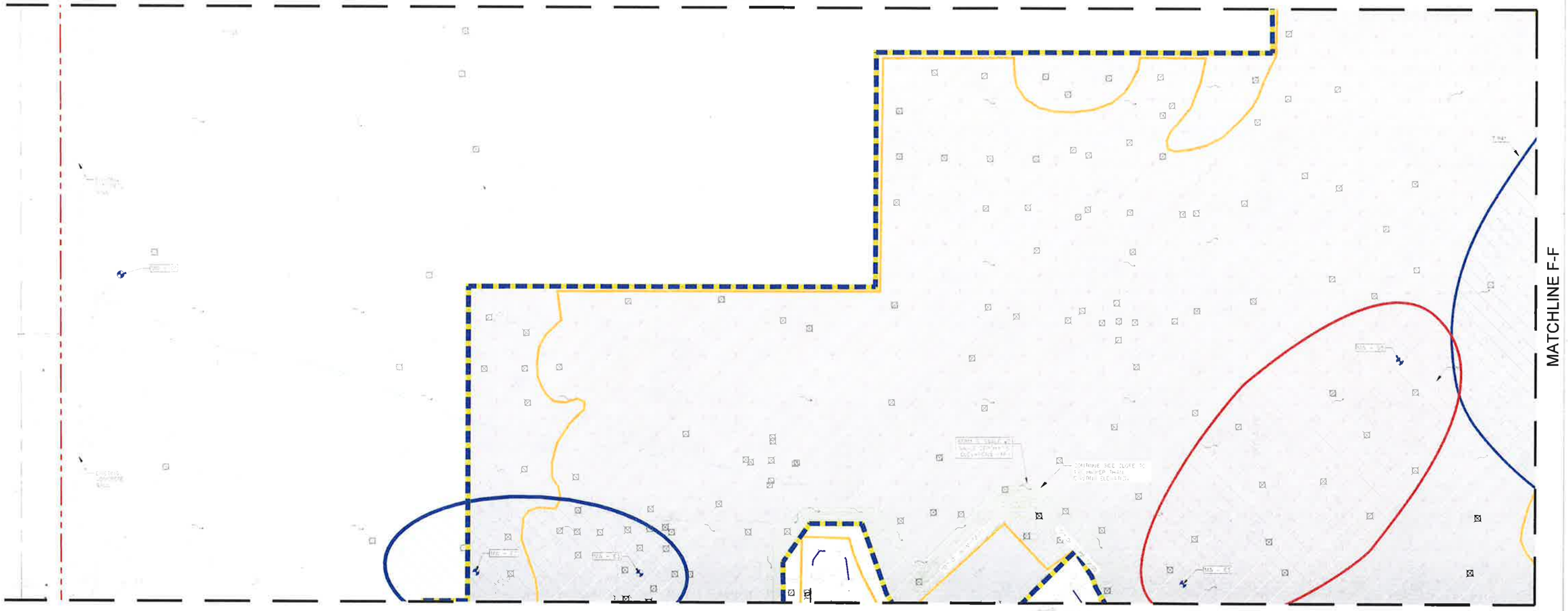
GRADING PLAN (1 OF 6)

SCALE: 1"=40'

SHEET No. C-3

LEGEND

MATCHLINE B-B



MATCHLINE D-D

MATCHLINE F-F

DCS	2/15/2017		
DESIGNED BY	DATE		
DCS	2/15/2017		
DRAWN BY	DATE		
MR	2/15/2017		
CHECKED BY	DATE		
RR	2/15/2017		
APPROVED BY	DATE	No.	DATE	REVISIONS

FPL

FORMER FPL CUTLER POWER PLANT PARCEL
PALMETTO BAY, FLORIDA

RE ROSS ENGINEERING, INC.
17670 NW 78TH AVE, SUITE 214
MIAMI, FLORIDA 33015
(786)468-8304 (305)392-1019 FAX
CERTIFICATE OF AUTHORIZATION No. 9808

ROBERT J. ROSS, P.E.
STATE OF FLORIDA
REGISTRATION NO. 57163
DATE: 2/15/2017

GRADING PLAN (2 OF 6)

SCALE: 1"=40'

SHEET No. 2 of 6

LEGEND

PROPERTY LINE
PROJECT BOUNDARY
POTENTIAL AREA
EXISTING WETLANDS
PROPOSED GRADE
EXISTING GRADE
FLOW ARROW
PROPOSED DRAINAGE
PROPOSED FATCH BASIN
PROPOSED DRAINAGE ACC.
MONITORING WELL
SOIL IMPACTED AREA
VANADIUM GROUNDWATER PLUME
ARSENIC GROUNDWATER PLUME

NOTES:

1. ALL SEEDING MUST BE A MIN. OF 15' FROM ANY WETLAND AREAS OR WETLAND VEGETATION AND SPADE AWAY FROM WETLANDS AREAS AND WETLAND VEGETATION.
2. THE CLEAN FILL MATERIAL MUST BE SOURCED FROM A NATIVE ROCK QUARRY UNLESS OTHERWISE APPROVED BY THE ENGINEER.
3. ALL HOLES EXCAVATED DURING CONSTRUCTION ACTIVITIES SHALL BE DISPOSED OF AT A PERMITTED CLASS I LANDFILL.
4. IN ACCORDANCE WITH APPLICABLE STATE REGULATIONS, AT A MINIMUM A 15 FT BUFFER AND AN AVERAGE 35 FT BUFFER WILL BE MAINTAINED BETWEEN THE IMPACTED AREA AND WETLANDS BOUNDARIES.

DCS	2/15/2017		
DESIGNED BY	DATE		
DCS	2/15/2017		
DRAWN BY	DATE		
MR	2/15/2017		
CHECKED BY	DATE		
RR	2/15/2017		
APPROVED BY	DATE	No.	DATE	REVISIONS

FPL

FORMER FPL CUTLER POWER PLANT PARCEL
PALMETTO BAY, FLORIDA

RE ROSS ENGINEERING, INC.
17670 NW 78TH AVE, SUITE 214
MIAMI, FLORIDA 33015
(786)468-8304 (305)392-1019 FAX
CERTIFICATE OF AUTHORIZATION No. 9808

ROBERT J. ROSS, P.E.
STATE OF FLORIDA
REGISTRATION NO. 59485

GRADING PLAN (3 OF 6)

SCALE: 1"=4'
SHEET No. 3-5

LEGEND

NOTES:

1. ALL SEEDING MUST BE A MINIMUM 15' FROM ANY WETLAND AREAS OF WETLAND VEGETATION AND GRADE AWAY FROM WETLANDS AREAS AND WETLAND VEGETATION.
2. THE CLEAN FILL MATERIAL MUST BE SOURCED FROM A NATIVE POC QUARRY UNLESS OTHERWISE APPROVED BY THE ENGINEER.
3. ALL ROADS CLEARED DURING CONSTRUCTION ACTIVITIES SHALL BE STABILIZED BY AN ASPHALTIC CLASS 1 LINER.
4. IN ACCORDANCE WITH APPLICABLE STATE REGULATIONS, AT A MINIMUM, 15 FT BUFFER AND 25 FT BUFFER WILL BE MAINTAINED BETWEEN THE PROJECT LIMITS AND WETLANDE BOUNDARIES.

DCS	2/15/2017		
DESIGNED BY	DATE		
DCS	2/15/2017		
DRAWN BY	DATE		
MR	2/15/2017		
CHECKED BY	DATE		
RR	2/15/2017		
APPROVED BY	DATE	No.	DATE	REVISIONS

FPL

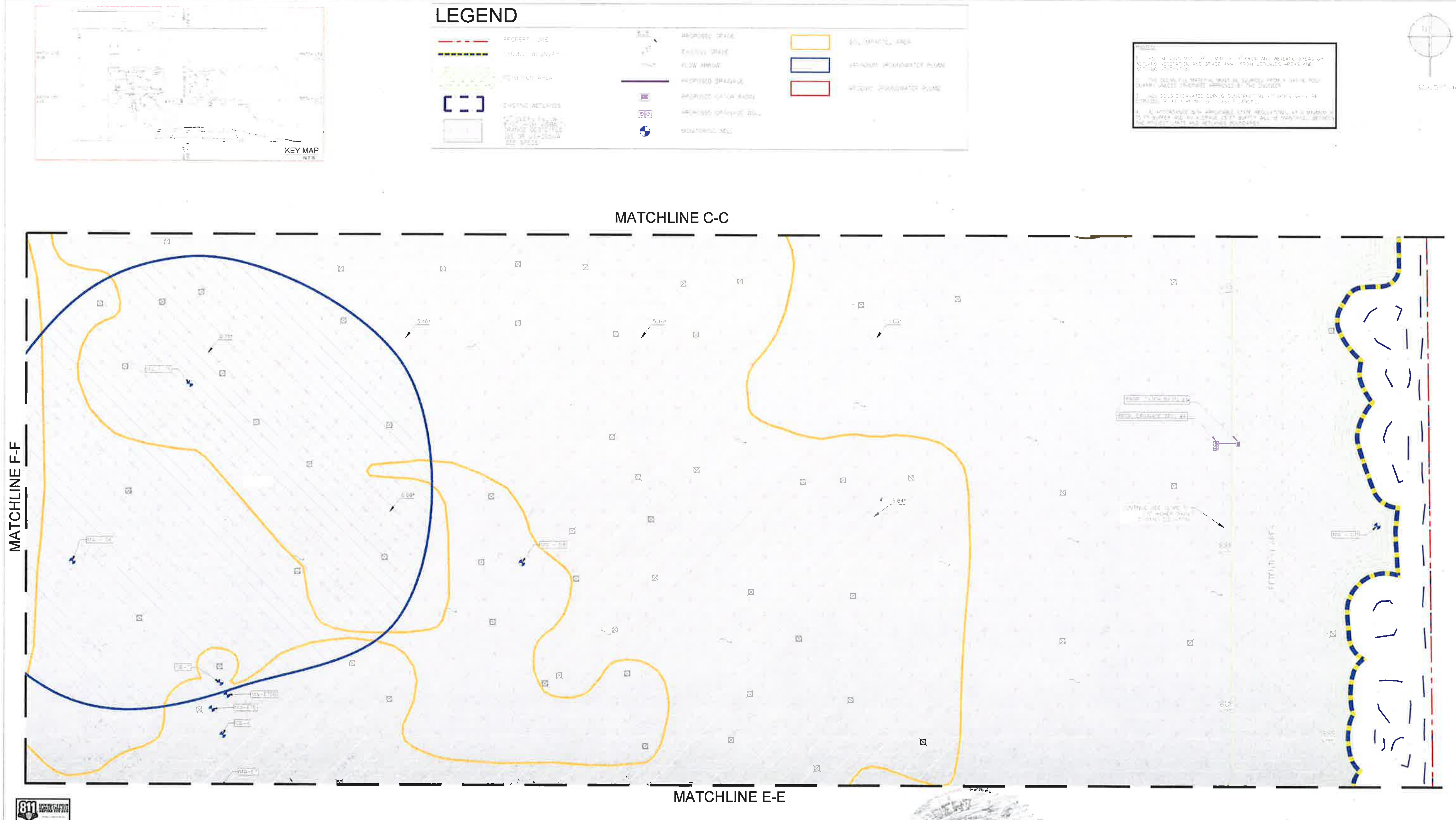
FORMER FPL CUTLER POWER PLANT PARCEL
PALMETTO BAY, FLORIDA

RE Ross Engineering, Inc.
17670 NW 78TH AVE, SUITE 214
MIAMI, FLORIDA 33015
(786)468-8304 (305)392-1019 FAX
CERTIFICATE OF AUTHORIZATION No 9808

ROBERT J. ROSS LICENSE NO 49348
ROBERT J. ROSS, P.E.
STATE OF FLORIDA
DATE

GRADING PLAN (4 OF 6)

SCALE: 1"=40'
SHEET No. 4-6



DCS	2/15/2017			
DESIGNED BY	DATE			
DCS	2/15/2017			
DRAWN BY	DATE			
MR	2/15/2017			
CHECKED BY	DATE			
RR	2/15/2017			
APPROVED BY	DATE	No.	DATE	REVISIONS

FPL

FORMER FPL CUTLER POWER PLANT PARCEL
PALMETTO BAY, FLORIDA

RE
RITAS ENGINEERING, INC.
17670 NW 78TH AVE, SUITE 214
MIAMI, FLORIDA 33015
(786)468-8304 (305)392-1019 FAX
CERTIFICATE OF AUTHORIZATION No. 9808

GRADING PLAN (5 OF 6)

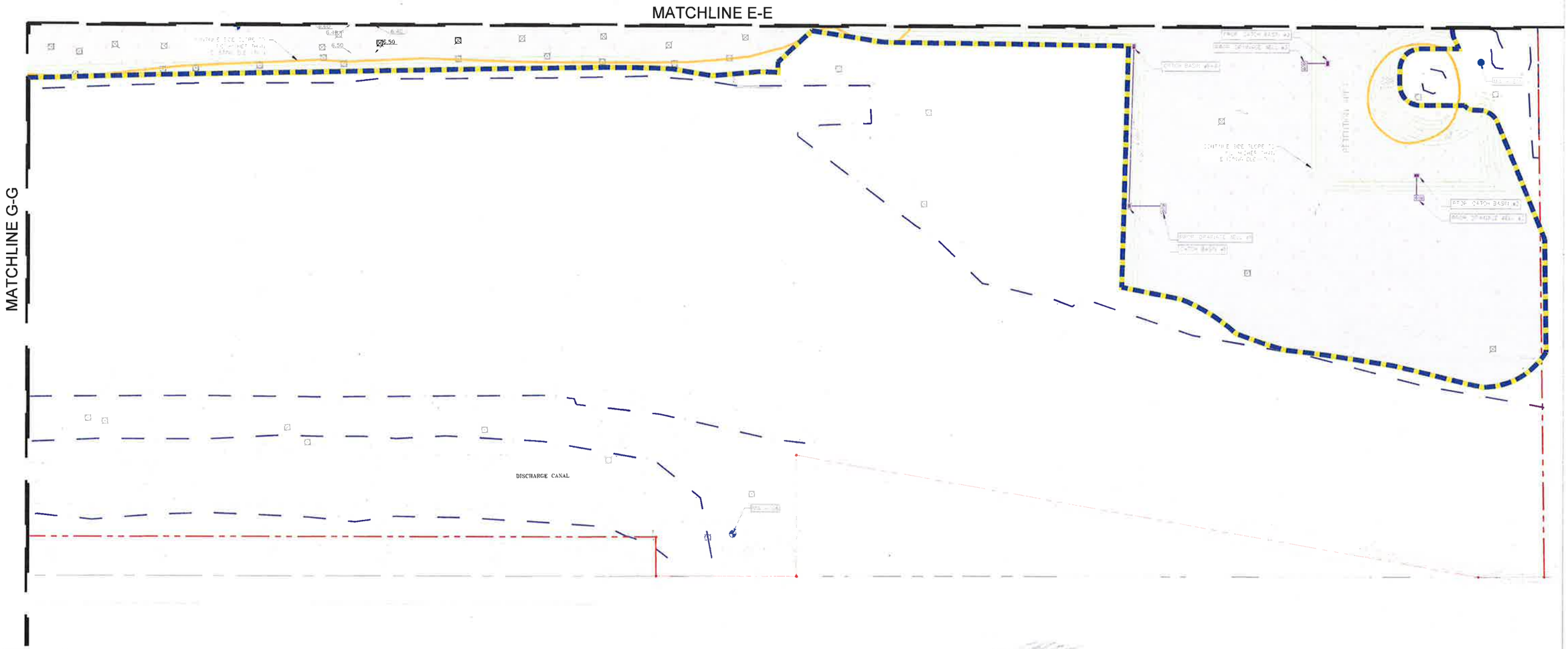
LEGEND

PROPERTY LINE
PROJECT BOUNDARY
EXISTING WETLANDS
PROPOSED GRADE
EXISTING GRADE
FLOW ARROW
PROPOSED DRAINAGE
PROPOSED CATCH BASIN
PROPOSED DRAINAGE WELL
MONITORING WELL
SOIL IMPACTED AREA
VANADIUM GROUNDWATER PLUME
ARSENIC GROUNDWATER PLUME

NOTES:

1. ALL SEEDING MUST BE A MIN. OF 15' FROM ANY WETLAND AREAS OR WETLAND VEGETATION AND GRADE AWAY FROM WETLANDS AREAS AND WETLAND VEGETATION.
2. THE CLEAN FILL MATERIAL MUST BE SOURCED FROM A NATIVE ROCK QUARRY UNLESS OTHERWISE APPROVED BY THE ENGINEER.
3. ALL SOILS EXCAVATED DURING CONSTRUCTION SCRATCHES SHALL BE DISPOSED OF AT A PERMITTED CLASS III LANDFILL.
4. IN ACCORDANCE WITH APPLICABLE STATE REGULATIONS, AT A MINIMUM A 15 FT BUFFER AND AN AVERAGE 25 FT BUFFER SHALL BE MAINTAINED BETWEEN THE PROJECT LIMITS AND WETLANDS BOUNDARIES.

SCALE: 1"=30'



DCS	2/15/2017		
DESIGNED BY	DATE		
DCS	2/15/2017		
DRAWN BY	DATE		
MR	2/15/2017		
CHECKED BY	DATE		
RP	2/15/2017		
APPROVED BY	DATE	No	DATE	REVISIONS

FPL

FORMER FPL CUTLER POWER PLANT PARCEL
PALMETTO BAY, FLORIDA

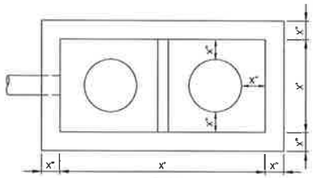
RE
ROSS ENGINEERING, INC.

17670 NW 78TH AVE, SUITE 214
MIAMI, FLORIDA 33015
(786)468-8304 (305)392-1019 FAX
CERTIFICATE OF AUTHORIZATION No 9808

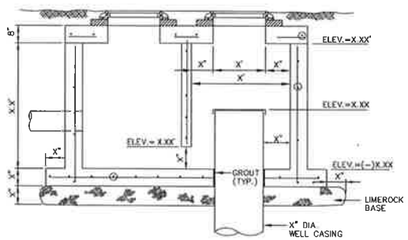
GRADING PLAN (6 OF 6)

SCALE: 1"=30'

SHEET No C-8



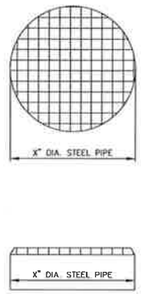
PLAN



ELEVATION

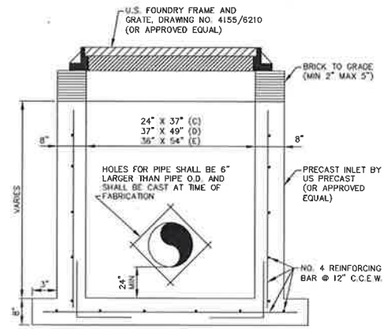
PRECAST DRAINAGE WELL CONCRETE STRUCTURE - X'XX'

NTS



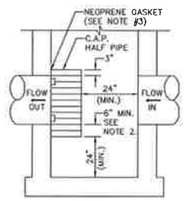
WELL SCREEN (TYPICAL)

NTS

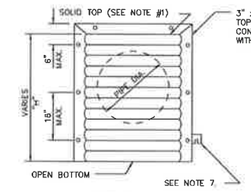


CATCH BASIN (TYPICAL)

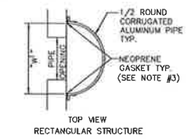
NTS



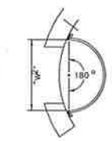
SIDE VIEW



FRONT VIEW



TOP VIEW
RECTANGULAR STRUCTURE



TOP VIEW
ROUND STRUCTURE

PIPE DIA.	W (IN)	W^2 (IN)	T (GAUGE)	H (IN)
15"	18"	18"	16	VARIES
18"	21"	21"	16	VARIES
21"	24"	24"	16	VARIES
24"	30"	30"	16	VARIES
30"	30"	36"	16	VARIES
36"	36"	42"	14	VARIES
42"	42"	48"	14	VARIES
48"	48"	54"	14	VARIES
54"	54"	60"	14	VARIES
60"	60"	66"	14	VARIES

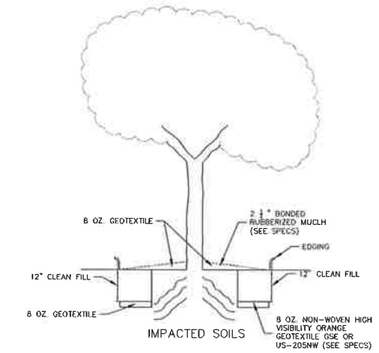
1. RECTANGULAR STRUCTURE
2. ROUND STRUCTURE

NOTES:

1. ALUMINUM SHEET OF SAME THICKNESS (GAUGE) AS PIPE SHALL BE WELDED TO CLOSE OPENING AT THE TOP.
2. THE BOTTOM ELEVATION OF THE POLLUTION RETARDANT BAFFLE MUST BE AT LEAST 2' BELOW CONTROL ELEVATION.
3. NEOPRENE ADHESIVE BACKED GASKET, OR APPROVED EQUAL (1" x 2") SHALL BE INSTALLED ON THE SIDES AND TOP OF ALL BAFFLES.
4. POLLUTION RETARDANT BAFFLE TO BE FASTENED IN PLACE WITH 3/8"x4" STAINLESS STEEL "RED HEADS", OR APPROVED EQUAL.
5. ALL EXFILTRATION TRENCHES SHALL HAVE A POLLUTION RETARDANT BAFFLE AT EACH CONNECTION POINT TO A STRUCTURE (SEE EXFILTRATION TRENCH DETAIL).
6. FIBERGLASS BAFFLES ARE NOT PERMITTED.
7. MOUNTING BRACKETS MAY BE ADDED TO FLAT BARS TO EASE INSTALLATION IN ROUND STRUCTURES. SPACING TO MATCH HOLES IN FLAT BARS.

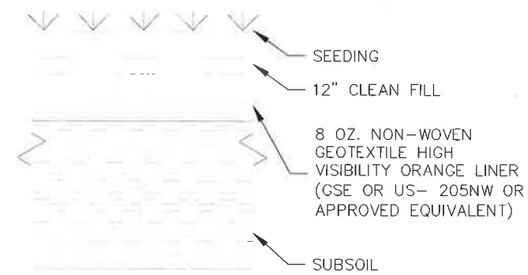
POLLUTION RETARDANT BAFFLE

NTS



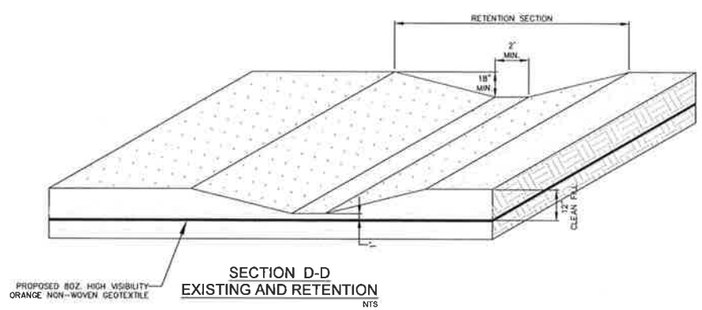
TREE PROTECTION DETAIL (TYPICAL)

NTS



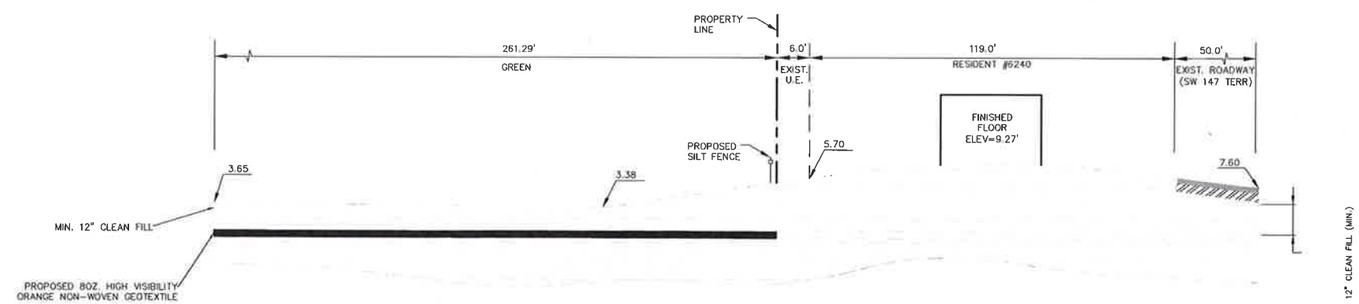
GEOTEXTILE/SOIL COMPOSITE LAYER (TYPICAL)

NTS



SECTION D-D
EXISTING AND RETENTION

NTS



SECTION C-C

NTS

811 KNOW WHAT'S BELOW. CALL BEFORE YOU DIG.

DCS	2/15/2017			
DESIGNED BY	DATE			
DCS	2/15/2017			
DRAWN BY	DATE			
MR	2/15/2017			
CHECKED BY	DATE			
RR	2/15/2017			
APPROVED BY	DATE	No.	DATE	REVISIONS

FPL

FORMER FPL CUTLER POWER PLANT PARCEL
PALMETTO BAY, FLORIDA

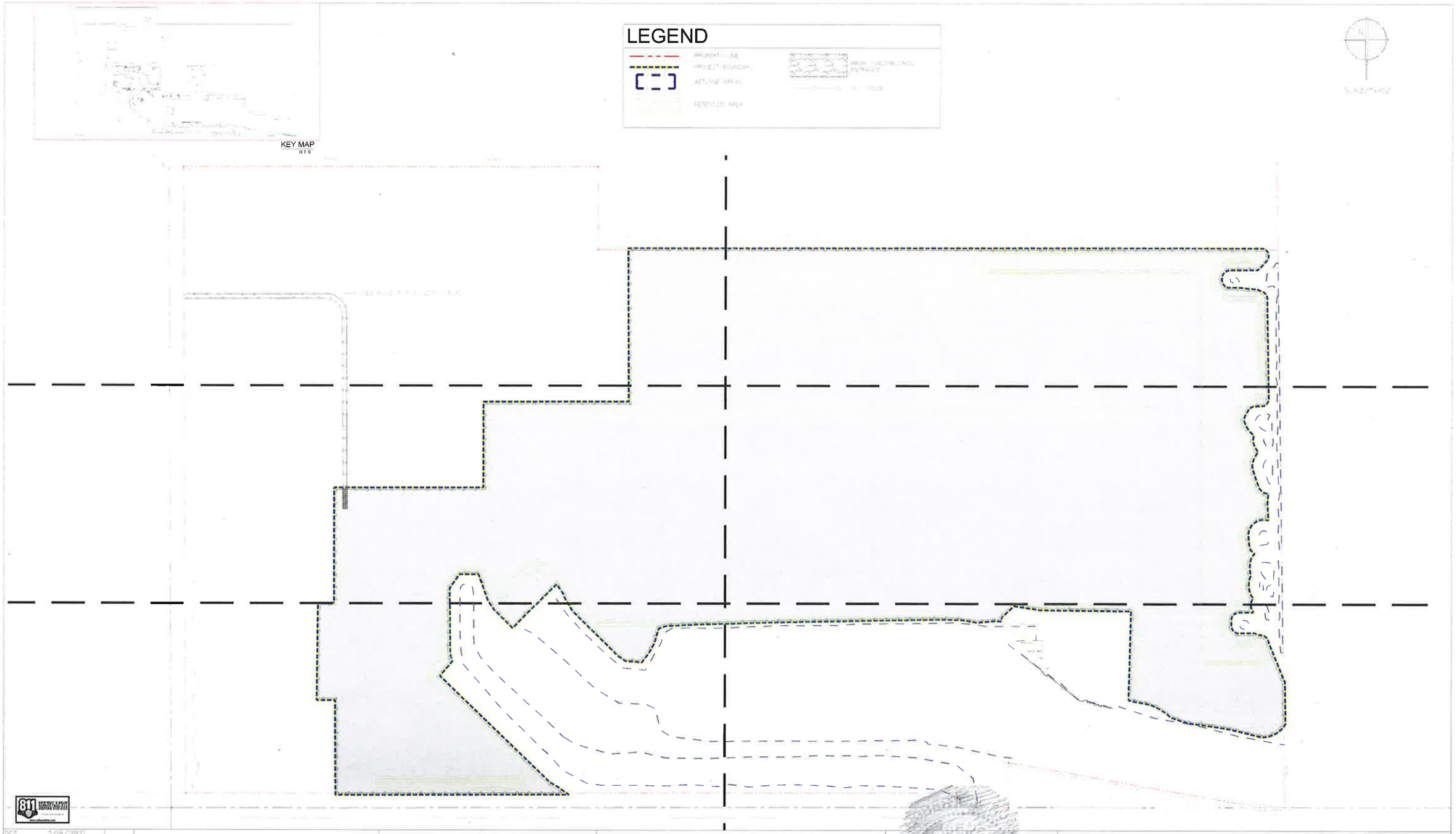
RE ROSS ENGINEERING, INC.
17670 NW 78TH AVE, SUITE 214
MIAMI, FLORIDA 33015
(786)468-8304 (305)392-1019 FAX
CERTIFICATE OF AUTHORIZATION No. 9808

ROBERT J. ROSS, P.E.
STATE OF FLORIDA
REGISTRATION NO. 59485
DATE 2/15/2017

PAVING GRADING AND DRAINAGE DETAILS

SCALE: ////////

SHEET No. C-16



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DESIGNED BY	DATE
DCS	2/16/2017
DRAWN BY	DATE
MP	2/16/2017
CHECKED BY	DATE
PP	2/16/2017
APPROVED BY	DATE

No. DATE REVISIONS

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PALMETTO BAY, FLORIDA

RE
ROSS ENGINEERING, INC.
17670 NW 78TH AVE, SUITE 214
MIAMI, FLORIDA 33015
(786)468-8304 (305)593-1019 FAX
CERTIFICATE OF AUTHORIZATION No. 9608

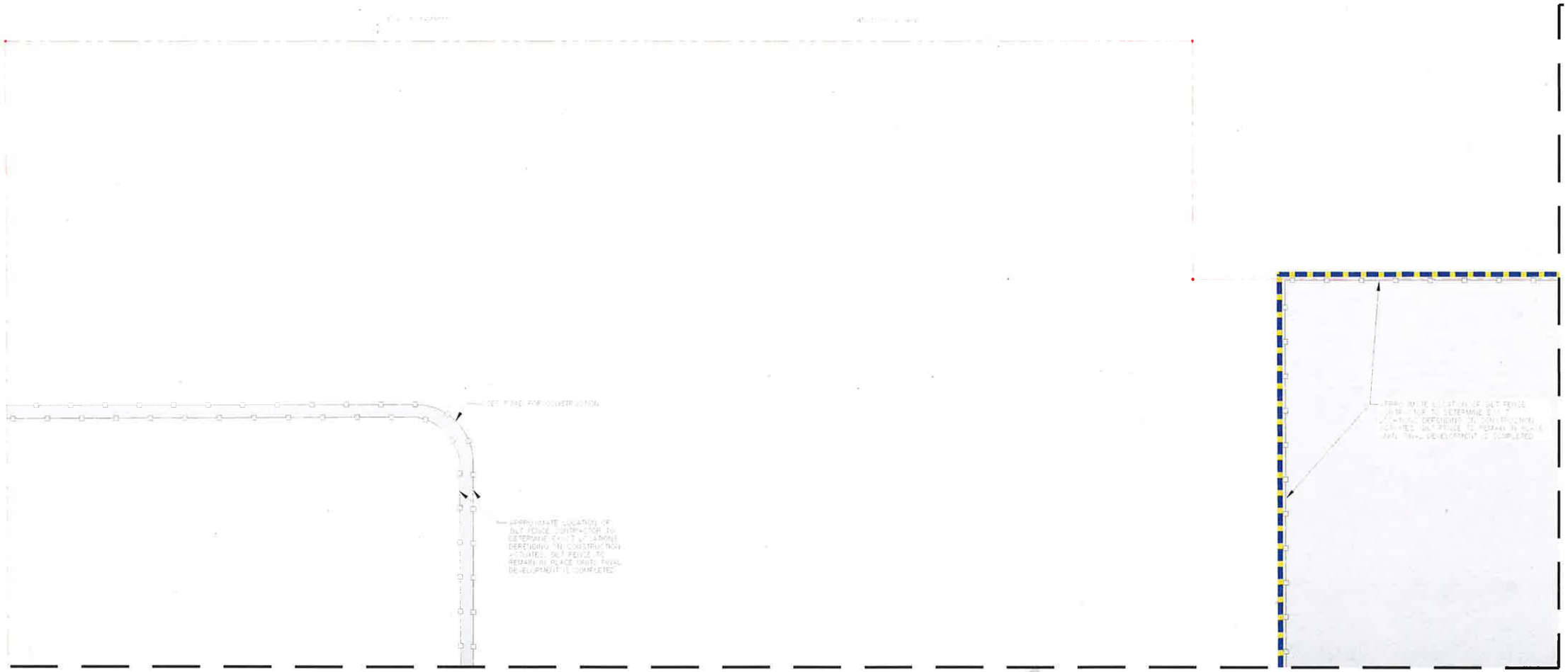
STORMWATER POLLUTION PREVENTION PLAN (OVERALL)

SCALE: 1:100

SHEET No. 1 of 2

LEGEND

PROPERTY LINE
PROJECT BOUNDARY
WETLAND AREAS
RETENTION AREA
WATER CONSERVATION ENTRANCE
SILT FENCE



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DESIGNED BY	DATE		
DCS	2/16/2017		
DRAWN BY	DATE		
MF	2/16/2017		
CHECKED BY	DATE		
FP	2/16/2017		
APPROVED BY	DATE	No.	DATE

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PALMETTO BAY, FLORIDA

RE
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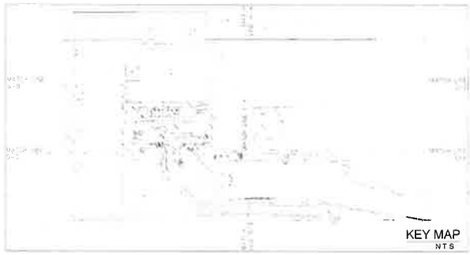
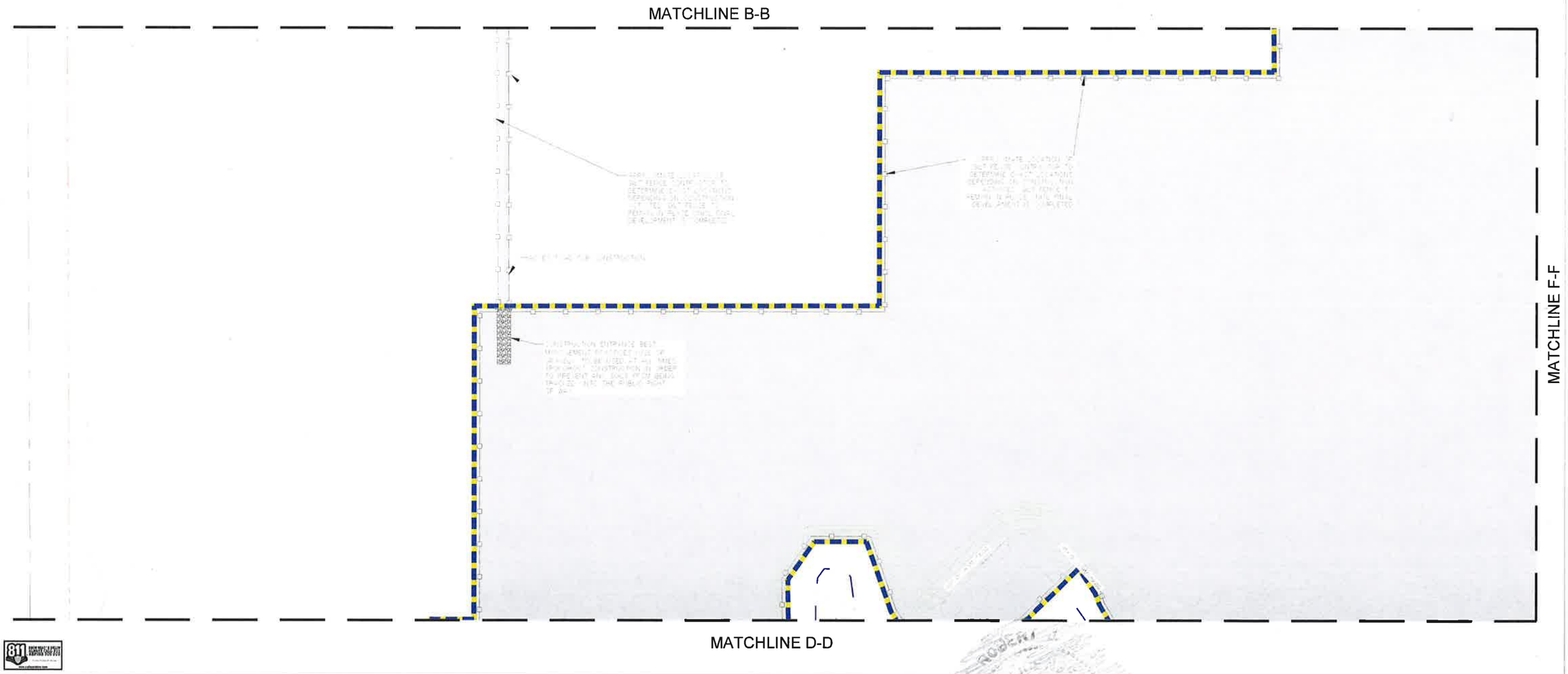
17670 NW 78TH AVE, SUITE 214
MIAMI, FLORIDA 33015
(786)468-8304 (3051392-1019 FAX
CERTIFICATE OF AUTHORIZATION No. 9808

STORMWATER POLLUTION PREVENTION PLAN (1 OF 6)



LEGEND



DCS	2/16/2017			
DESIGNED BY	DATE			
DCS	2/16/2017			
DRAWN BY	DATE			
MF	2/16/2017			
CHECKED BY	DATE			
RR	2/16/2017			
APPROVED BY	DATE	No	DATE	REVISIONS

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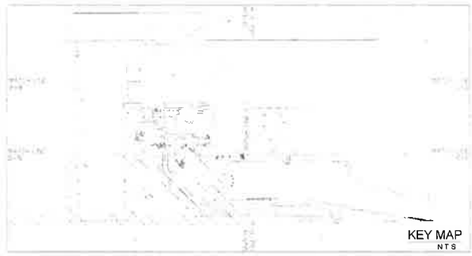
RUSS ENGINEERING, INC.
17670 NW 78TH AVE, SUITE 214
MIAMI, FLORIDA 33015
(786)-468-8304 (305)392-1019 FAX
CERTIFICATE OF AUTHORIZATION No 9808

STORMWATER POLLUTION PREVENTION PLAN (2 OF 6)

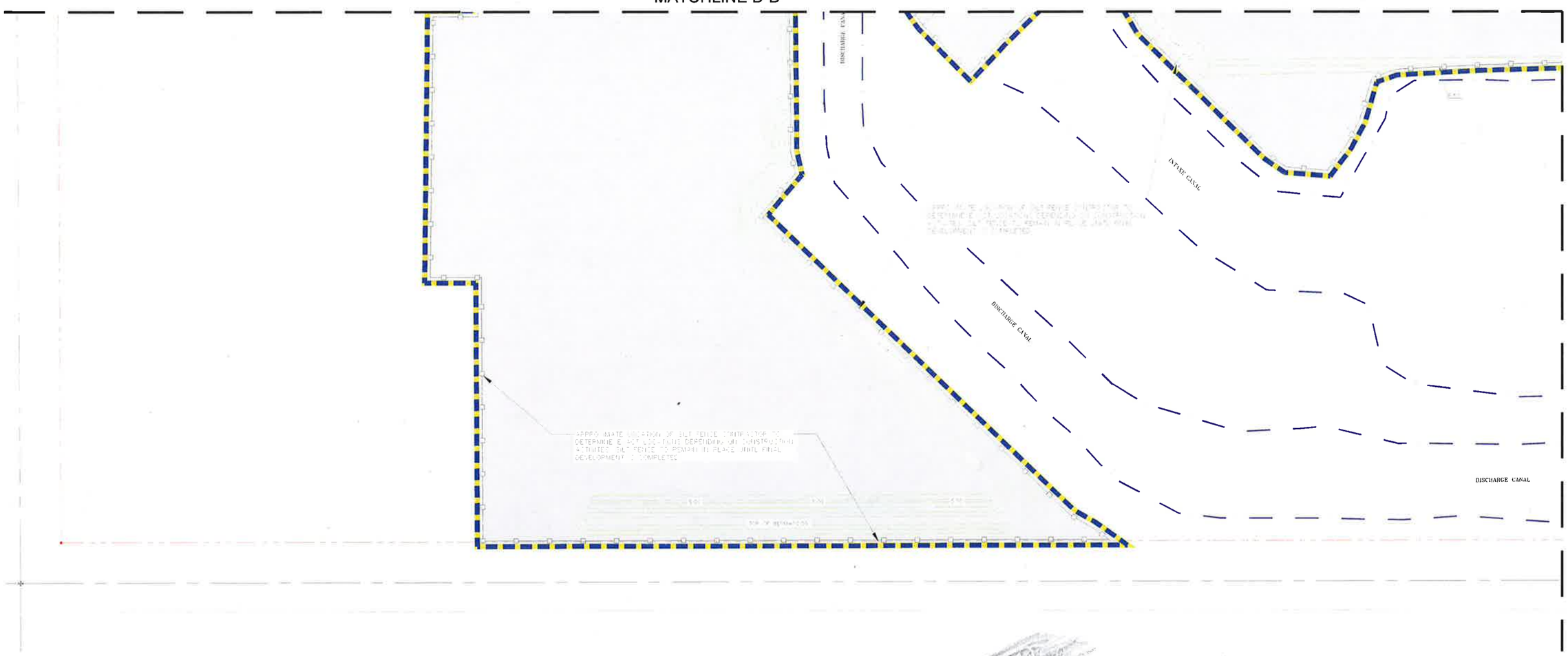
SCALE: 1"=40'



LEGEND

PROPERTY LINE
PROJECT BOUNDARY
WETLAND AREAS
RESERVED AREA
PROP. CONSTRUCTION ENTRANCE
SILT FENCE

MATCHLINE D-D



MATCHLINE G-G

DCS	2/16/2017		
DESIGNED BY	DATE		
DCS	2/16/2017		
DRAWN BY	DATE		
MR	2/16/2017		
CHECKED BY	DATE		
RR	2/16/2017		
APPROVED BY	DATE	No.	DATE	REVISIONS

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PALMETTO BAY, FLORIDA

RE
ROSS ENGINEERING, INC.
17670 NW 78TH AVE. SUITE 214
MIAMI, FLORIDA 33015
(786)468-8304 (305)392-1019 FAX
CERTIFICATE OF AUTHORIZATION No. 9808

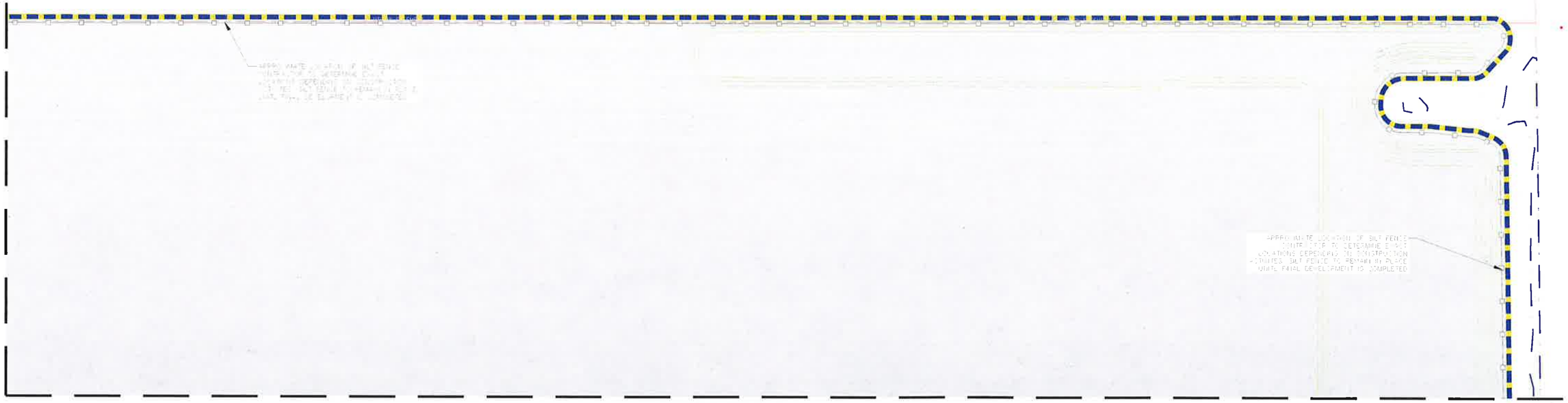
STORMWATER POLLUTION PREVENTION PLAN (3 OF 6)

SCALE: 1"=40' | SHEET No. 3 - 12

LEGEND

PROPERTY LINE
PROJECT BOUNDARY
WETLAND LIMITS
RETENTION AREA
IMPERVIOUS CONSTRUCTION ENTRANCE
SILT FENCE

MATCHLINE A-A



MATCHLINE C-C

811 Know what's below. Call before you dig.

DCS	2/16/2017		
DESIGNED BY	DATE		
DCS	2/16/2017		
DRAWN BY	DATE		
MP	2/16/2017		
CHECKED BY	DATE		
RP	2/16/2017		
APPROVED BY	DATE	No.	DATE	REVISIONS

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PALMETTO BAY, FLORIDA

RE
Ross Engineering, Inc.

17670 NW 78TH AVE, SUITE 214
MIAMI, FLORIDA 33015
(786)468-8304 (305)392-1019 FAX
CERTIFICATE OF AUTHORIZATION No. 9808

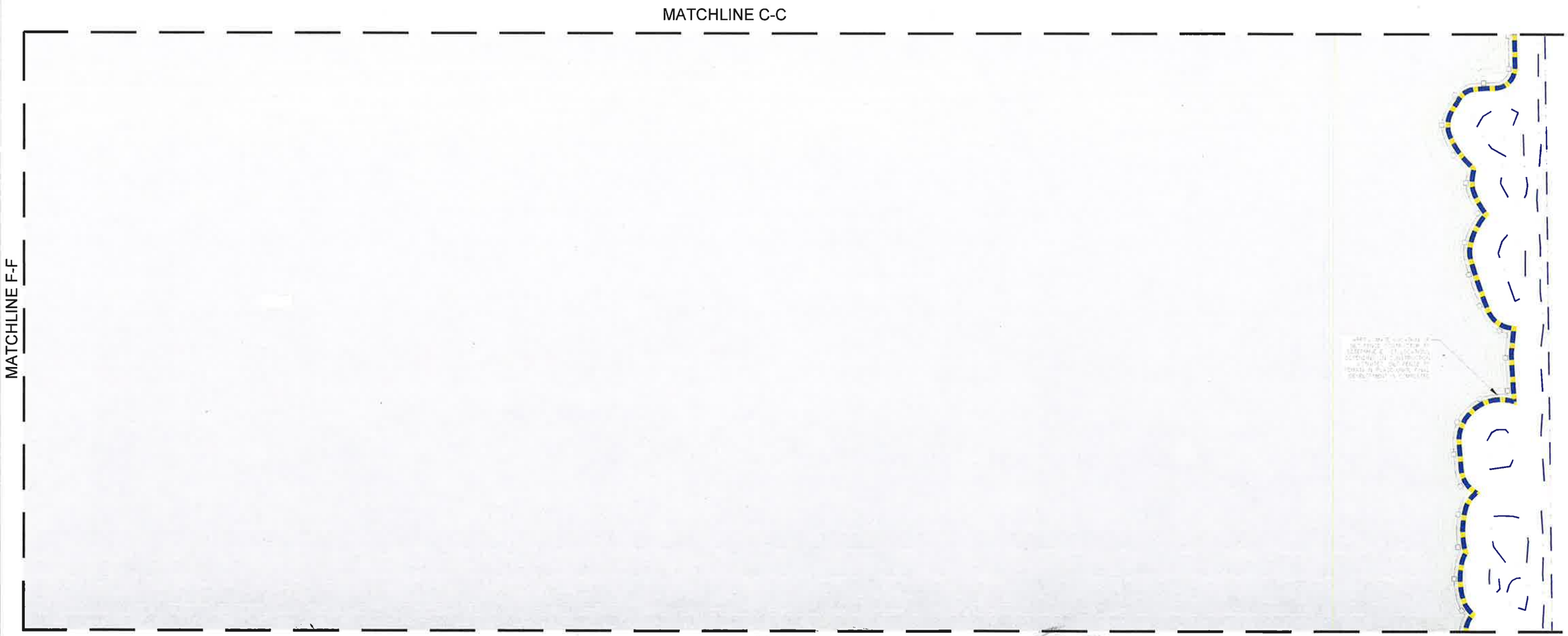
ROBERT L. ROSS
No. 39436
STATE OF FLORIDA
PROFESSIONAL ENGINEER

STORMWATER POLLUTION PREVENTION PLAN (4 OF 6)

SCALE: 1"=40'

SHEET No. C-13

LEGEND



DCS	2/16/2017		
DESIGNED BY	DATE		
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DRAWN BY	DATE		
MP	2/16/2017		
CHECKED BY	DATE		
SP	2/16/2017		
APPROVED BY	DATE	No.	DATE	REVISIONS

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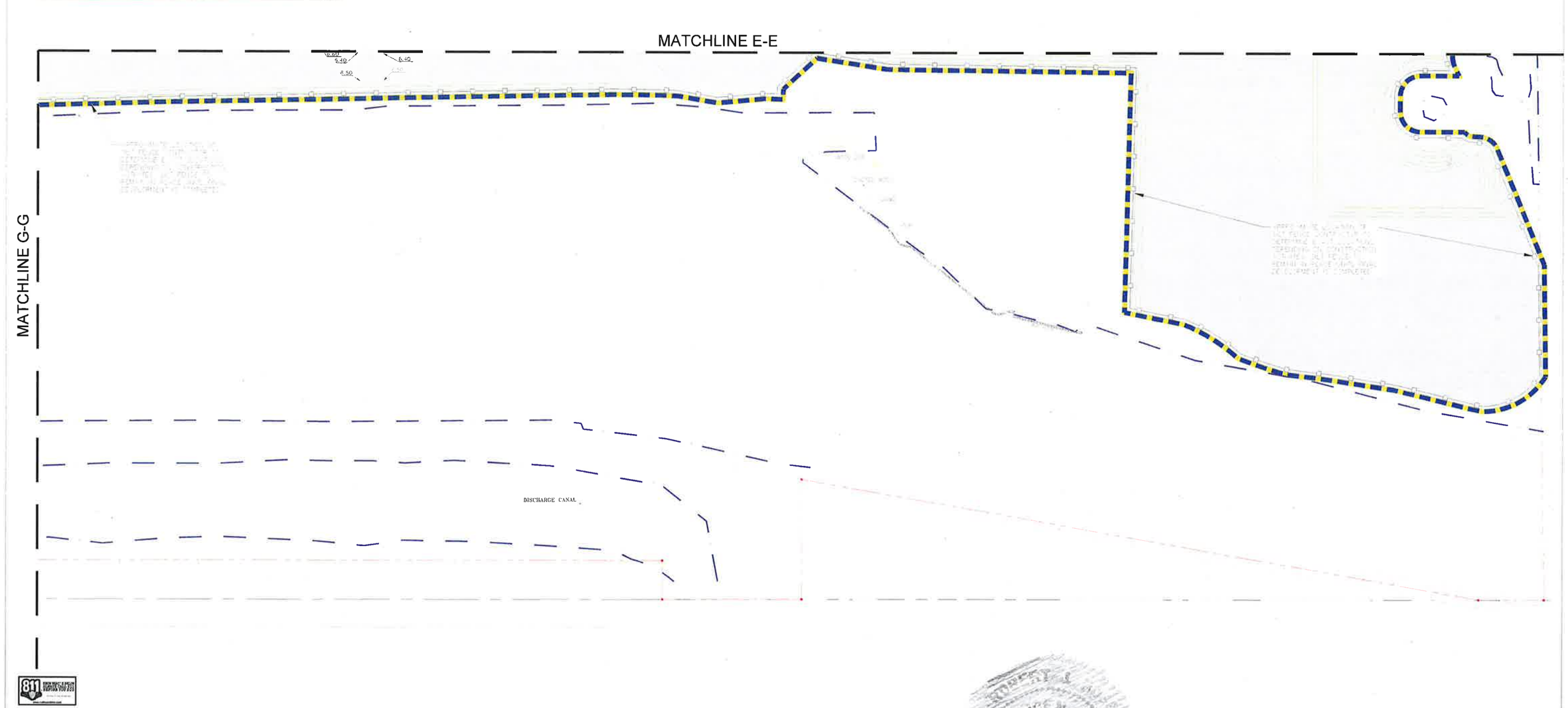
PALMETTO BAY, FLORIDA

RE
RIOS ENGINEERING, INC.
17670 NW 78TH AVE, SUITE 214
MIAMI, FLORIDA 33015
(786)468-8304 (305)392-1019 FAX
CERTIFICATE OF AUTHORIZATION No. 9808

STORMWATER POLLUTION PREVENTION PLAN (5 OF 6)

SCALE: 1"=40'
SHEET No. C-11

LEGEND



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DESIGNED BY	DATE		
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DRAWN BY	DATE		
MR	2/16/2017		
CHECKED BY	DATE		
DCS	2/16/2017		
APPROVED BY	DATE	No.	DATE	REVISIONS

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PALMETTO BAY, FLORIDA

RE
RISK ENGINEERING, INC.
17670 NW 78TH AVE, SUITE 214
MIAMI, FLORIDA 33015
(786)468-8304 (305)392-1019 FAX
CERTIFICATE OF AUTHORIZATION No. 9802

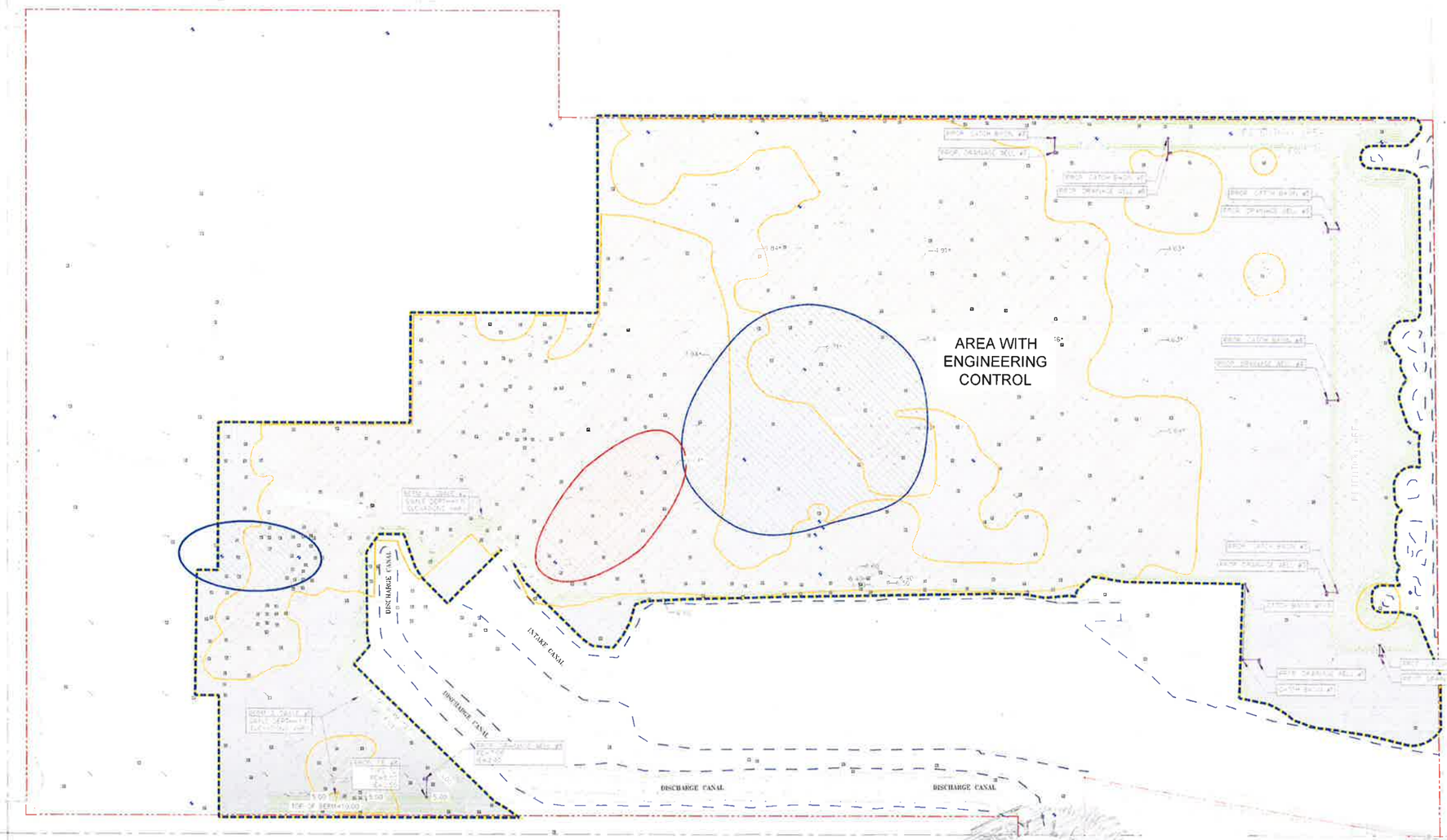
STORMWATER POLLUTION PREVENTION PLAN (6 OF 6)

SCALE: 1=40'

SHEET No. 2-15

KEY MAP
NTS

LEGEND



DCS 3/16/2017
DESIGNED BY DATE
DCS 3/16/2017
DRAWN BY DATE
MR 3/16/2017
CHECKED BY DATE
MR 3/16/2017
APPROVED BY DATE

No.	DATE	REVISIONS

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PALMETTO BAY, FLORIDA

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MIAMI, FLORIDA 33015
(786)468-8304 (305)392-1019 FAX
CERTIFICATE OF AUTHORIZATION No 9808

FIGURE 2
SITE MAP WITH ENGINEERING CONTROL