Biological Assessment of

Milton WWTF

Santa Rosa County

NPDES # FL0021903

Sampled January 23, 2017

January 2018

Biology Program

DEP Laboratory

Division of Environmental Assessment and Restoration

DEP Laboratory Quality Manual

NELAC Certification No. E31780

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EPA End Sheet

The purpose of this investigation was to determine the discharge's effects on the biota of the receiving waters. Biological assessments are prepared by DEP staff to provide information for review of NPDES permit renewal applications. Biological assessments, in conjunction with other information concerning the subject facility and its receiving-water body, are used to determine appropriate permit conditions. All references to 62-302.530, F.A.C. are to the final surface water quality criteria table with an effective date of 08/01/2013 and a notice identification number of 13249441. New limits for *E. coli*, enterococci, and total ammonia nitrogen have been approved but the updates will not be used in this report as the sampling occurred prior to their approval.

Facility Overview

The Milton Wastewater Treatment Facility is a Municipal Domestic Wastewater Treatment Facility. The effluent is continuously discharged into the tidal portion of the Blackwater River, Waterbody Identification (WBID)# 24AB, a Class III Marine Estuary (see map Appendix A). The most recent permit issued in 2013 listed this segment of the Blackwater River as freshwater. WBID#24AB was created in March 2010 during the Impaired Waters Rule Run 39. This newly created WBID was classified as Class III Marine. All tests were scheduled as freshwater analyses. When possible, this report compares the results to the Class III Marine Water Quality criteria to assist in writing the new permit. The permitted capacity flow of the wastewater system is 2.5 million gallons per day (MGD). The daily flow rate on January 22, 2017 was 2.421 MGD. The annual average daily flow for January 2016 - December 2016 was 1.84 MGD.

See the Facility Summary (Appendix B) for a description of the facility, summary of permit limits, and Discharge Monitoring Report (DMR) information.

Methods

Chemical and biological comparisons were made between two stations in the Blackwater River: Station 1 (located approximately 20 m downstream of the Outfall D-001) and Station 2 (located approximately 100 m downstream of Station 1). These stations were selected to detect a gradient pattern for analytes detected in the effluent. The facility discharges to the tidally influenced portion of Blackwater River, making it unsuitable to have a control site upstream of the effluent. Furthermore, in previous bioassessments, the marine macroinvertebrate community was too depauperate to assess using ponar grab samples, and freshwater sampling techniques at this location are not appropriate. Macroinvertebrates were not collected as part of this study. Instream samples were collected on an incoming tide, which is not ideal but required due to the constraints of the tidal cycles. The increase from low to high tide, however, was less than one foot (ProTides). Effluent samples for analyses were taken as grab samples from Outfall D-001, after dechlorination. Toxicity samples were flow proportioned composite samples collected from Outfall D-001.

All field and laboratory methods followed DEP Standard Operating Procedures (see https://floridadep.gov/dear/florida-dep-laboratory/content/dep-laboratory-quality-assurance-manual-and-sops and https://floridadep.gov/dear/quality-assurance/content/dep-sops for details) and met DEP quality assurance/quality control standards (see http://www.dep.state.fl.us/water/sas/qa/index.htm). Explanations of specific methods and measurements can be found in Appendix C. The following were involved in this investigation: Dana Vestal, Nathan Mulkey and Mike King (DEP Northwest District Office, Pensacola), and DEP Laboratory in Tallahassee. The report was reviewed by District representatives and the Point Source Studies Review Committee (Mike Tanski, Andrew Tintle, and Adrienne Pennington).

Results

Physical and Chemical Parameters (See Table 1 and Appendices C, D, E, and F)

- The dissolved oxygen of the effluent, Station 1, and Station 2 complied with Class III Marine Water Quality Criteria (62-302.533, F.A.C.) and/or effluent permit limits.
- The pH of the effluent complied with the effluent permit limits. The pH of Station 1 and Station 2 were below the numeric Class III Marine Water Quality Criteria (62-302.530, F.A.C.), but a review of ecosummaries conducted in 1999 and 2006 in the Blackwater River Basin demonstrates that the pH is naturally lower than the numeric criteria. Based on historical data from the ecosummaries the natural pH range of the Blackwater River is 5.1-6.5 (Minibasin Study: Blackwater River 1999).

Organic Constituents (See Appendix F)

- No organic constituents were detected in the receiving waters or effluent.
- No organic constituents were detected in the field blank.

Nutrients (See Table 2 and Appendix F)

- This portion of the Blackwater River falls within Pensacola Bay Estuary, Blackwater Bay Segment Nutrient Region. The Numeric Nutrient Criteria (NNC) thresholds for this region shall not exceed the criteria in more than 10 percent of samples (62-302.532(1)(I)6, F.A.C.). This FYI event provides single sample results.
- http://ca.dep.state.fl.us/mapdirect/?focus=nutrientcriteriaOrtho-phosphate was collected both as a grab and composite sample for the effluent. The effluent composite results are invalid because this is not an appropriate collection method.
- Ortho-phosphate, total phosphorus, total ammonia, total nitrogen, and nitrate and nitrite amounts were highest in the effluent grab and composite samples, lower in the Station 1 samples, and lowest in the Station 2 samples. Total Kjehldahl nitrogen and organic nitrogen amounts detected in the effluent sample, Station 1 sample, and Station 2 did not follow the gradient pattern.
- Total nitrogen detected in the effluent grab, effluent composite, and Station 1 samples exceeded the Blackwater Bay Estuary Nutrient Region NNC(62-302.532(1)(I)6, F.A.C.).
- Total phosphorus detected in the effluent grab, effluent composite, and Station 1 samples exceeded the Blackwater Bay Estuary Nutrient Region NNC(62-302.532(1)(I)6, F.A.C.). Chlorophyll *a* (corrected) was undetected in the effluent sample, Station 1 sample, and Station 2 sample and therefore complied with Blackwater Bay Estuary Nutrient Region NNC(62-302.532(1)(I)6, F.A.C.).
- OGC#17-0419 Final Order executed on June27,2017 listed this WBID#24AM as impaired for total nitrogen.
- Organic carbon detected in Station 1 and Station 2 samples was approximately twice as high as in the effluent grab and effluent composite samples.

Analytical Water Chemistry (See Table 2 and Appendix F)

- The total residual chlorine, as measured by DEP staff, was undetected at the time of effluent grab sampling and complies with effluent permit limits and Class III Marine Water Quality Criteria (62-302.530, F.A.C.).
- Total suspended solids and carbonaceous biochemical oxygen demand of the composite effluent sample complied with effluent permit limits.
- Turbidity was detected in the effluent grab, Station 1, and Station 2 samples in amounts that complied with Class III Marine Water Quality Criteria (62-302.530, F.A.C.).

Microbiology (See Table 2 and Appendix F)

- Fecal coliforms and Enterococci in the effluent complied with the effluent permit limits.
- Fecal coliforms in Station 1 and Station 2 samples exceeded the Class III Freshwater Quality Criteria (62-302.530, (6) F.A.C.).

Toxicity Whole Effluent Test (See Table 2 and Appendix F)

- Freshwater tests were performed January 24 through January 31, 2017.
- The effluent sample was not toxic to the fish, *Pimephales promelas,* or to the water flea, *Ceriodaphnia dubia,* during the chronic definitive bioassays and therefore, complied with effluent permit limits.
- For more information or to obtain copies of the toxicity bench sheets, please contact the Biology Laboratory at 850-245-8177.

Metals (See Table 3 and Appendix F)

- Copper detected in the effluent sample exceeded the effluent permit limits and Class III Marine Water Quality Criteria (62-302.530, F.A.C.).
- Copper and lead were detected in the field blank. There was known contamination for copper, lead, and nickel with the Northwest District, Pensacola deionized water lines. The issue was resolved through the installation of a Teflon tubing and spigot. These detects appear to be due to the water line contamination. The contamination is no longer occurring as demonstrated by further testing.

Algal Growth Potential (See Table 4 and Appendix F)

- The AGP values measured in Station 1 and Station 2 samples were similar. They were two orders of magnitude lower than the effluent sample.
- The samples collected at Station 1 and at the effluent were nitrogen limited. The sample collected at Station 2 was phosphorus limited.
- The AGP of the effluent fell within the range suggested to be representative of high productivity for freshwaters (Miller et. al. 1978). Although the tidal portion of Blackwater River is now classified as a Class III Marine waterbody, the AGP was ran as a freshwater test because the sample water brought in had a salinity of < 1.0 ppt.

Sediments (See Table 5, Figures 1 and 2, and Appendix F)

- Station 1 and Station 2 samples were composed primarily of sediment particles 0.50 - 1.0 mm in size.
- All the tested metals were below the threshold effects level (TEL) (MacDonald 1994).
- Organic constituents were undetected or detected in amounts below the TEL. (MacDonald 1994).

Conclusion

The amount of copper in the water samples displayed a gradient. Copper detected in the effluent sample exceeded the effluent permit limits and Class III Marine Water Quality Criteria (62-302.530, F.A.C.) and was greater than amounts measured in the receiving water. Copper detected in the Station 1 sample was three times higher than the amount detected in the Station 2 sample. The amount of lead detected in Station 1 and Station 2 samples was more than double the amount detected in the effluent. Other than organic carbon, nutrients displayed a gradient with Station 2 having the lowest amounts. The AGP value of the effluent sample is suggested to be representative of high productivity for freshwaters and was an order of magnitude higher than the amounts detected in Station 1 and Station 2 samples. The AGP value detected in the Station 1 sample was lower than the effluent amount but slightly higher than the amount detected in the Station 2 sample, further demonstrating the gradient effect. The nutrients and the copper of the effluent samples appear to be diluted in the Blackwater River. However, total nitrogen and total phosphorus exceeded the Numeric Nutrient Criteria for Blackwater Bay Estuary Nutrient Region NNC (62-302.532(1)(I)6, F.A.C. Since Blackwater Bay is impaired for total nitrogen, a level II WQBEL is required to determine a total nitrogen waste load allocation to continue this discharge to the impaired water body of Blackwater Bay.

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1999. Minibasin Study: Blackwater River. *Figure 6: Chemistry and Habitat Assessment Data*. Figure 7: *Chemistry and Habitat Assessment Data (Cont.)*

Table 1. Effluent limits, Class III Marine Criteria and Field Parameters

Milton WWTF	Units	Class III Criteria	Effluent Permit Limits	Effluent D-001 Grab	Station 1	Station 2
Sample Depth	m	-	-	-	0.3	0.3
Temperature	C	-	Report	20.6	17.1	16.6
pH	SU	See qualifier 2	6.0 - 8.5	7.0	5.5	5.3
Specific Conductance	umhos/cm	-	-	-	78	47
Dissolved Oxygen	% saturation	≥ 42 [7]	-	92.7 c	75.7 c	74.7 c
Dissolved Oxygen	mg/L	-	≥ 6.5	8.3	7.3	7.2
Flow	MGD	-	≤ 2.5 [1]	2.421 c	-	-

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
a - Annual average
c - Value is calculated
1- Quarterly average limit
2- pH shall not vary more than one unit above or below natural background of predominantly fresh waters and coastal waters as defined in paragraph 62-302.520(3)(b), F.A.C.
7 – The daily average percent DO saturation shall not be below 42 percent saturation in more than 10 percent of the values.

Table 2. Effluent limits, Class III Marine Criteria and analytical water chemistry data

Milton WWTF	Units	Class III Criteria - Marine	Effluent Permit Limits	Effluent D-001 grab	Effluent D-001 composite	Station 1	Station 2
Analytical Water Chemistry							
Ortho-phosphate	mg P/L	-	Report	0.72	1.0 n	0.095	0.004 U
Total Phosphorus	mg P/L	≤ 0.082 [8]	Report	0.76 e	1.1 e	0.15 e	0.014
Total Ammonia	mg N/L	-	Report	0.025	0.021	0.011	0.005 I
Un-ionized Ammonia (calculated salinity)		-	≤ 0.02 c	< 0.02 c	-	< 0.02 c	< 0.02 c
Nitrate and Nitrite	mg N/L	-	Report	1.2	1.8	0.42	0.076
Total Kjeldahl Nitrogen	mg N/L	-	≥ 8.0 s	0.54	0.67	0.38	0.41
Organic Nitrogen	mg N/L	-	-	0.52 c	0.65 c	0.37 c	0.41 c
Total Nitrogen	mg N/L	≤ 0.61 [8]	Report	1.7 e c	2.5 e c	0.8 e c	0.49 c
Total Organic Carbon	mg C/L	-	-	4.3	4.7	8.3	9.2
Chlorophyll *a* - Corrected	ug/L	≤ 11.3 [8]	-	0.55 U	-	0.55 U	0.55 U
Phaeophytin	ug/L	-	-	0.40 U	-	0.40 U	0.40 U
CBOD, 5 day, N - inhibited		-	≤ 16.0 s	-	3.2 A	1.2 I	1.4 I
Total Residual Chlorine	mg/L	≤ 0.01	≤ 0.01	≤ 0.01 [4]	-	-	-
Total Suspended Solids	mg/L	-	≤ 10.0 s	-	2 U	4 I	4 I
Turbidity	NTU	< 29 t	-	0.7	-	7.6	7.7 A
Color (true)	PCU	-	-	5.4 I	-	79 A	89
Chloride	mg Cl/L	-	-	31	-	14 A	10
Fluoride	mg F/L	≤ 5.0	-	0.074 I	-	0.035 U	0.035 U
Sulfate	mg SO4/L	-	-	13	-	4.9 A	2.1
Microbiology							
Fecal Coliforms 3	cfu/100mL	-	≤ 86 s	3 B	-	490 e	540 e
Enterococci 3	cfu/100mL	≤ 130	≤ 104 s	2 U	-	104	114
Toxicity (IC25, 7-day Chronic Definitive)							
Bioassay - Water flea *(Ceriodaphnia dubia)*	% effluent	-	≥ 100	-	100 L	-	-
Bioassay - Fish *(Pimephales promelas)*	% effluent	-	≥ 100	-	100 L	-	-

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
a - Annual average
c - Value is calculated
e- Value exceeds the Class III Water Quality Criteria or permit limits
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
n- The technique used for collection was not appropriate
s - Single sample
t - Shall not exceed 29 NTUs above background
A - Value reported is the mean of two or more determinations
B - Results based on colony counts outside the acceptance range
L - Actual value is known to be greater than value given
U - Material analyzed for but not detected; value reported is the method detection limit
3 - Fecal coliform analysis and Enterococci performed by the University of West Florida, Overflow Laboratory for NWD
x - If 10 or fewer samples are taken within a month, the single sample limit is 400 CFU (62-302.530(6), F.A.C.)
†- geometric mean of 5 samples/month
4 - Measurement taken by field samplers
8 – The criteria shall not be exceeded in more than 10 percent of the measurements.

Table 3. Effluent limits, Class III Marine Criteria and analytical metals data

Milton WWTF	Units	Effluent Class III Criteria	Effluent Permit Limits	Effluent comp	Station 1 Class III Criteria	Station 1	Station 2 Class III Criteria	Station 2	Field Blank
Hardness	mg/L	-	Report	69 c	-	21 c	-	6.6 c	0.4 c
Aluminum	ug/L	≤ 1500	-	17	-	445	-	521	3.0 U
Arsenic	ug/L	≤ 50	≤ 75 s	0.35	≤ 50	0.35	≤ 50	0.32	0.050 U
Cadmium	ug/L	≤ 8.8	≤ 85 s	0.039 I	≤ 0.10 b	0.020 I	≤ 0.10 b	0.020 U	0.020 U
Calcium	mg/L	-	-	25	-	6.3	-	0.97	0.075 U
Chromium, Total [5]	ug/L	≤ 50	-	0.41 I	≤ 27.7 b	0.61 I	≤ 27.7 b	0.58 I	0.40 U
Copper	ug/L	≤ 3.7	≤ 3.0 b	7.77 e	≤ 2.85 b	1.09	≤ 2.85 b	0.29 I	0.31 I
Iron	ug/L	≤ 300	-	30 U	≤ 300	470 e	≤ 300	530 e	30 U
Lead	ug/L	≤ 8.5	≤ 0.5 b	0.16 I	≤ 8.5	0.40	≤ 8.5	0.39	0.43
Magnesium	mg/L	-	-	1.61	-	1.18	-	1.01	0.040 U
Nickel	ug/L	≤ 8.3	≤ 20 b	14.7	≤8.3	3.03	≤ 8.3	0.60 I	0.20 U
Potassium	mg/L	-	-	7.1	-	1.7	-	0.49 I	0.30 U
Selenium	ug/L	≤ 71	-	0.20 U	≤ 71	0.20 U	≤ 71	0.20 U	0.20 U
Silver	ug/L	≤ 2.3	-	0.010 U	≤ 2.3	0.010 U	≤ 2.3	0.010 U	0.010 U
Sodium	mg/L	-	-	23.8	-	9.2	-	5.4	0.50 U
Zinc	ug/L	≤ 86	≤ 40 b	39	≤86	8.6 I	≤ 86	5.0 U	5.0 U

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
b - Value is calculated based on hardness, (62-302.530(3))
c-Value is calculated
e- Value exceeds the Class III Water Quality Criteria or permit limits
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
s - Single sample
U - Material analyzed for but not detected; value reported is the method detection limit
5 - Class III Marine Quality Criterion (62-302.530(19) (b), F.A.C.) is for chromium (hexavalent)

Table 4. Measured and predicted algal growth potential (AGP; mg dry weight/L) for total soluble inorganic nitrogen (TSIN), ortho-phosphate (OP), total nitrogen (TN) and total phosphorus (TP) limitation and ratios of nitrogen to phosphorus

Milton WWTF								
Location	**Test Species**	**AGP (measured)**	**Predicted AGP (TSIN) ± 20%**	**Predicted AGP (OP) ± 20%**	**Predicted AGP (TN) ± 20%**	**Predicted AGP (TP) ± 20%**	**Inorganic N:P ratio**	**Total N:P ratio**
Effluent D-001 grab	*Pseudokirchneriella subcapitata*	14.7 AJ	46.6 ± 9.3	309.6 ± 61.9	66.1 ± 13.2	326.8 ± 65.4	1.7	2.3
Station 1	*Pseudokirchneriella subcapitata*	0.30 U	16.4 ± 3.3	40.9 ± 8.2	30.4 ± 6.1	64.5 ± 12.9	4.5	5.3
Station 2	*Pseudokirchneriella subcapitata*	0.30 U	3.1 ± 0.6	not applicable [6]	18.5 ± 3.7	6 ± 1.2	not applicable [6]	34.7

6 - non-detect in the analytical chemistry; predictions could not be made and N:P ratios could not be calculated.

A -Value reported is the mean of two or more determinations

J - Estimated value

U - Material analyzed for but not detected; value reported is the method detection limit

Table 5. Sediment Data

Milton WWTF	Units	Sediment Quality Assessment Guidelines		Station 1	Station 2
		TEL	PEL		
Particle Size Distribution					
<0.0039mm	% vol	-	-	1.21 A	1.31
0.0039-0.0078mm	% vol	-	-	1.35 A	1.71
0.0078-0.0156mm	% vol	-	-	1.68 A	2.51
0.0156-0.031mm	% vol	-	-	1.49 A	2.23
0.031-0.0625mm	% vol	-	-	1.34 A	1.68
0.0625-0.125mm	% vol	-	-	1.87 A	1.65
0.125-0.25mm	% vol	-	-	3.79 A	3.8
0.25-0.50mm	% vol	-	-	15 A	19.3
0.50-1.0mm	% vol	-	-	49.9 A	46.7
1.0-2.0mm	% vol	-	-	22.4 A	19.1
>2.0mm	% vol	-	-	1.7 A	2.7
Organic Content					
Organic Content	% dry wt	-	-	1.0 K	1.0 K
Metals					
Arsenic	mg/Kg	7.24	41.6	0.462	0.416
Cadmium	mg/Kg	0.676	4.21	0.018 I	0.012 I
Chromium	mg/Kg	52.3	160	2.4	2.03
Copper	mg/Kg	18.7	108	1.22	0.85
Lead	mg/Kg	30.2	112	2.7	2.36
Nickel	mg/Kg	15.9	42.8	0.78 I	0.64 I
Silver	mg/Kg	0.733	1.77	0.014	0.0047 I
Zinc	mg/Kg	124	271	4.2 I	4.3 U
Priority Organic Pollutants					
Benzo(b)fluoranthene	ug/kg	-	-	8.8 I	8.8 I
Fluoranthene	ug/kg	113	1494	22 I	14 I
Pyrene	ug/kg	153	1398	22 I	14 I

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.

A - Value reported is the mean of two or more determinations

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

K - Actual value is known to be less than value given

U - Material analyzed for but not detected; value reported is the method detection limit

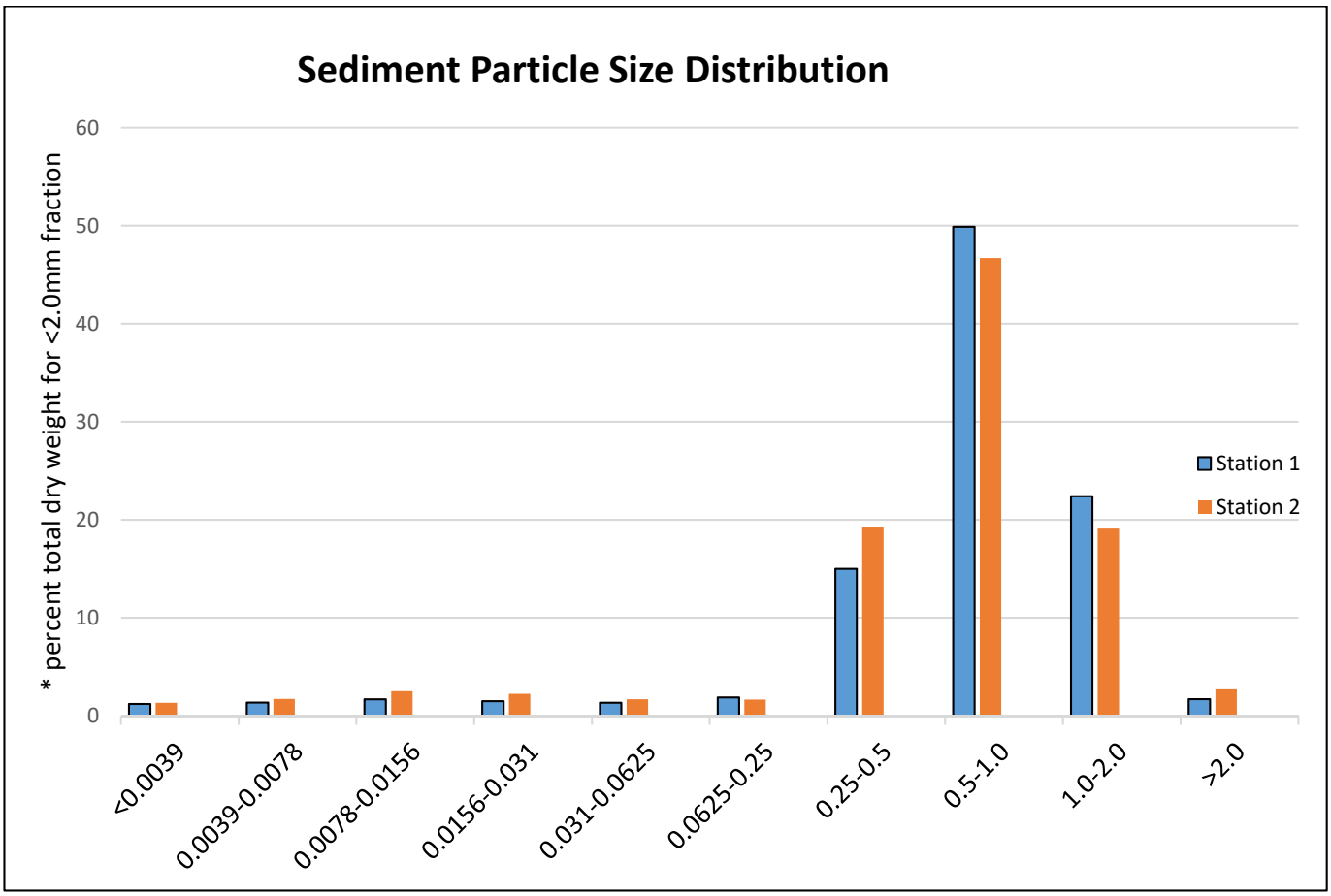
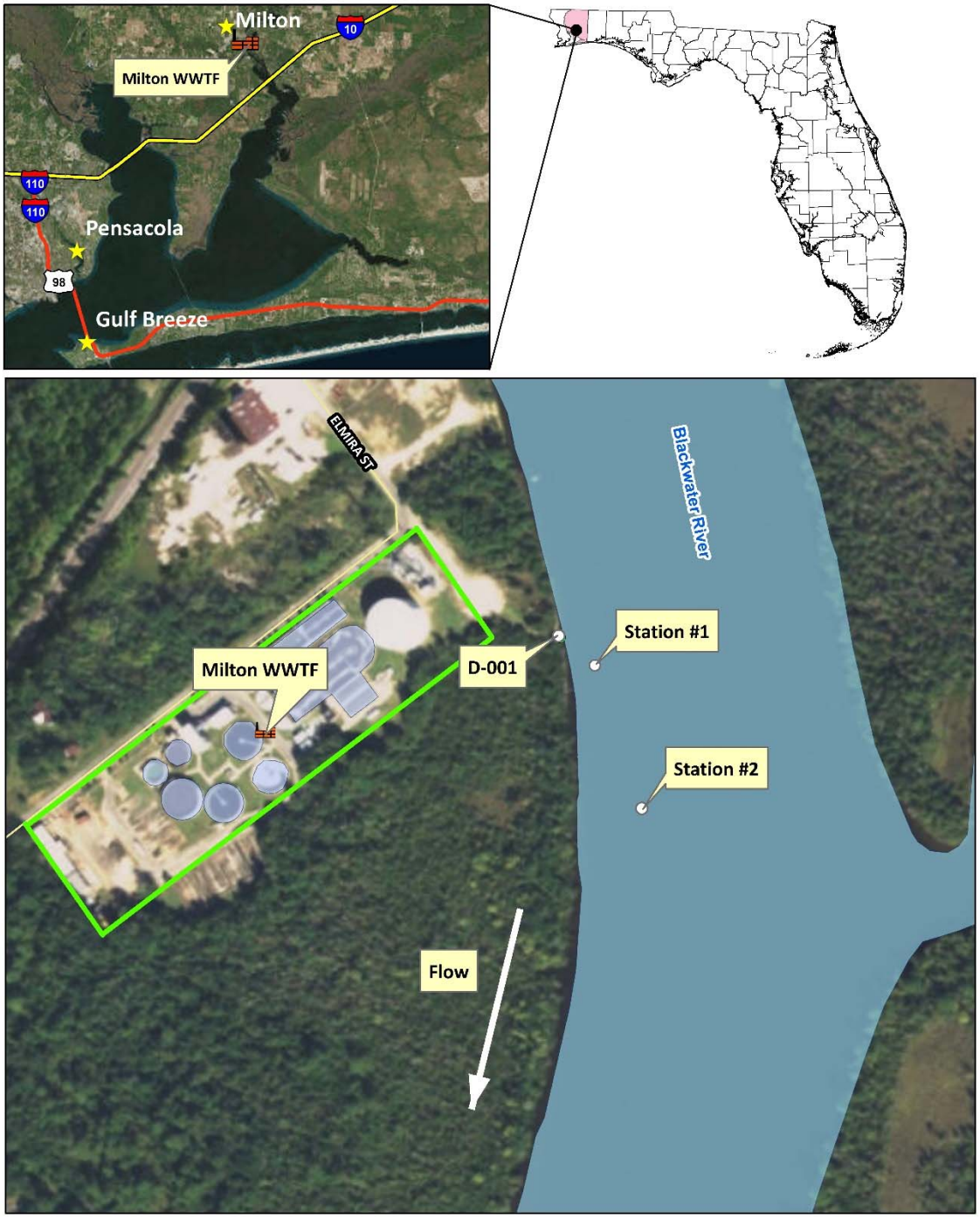


Figure 1. Sediment particle size (mm) for 2 sampling sites at Milton WWTF, January 24, 2017.

Appendix A

Map of Facility

Appendix A
Milton WWTF
Fifth Year Bioassessment Sampling Locations



Appendix B

Facility Summary

State of Florida

Department of Environmental Protection
Facility Introduction & Summary

PART I: Information gathered prior to sampling event	
Prepared By: Dana Vestal	**Contact Number:** (850) 595-0659
Facility Name (as it appears on permit): Milton WWTF	**Former Names:** Milton, City of - WWTF
NPDES Permit Number: FL0021903	**Permit Expiration Date:** July 15, 2018
Physical Address: 6903 Municipal Drive, Milton, FL 32570	
District: Northwest	**County:** Santa Rosa
Function of Facility: Domestic Wastewater Treatment Facility	
Facility Type: Domestic Wastewater	**Permitted Capacity (MGD):** 2.5 MGD TMADF
Mean Flow for previous 12 months for all EXTERNAL outfalls listed in permit (list date range including months): D-001 Quarterly flow average in November 2016 1.647 MGD. Facility does not report an annual average for flow. Flow is limited to a quarterly average. August 2016 D-001 quarterly flow average 1.99 MGD. May 2016 D-001 quarterly flow average 1.86 MGD. February 2016 D-001 quarterly flow average 1.993 MGD. The average of these quarterly average flow values is 1.8725 MGD.	
If applicable, Mean Flow for previous 12 months for REUSE outfall(s) (list date range including months): FLW-03 is onsite industrial reuse reported as a monthly average each month, summarized below. November 2016 – 0.253 MGD monthly average October 2016 – 0.247 MGD monthly average September 2016 – 0.255 MGD monthly average August 2016 – 0.257 MGD monthly average July 2016 – 0.0188 MGD monthly average June 2016 – 0.248 MGD monthly average	

May 2016 – 0.0 MGD monthly average
April 2016 – 0.209 MGD monthly average
March 2016 – 0.0216 MGD monthly average
February 2016 – 0.0203 MGD monthly average
January 2016 – 0.0050 MGD monthly average
December 2015 – 0.0235 MGD monthly average
The average of these monthly average onsite industrial reuse flow values is 0.12985 MGD.

Description of type of Discharge:
☒ **Continuous** ☐ **Intermittent** ☐ **Seasonal** ☐ **Rainfall Dependent**
☐ **Other, please specify:**

Description of Sampling Location(s) - actual permit designation of permitted sampling point(s):
Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.A.1. and as described below:

Monitoring Site Number	Description of Monitoring Site
CAL-01	Calculated Value = FLW-01 – (FLW-02 + FLW-03)
FLW-01	Ultrasonic effluent flow meter between the Secondary Clarifiers and Disk Filters
FLW-02	Flow meter between Reject Pump Station and Reject Storage Tank
FLW-03	Flow meter between Onsite Reuse Pump and Hydropneumatic Reuse Storage Tank
EFF-01	Effluent Point, Prior to Discharge Pipe, at bottom of cascade aeration, after de-chlorination
EFF-02	First step of cascade at top of cascade
EFA-01	Post Disinfection Point, first step of cascade at top of cascade
EFD-01	Post Dechlorination Point Prior to Discharge Pipe, at bottom of cascade aeration

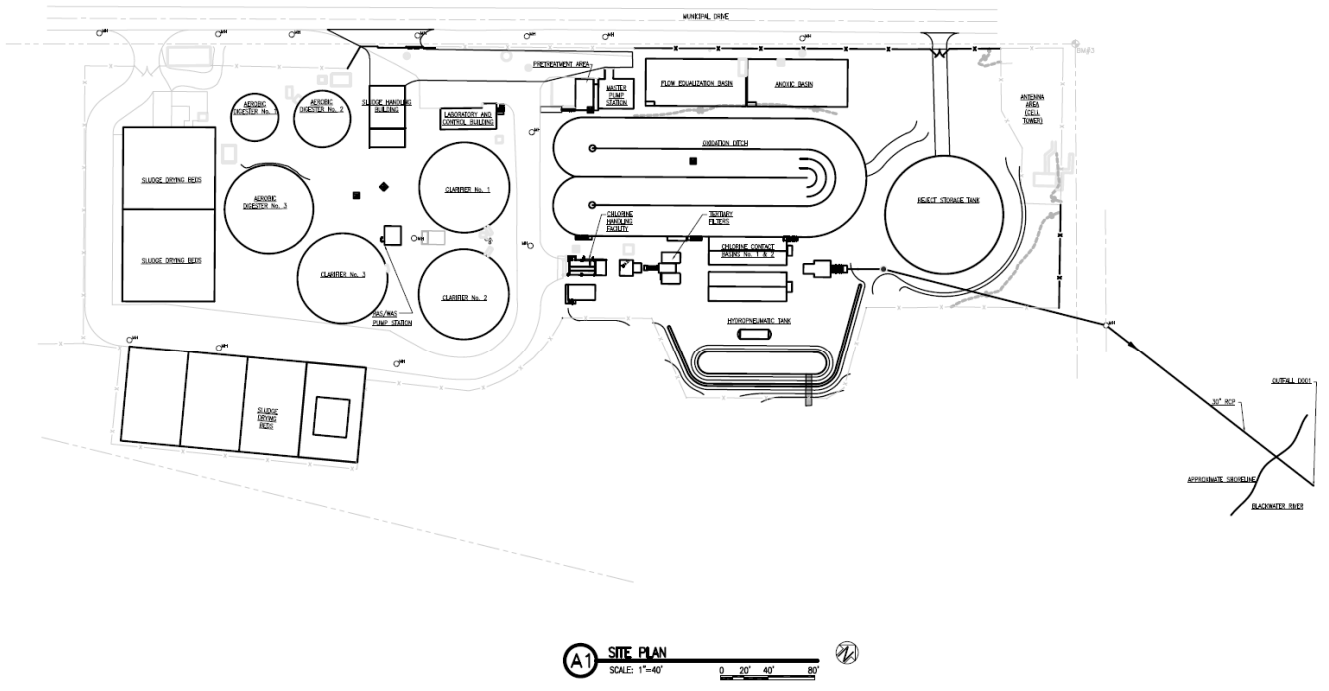
D-001 Effluent Sampling locations.

Description of Permitted Outfall(s): D-001 – Outfall to Blackwater River located approximately at latitude 30°37'04"N, longitude 87°2'02"W. Outfall pipe 30" open pipe cast iron 15-20 feet from shore, 1 feet depth below water surface, receiving water 4 feet depth below water surface.

Description of Treatment Process (if multiple discharge points, include a detailed map or diagram of facility):

A 2.5 MGD three month average daily flow (TMADF) activated sludge wastewater treatment facility providing Class I Reliability. The extended aeration treatment system consists of an influent pump station, aerated grit chamber pretreatment with a flow equalization basin, an anoxic basin, internal recycle pump station, a carousel oxidation ditch, three secondary clarifiers, two disk filters, four chlorine contact chambers, onsite reuse pump station, reject pump station with a 3.0 MG reject water storage tank, and cascade aeration after de-chlorination prior to discharge to surface waters.

Site Plan



A1 SITE PLAN
SCALE: 1"=40'
0 20' 40' 80'

Facility Map Aerial



December 21, 2016

1:2,257

Residual Application Sites from WAFR IMS

Wastewater Sites from WAFR IMS

Wastewater Facilities from WAFR IMS

Waterbody IDs (WBIDs)

Group 1

Group 2

0 0.0275 0.055 0.11 mi

0 0.0425 0.085 0.17 km

PART I: Continued

List <u>current</u> Effluent Limits of Outfall(s) to be Sampled: This should include any AO or CO limits the facility may be under
(Leave cell blank if not applicable)

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max/M in	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow (to Blackwater River)	MGD	Max Max	2.5 Report	Quarterly Average Monthly Average	Daily; 24 hours	Calculated	CAL-01	
Flow (including re- circulated reject and reuse water)	MGD	Max	Report	Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-01	See I.B.3
Flow (Flow to Reject Water Storage)	MGD	Max	Report	Monthly Average	Daily; 24 hours	Meter	FLW-02	See I.B.3
Flow (Flow to on-site Reuse)	MGD	Max	Report	Monthly Average	Daily; 24 hours	Meter	FLW-03	See I.B.3
BOD, Carbonaceous 5 day, 20C	mg/L	Max Max Max Max	8.0 8.0 12.0 16.0	Annual Average Monthly Average Weekly Average Single Sample	Weekly	16-hr FPC	EFF-01	
Solids, Total Suspended	mg/L	Max Max Max Max	5.0 6.25 7.5 10.0	Annual Average Monthly Average Weekly Average Single Sample	Weekly	16-hr FPC	EFF-01	
Nitrogen, Total	mg/L	Max Max	Report Report	Monthly Average Single Sample	Weekly	16-hr FPC	EFF-01	
Phosphorus, Total (as P)	mg/L	Max Max	Report Report	Monthly Average Single Sample	Weekly	16-hr FPC	EFF-01	
Phosphate, Ortho (as P)	mg/L	Max Max	Report Report	Monthly Average Single Sample	Weekly	16-hr FPC	EFF-01	
pH	s.u.	Min Max	6.0 8.5	Single Sample Single Sample	Continuous	Meter	EFF-02	See I.A.3
Coliform, Fecal	#/100 mL	Max Max Max	14 86 14	Annual Average Single Sample Monthly Median	Weekly	Grab	EFF-01	See I.A.4
Enterococci	#/100 mL	Max Max	35 104	Monthly Geometric Mean Single Sample	5/Month	Grab	EFF-01	See I.A.6
Chlorine, Total Residual (For Disinfection)	mg/L	Min	1.0	Single Sample	Continuous	Meter	EFA-01	See I.A.3 and I.A.5
Chlorine, Total Residual (For Dechlorination)	mg/L	Max	0.01	Single Sample	Daily; 24 hours	Grab	EFD-01	
Nitrogen, Kjeldahl, Total (as N)	mg/L	Max Max Max Max	4.0 4.0 6.0 8.0	Annual Average Monthly Average Weekly Average Single Sample	Weekly	16-hr FPC	EFF-01	
Nitrogen, Ammonia, Total (as N)	mg/L	Max Max	Report Report	Monthly Average Single Sample	Weekly	Grab	EFF-01	

PART I: Continued

List current Effluent Limits of Outfall(s) to be Sampled: This should include any AO or CO limits the facility may be under
(Leave cell blank if not applicable)

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max/M in	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Nitrite plus Nitrate, Total 1 det. (as N)	mg/L	Max Max	Report Report	Monthly Average Single Sample	Weekly	16-hr FPC	EFF-01	
Ammonia, Un-ionized (as NH3)	mg/L	Max	0.02	Single Sample	Weekly	Calculated	CAL-01	See I.A.7
Temperature (F), Water	Deg F	Max	Report	Single Sample	Weekly	Grab	EFF-01	
Oxygen, Dissolved (DO)	mg/L	Max	6.5	Single Sample	Daily; 24 hours	Grab	EFF-01	
Copper, Total Recoverable	ug/L	Max	-	Single Sample	Quarterly	16-hr FPC	EFF-01	See I.A.8
Hardness, Total (as CaCO3)	mg/L	Max	Report	Single Sample	Quarterly	16-hr FPC	EFF-01	

Parameter	Units	Max/ Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Chronic Whole Effluent Toxicity, 7-Day IC25 (Ceriodaphnia dubia)	percent	Min	100	Single Sample	Semi-Annually; twice per year	24-hr FPC	EFF-01	See I.A.9
Chronic Whole Effluent Toxicity, 7-Day IC25 (Pimephales promelas)	percent	Min	100	Single Sample	Semi-Annually; twice per year	24-hr FPC	EFF-01	See I.A.9

Notes:

I.A.3. - Hourly measurement of pH and total residual chlorine for disinfection during the period of required operator attendance may be substituted for continuous measurement. *[Chapter 62-601, Figure 2]*

I.A.4. - The effluent limitation for the monthly median for fecal coliform is only applicable if 10 or more values are reported. If fewer than 10 values are reported, the monthly median shall be calculated and reported on the Discharge Monitoring Report. *[62-600.440(6)(c)]*

I.A.5. - Total residual chlorine must be maintained for a minimum contact time of 15 minutes based on peak hourly flow. *[62-600.440(4)(b), (5)(b), and (6)(b)]*

I.A.6. - The enterococci geometric mean value shall be based on a minimum of 5 samples of effluent each collected on nonconsecutive days during a period of 30 consecutive days (monthly). Effluent samples for enterococci shall be monitored using EPA Method 1600 or Enterolert™. *[62-302.500(1)(a)6. and 40 CFR Part 131(Federal Register/Vol. 69, No. 220, pages 67218-67243)]*

I.A.7. - Effluent samples for pH and temperature shall be monitored at the same time and location as the total ammonia grab sample which is used to calculate the un-ionized ammonia value. Un-ionized ammonia shall be calculated using the DEP Standard Operating Procedure for "Calculation of Un-Ionized Ammonia in Fresh Water" dated February 12, 2001. *[62-4.246(4) and 62-302.530(3)]*

I.A.8. - The limit for "Copper, Total Recoverable" shall be calculated using the following equation(s): $Cu \leq e^{(0.8545[\ln H]-1.702)}$

Total hardness shall be measured at the time of the effluent sample. The "ln H" means the natural logarithm of total hardness expressed as mg/L of $CaCO_3$. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is <25 mg/L and set at 400 mg/L if actual hardness is >400mg/L. The measured effluent value shall be recorded on the DMR in the parameter row for "Copper, Total Recoverable (effluent)." The calculated effluent limit shall be recorded on the DMR in the parameter row for "Copper, Total Recoverable (calculated limit)." Compliance with the effluent limitation is determined by calculating the difference between the measured effluent value and the calculated. The compliance value shall be recorded on the DMR in the parameter row for "Copper, Total Recoverable (effluent minus calculated limit)." The compliance value shall not exceed 0.00. *[62-302.530(23)]*

I.A.9. – The permittee shall comply with the following requirements to evaluate chronic whole effluent toxicity of the discharge from outfall D-001.

a. Effluent Limitation

(1) In any routine or additional follow-up test for chronic whole effluent toxicity, the 25 percent inhibition concentration (IC25) shall not be less than 100% effluent. *[Rules 62-302.530(61) and 62-4.241(1)(b), F.A.C.]*

(2) For acute whole effluent toxicity, the 96-hour LC50 shall not be less than 100% effluent in any test.
[Rule 62-302.500(1)(a)4. and 62-4.241(1)(a), F.A.C.]

b. Monitoring Frequency

(1) Routine toxicity tests shall be conducted once every six months, the first starting within the semiannual test cycle of the last permit and lasting for the duration of this permit.

c. Sampling Requirements

(1) For each routine test or additional follow-up test conducted, a total of three flow proportional 24-hr composite samples of final effluent shall be collected and used in accordance with the sampling protocol discussed in EPA-821-R-02-013, Section 8.

(2) The first sample shall be used to initiate the test. The remaining two samples shall be collected according to the protocol and used as renewal solutions on Day 3 (48 hours) and Day 5 (96 hours) of the test.

(3) Samples for routine and additional follow-up tests shall not be collected on the same day.

d. Test Requirements

(1) Routine Tests: All routine tests shall be conducted using a control (0% effluent) and a minimum of five test dilutions: **100%**, **50%**, **25%**, **12.5%**, and **6.25%** final effluent.

(2) The permittee shall conduct a daphnid, **Ceriodaphnia dubia**, Survival and Reproduction Test and a fathead minnow, **Pimephales promelas**, Larval Survival and Growth Test, concurrently.

(3) All test species, procedures and quality assurance criteria used shall be in accordance with **Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms**, 4th Edition, EPA-821-R-02-013. Any deviation of the bioassay procedures outlined herein shall be submitted in writing to the Department for review and approval prior to use. In the event the above method is revised, the permittee shall conduct chronic toxicity testing in accordance with the revised method.

(4) The control water and dilution water shall be moderately hard water as described in EPA-821-R-02-013, Section 7.2.3.

e. Quality Assurance Requirements

(1) A standard reference toxicant (SRT) quality assurance (QA) chronic toxicity test shall be conducted with each species used in the required toxicity tests either concurrently or initiated no more than 30 days before the date of each routine or additional follow-up test conducted. Additionally, the SRT test must be conducted concurrently if the test organisms are obtained from outside the test laboratory unless the test organism supplier provides control chart data from at least the last five monthly chronic toxicity tests using the same reference toxicant and test conditions. If the organism supplier provides the required SRT data, the organism supplier's SRT data and the test laboratory's monthly SRT-QA data shall be included in the reports for each companion routine or additional follow-up test required.

(2) If the mortality in the control (0% effluent) exceeds 20% for either species in any test or does not meet "test acceptability criteria", the test for that species (including the control) shall be invalidated and the test repeated. Test acceptability criteria for each species are defined in EPA-821-R-02-013, Section 13.12 (**Ceriodaphnia dubia**) and Section 11.11 (**Pimephales promelas**). The repeat test shall begin within 21 days after the last day of the invalid test.

(3) If 100% mortality occurs in all effluent concentrations for either test species prior to the end of any test and the control mortality is less than 20% at that time, the test (including the control) for that species shall be terminated with the conclusion that the test fails and constitutes non-compliance.

(4) Routine and additional follow-up tests shall be evaluated for acceptability based on the observed dose response relationship as required by EPA-821-R-02-013, Section 10.2.6., and the evaluation shall be included with the bioassay laboratory reports.

f. Reporting Requirements
(1) Results from all required tests shall be reported on the Discharge Monitoring Report (DMR) as follows:
(a) Routine and Additional Follow-up Test Results: The calculated IC25 for each test species shall be entered on the DMR.
(2) A bioassay laboratory report for each routine test shall be prepared according to EPA-821-R-02-013, Section 10, Report Preparation and Test Review, and mailed to the Department at the address below within 30 days after the last day of the test.
(3) For additional follow-up tests, a single bioassay laboratory report shall be prepared according to EPA-821-R-02-013, Section 10, and mailed within 30 days after the last day of the second valid additional follow-up test.
(4) Data for invalid tests shall be included in the bioassay laboratory report for the repeat test.
(5) The same bioassay data shall not be reported as the results of more than one test.
(6) All bioassay laboratory reports shall be sent to:
Florida Department of Environmental Protection
Northwest District Office
160 W Government Street, Suite 308
Pensacola, Florida 32502-5740
g. Test Failures
(1) A test fails when the test results do not meet the limits in 9.a.(1).
(2) Additional Follow-up Tests:
(a) If a routine test does not meet the chronic toxicity limitation in 9.a.(1) above, the permittee shall notify the Department at the address above within 21 days after the last day of the failed routine test and conduct two additional follow-up tests on each species that failed the test in accordance with 8.d.
(b) The first test shall be initiated within 28 days after the last day of the failed routine test. The remaining additional follow-up tests shall be conducted weekly thereafter until a total of two valid additional follow-up tests are completed.
(c) The first additional follow-up test shall be conducted using a control (0% effluent) and a minimum of five dilutions: 100%, 50%, 25%, 12.5%, and 6.25% effluent. The permittee may modify the dilution series in the second additional follow-up test to more accurately bracket the toxicity such that at least two dilutions above and two dilutions below the target concentration and a control (0% effluent) are run. All test results shall be analyzed according to the procedures in EPA-821-R-02-013.
(3) In the event of three valid test failures (whether routine or additional follow-up tests) within a 12-month period, the permittee shall notify the Department within 21 days after the last day of the third test failure.
(a) The permittee shall submit a plan for correction of the effluent toxicity within 60 days after the last day of the third test failure.
(b) The Department shall review and approve the plan before initiation.
(c) The plan shall be initiated within 30 days following the Department's written approval of the plan.
(d) Progress reports shall be submitted quarterly to the Department at the address above.
(e) During the implementation of the plan, the permittee shall conduct quarterly routine whole effluent toxicity tests in accordance with 9.d. Additional follow-up tests are not required while the plan is in progress. Following completion or termination of the plan, the frequency of monitoring for routine and additional follow-up tests shall return to the schedule established in 8.b.(1). If a routine test is invalid according to the acceptance criteria in EPA-821-R-02-013, a repeat test shall be initiated within 21 days after the last day of the invalid routine test.
(f) Upon completion of four consecutive quarterly valid routine tests that demonstrate compliance with the effluent limitation in 9.a.(1) above, the permittee may submit a written request to the Department to terminate the plan. The plan shall be terminated upon written verification by the Department that the facility has passed at least four consecutive quarterly valid routine whole effluent toxicity tests. If a test within the sequence of the four is deemed invalid, but is replaced by a repeat valid test initiated within 21 days after the last day of the invalid test, the invalid test will not be counted against the requirement for four consecutive quarterly valid routine tests for the purpose of terminating the plan.
(4) If chronic toxicity test results indicate greater than 50% mortality within 96 hours in an effluent concentration equal to or less than the effluent concentration specified as the acute toxicity limit in 9.a.(2), the Department may revise this permit to require acute definitive whole effluent toxicity testing.
(5) The additional follow-up testing and the plan do not preclude the Department taking enforcement action for acute or chronic whole effluent toxicity failures.
[62-4.241, 62-620.620(3)]

I.B.3. - A recording flow meter with totalizer shall be utilized to measure flow and calibrated at least once every 12 months. *[62-601.200(17) and .500(6)]*

PART I: Continued

Receiving Waters: Blackwater River	**Classification (indicate whether fresh or marine):** Class III Fresh Waters and Outstanding Florida Water, a tributary to Blackwater Bay, a Class II Shellfish Propagation or Harvesting

Toxicity Test Requirements (routine and/or additional test language, test species, salinity adjustment, etc.): Chronic Whole Effluent Toxicity 7-Day IC25 *Ceriodaphnia dubia*, *Pimephales promelas*. See Permit Condition I.A.9., above.

Administrative or Consent Orders (date executed, specific requirements, interim limit dates-if applicable, etc.): None

Facility Mixing Zone Details (if applicable): None

List Permit Violations (DMR data) and plant upsets that occurred at the plant within the last year: None October 2015 through November 2016

Date	Parameter and Units	Limit	Result

Describe previous FYI and WQBEL study:

2012 FYI was performed on April 16, 2012.
Part I Inspection Report was issued on August 22, 2012:
https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=38.142203.1]&[profile=Discovery_Compliance]

The overall rating of the inspection was "In Compliance".

Part II Inspection Report was issued on September 25, 2012 with the accompanying Biological Assessment Report:
https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=38.150211.1]&[profile=Discovery_Compliance]

Biological Assessment Report Results:

Organic Constituents (See Table 1 and Appendix F)

- No organic constituents were detected in the effluent.
- No organic constituents were detected in the field blank.

Metals (See Table 2 and Appendix F)

- All metals detected in the effluent grab samples were present at levels that complied with effluent permit limits and Class III Freshwater Quality Criteria (62-302.530, F. A. C.).
- All metals in Station #1 and Station #2 grab samples were either undetected or detected at levels that complied with Class III Freshwater Quality Criteria (62-302.530, F. A. C.).
- No metals were detected in the field blank.

Toxicity Whole Effluent Test (See Table 1 and Appendices G and H)

- Tests were performed April 17 through April 24, 2012.
- The effluent sample NOEC for the fish, *Pimephales promelas*, during the chronic definitive bioassay was 100%, and therefore, complied with effluent permit limits.
- The water flea, *Ceriodaphnia dubia*, chronic definitive test was invalidated due to control mortality being greater than allowed by the method requirement. A non conformance report (NCR 4125) was issued for this test.

Physical and Chemical Parameters (See Table 1 and Appendices D, E and F)

- The Station #1 shoreline consisted mostly of riprap and vertical seawalls, whereas the Station #2 shoreline was unaltered. The substrate at both stations was sand and organic silt. Runoff into both stations was characterized as mostly natural with a few small stormwater sources.
- Dissolved oxygen (mg/L), pH (Standard Units), and specific conductance (µmhos/cm) of the effluent, complied with Class III Freshwater Quality Criteria (62-302.530, F.A.C.) and effluent permit limits.
- Dissolved oxygen (mg/L) of Station #1 and Station #2 for top and middle depths complied with Class III Freshwater Quality Criteria (62-302.530, F.A.C.). Bottom depth dissolved oxygen at Station #1 (1.4 mg/L) and Station #2 (4.1 mg/L) was below the minimum limit for Class III Freshwater Quality Criterion (62-302.530(30), F.A.C.). Dissolved oxygen decreased with measurement depth which indicates stratification of the water column, specifically a salt wedge which was measured by the specific conductance at the stations.

The buoyant, fresh water of the effluent is not contributing to the low dissolved oxygen of the saline water below.

- The pH (Standard Units) for both Station #1 and Station #2 at the top, middle and bottom depths complied with Class III Freshwater Quality Criterion (62-302.530(51)(c), F.A.C.).
- The specific conductance (µmhos/cm) at both stations for top, middle, and bottom depths exceeded the 1275 µmhos/cm limit listed in Class III Freshwater Quality Criterion (62-302.530(22), F.A.C.). However, these stations are tidally influenced and conductivity does not appear to be increased greater than 50% above background levels of the lower Blackwater River by the effluent. The specific conductance and salinity increased with measurement depth indicating stratification of the water column at these stations.
- Alkalinity (mg CaCO3/L) of the effluent complied with Class III Criteria. The alkalinity of Station #1 and

Station #2 were not being depressed by the effluent.

- Total residual chlorine (TRC) of the effluent was undetected in the bioassay sample as measured in the DEP laboratory. The sample was held beyond the normal holding time for this measurement (Q qualifier).
- Chlorophyll *a* (corrected) was undetected in the effluent sample and was detected at a low level at both Station #1 and Station #2.
- Total suspended solids (TSS; mg/L) and Carbonaceous Biochemical Oxygen Demand (CBOD; mg/L) of the effluent complied with permit limits.

- Turbidity (NTU) of the effluent, Station #1 and Station #2 complied with Class III Criteria.
- Fluoride (mg/L) of the effluent, Station #1 and Station #2 complied with Class III Criteria.

Microbiology (See Table 1 and Appendix F)

- Enterococci and fecal coliform analyses were performed by the University of West Florida, Pensacola-Wetlands Research Laboratory.
- Fecal coliforms and enterococci were undetected in the effluent samples, which complied with Class III Freshwater Quality criterion (62-302.530(6), F.A.C) and facility permit limits.
- Fecal coliforms and enterococci in the Station #1 and Station #2 samples were detected at levels which complied with Class III Freshwater Quality Criterion (62-302.530(6), F.A.C.).
- Enterococci were detected in the method blank (V-qualifier) for the effluent sample and for the Station #2 sample.

Nutrients (See Table 1 and Appendix F)

- Effluent nutrient levels complied with permit limits.
- Station #1 and Station #2 nutrient results were similar.
- Ortho-phosphate detected in the effluent sample was 3 orders of magnitude higher than the orthophosphate detected at Station #1 and Station #2. Total phosphorus detected in the effluent sample was 2 orders of magnitude higher than total phosphorus detected at both stations. Total ammonia was undetected in the Station #1 sample and detected at a level between the method detection limit (MDL) and practical quantitation limit (PQL) in the effluent sample and the Station #2 sample. Nitrate+ nitrite detected in the effluent was approximately 9 times higher than the nitrate+ nitrite detected in the Station #1 and Station #2 samples. Total Kjeldahl nitrogen and organic nitrogen of the effluent sample were 3 times higher than the amounts detected at both stations. Total organic carbon (TOC) of the effluent sample was approximately 2 times higher than the TOC of Station #1 and Station #2. The nutrients detected at Station #1 and Station #2 are not as high as the nutrients in the effluent. Therefore, the effluent nutrients are being diluted in the Blackwater River. Nutrient enrichment by the effluent cannot be determined because samples from a Background or Control Site were not collected.
- No nutrients were detected in the field blank.

Algal Growth Potential (See Table 3 and Appendix F)

- Raschke and Shultz (1987) determined that AGP values above 5.0 mg dry weight/L represent a “problem” threshold for fresh receiving waters, implying nutrient enrichment.
- The AGP value in the effluent sample (217.0 mg dry wt/L) using the freshwater species, *Pseudokirchneriella subcapitata,* was approximately 43 times greater than the problem threshold value. The analytical chemistry suggests that the effluent is nitrogen limited.
- The AGP value in the Station #1 sample (23.7 mg dry wt/L) and the Station #2 sample (23.4 mg dry wt/L) were approximately 5 times greater than the problem threshold. Both stations were ortho-phosphate limited.
- The AGP values of the effluent are much higher than the AGP values of Station #1 and Station #2. All three values were above the problem threshold. Nutrient enrichment by the effluent cannot be determined because samples from a Background or Control Site were not collected.

Sediments (See Table 4, Figures 1, and Appendix F)

- Sediment samples consisting of sand and organic silt were collected from Station #1 and Station #2. Particle sizes of the two samples were similar, consisting primarily of sand. Both samples were less than 1% dry weight organic content.
- No organic constituents or metals detected in the Station#1 sediment or the Station #2 sediment exceeded the threshold effects level (TEL).
- Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, chrysene, fluoranthene and pyrene were detected in the Station #1 sediment sample between the MDL and PQL. Organic constituents were not detected in the Station #2 sediment.
- Copper was detected in both stations’ sediments at low levels between the MDL and PQL.
- Lead was detected in the Station #1 sediment. At Station #2 lead was detected between the MDL and PQL.

Bioassessment

Phytoplankton (See Table 5 and Appendices I-1 and I-2)

- Phytoplankton communities at both Station #1 and Station #2 were similar, with very low densities, and consisted mostly of diatoms. The diatom community at both sites was dominated by the genus *Stephanodiscus* sp. The dominant wet algal taxon in both samples was *Cryptomonas* sp. There were no adverse affects apparent on the phytoplankton community in Blackwater River from the effluent. Macroinvertebrates (See Tables 5 and 6 and Appendices J-1, J-2, K-1 and K-2)
- Quantitative macroinvertebrate data were collected from three petite ponar drops each at Station #1 and Station #2. The sampling retrieved too few macroinvertebrates for any assessment of the community at these sites. The

Shannon-Weaver diversity scores were not calculated because the number of individuals needed for an unbiased score was not reached.

Biological Assessment Report Conclusion

Bottom depth dissolved oxygen at Station #1 (1.4 mg/L) and Station #2 (4.1 mg/L) were below the minimum limit for Class III Freshwater Quality Criterion (62-302-.530(30), F.A.C.). The buoyant, fresh water of the effluent is not contributing to the low dissolved oxygen in the saline water at the bottom depths of these stations. While the nutrients of the effluent are being diluted in the Blackwater River as indicated by the lower nutrient and AGP values of Station #1 and Station #2, nutrient enrichment cannot be determined as no background samples were collected. The detection of effluent impacts may be difficult when samples are collected downstream during an incoming tide or in large systems with higher potential for dilution. There were no adverse affects apparent on the phytoplankton community in Blackwater River from the effluent. Benthic macroinvertebrates samples were too depauperate to assess. Low bottom depth dissolved oxygen at both stations may be acting as a stressor and contributing to the low numbers of benthic organisms.

Facility Effluent Testing Results/Expanded Effluent Testing Data Results submitted with permit renewal application, samples collected on March 21, 2013:
https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=38.180414.1]&[profile=Permitting_Authorization]

Describe previous or current Enforcement Actions (including WLs):

- 06/23/2005 Warning Letter issued for residuals overloading in 2004 for nitrogen. Issue resolved through a short form consent order executed on 11/01/2005. The case was later closed on 11/29/2005.
- 04/30/2012 Warning Letter issued for issues relating to sanitary sewer overflows (SSOs). Issue was resolved without enforcement on 01/30/2013.

Describe any violations or problems noted in previous inspection:

The previous inspection was performed on May 5, 2016, the report issued on June 7, 2016. The overall compliance status was rated "In Compliance". The Laboratory section of the report was rated "Minor Out of Compliance" for the facility's influent and effluent composite sampler thermometers in use beyond their expiration date. The Effluent Quality section of the report was also rated "Minor Out of Compliance" for two routine toxicity failures in December 2014 for *Pimephales promelas* and June 2015 for *Ceriodaphnia dubia*. The additionals passed.
https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=38.498111.1]&[profile=Discovery_Compliance]

Discuss whether DMR trends within previous five years are improving or declining:

The facility reported flow exceedances September 2013 through September 2014 which was addressed through a minor permit revision issued on 08/08/2014 where the onsite reuse flow limit was revised to delete the 0.050 MGD limit the facility was reportedly exceeding. The limit was changed to "Report". Also, already noted/addressed were two reported routine toxicity failures in December 2014 for *Pimephales promelas* and June 2015 for *Ceriodaphnia dubia*. The additionals passed.

Additional Comments (this should include a trend of the Effluent, i.e. if the facility is now Reuse): Not Applicable

PART II: Sampling Event Information	
Date(s) sample collected: Composites 1/22/2017 – 1/23/2017, 1/24/2017 – 1/25/2017, 1/26/2017 - 1/27/2017; Grabs 1/23/2017	**Sampler(s):** Dana Vestal
Temperature (Deg C): Composites 2°C	**pH (SU):** 7.04
Dissolved Oxygen (mg/L): 8.83	**Conductivity (umhos/cm):** Not applicable
Total Residual Chlorine (mg/L): >2.2	**Total Residual Chlorine - after Dechlorination (mg/L): 0.00**
Method of Chlorination: Gas chlorine	**Method of De-chlorination:** Gas sulfur dioxide
Flow During Sample Collection for each outfall (MGD): FLW-01 1/22/2017 2.421, 1/24/2017 2.225, 1/26/2017 2.279	
Mean Flow for each outfall for previous 12 months based on sampling date (If samples are taken on more than one day, indicate Mean Flow for each day): Facility's flow is limited based on a quarterly average. The quarterly average in January 2017 was reported as 1.661 MGD.	
Describe Discharge during Sampling Event: ☒ **Continuous** ☐ **Intermittent** ☐ **Seasonal** ☐ **Rainfall Dependent** ☐ **Other, please specify:**	
Describe any conditions, difficulties or abnormal events that occurred during the sample collection and any other additional comments here: Initial sampling day 1/23/2017 was a very windy day which made sampling/preservation a challenge.	

Appendix C

Explanation of Measurements

(1) Quality Assurance and Quality Control

DEP's quality assurance requirements for analytical laboratories and field activities are codified in Chapter 62-160, F.A.C., Quality Assurance (QA Rule) and in internal Standard Operating Procedures (DEP SOPs). Methods for all analyses are on file at the DEP Central Laboratory in Tallahassee and may be viewed on the web at http://www.dep.state.fl.us/labs/library/lab_sops.htm and/or http://www.dep.state.fl.us/water/sas/sop/sops.htm.

(2) Chemical Analyses of the Effluent

The effluent was analyzed for nutrients, metals, organic constituents (base, neutral, and acid extractables) and pesticides following DEP SOPs. The results from these analyses were compared with Water Quality Criteria (62-302, F.A.C.) and facility permit limits.

(3) Toxicity Bioassays

Greater than 50% mortality in an acute toxicity test may constitute an exceedance of 62-302.500(1)a and/or a potential violation of facility permit limits. A 25% inhibition concentration (IC25) is the effluent concentration causing a 25% reduction in a biological response such as biomass or reproduction when compared to a control population. An IC25 of less than 100% in a chronic test may constitute exceedances of 62-302.530(20), 62-302.530(61) and/or a potential violation of facility permit limits. A no observed effect concentration (NOEC) less than 100% effluent in a chronic test may constitute an exceedance of 62-302.530(61) and/or a potential violation of facility permit limits. Standard reference toxicant (SRT) tests are conducted monthly to ensure quality in toxicity testing.

(4) Bacteriological Testing

High levels of fecal coliform bacteria may constitute an exceedance of 62-302.530(6) and/or a potential violation of facility permit limits. Fecal coliform and enterococci results often are based on colony counts outside the acceptable range (B-qualifier). The dilutions performed on the sample did not yield results within the method acceptable range of 20- 60 colony forming units per plate. The B-qualifier does not affect data quality.

(5) Chlorophyll *a* Content

Chlorophyll *a* content is an estimate algal biomass. High algal biomass implies nutrient stress (Stevenson and Bahls 1999) and may constitute exceedances of 62-302.530(46), F.A.C., 62-302.530(47)(a), F.A.C., and/or 62-302.530(47)(b), F.A.C..

(6) Algal Growth Potential (AGP)

The algal growth potential (AGP) value is the peak growth of the alga within that 14-day period, recorded as mg dry weight/L. AGP results within the range 6.10 to 20.0 mg dry wt/L are suggested to be representative of high productivity for freshwaters (Miller et al. 1978). High AGP values may constitute exceedances of 62-302.530(46), F.A.C., 62-302.530(47)(a), F.A.C. and/or 62-302.530(47)(b), F.A.C..

The concentration of nutrients in a water sample may be used to calculate the expected yield of AGP in a low salinity sample under the assumption that other required nutrients (e.g. silicon, micronutrients) are present in excess (Miller *et al*. 1978). The expected amount of production is calculated as 38 times the total soluble inorganic nitrogen (nitrate and nitrite plus ammonia) under nitrogen limitation or 430 times the ortho-phosphate (OP) concentration under phosphorus limitation with an error of $\pm$ 20%. When the ratio of nitrogen to phosphorus (N:P) is less than 10:1, nitrogen limitation of algal production is likely. When the N:P ratio is 20:1 or greater, phosphorus limitation is likely (EPA-822-B-00-002). For ratios in-between, co-limitation may occur. Production of lower biomass than expected may be evidence of growth inhibition related to toxic compounds present in the water sample tested and may constitute an exceedance of 62-302.530(61) F.A.C. Expected AGP is not calculated for marine samples incubated with *Dunaliella*.

(7) Sediment Sampling

Sediments were collected using a petite ponar dredge at all sampling stations. Sediment samples were analyzed for metals, organic constituents, pesticides, organic content and sediment grain size. The results from these analyses were compared with sediment quality assessment guidelines applicable to Florida coastal waters (Table 4. in MacDonald 1994). The range of

sediment contaminant concentrations that fall below the threshold effects level (TEL) are not likely to be associated with adverse biological effects on aquatic organisms. The range of sediment contaminant concentrations that fall above the probable effects level (PEL) are usually or always associated with adverse biological effects. Within the range of concentrations delineated by the TEL (lower limit) and the PEL (upper limit), adverse biological effects are possible but it is difficult to predict the occurrence, nature, and/or severity of these effects (MacDonald 1994).

(8) Definition of Qualifiers

A - Value reported is the mean of two or more determinations
B - Results based on colony counts outside the acceptable range.
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J - Estimated value
K - Actual value is known to be less than value given
L - Actual value is known to be greater than value given
N - Presumptive evidence of presence of material.
O - Sampled, but analysis lost or not performed.
Q - Sample held beyond normal holding time.
T - Value reported is less than the criterion of detection.
U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
V - Analyte was detected in both sample and method blank.
X - Too few individuals to calculate SCI value.
Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate
Z - Colonies were too numerous to count (TNTC)

Appendix D

Chain of Custody

Request Number: RQ-2017-01-16-18

FYI5 Milton WWTF Sampling Inspection

Customer: NW-DIST

Project ID: FYI5

Florida Department of Environmental Protection

Central Laboratory Submittal Form

Page 1 of 5

last revised Apr 7, 2016

Requester: Adrienne E. Pennington

Field Report Prepared By: Dana Vestal

Collected By: Dana Vestal

Sampling Agency: FDEP Pensacola

DV

Location: Milton FL0021903	☐ Comp ☒ Grab	Collection (comp begin or grab) Date 1/23/17 Time ~~10:09~~ 9:22A	Eastern Central	Composite end Date Time				Bottle Group(s) (See pg 2): E
Field ID: Blank	Matrix (type, e.g., Salt, Fresh, etc): DI water			Diss. Oxygen ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)			
STORET #	Temp (C)	pH		Sample Depth ☐ ft ☐ m	Sp. Conductance (umho/cm)			
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments					
Location: Milton FL0021903	☒ Comp ☐ Grab	Collection (comp begin or grab) Date 1/23/17 Time 10:09	Eastern Central	Composite end Date Time				Bottle Group(s): A
Field ID: D-001 (Grab)	Matrix (type, e.g., Salt, Fresh, etc): wastewater			Diss. Oxygen 8.33 ☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L) 0.00			
STORET #	Temp (C) 20.6	pH 7.04 SU		Sample Depth ☐ ft ☐ m	Sp. Conductance (umho/cm)			
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments					
Location: Milton FL0021903	☒ Comp ☐ Grab	Collection (comp begin or grab) Date 1/22/17 Time 9:00	Eastern Central	Composite end Date 1/23/17 Time 9:00				Bottle Group(s): B
Field ID: D-001 (composite)	Matrix (type, e.g., Salt, Fresh, etc)			Diss. Oxygen ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)			
STORET #	Temp (C) 2	pH		Sample Depth ☐ ft ☐ m	Sp. Conductance (umho/cm)			
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments					
Location	☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date Time				Bottle Group(s)
Field ID	Matrix (type, e.g., Salt, Fresh, etc)			Diss. Oxygen ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)			
STORET #	Temp (C)	pH		Sample Depth ☐ ft ☐ m	Sp. Conductance (umho/cm)			
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments					

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
Dana Vestal	1/23/17 12:31	FedEx	4	J.D.	1/24/17 9:56

✓ 2 Tox BOD bottles ADR 1.24.17 1031

Request Number: RQ-2017-01-16-18

FYI5 Milton WWTF Sampling Inspection

Customer: NW-DIST

Project ID: FYI5

Florida Department of Environmental Protection
Central Laboratory Submittal Form

last revised Apr 7, 2016

Requester: Adrienne E. Pennington

Field Report Prepared By: Dana Vestal

Collected By: Dana Vestal

Sampling Agency: FDEP Pensacola

Location: Milton FL0021903			☒ Comp ☐ Grab	Collection (comp begin or grab) Date 1/24/17 Time 7:45A	Eastern Central	Composite end Date 1/25/17 Time 7:40A				Bottle Group(s) (See pg 2): B
Field ID: D-001 (composite)			Matrix (type, e.g., Salt, Fresh, etc): wastewater			Diss. Oxygen: 8.60 ☒ mg/L ☐ % sat		Total Res. Chlorine (mg/L): 0.00		
STORET #			Temp (C): 30	pH: 7.08SU		Sample Depth ☐ ft ☐ m		Sp. Conductance (umho/cm)		
Latitude ☐ dd ☐ dms		Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments						
Location			☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date Time				Bottle Group(s)
Field ID			Matrix (type, e.g., Salt, Fresh, etc)			Diss. Oxygen		☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	
STORET #			Temp (C)	pH		Sample Depth		☐ ft ☐ m	Sp. Conductance (umho/cm)	
Latitude ☐ dd ☐ dms		Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments						
Location			☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date Time				Bottle Group(s)
Field ID			Matrix (type, e.g., Salt, Fresh, etc)			Diss. Oxygen		☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	
STORET #			Temp (C)	pH		Sample Depth		☐ ft ☐ m	Sp. Conductance (umho/cm)	
Latitude ☐ dd ☐ dms		Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments						
Location			☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date Time				Bottle Group(s)
Field ID			Matrix (type, e.g., Salt, Fresh, etc)			Diss. Oxygen		☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	
STORET #			Temp (C)	pH		Sample Depth		☐ ft ☐ m	Sp. Conductance (umho/cm)	
Latitude ☐ dd ☐ dms		Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments						

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
Dana Vestal	1/25/17 9:23A	FedEX	1	SK	1-26-17 10:15

TDx received 1058 MP
2 jugs 1.26.17

Request Number: RQ-2017-01-16-18

FYI5 Milton WWTF Sampling Inspection

Florida Department of Environmental Protection
Central Laboratory Submittal Form

last revised Apr 7, 2016

Customer: NW-DIST

Project ID: FYI5

Requester: Adrienne E. Pennington

Collected By: Nathan Mulky / Mike King

Field Report Prepared By: N. Mulky

Sampling Agency: FDEP NW ROC

Location: Blackwater River below Milton WWTF outfall	☐ Comp ☑ Grab	Collection (comp begin or grab) Date: 1/24/17 Time: 1025 0950 CST	Eastern / Central	Composite end Date	Time	Bottle Group(s) (See pg 2): C/D				
Field ID: Station #1	Matrix (type, e.g., Salt, Fresh, etc): Fresh	Diss. Oxygen: 7.3	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)						
STORET #	Temp (C): 16.6	pH: 5.3	Sample Depth: 0.3	☐ ft ☑ m	Sp. Conductance (umho/cm): 47					
Latitude: 30.61822 ☑ dd ☐ dms	Longitude: 87.03252 ☑ dd ☐ dms	Salinity (ppt)	Comments: Facility discharging (Continuous)							
Location: Blackwater River ~100m downstream of station #1	☐ Comp ☑ Grab	Collection (comp begin or grab) Date: 1/24/17 Time: 0950 1025 CST	Eastern / Central	Composite end Date	Time	Bottle Group(s): C/D				
Field ID: Station #2	Matrix (type, e.g., Salt, Fresh, etc): Fresh	Diss. Oxygen: 7.2	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)						
STORET #	Temp (C): 16.6	pH: 5.3	Sample Depth: 0.3	☐ ft ☑ m	Sp. Conductance (umho/cm): 47					
Latitude: 30.61740 ☑ dd ☐ dms	Longitude: 87.03222 ☑ dd ☐ dms	Salinity (ppt)	Comments: Facility Discharging (Continuous).							
Location	☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern / Central	Composite end Date	Time	Bottle Group(s)				
Field ID	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)						
STORET #	Temp (C)	pH	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm)					
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments							
Location	☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern / Central	Composite end Date	Time	Bottle Group(s)				
Field ID	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)						
STORET #	Temp (C)	pH	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm)					
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments							

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
	1/24/17	Fed Ex	2		1-25-17 10:00

Request Number: RQ-2017-01-16-18

FYI5 Milton WWTF Sampling Inspection

Customer: NW-DIST

Project ID: FYI5

Florida Department of Environmental Protection
Central Laboratory Submittal Form

last revised Apr 7, 2016

Requester: Adrienne E. Pennington

Collected By: Dana Vestal

Field Report Prepared By: Dana Vestal

Sampling Agency: FDEP Pensacola

Location: Milton FL0021903	☒ Comp ☐ Grab	Collection (comp begin or grab) Date: 1/26/17 Time: 8:00A	Eastern Central	Composite end Date: 1/27/17 Time: 8:00A	Bottle Group(s) (See pg 2): B
Field ID: D001 (composite)	Matrix (type, e.g., Salt, Fresh, etc): wastewater	Diss. Oxygen: 8.82 ☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L): 0.00	
STORET #	Temp (C): 3°	pH: 7.05 SU	Sample Depth ☐ ft ☐ m	Sp. Conductance (umho/cm)	
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments	
Location	☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date Time	Bottle Group(s)
Field ID	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	
STORET #	Temp (C)	pH	Sample Depth ☐ ft ☐ m	Sp. Conductance (umho/cm)	
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments	
Location	☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date Time	Bottle Group(s)
Field ID	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	
STORET #	Temp (C)	pH	Sample Depth ☐ ft ☐ m	Sp. Conductance (umho/cm)	
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments	
Location	☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date Time	Bottle Group(s)
Field ID	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	
STORET #	Temp (C)	pH	Sample Depth ☐ ft ☐ m	Sp. Conductance (umho/cm)	
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments	

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
Dana Vestal	1/27/17 9:14A	Fed Ex	2		1.28.17 0905

√KOR 1.28.17 0905 2 coolers

Temp cooler 1 1.2°C
Temp cooler 2 0.4°C
AP 01-31-17 | 9:05

Appendix E
Physical/Chemical and Habitat Assessment field sheets

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
FD9000-26 MARINE PHYSICAL/CHEMICAL CHARACTERIZATION FIELD DATA SHEET (4/25/00)

LAT/LONGS:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
30.61740 87.03222		01/24/17	0950	East Bay

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
Milton FYI	Santa Rosa	Blackwater River ~100m downstream #1	Station #2

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Land-Use in Watershed (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)

Local Watershed Erosion (check box): None ☐ Slight ☒ Moderate ☐ Heavy ☐

Local Watershed NPS Pollution (check box): No evidence ☐ Slight ☐ Moderate potential ☐ Obvious sources ☒

Width of riparian vegetation (m) on least buffered side:

Artificially Channelized ☐ no / Artificially Impounded ☐ yes

Draw aerial view sketch of sampling area including habitats and community types

☐ recent, severe ☐ some recovery ☐ mostly recovered, more sinuous

High Water Mark: _____ (m above present water level) + 2.6 (present depth in m) = _____ (m above bed)

Tide Types and Times

low 07 : 57 AM ☒ PM ☐ : AM ☐ PM ☐

high 21 : 01 AM ☐ PM ☒ : AM ☐ PM ☐

Canopy Cover %: Open: ☒ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded:

SEDIMENT/SUBSTRATE

Sediment Odors: Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Anaerobic: ☐ Other: ☐

Sediment Oils: Absent: ☒ Slight: ☐ Moderate: ☐ Profuse: ☐

Sediment Deposition: Sludge: ☐ Sand smothering: none ☐ slight ☐ moderate ☐ severe ☐ Silt smothering: none ☐ slight ☐ moderate ☐ severe ☐ Other:

Substrate Types	% coverage	# times sampled	method	Substrate Types	% coverage	# times sampled	method
Seagrass				Sand			
Rock or Shell Rubble				Mud/Muck/Silt			
Aquatic Vegetation				Other:			

Community Types

Mangroves ☐ Oyster bars ☐ Reef ☐ Natural beach ☐ Other: ☐

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	Salinity	DO %	Secchi (m):
Top	0.3	16.6	5.3	7.2	47	0.02	73	0.9
Mid-depth	1.0	16.6	5.2	7.0	48	0.03	72	
Bottom	2.1	16.6	5.2	7.0	52	0.02	72	

System Type: Stream: ☒ (1st - 2nd order / 3rd - 4th order ☐ 5th - 6th order / 7th order or greater ☐) Estuary: ☐ Other: ☐

Water Odors (check box): Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐

Water Surface Oils (check box): None: ☒ Sheen: ☐ Globs: ☐ Slick: ☐

Clarity (check box): Clear: ☐ Slightly turbid: ☒ Turbid: ☐ Opaque: ☐

Color (check box): Tannic: ☒ Green (algae): ☐ Clear: ☐ Other: ☐

Weather Conditions/Notes:
Sampled on incoming tide

Abundance:	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☐	☐
Fish	☐	☐	☐	☐
Aquatic Macrophytes	☐	☐	☐	☐
Iron/sulfur Bacteria	☐	☐	☐	☐

SAMPLING TEAM:	SIGNATURE:	DATE:
Nathan Malloy / Mike King		1/24/17

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

FD9000-26 MARINE PHYSICAL/CHEMICAL CHARACTERIZATION FIELD DATA SHEET (4/25/00)

LAT/LONGS;	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
30.61822 87.03252		01/24/17	1025	East Bay

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
Milton FDI	Santa Rosa	Blackwater River below WWTF Outfall	Station #1

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Land-Use in Watershed (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)

Local Watershed Erosion (check box): None ☐ Slight ☒ Moderate ☐ Heavy ☐

Local Watershed NPS Pollution (check box): No evidence ☐ Slight ☐ Moderate potential ☐ Obvious sources ☒

Width of riparian vegetation (m) on least buffered side:

Draw aerial view sketch of sampling area including habitats and community types

Artificially Channelized ☐ no ☐ recent, severe ☐ some recovery ☐ mostly recovered, more sinuous

Artificially Impounded ☐ yes

High Water Mark: ____ (m above present water level) + 3.6 (present depth in m) = ____ (m above bed)

Tide Types and Times

low 07:57 AM PM : AM PM

high 21:01 AM PM : AM PM

Canopy Cover % : Open : ☒ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded:

SEDIMENT/SUBSTRATE

Sediment Odors: Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Anaerobic: ☐ Other: ☐

Sediment Oils: Absent: ☒ Slight: ☐ Moderate: ☐ Profuse: ☐

Sediment Deposition: Sludge: ☐ Sand smothering: none slight moderate severe Silt smothering: none slight moderate severe Other:

Substrate Types	% coverage	# times sampled	method	Substrate Types	% coverage	# times sampled	method
Seagrass				Sand			
Rock or Shell Rubble				Mud/Muck/Silt			
Aquatic Vegetation				Other:			

Community Types

Mangroves ☐ Oyster bars ☐ Reef ☐ Natural beach ☐ Other: ☐

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	Salinity	DO%	Secchi (m):
Top	0.3	17.1	~~5.5~~	7.3	78	0.03	76	0.9
Mid-depth	1.0	17.2	5.5	7.2	49	0.02	73	
Bottom	2.1	16.6	5.6	7.0	47	0.03	73	

System Type : Stream: ☒ (1st - 2nd order, 3rd - 4th order, 5th - 6th order, 7th order or greater) Estuary: ☐ Other: ☐

Water Odors (check box): Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐

Water Surface Oils (check box): None: ☒ Sheen: ☐ Globs: ☐ Slick: ☐

Clarity (check box): Clear: ☐ Slightly turbid: ☒ Turbid: ☐ Opaque: ☐

Color (check box): Tannic: ☒ Green (algae): ☐ Clear: ☐ Other: ☐

Weather Conditions/Notes:

sampled on incoming tide

Abundance:

	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☐	☐
Fish	☐	☐	☐	☐
Aquatic Macrophytes	☐	☐	☐	☐
Iron/sulfur Bacteria	☐	☐	☐	☐

SAMPLING TEAM:	SIGNATURE:	DATE:
Nathan Malloy / Mike King	Nathan Malloy	1/24/17

Appendix F

Chemical analysis of effluent and receiving water

DATE SAMPLED	FIELD ID	ANALYSIS GROUP	MATRIX	COMPONENT	RESULT	REMARK	UNITS	MDL	PQL
1/23/2017 10:00:00 AM	D-001 (Comp)	Bio-BOD	WATER	Biochemical Oxygen Demand-5 Day,N-Inhib	3.2	A	mg/L	0.20	2.0
1/23/2017 10:00:00 AM	D-001 (Comp)	Bio-Toxicology	WATER	Bioassay-Chron-Def-FW-C.dubia, IC25	100	L	IC25		
1/23/2017 10:00:00 AM	D-001 (Comp)	Bio-Toxicology	WATER	Bioassay-Chron-Def-FW-C.dubia, NOEC	100		NOEC		
1/23/2017 10:00:00 AM	D-001 (Comp)	Bio-Toxicology	WATER	Bioassay-Chron-Def-FW-Fish, IC25	100	L	IC25		
1/23/2017 10:00:00 AM	D-001 (Comp)	Bio-Toxicology	WATER	Bioassay-Chron-Def-FW-Fish, NOEC	100		NOEC		
1/23/2017 10:00:00 AM	D-001 (Comp)	Metals-Water	WATER	Aluminum	17		ug/L	3.0	12
1/23/2017 10:00:00 AM	D-001 (Comp)	Metals-Water	WATER	Arsenic	0.35		ug/L	0.050	0.20
1/23/2017 10:00:00 AM	D-001 (Comp)	Metals-Water	WATER	Cadmium	0.039	I	ug/L	0.020	0.080
1/23/2017 10:00:00 AM	D-001 (Comp)	Metals-Water	WATER	Calcium	25.0		mg/L	0.075	0.30
1/23/2017 10:00:00 AM	D-001 (Comp)	Metals-Water	WATER	Chromium	0.41	I	ug/L	0.40	1.6
1/23/2017 10:00:00 AM	D-001 (Comp)	Metals-Water	WATER	Copper	7.77		ug/L	0.20	0.80
1/23/2017 10:00:00 AM	D-001 (Comp)	Metals-Water	WATER	Hardness	69.0		mg/L	0.35	1.4
1/23/2017 10:00:00 AM	D-001 (Comp)	Metals-Water	WATER	Iron	30	U	ug/L	30	120
1/23/2017 10:00:00 AM	D-001 (Comp)	Metals-Water	WATER	Lead	0.16	I	ug/L	0.050	0.20
1/23/2017 10:00:00 AM	D-001 (Comp)	Metals-Water	WATER	Magnesium	1.61		mg/L	0.040	0.16
1/23/2017 10:00:00 AM	D-001 (Comp)	Metals-Water	WATER	Nickel	14.7		ug/L	0.20	0.80
1/23/2017 10:00:00 AM	D-001 (Comp)	Metals-Water	WATER	Potassium	7.1		mg/L	0.30	1.2
1/23/2017 10:00:00 AM	D-001 (Comp)	Metals-Water	WATER	Selenium	0.20	U	ug/L	0.20	0.80
1/23/2017 10:00:00 AM	D-001 (Comp)	Metals-Water	WATER	Silver	0.010	U	ug/L	0.010	0.040
1/23/2017 10:00:00 AM	D-001 (Comp)	Metals-Water	WATER	Sodium	23.8		mg/L	0.50	2.0
1/23/2017 10:00:00 AM	D-001 (Comp)	Metals-Water	WATER	Zinc	39		ug/L	5.0	20
1/23/2017 10:00:00 AM	D-001 (Comp)	Nutrients-Liquid	WATER	Ammonia-N	0.021		mg N/L	0.0020	0.0050
1/23/2017 10:00:00 AM	D-001 (Comp)	Nutrients-Liquid	WATER	Kjeldahl Nitrogen	0.67		mg N/L	0.080	0.20
1/23/2017 10:00:00 AM	D-001 (Comp)	Nutrients-Liquid	WATER	NO2NO3-N	1.8		mg N/L	0.040	0.10
1/23/2017 10:00:00 AM	D-001 (Comp)	Nutrients-Liquid	WATER	O-Phosphate-P	1.0		mg P/L	0.040	0.10
1/23/2017 10:00:00 AM	D-001 (Comp)	Nutrients-Liquid	WATER	Organic Carbon	4.7		mg C/L	0.50	1.0
1/23/2017 10:00:00 AM	D-001 (Comp)	Nutrients-Liquid	WATER	TSS	2	U	mg/L	2.0	10
1/23/2017 10:00:00 AM	D-001 (Comp)	Nutrients-Liquid	WATER	Total-P	1.1		mg P/L	0.025	0.25
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	1,2,4-Trichlorobenzene	0.96	U	ug/L	0.96	3.8
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	2,4,6-Trichlorophenol	0.96	U	ug/L	0.96	3.8
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	2,4-Dichlorophenol	0.96	U	ug/L	0.96	3.8
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	2,4-Dimethylphenol	9.6	U	ug/L	9.6	38
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	2,4-Dinitrophenol	14	UJ	ug/L	14	58
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	2,4-Dinitrotoluene	0.96	U	ug/L	0.96	3.8

DATE SAMPLED	FIELD ID	ANALYSIS GROUP	MATRIX	COMPONENT	RESULT	REMARK	UNITS	MDL	PQL
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	2,6-Dinitrotoluene	0.96	U	ug/L	0.96	3.8
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	2-Chloronaphthalene	0.96	U	ug/L	0.96	3.8
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	2-Chlorophenol	0.96	U	ug/L	0.96	3.8
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	12
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	2-Nitrophenol	0.96	U	ug/L	0.96	3.8
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	3,3'-Dichlorobenzidine	38	U	ug/L	38	150
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	4-Bromophenyl phenyl ether	0.96	U	ug/L	0.96	3.8
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	4-Chloro-3-methylphenol	0.96	U	ug/L	0.96	3.8
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.7
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	4-Nitrophenol	14	U	ug/L	14	58
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Acenaphthene	0.19	U	ug/L	0.19	0.77
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Acenaphthylene	0.19	U	ug/L	0.19	0.77
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Anthracene	0.19	U	ug/L	0.19	0.77
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Benzidine	96	U	ug/L	96	380
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Benzo(a)anthracene	0.19	U	ug/L	0.19	0.77
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Benzo(a)pyrene	0.19	U	ug/L	0.19	0.77
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Benzo(b)fluoranthene	0.19	U	ug/L	0.19	0.77
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Benzo(g,h,i)perylene	0.19	U	ug/L	0.19	0.77
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Benzo(k)fluoranthene	0.19	U	ug/L	0.19	0.77
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Bis(2-chloroethoxy)methane	0.96	U	ug/L	0.96	3.8
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Bis(2-chloroethyl)ether	0.96	U	ug/L	0.96	3.8
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	12
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Bis(2-ethylhexyl)phthalate	1.9	U	ug/L	1.9	7.7
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Butyl benzyl phthalate	0.96	U	ug/L	0.96	3.8
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Chrysene	0.19	U	ug/L	0.19	0.77
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Di-n-butyl phthalate	1.9	U	ug/L	1.9	7.7
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Di-n-octyl phthalate	0.96	U	ug/L	0.96	3.8
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Dibenzo(a,h)anthracene	0.19	U	ug/L	0.19	0.77
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Diethyl phthalate	1.9	U	ug/L	1.9	7.7
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Dimethyl phthalate	0.96	U	ug/L	0.96	3.8
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Fluoranthene	0.19	U	ug/L	0.19	0.77
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Fluorene	0.19	U	ug/L	0.19	0.77
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Hexachlorobenzene	0.96	U	ug/L	0.96	3.8
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Hexachlorobutadiene	2.9	U	ug/L	2.9	12
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Hexachlorocyclopentadiene	2.9	U	ug/L	2.9	12
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Hexachloroethane	2.9	U	ug/L	2.9	12
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Indeno(1,2,3-cd)pyrene	0.19	U	ug/L	0.19	0.77

DATE SAMPLED	FIELD ID	ANALYSIS GROUP	MATRIX	COMPONENT	RESULT	REMARK	UNITS	MDL	PQL
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Isophorone	0.96	U	ug/L	0.96	3.8
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.7
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.7
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	N-Nitrosodiphenylamine/ Diphenylamine	2.9	U	ug/L	2.9	12
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Naphthalene	0.19	U	ug/L	0.19	0.77
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Nitrobenzene	1.9	U	ug/L	1.9	7.7
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Pentachlorophenol	0.96	U	ug/L	0.96	3.8
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Phenanthrene	0.19	U	ug/L	0.19	0.77
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Phenol	0.96	U	ug/L	0.96	3.8
1/23/2017 10:22:00 AM	Blank	BNA-Water	W-FIELD-BK	Pyrene	0.19	U	ug/L	0.19	0.77
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Alachlor	0.059	U	ug/L	0.059	0.23
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Ametryn	0.0098	U	ug/L	0.0098	0.039
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Atrazine	0.0098	U	ug/L	0.0098	0.039
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Atrazine Desethyl	0.0098	U	ug/L	0.0098	0.039
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Atrazine Desisopropyl	0.0098	U	ug/L	0.0098	0.039
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Azinphos Methyl	0.020	U	ug/L	0.020	0.078
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Bromacil	0.039	U	ug/L	0.039	0.16
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Butylate	0.020	U	ug/L	0.020	0.078
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Chlorpyrifos Ethyl	0.0098	U	ug/L	0.0098	0.039
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Chlorpyrifos Methyl	0.0098	U	ug/L	0.0098	0.039
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Demeton	0.023	U	ug/L	0.023	0.094
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Diazinon	0.0098	U	ug/L	0.0098	0.039
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Disulfoton	0.0049	U	ug/L	0.0049	0.020
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Ethion	0.0098	U	ug/L	0.0098	0.039
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Ethoprop	0.0049	U	ug/L	0.0049	0.020
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Fenamiphos	0.029	U	ug/L	0.029	0.12
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Fonofos	0.0098	U	ug/L	0.0098	0.039
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Hexazinone	0.029	U	ug/L	0.029	0.12
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Malathion	0.0098	U	ug/L	0.0098	0.039
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Metalaxyl	0.039	UJ	ug/L	0.039	0.16
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Metolachlor	0.059	U	ug/L	0.059	0.23
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Metribuzin	0.020	U	ug/L	0.020	0.078
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Mevinphos	0.0098	U	ug/L	0.0098	0.039
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Naled	0.039	UJ	ug/L	0.039	0.16
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Norflurazon	0.029	U	ug/L	0.029	0.12
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Parathion Ethyl	0.020	U	ug/L	0.020	0.078
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Parathion Methyl	0.0098	U	ug/L	0.0098	0.039

DATE SAMPLED	FIELD ID	ANALYSIS GROUP	MATRIX	COMPONENT	RESULT	REMARK	UNITS	MDL	PQL
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Phorate	0.0049	U	ug/L	0.0049	0.020
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Prometon	0.020	U	ug/L	0.020	0.078
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Prometryn	0.020	U	ug/L	0.020	0.078
1/23/2017 10:22:00 AM	Blank	GC-Water	W-FIELD-BK	Simazine	0.0098	U	ug/L	0.0098	0.039
1/23/2017 10:22:00 AM	Blank	LC-Water	W-FIELD-BK	Acetaminophen	0.0040	U	ug/L	0.0040	0.016
1/23/2017 10:22:00 AM	Blank	LC-Water	W-FIELD-BK	Carbamazepine	4.0E-04	U	ug/L	4.0E-04	0.0016
1/23/2017 10:22:00 AM	Blank	LC-Water	W-FIELD-BK	Sucralose	0.010	U	ug/L	0.010	0.040
1/23/2017 10:22:00 AM	Blank	Metals-Water	W-FIELD-BK	Aluminum	3.0	U	ug/L	3.0	12
1/23/2017 10:22:00 AM	Blank	Metals-Water	W-FIELD-BK	Arsenic	0.050	U	ug/L	0.050	0.20
1/23/2017 10:22:00 AM	Blank	Metals-Water	W-FIELD-BK	Cadmium	0.020	U	ug/L	0.020	0.080
1/23/2017 10:22:00 AM	Blank	Metals-Water	W-FIELD-BK	Calcium	0.075	U	mg/L	0.075	0.30
1/23/2017 10:22:00 AM	Blank	Metals-Water	W-FIELD-BK	Chromium	0.40	U	ug/L	0.40	1.6
1/23/2017 10:22:00 AM	Blank	Metals-Water	W-FIELD-BK	Copper	0.31	I	ug/L	0.20	0.80
1/23/2017 10:22:00 AM	Blank	Metals-Water	W-FIELD-BK	Hardness	0.35	U	mg/L	0.35	1.4
1/23/2017 10:22:00 AM	Blank	Metals-Water	W-FIELD-BK	Iron	30	U	ug/L	30	120
1/23/2017 10:22:00 AM	Blank	Metals-Water	W-FIELD-BK	Lead	0.43		ug/L	0.050	0.20
1/23/2017 10:22:00 AM	Blank	Metals-Water	W-FIELD-BK	Magnesium	0.040	U	mg/L	0.040	0.16
1/23/2017 10:22:00 AM	Blank	Metals-Water	W-FIELD-BK	Nickel	0.20	U	ug/L	0.20	0.80
1/23/2017 10:22:00 AM	Blank	Metals-Water	W-FIELD-BK	Potassium	0.30	U	mg/L	0.30	1.2
1/23/2017 10:22:00 AM	Blank	Metals-Water	W-FIELD-BK	Selenium	0.20	U	ug/L	0.20	0.80
1/23/2017 10:22:00 AM	Blank	Metals-Water	W-FIELD-BK	Silver	0.010	U	ug/L	0.010	0.040
1/23/2017 10:22:00 AM	Blank	Metals-Water	W-FIELD-BK	Sodium	0.50	U	mg/L	0.50	2.0
1/23/2017 10:22:00 AM	Blank	Metals-Water	W-FIELD-BK	Zinc	5.0	U	ug/L	5.0	20
1/23/2017 10:22:00 AM	Blank	Nutrients-Liquid	W-FIELD-BK	Ammonia-N	0.002	U	mg N/L	0.0020	0.0050
1/23/2017 10:22:00 AM	Blank	Nutrients-Liquid	W-FIELD-BK	Chloride	0.20	U	mg Cl/L	0.20	0.50
1/23/2017 10:22:00 AM	Blank	Nutrients-Liquid	W-FIELD-BK	Color (true)	2.5	U	PCU	2.5	6.0
1/23/2017 10:22:00 AM	Blank	Nutrients-Liquid	W-FIELD-BK	Fluoride	0.035	U	mg F/L	0.035	0.10
1/23/2017 10:22:00 AM	Blank	Nutrients-Liquid	W-FIELD-BK	Kjeldahl Nitrogen	0.080	U	mg N/L	0.080	0.20
1/23/2017 10:22:00 AM	Blank	Nutrients-Liquid	W-FIELD-BK	NO2NO3-N	0.004	U	mg N/L	0.0040	0.010
1/23/2017 10:22:00 AM	Blank	Nutrients-Liquid	W-FIELD-BK	O-Phosphate-P	0.004	U	mg P/L	0.0040	0.010
1/23/2017 10:22:00 AM	Blank	Nutrients-Liquid	W-FIELD-BK	Organic Carbon	0.50	U	mg C/L	0.50	1.0
1/23/2017 10:22:00 AM	Blank	Nutrients-Liquid	W-FIELD-BK	Sulfate	0.20	U	mg SO4/L	0.20	0.50
1/23/2017 10:22:00 AM	Blank	Nutrients-Liquid	W-FIELD-BK	Total Alkalinity	0.65	U	mg CaCO3/L	0.65	2.5
1/23/2017 10:22:00 AM	Blank	Nutrients-Liquid	W-FIELD-BK	Total-P	0.002	U	mg P/L	0.0020	0.0050
1/23/2017 10:22:00 AM	Blank	Nutrients-Liquid	W-FIELD-BK	Turbidity	0.10	U	NTU	0.10	0.10
1/23/2017 10:22:00 AM	Blank	VOC-Water	W-FIELD-BK	1,4-Dioxane	0.17		ug/L	0.020	0.080
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	1,2,4-Trichlorobenzene	0.96	U	ug/L	0.96	3.8

DATE SAMPLED	FIELD ID	ANALYSIS GROUP	MATRIX	COMPONENT	RESULT	REMARK	UNITS	MDL	PQL
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	2,4,6-Trichlorophenol	0.96	U	ug/L	0.96	3.8
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	2,4-Dichlorophenol	0.96	U	ug/L	0.96	3.8
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	2,4-Dimethylphenol	9.6	U	ug/L	9.6	38
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	2,4-Dinitrophenol	14	UJ	ug/L	14	58
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	2,4-Dinitrotoluene	0.96	U	ug/L	0.96	3.8
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	2,6-Dinitrotoluene	0.96	U	ug/L	0.96	3.8
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	2-Chloronaphthalene	0.96	U	ug/L	0.96	3.8
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	2-Chlorophenol	0.96	U	ug/L	0.96	3.8
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	12
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	2-Nitrophenol	0.96	U	ug/L	0.96	3.8
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	3,3'-Dichlorobenzidine	38	U	ug/L	38	150
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	4-Bromophenyl phenyl ether	0.96	U	ug/L	0.96	3.8
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	4-Chloro-3-methylphenol	0.96	U	ug/L	0.96	3.8
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.7
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	4-Nitrophenol	14	U	ug/L	14	58
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Acenaphthene	0.19	U	ug/L	0.19	0.77
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Acenaphthylene	0.19	U	ug/L	0.19	0.77
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Anthracene	0.19	U	ug/L	0.19	0.77
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Benzidine	96	U	ug/L	96	380
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Benzo(a)anthracene	0.19	U	ug/L	0.19	0.77
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Benzo(a)pyrene	0.19	U	ug/L	0.19	0.77
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Benzo(b)fluoranthene	0.19	U	ug/L	0.19	0.77
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Benzo(g,h,i)perylene	0.19	U	ug/L	0.19	0.77
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Benzo(k)fluoranthene	0.19	U	ug/L	0.19	0.77
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Bis(2-chloroethoxy)methane	0.96	U	ug/L	0.96	3.8
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Bis(2-chloroethyl)ether	0.96	U	ug/L	0.96	3.8
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	12
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Bis(2-ethylhexyl)phthalate	1.9	U	ug/L	1.9	7.7
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Butyl benzyl phthalate	0.96	U	ug/L	0.96	3.8
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Chrysene	0.19	U	ug/L	0.19	0.77
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Di-n-butyl phthalate	1.9	U	ug/L	1.9	7.7
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Di-n-octyl phthalate	0.96	U	ug/L	0.96	3.8
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Dibenzo(a,h)anthracene	0.19	U	ug/L	0.19	0.77
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Diethyl phthalate	1.9	U	ug/L	1.9	7.7
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Dimethyl phthalate	0.96	U	ug/L	0.96	3.8
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Fluoranthene	0.19	U	ug/L	0.19	0.77
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Fluorene	0.19	U	ug/L	0.19	0.77

DATE SAMPLED	FIELD ID	ANALYSIS GROUP	MATRIX	COMPONENT	RESULT	REMARK	UNITS	MDL	PQL
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Hexachlorobenzene	0.96	U	ug/L	0.96	3.8
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Hexachlorobutadiene	2.9	U	ug/L	2.9	12
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Hexachlorocyclopentadiene	2.9	U	ug/L	2.9	12
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Hexachloroethane	2.9	U	ug/L	2.9	12
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Indeno(1,2,3-cd)pyrene	0.19	U	ug/L	0.19	0.77
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Isophorone	0.96	U	ug/L	0.96	3.8
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.7
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.7
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	N-Nitrosodiphenylamine/ Diphenylamine	2.9	U	ug/L	2.9	12
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Naphthalene	0.19	U	ug/L	0.19	0.77
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Nitrobenzene	1.9	U	ug/L	1.9	7.7
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Pentachlorophenol	0.96	U	ug/L	0.96	3.8
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Phenanthrene	0.19	U	ug/L	0.19	0.77
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Phenol	0.96	U	ug/L	0.96	3.8
1/23/2017 11:09:00 AM	D-001 (Grab)	BNA-Water	WATER	Pyrene	0.19	U	ug/L	0.19	0.77
1/23/2017 11:09:00 AM	D-001 (Grab)	Bio-AGP/LimNut	WATER	Algal Growth Potential	14.7	AJ	mg DryWt/L	0.300	0.900
1/23/2017 11:09:00 AM	D-001 (Grab)	Bio-Chl-a	WATER	Chlorophyll-a, Corrected	0.55	U	ug/L	0.55	1.7
1/23/2017 11:09:00 AM	D-001 (Grab)	Bio-Chl-a	WATER	Chlorophyll-a, Uncorrected	0.40	U	ug/L	0.40	1.2
1/23/2017 11:09:00 AM	D-001 (Grab)	Bio-Chl-a	WATER	Chlorophyll/Phaeophytin Ratio	1.0			0.0	0.0
1/23/2017 11:09:00 AM	D-001 (Grab)	Bio-Chl-a	WATER	Phaeophytin-a	0.40	U	ug/L	0.40	1.2
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Alachlor	0.058	U	ug/L	0.058	0.23
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Ametryn	0.0097	U	ug/L	0.0097	0.039
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Atrazine	0.0097	U	ug/L	0.0097	0.039
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Atrazine Desethyl	0.027	U	ug/L	0.027	0.11
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Atrazine Desisopropyl	0.0097	U	ug/L	0.0097	0.039
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Azinphos Methyl	0.019	U	ug/L	0.019	0.078
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Bromacil	0.039	U	ug/L	0.039	0.16
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Butylate	0.019	U	ug/L	0.019	0.078
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Chlorpyrifos Ethyl	0.0097	U	ug/L	0.0097	0.039
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Chlorpyrifos Methyl	0.0097	U	ug/L	0.0097	0.039
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Demeton	0.023	U	ug/L	0.023	0.093
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Diazinon	0.0097	U	ug/L	0.0097	0.039
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Disulfoton	0.0048	UJ	ug/L	0.0048	0.019
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Ethion	0.0097	U	ug/L	0.0097	0.039
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Ethoprop	0.0048	U	ug/L	0.0048	0.019
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Fenamiphos	0.029	U	ug/L	0.029	0.12
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Fonofos	0.0097	U	ug/L	0.0097	0.039

DATE SAMPLED	FIELD ID	ANALYSIS GROUP	MATRIX	COMPONENT	RESULT	REMARK	UNITS	MDL	PQL
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Hexazinone	0.029	U	ug/L	0.029	0.12
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Malathion	0.0097	U	ug/L	0.0097	0.039
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Metalaxyl	0.039	UJ	ug/L	0.039	0.16
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Metolachlor	0.058	U	ug/L	0.058	0.23
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Metribuzin	0.019	U	ug/L	0.019	0.078
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Mevinphos	0.0097	U	ug/L	0.0097	0.039
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Naled	0.039	UJ	ug/L	0.039	0.16
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Norflurazon	0.029	U	ug/L	0.029	0.12
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Parathion Ethyl	0.019	U	ug/L	0.019	0.078
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Parathion Methyl	0.0097	U	ug/L	0.0097	0.039
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Phorate	0.0048	U	ug/L	0.0048	0.019
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Prometon	0.019	U	ug/L	0.019	0.078
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Prometryn	0.019	U	ug/L	0.019	0.078
1/23/2017 11:09:00 AM	D-001 (Grab)	GC-Water	WATER	Simazine	0.0097	U	ug/L	0.0097	0.039
1/23/2017 11:09:00 AM	D-001 (Grab)	LC-Water	WATER	Acetaminophen	0.0040	U	ug/L	0.0040	0.016
1/23/2017 11:09:00 AM	D-001 (Grab)	LC-Water	WATER	Carbamazepine	0.80		ug/L	0.0040	0.016
1/23/2017 11:09:00 AM	D-001 (Grab)	LC-Water	WATER	Sucralose	28		ug/L	0.10	0.40
1/23/2017 11:09:00 AM	D-001 (Grab)	Nutrients-Liquid	WATER	Ammonia-N	0.025		mg N/L	0.0020	0.0050
1/23/2017 11:09:00 AM	D-001 (Grab)	Nutrients-Liquid	WATER	Chloride	31		mg Cl/L	0.20	0.50
1/23/2017 11:09:00 AM	D-001 (Grab)	Nutrients-Liquid	WATER	Color (true)	5.4	I	PCU	2.5	6.0
1/23/2017 11:09:00 AM	D-001 (Grab)	Nutrients-Liquid	WATER	Fluoride	0.074	I	mg F/L	0.035	0.10
1/23/2017 11:09:00 AM	D-001 (Grab)	Nutrients-Liquid	WATER	Kjeldahl Nitrogen	0.54		mg N/L	0.080	0.20
1/23/2017 11:09:00 AM	D-001 (Grab)	Nutrients-Liquid	WATER	NO2NO3-N	1.2		mg N/L	0.0080	0.020
1/23/2017 11:09:00 AM	D-001 (Grab)	Nutrients-Liquid	WATER	O-Phosphate-P	0.72		mg P/L	0.040	0.10
1/23/2017 11:09:00 AM	D-001 (Grab)	Nutrients-Liquid	WATER	Organic Carbon	4.3		mg C/L	0.50	1.0
1/23/2017 11:09:00 AM	D-001 (Grab)	Nutrients-Liquid	WATER	Sulfate	13		mg SO4/L	0.20	0.50
1/23/2017 11:09:00 AM	D-001 (Grab)	Nutrients-Liquid	WATER	Total Alkalinity	65		mg CaCO3/L	0.65	2.5
1/23/2017 11:09:00 AM	D-001 (Grab)	Nutrients-Liquid	WATER	Total-P	0.76		mg P/L	0.0050	0.050
1/23/2017 11:09:00 AM	D-001 (Grab)	Nutrients-Liquid	WATER	Turbidity	0.70		NTU	0.10	0.10
1/23/2017 11:09:00 AM	D-001 (Grab)	VOC-Water	WATER	1,4-Dioxane	0.30		ug/L	0.020	0.080
1/23/2017 11:50:00 AM	Milton Effluent (FL0021903)	Bio-Overflow	W-EFFLUENT	Enterococci-Membrane Filter	2	U	cfu/100 mL	2	2
1/23/2017 11:50:00 AM	Milton Effluent (FL0021903)	Bio-Overflow	W-EFFLUENT	Fecal Coliforms-Membrane Filter	3	B	cfu/100 mL	2	2
1/23/2017 11:50:00 AM	Milton Field Blank	Bio-Overflow	W-FIELD-BK	Enterococci-Membrane Filter	1	U	cfu/100 mL	1	1
1/23/2017 11:50:00 AM	Milton Field Blank	Bio-Overflow	W-FIELD-BK	Fecal Coliforms-Membrane Filter	1	U	cfu/100 mL	1	1
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	1,2,4-Trichlorobenzene	240	U	ug/kg	240	950
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	2,4,6-Trichlorophenol	79	U	ug/kg	79	320

DATE SAMPLED	FIELD ID	ANALYSIS GROUP	MATRIX	COMPONENT	RESULT	REMARK	UNITS	MDL	PQL
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	2,4-Dichlorophenol	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	2,4-Dimethylphenol	470	U	ug/kg	470	1.9E+03
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	2,4-Dinitrophenol	470	UJ	ug/kg	470	1.9E+03
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	2,4-Dinitrotoluene	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	2,6-Dinitrotoluene	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	2-Chloronaphthalene	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	2-Chlorophenol	240	U	ug/kg	240	950
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	2-Methyl-4,6-dinitrophenol	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	2-Nitrophenol	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	3,3'-Dichlorobenzidine	4.7E+03	U	ug/kg	4.7E+03	1.9E+04
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	4-Bromophenyl phenyl ether	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	4-Chloro-3-methylphenol	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	4-Chlorophenyl phenyl ether	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	4-Nitrophenol	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Acenaphthene	8.8	U	ug/kg	8.8	35
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Acenaphthylene	8.8	U	ug/kg	8.8	35
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Anthracene	8.8	U	ug/kg	8.8	35
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Azobenzene/1,2-Diphenylhydrazine	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Benzidine	1.7E+03	UJ	ug/kg	1.7E+03	6.8E+03
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Benzo(a)anthracene	8.8	U	ug/kg	8.8	35
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Benzo(a)pyrene	8.8	U	ug/kg	8.8	35
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Benzo(b)fluoranthene	8.8	I	ug/kg	8.8	35
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Benzo(g,h,i)perylene	8.8	U	ug/kg	8.8	35
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Benzo(k)fluoranthene	8.8	U	ug/kg	8.8	35
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Bis(2-chloroethoxy)methane	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Bis(2-chloroethyl)ether	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Bis(2-chloroisopropyl)ether	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Bis(2-ethylhexyl)phthalate	470	U	ug/kg	470	1.9E+03
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Butyl benzyl phthalate	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Chrysene	8.8	U	ug/kg	8.8	35
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Di-n-butyl phthalate	470	U	ug/kg	470	1.9E+03
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Di-n-octyl phthalate	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Dibenzo(a,h)anthracene	8.8	U	ug/kg	8.8	35
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Diethyl phthalate	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Dimethyl phthalate	79	U	ug/kg	79	320

DATE SAMPLED	FIELD ID	ANALYSIS GROUP	MATRIX	COMPONENT	RESULT	REMARK	UNITS	MDL	PQL
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Fluoranthene	14	I	ug/kg	8.8	35
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Fluorene	8.8	U	ug/kg	8.8	35
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Hexachlorobenzene	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Hexachlorobutadiene	240	U	ug/kg	240	950
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Hexachlorocyclopentadiene	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Hexachloroethane	240	U	ug/kg	240	950
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Indeno(1,2,3-cd)pyrene	8.8	U	ug/kg	8.8	35
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Isophorone	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	N-Nitrosodi-n-propylamine	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	N-Nitrosodimethylamine	470	U	ug/kg	470	1.9E+03
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	N-Nitrosodiphenylamine/ Diphenylamine	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Naphthalene	8.8	U	ug/kg	8.8	35
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Nitrobenzene	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Pentachlorophenol	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Phenanthrene	8.8	U	ug/kg	8.8	35
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Phenol	79	U	ug/kg	79	320
1/24/2017 10:50:00 AM	Station # 2	BNA-Waste	S-SOIL	Pyrene	14	I	ug/kg	8.8	35
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	1,2,4-Trichlorobenzene	1.0	U	ug/L	1.0	4.1
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	2,4,6-Trichlorophenol	1.0	U	ug/L	1.0	4.1
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	2,4-Dichlorophenol	1.0	U	ug/L	1.0	4.1
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	2,4-Dimethylphenol	10	U	ug/L	10	41
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	2,4-Dinitrophenol	15	UJ	ug/L	15	61
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	2,4-Dinitrotoluene	1.0	U	ug/L	1.0	4.1
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	2,6-Dinitrotoluene	1.0	U	ug/L	1.0	4.1
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	2-Chloronaphthalene	1.0	U	ug/L	1.0	4.1
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	2-Chlorophenol	1.0	U	ug/L	1.0	4.1
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	2-Methyl-4,6-dinitrophenol	3.1	U	ug/L	3.1	12
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	2-Nitrophenol	1.0	U	ug/L	1.0	4.1
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	3,3'-Dichlorobenzidine	41	U	ug/L	41	160
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	4-Bromophenyl phenyl ether	1.0	U	ug/L	1.0	4.1
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	4-Chloro-3-methylphenol	1.0	U	ug/L	1.0	4.1
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	4-Chlorophenyl phenyl ether	2.0	U	ug/L	2.0	8.2
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	4-Nitrophenol	15	U	ug/L	15	61
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Acenaphthene	0.20	U	ug/L	0.20	0.82
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Acenaphthylene	0.20	U	ug/L	0.20	0.82
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Anthracene	0.20	U	ug/L	0.20	0.82
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Benzidine	100	U	ug/L	100	410

DATE SAMPLED	FIELD ID	ANALYSIS GROUP	MATRIX	COMPONENT	RESULT	REMARK	UNITS	MDL	PQL
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Benzo(a)anthracene	0.20	U	ug/L	0.20	0.82
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Benzo(a)pyrene	0.20	U	ug/L	0.20	0.82
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Benzo(b)fluoranthene	0.20	U	ug/L	0.20	0.82
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Benzo(g,h,i)perylene	0.20	U	ug/L	0.20	0.82
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Benzo(k)fluoranthene	0.20	U	ug/L	0.20	0.82
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Bis(2-chloroethoxy)methane	1.0	U	ug/L	1.0	4.1
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Bis(2-chloroethyl)ether	1.0	U	ug/L	1.0	4.1
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Bis(2-chloroisopropyl)ether	3.1	U	ug/L	3.1	12
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Bis(2-ethylhexyl)phthalate	2.0	U	ug/L	2.0	8.2
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Butyl benzyl phthalate	1.0	U	ug/L	1.0	4.1
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Chrysene	0.20	U	ug/L	0.20	0.82
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Di-n-butyl phthalate	2.0	U	ug/L	2.0	8.2
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Di-n-octyl phthalate	1.0	U	ug/L	1.0	4.1
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Dibenzo(a,h)anthracene	0.20	U	ug/L	0.20	0.82
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Diethyl phthalate	2.0	U	ug/L	2.0	8.2
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Dimethyl phthalate	1.0	U	ug/L	1.0	4.1
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Fluoranthene	0.20	U	ug/L	0.20	0.82
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Fluorene	0.20	U	ug/L	0.20	0.82
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Hexachlorobenzene	1.0	U	ug/L	1.0	4.1
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Hexachlorobutadiene	3.1	U	ug/L	3.1	12
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Hexachlorocyclopentadiene	3.1	U	ug/L	3.1	12
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Hexachloroethane	3.1	U	ug/L	3.1	12
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Indeno(1,2,3-cd)pyrene	0.20	U	ug/L	0.20	0.82
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Isophorone	1.0	U	ug/L	1.0	4.1
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	N-Nitrosodi-n-propylamine	2.0	U	ug/L	2.0	8.2
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	N-Nitrosodimethylamine	2.0	U	ug/L	2.0	8.2
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	N-Nitrosodiphenylamine/ Diphenylamine	3.1	U	ug/L	3.1	12
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Naphthalene	0.20	U	ug/L	0.20	0.82
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Nitrobenzene	2.0	U	ug/L	2.0	8.2
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Pentachlorophenol	1.0	U	ug/L	1.0	4.1
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Phenanthrene	0.20	U	ug/L	0.20	0.82
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Phenol	1.0	U	ug/L	1.0	4.1
1/24/2017 10:50:00 AM	Station # 2	BNA-Water	W-SURF-FRH	Pyrene	0.20	U	ug/L	0.20	0.82
1/24/2017 10:50:00 AM	Station # 2	Bio-AGP/LimNut	W-SURF-FRH	Algal Growth Potential	0.0954	U	mg DryWt/L	0.300	0.900
1/24/2017 10:50:00 AM	Station # 2	Bio-BOD	W-SURF-FRH	Biochemical Oxygen Demand-5 Day,N-Inhib	1.4	I	mg/L	0.20	2.0
1/24/2017 10:50:00 AM	Station # 2	Bio-Chl-a	W-SURF-FRH	Chlorophyll-a, Corrected	0.55	U	ug/L	0.55	1.7
1/24/2017 10:50:00 AM	Station # 2	Bio-Chl-a	W-SURF-FRH	Chlorophyll-a, Uncorrected	0.49	I	ug/L	0.40	1.2

DATE SAMPLED	FIELD ID	ANALYSIS GROUP	MATRIX	COMPONENT	RESULT	REMARK	UNITS	MDL	PQL
1/24/2017 10:50:00 AM	Station # 2	Bio-Chl-a	W-SURF-FRH	Chlorophyll/Phaeophytin Ratio	1.5			0.0	0.0
1/24/2017 10:50:00 AM	Station # 2	Bio-Chl-a	W-SURF-FRH	Phaeophytin-a	0.40	U	ug/L	0.40	1.2
1/24/2017 10:50:00 AM	Station # 2	Bio-Overflow	W-SURF-FRH	Enterococci-Membrane Filter	114		cfu/100 mL	2	2
1/24/2017 10:50:00 AM	Station # 2	Bio-Overflow	W-SURF-FRH	Fecal Coliforms-Membrane Filter	540		cfu/100 mL	2	2
1/24/2017 10:50:00 AM	Station # 2	Bio-SedPrtSz/AFDW	S-SOIL	Particle Size 0.0078-0.0156 mm,FineSilt	2.51		% vol <2mm	0.0	0.010
1/24/2017 10:50:00 AM	Station # 2	Bio-SedPrtSz/AFDW	S-SOIL	Particle Size 0.0156-0.031mm,MediumSilt	2.23		% vol <2mm	0.0	0.010
1/24/2017 10:50:00 AM	Station # 2	Bio-SedPrtSz/AFDW	S-SOIL	Particle Size 0.031-0.0625mm,CoarseSilt	1.68		% vol <2mm	0.0	0.010
1/24/2017 10:50:00 AM	Station # 2	Bio-SedPrtSz/AFDW	S-SOIL	Particle Size 0.125-0.25 mm, Fine Sand	3.80		% vol <2mm	0.0	0.010
1/24/2017 10:50:00 AM	Station # 2	Bio-SedPrtSz/AFDW	S-SOIL	Particle Size 0.25-0.50 mm, Medium Sand	19.3		% vol <2mm	0.0	0.010
1/24/2017 10:50:00 AM	Station # 2	Bio-SedPrtSz/AFDW	S-SOIL	Particle Size 0.50-1.0 mm, Coarse Sand	46.7		% vol <2mm	0.0	0.010
1/24/2017 10:50:00 AM	Station # 2	Bio-SedPrtSz/AFDW	S-SOIL	Particle Size 1.0-2.0mm,Very Coarse Sand	19.1		% vol <2mm	0.0	0.010
1/24/2017 10:50:00 AM	Station # 2	Bio-SedPrtSz/AFDW	S-SOIL	Particle Size <0.0039 mm, Clay	1.31		% vol <2mm	0.0	0.010
1/24/2017 10:50:00 AM	Station # 2	Bio-SedPrtSz/AFDW	S-SOIL	Particle Size >2.0 mm, ASTM Sieve #10	2.7		%totdrywt	0.0	1.0
1/24/2017 10:50:00 AM	Station # 2	Bio-SedPrtSz/AFDW	S-SOIL	ParticleSize 0.0625-0.125mm,VeryFineSand	1.65		% vol <2mm	0.0	0.010
1/24/2017 10:50:00 AM	Station # 2	Bio-SedPrtSz/AFDW	S-SOIL	ParticleSize0.0039-0.0078mm,VeryFineSilt	1.71		% vol <2mm	0.0	0.010
1/24/2017 10:50:00 AM	Station # 2	Bio-SedPrtSz/AFDW	S-SOIL	Sediment % Organic	1.0	K	% dry wt		
1/24/2017 10:50:00 AM	Station # 2	LC-Water	W-SURF-FRH	Sucralose	0.010	U	ug/L	0.010	0.040
1/24/2017 10:50:00 AM	Station # 2	Metals-Waste	S-SOIL	Arsenic	0.416		mg/Kg	0.0086	0.034
1/24/2017 10:50:00 AM	Station # 2	Metals-Waste	S-SOIL	Cadmium	0.012	I	mg/Kg	0.0086	0.034
1/24/2017 10:50:00 AM	Station # 2	Metals-Waste	S-SOIL	Chromium	2.03		mg/Kg	0.22	0.86
1/24/2017 10:50:00 AM	Station # 2	Metals-Waste	S-SOIL	Copper	0.85		mg/Kg	0.032	0.13
1/24/2017 10:50:00 AM	Station # 2	Metals-Waste	S-SOIL	Lead	2.36		mg/Kg	0.086	0.34
1/24/2017 10:50:00 AM	Station # 2	Metals-Waste	S-SOIL	Nickel	0.64	I	mg/Kg	0.32	1.3
1/24/2017 10:50:00 AM	Station # 2	Metals-Waste	S-SOIL	Silver	0.0047	I	mg/Kg	0.0032	0.013
1/24/2017 10:50:00 AM	Station # 2	Metals-Waste	S-SOIL	Zinc	4.3	U	mg/Kg	4.3	17
1/24/2017 10:50:00 AM	Station # 2	Metals-Water	W-SURF-FRH	Aluminum	521		ug/L	3.0	12
1/24/2017 10:50:00 AM	Station # 2	Metals-Water	W-SURF-FRH	Arsenic	0.32		ug/L	0.050	0.20
1/24/2017 10:50:00 AM	Station # 2	Metals-Water	W-SURF-FRH	Cadmium	0.020	U	ug/L	0.020	0.080
1/24/2017 10:50:00 AM	Station # 2	Metals-Water	W-SURF-FRH	Calcium	0.97		mg/L	0.075	0.30
1/24/2017 10:50:00 AM	Station # 2	Metals-Water	W-SURF-FRH	Chromium	0.58	I	ug/L	0.40	1.6
1/24/2017 10:50:00 AM	Station # 2	Metals-Water	W-SURF-FRH	Copper	0.29	I	ug/L	0.20	0.80
1/24/2017 10:50:00 AM	Station # 2	Metals-Water	W-SURF-FRH	Hardness	6.6		mg/L	0.35	1.4
1/24/2017 10:50:00 AM	Station # 2	Metals-Water	W-SURF-FRH	Iron	530		ug/L	30	120
1/24/2017 10:50:00 AM	Station # 2	Metals-Water	W-SURF-FRH	Lead	0.39		ug/L	0.050	0.20
1/24/2017 10:50:00 AM	Station # 2	Metals-Water	W-SURF-FRH	Magnesium	1.01		mg/L	0.040	0.16
1/24/2017 10:50:00 AM	Station # 2	Metals-Water	W-SURF-FRH	Nickel	0.60	I	ug/L	0.20	0.80
1/24/2017 10:50:00 AM	Station # 2	Metals-Water	W-SURF-FRH	Potassium	0.49	I	mg/L	0.30	1.2

DATE SAMPLED	FIELD ID	ANALYSIS GROUP	MATRIX	COMPONENT	RESULT	REMARK	UNITS	MDL	PQL
1/24/2017 10:50:00 AM	Station # 2	Metals-Water	W-SURF-FRH	Selenium	0.20	U	ug/L	0.20	0.80
1/24/2017 10:50:00 AM	Station # 2	Metals-Water	W-SURF-FRH	Silver	0.010	U	ug/L	0.010	0.040
1/24/2017 10:50:00 AM	Station # 2	Metals-Water	W-SURF-FRH	Sodium	5.4		mg/L	0.50	2.0
1/24/2017 10:50:00 AM	Station # 2	Metals-Water	W-SURF-FRH	Zinc	5.0	U	ug/L	5.0	20
1/24/2017 10:50:00 AM	Station # 2	Nutrients-Liquid	W-SURF-FRH	Ammonia-N	0.005	I	mg N/L	0.0020	0.0050
1/24/2017 10:50:00 AM	Station # 2	Nutrients-Liquid	W-SURF-FRH	Chloride	10		mg Cl/L	0.20	0.50
1/24/2017 10:50:00 AM	Station # 2	Nutrients-Liquid	W-SURF-FRH	Color (true)	89		PCU	2.5	6.0
1/24/2017 10:50:00 AM	Station # 2	Nutrients-Liquid	W-SURF-FRH	Fluoride	0.035	U	mg F/L	0.035	0.10
1/24/2017 10:50:00 AM	Station # 2	Nutrients-Liquid	W-SURF-FRH	Kjeldahl Nitrogen	0.41		mg N/L	0.080	0.20
1/24/2017 10:50:00 AM	Station # 2	Nutrients-Liquid	W-SURF-FRH	NO2NO3-N	0.076		mg N/L	0.0040	0.010
1/24/2017 10:50:00 AM	Station # 2	Nutrients-Liquid	W-SURF-FRH	O-Phosphate-P	0.004	U	mg P/L	0.0040	0.010
1/24/2017 10:50:00 AM	Station # 2	Nutrients-Liquid	W-SURF-FRH	Organic Carbon	9.2		mg C/L	0.50	1.0
1/24/2017 10:50:00 AM	Station # 2	Nutrients-Liquid	W-SURF-FRH	Sulfate	2.1		mg SO4/L	0.20	0.50
1/24/2017 10:50:00 AM	Station # 2	Nutrients-Liquid	W-SURF-FRH	TSS	4	I	mg/L	2.0	10
1/24/2017 10:50:00 AM	Station # 2	Nutrients-Liquid	W-SURF-FRH	Total Alkalinity	0.65	U	mg CaCO3/L	0.65	2.5
1/24/2017 10:50:00 AM	Station # 2	Nutrients-Liquid	W-SURF-FRH	Total-P	0.014		mg P/L	0.0020	0.0050
1/24/2017 10:50:00 AM	Station # 2	Nutrients-Liquid	W-SURF-FRH	Turbidity	7.7	A	NTU	0.10	0.10
1/24/2017 10:50:00 AM	Station # 2	VOC-Water	W-SURF-FRH	1,4-Dioxane	0.020	U	ug/L	0.020	0.080
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	1,2,4-Trichlorobenzene	230	U	ug/kg	230	910
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	2,4,6-Trichlorophenol	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	2,4-Dichlorophenol	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	2,4-Dimethylphenol	450	U	ug/kg	450	1.8E+03
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	2,4-Dinitrophenol	450	UJ	ug/kg	450	1.8E+03
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	2,4-Dinitrotoluene	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	2,6-Dinitrotoluene	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	2-Chloronaphthalene	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	2-Chlorophenol	230	U	ug/kg	230	910
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	2-Methyl-4,6-dinitrophenol	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	2-Nitrophenol	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	3,3'-Dichlorobenzidine	4.5E+03	U	ug/kg	4.5E+03	1.8E+04
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	4-Bromophenyl phenyl ether	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	4-Chloro-3-methylphenol	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	4-Chlorophenyl phenyl ether	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	4-Nitrophenol	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Acenaphthene	8.4	U	ug/kg	8.4	34
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Acenaphthylene	8.4	U	ug/kg	8.4	34

DATE SAMPLED	FIELD ID	ANALYSIS GROUP	MATRIX	COMPONENT	RESULT	REMARK	UNITS	MDL	PQL
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Anthracene	8.4	U	ug/kg	8.4	34
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Azobenzene/1,2-Diphenylhydrazine	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Benzidine	1.6E+03	UJ	ug/kg	1.6E+03	6.5E+03
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Benzo(a)anthracene	8.4	U	ug/kg	8.4	34
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Benzo(a)pyrene	8.4	U	ug/kg	8.4	34
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Benzo(b)fluoranthene	8.8	I	ug/kg	8.4	34
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Benzo(g,h,i)perylene	8.4	U	ug/kg	8.4	34
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Benzo(k)fluoranthene	8.4	U	ug/kg	8.4	34
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Bis(2-chloroethoxy)methane	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Bis(2-chloroethyl)ether	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Bis(2-chloroisopropyl)ether	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Bis(2-ethylhexyl)phthalate	450	U	ug/kg	450	1.8E+03
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Butyl benzyl phthalate	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Chrysene	8.4	U	ug/kg	8.4	34
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Di-n-butyl phthalate	450	U	ug/kg	450	1.8E+03
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Di-n-octyl phthalate	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Dibenzo(a,h)anthracene	8.4	U	ug/kg	8.4	34
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Diethyl phthalate	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Dimethyl phthalate	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Fluoranthene	22	I	ug/kg	8.4	34
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Fluorene	8.4	U	ug/kg	8.4	34
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Hexachlorobenzene	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Hexachlorobutadiene	230	U	ug/kg	230	910
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Hexachlorocyclopentadiene	76	UJ	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Hexachloroethane	230	UJ	ug/kg	230	910
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Indeno(1,2,3-cd)pyrene	8.4	U	ug/kg	8.4	34
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Isophorone	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	N-Nitrosodi-n-propylamine	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	N-Nitrosodimethylamine	450	U	ug/kg	450	1.8E+03
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	N-Nitrosodiphenylamine/ Diphenylamine	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Naphthalene	8.4	U	ug/kg	8.4	34
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Nitrobenzene	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Pentachlorophenol	76	U	ug/kg	76	300
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Phenanthrene	8.4	U	ug/kg	8.4	34
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Phenol	76	U	ug/kg	76	300

DATE SAMPLED	FIELD ID	ANALYSIS GROUP	MATRIX	COMPONENT	RESULT	REMARK	UNITS	MDL	PQL
1/24/2017 11:25:00 AM	Station # 1	BNA-Waste	S-SOIL	Pyrene	22	I	ug/kg	8.4	34
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	1,2,4-Trichlorobenzene	1.0	U	ug/L	1.0	4.2
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	2,4,6-Trichlorophenol	1.0	U	ug/L	1.0	4.2
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	2,4-Dichlorophenol	1.0	U	ug/L	1.0	4.2
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	2,4-Dimethylphenol	10	U	ug/L	10	42
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	2,4-Dinitrophenol	16	UJ	ug/L	16	62
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	2,4-Dinitrotoluene	1.0	U	ug/L	1.0	4.2
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	2,6-Dinitrotoluene	1.0	U	ug/L	1.0	4.2
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	2-Chloronaphthalene	1.0	U	ug/L	1.0	4.2
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	2-Chlorophenol	1.0	U	ug/L	1.0	4.2
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	2-Methyl-4,6-dinitrophenol	3.1	U	ug/L	3.1	12
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	2-Nitrophenol	1.0	U	ug/L	1.0	4.2
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	3,3'-Dichlorobenzidine	42	U	ug/L	42	170
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	4-Bromophenyl phenyl ether	1.0	U	ug/L	1.0	4.2
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	4-Chloro-3-methylphenol	1.0	U	ug/L	1.0	4.2
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	4-Chlorophenyl phenyl ether	2.1	U	ug/L	2.1	8.3
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	4-Nitrophenol	16	U	ug/L	16	62
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Acenaphthene	0.21	U	ug/L	0.21	0.83
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Acenaphthylene	0.21	U	ug/L	0.21	0.83
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Anthracene	0.21	U	ug/L	0.21	0.83
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Benzidine	100	U	ug/L	100	420
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Benzo(a)anthracene	0.21	U	ug/L	0.21	0.83
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Benzo(a)pyrene	0.21	U	ug/L	0.21	0.83
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Benzo(b)fluoranthene	0.21	U	ug/L	0.21	0.83
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Benzo(g,h,i)perylene	0.21	U	ug/L	0.21	0.83
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Benzo(k)fluoranthene	0.21	U	ug/L	0.21	0.83
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Bis(2-chloroethoxy)methane	1.0	U	ug/L	1.0	4.2
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Bis(2-chloroethyl)ether	1.0	U	ug/L	1.0	4.2
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Bis(2-chloroisopropyl)ether	3.1	U	ug/L	3.1	12
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Bis(2-ethylhexyl)phthalate	2.1	U	ug/L	2.1	8.3
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Butyl benzyl phthalate	1.0	U	ug/L	1.0	4.2
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Chrysene	0.21	U	ug/L	0.21	0.83
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Di-n-butyl phthalate	2.1	U	ug/L	2.1	8.3
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Di-n-octyl phthalate	1.0	U	ug/L	1.0	4.2
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Dibenzo(a,h)anthracene	0.21	U	ug/L	0.21	0.83
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Diethyl phthalate	2.1	U	ug/L	2.1	8.3
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Dimethyl phthalate	1.0	U	ug/L	1.0	4.2

DATE SAMPLED	FIELD ID	ANALYSIS GROUP	MATRIX	COMPONENT	RESULT	REMARK	UNITS	MDL	PQL
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Fluoranthene	0.21	U	ug/L	0.21	0.83
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Fluorene	0.21	U	ug/L	0.21	0.83
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Hexachlorobenzene	1.0	U	ug/L	1.0	4.2
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Hexachlorobutadiene	3.1	U	ug/L	3.1	12
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Hexachlorocyclopentadiene	3.1	U	ug/L	3.1	12
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Hexachloroethane	3.1	U	ug/L	3.1	12
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Indeno(1,2,3-cd)pyrene	0.21	U	ug/L	0.21	0.83
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Isophorone	1.0	U	ug/L	1.0	4.2
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	N-Nitrosodi-n-propylamine	2.1	U	ug/L	2.1	8.3
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	N-Nitrosodimethylamine	2.1	U	ug/L	2.1	8.3
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	N-Nitrosodiphenylamine/ Diphenylamine	3.1	U	ug/L	3.1	12
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Naphthalene	0.21	U	ug/L	0.21	0.83
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Nitrobenzene	2.1	U	ug/L	2.1	8.3
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Pentachlorophenol	1.0	U	ug/L	1.0	4.2
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Phenanthrene	0.21	U	ug/L	0.21	0.83
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Phenol	1.0	U	ug/L	1.0	4.2
1/24/2017 11:25:00 AM	Station # 1	BNA-Water	W-SURF-FRH	Pyrene	0.21	U	ug/L	0.21	0.83
1/24/2017 11:25:00 AM	Station # 1	Bio-AGP/LimNut	W-SURF-FRH	Algal Growth Potential	0.106	U	mg DryWt/L	0.300	0.900
1/24/2017 11:25:00 AM	Station # 1	Bio-BOD	W-SURF-FRH	Biochemical Oxygen Demand-5 Day,N-Inhib	1.2	I	mg/L	0.20	2.0
1/24/2017 11:25:00 AM	Station # 1	Bio-Chl-a	W-SURF-FRH	Chlorophyll-a, Corrected	0.55	U	ug/L	0.55	1.7
1/24/2017 11:25:00 AM	Station # 1	Bio-Chl-a	W-SURF-FRH	Chlorophyll-a, Uncorrected	0.58	I	ug/L	0.40	1.2
1/24/2017 11:25:00 AM	Station # 1	Bio-Chl-a	W-SURF-FRH	Chlorophyll/Phaeophytin Ratio	1.5			0.0	0.0
1/24/2017 11:25:00 AM	Station # 1	Bio-Chl-a	W-SURF-FRH	Phaeophytin-a	0.40	U	ug/L	0.40	1.2
1/24/2017 11:25:00 AM	Station # 1	Bio-Overflow	W-SURF-FRH	Enterococci-Membrane Filter	104		cfu/100 mL	2	2
1/24/2017 11:25:00 AM	Station # 1	Bio-Overflow	W-SURF-FRH	Fecal Coliforms-Membrane Filter	490		cfu/100 mL	2	2
1/24/2017 11:25:00 AM	Station # 1	Bio-SedPrtSz/AFDW	S-SOIL	Particle Size 0.0078-0.0156 mm,FineSilt	1.68	A	% vol <2mm	0.0	0.010
1/24/2017 11:25:00 AM	Station # 1	Bio-SedPrtSz/AFDW	S-SOIL	Particle Size 0.0156-0.031mm,MediumSilt	1.49	A	% vol <2mm	0.0	0.010
1/24/2017 11:25:00 AM	Station # 1	Bio-SedPrtSz/AFDW	S-SOIL	Particle Size 0.031-0.0625mm,CoarseSilt	1.34	A	% vol <2mm	0.0	0.010
1/24/2017 11:25:00 AM	Station # 1	Bio-SedPrtSz/AFDW	S-SOIL	Particle Size 0.125-0.25 mm, Fine Sand	3.79	A	% vol <2mm	0.0	0.010
1/24/2017 11:25:00 AM	Station # 1	Bio-SedPrtSz/AFDW	S-SOIL	Particle Size 0.25-0.50 mm, Medium Sand	15.0	A	% vol <2mm	0.0	0.010
1/24/2017 11:25:00 AM	Station # 1	Bio-SedPrtSz/AFDW	S-SOIL	Particle Size 0.50-1.0 mm, Coarse Sand	49.9	A	% vol <2mm	0.0	0.010
1/24/2017 11:25:00 AM	Station # 1	Bio-SedPrtSz/AFDW	S-SOIL	Particle Size 1.0-2.0mm,Very Coarse Sand	22.4	A	% vol <2mm	0.0	0.010
1/24/2017 11:25:00 AM	Station # 1	Bio-SedPrtSz/AFDW	S-SOIL	Particle Size <0.0039 mm, Clay	1.21	A	% vol <2mm	0.0	0.010
1/24/2017 11:25:00 AM	Station # 1	Bio-SedPrtSz/AFDW	S-SOIL	Particle Size >2.0 mm, ASTM Sieve #10	1.7	A	%totdrywt	0.0	1.0
1/24/2017 11:25:00 AM	Station # 1	Bio-SedPrtSz/AFDW	S-SOIL	ParticleSize 0.0625-0.125mm,VeryFineSand	1.87	A	% vol <2mm	0.0	0.010
1/24/2017 11:25:00 AM	Station # 1	Bio-SedPrtSz/AFDW	S-SOIL	ParticleSize0.0039-0.0078mm,VeryFineSilt	1.35	A	% vol <2mm	0.0	0.010
1/24/2017 11:25:00 AM	Station # 1	Bio-SedPrtSz/AFDW	S-SOIL	Sediment % Organic	1.0	K	% dry wt		

DATE SAMPLED	FIELD ID	ANALYSIS GROUP	MATRIX	COMPONENT	RESULT	REMARK	UNITS	MDL	PQL
1/24/2017 11:25:00 AM	Station # 1	LC-Water	W-SURF-FRH	Sucralose	5.2		ug/L	0.010	0.040
1/24/2017 11:25:00 AM	Station # 1	Metals-Waste	S-SOIL	Arsenic	0.462		mg/Kg	0.0081	0.033
1/24/2017 11:25:00 AM	Station # 1	Metals-Waste	S-SOIL	Cadmium	0.018	I	mg/Kg	0.0081	0.033
1/24/2017 11:25:00 AM	Station # 1	Metals-Waste	S-SOIL	Chromium	2.40		mg/Kg	0.20	0.81
1/24/2017 11:25:00 AM	Station # 1	Metals-Waste	S-SOIL	Copper	1.22		mg/Kg	0.030	0.12
1/24/2017 11:25:00 AM	Station # 1	Metals-Waste	S-SOIL	Lead	2.70		mg/Kg	0.081	0.33
1/24/2017 11:25:00 AM	Station # 1	Metals-Waste	S-SOIL	Nickel	0.78	I	mg/Kg	0.30	1.2
1/24/2017 11:25:00 AM	Station # 1	Metals-Waste	S-SOIL	Silver	0.014		mg/Kg	0.0030	0.012
1/24/2017 11:25:00 AM	Station # 1	Metals-Waste	S-SOIL	Zinc	4.2	I	mg/Kg	4.1	16
1/24/2017 11:25:00 AM	Station # 1	Metals-Water	W-SURF-FRH	Aluminum	445		ug/L	3.0	12
1/24/2017 11:25:00 AM	Station # 1	Metals-Water	W-SURF-FRH	Arsenic	0.35		ug/L	0.050	0.20
1/24/2017 11:25:00 AM	Station # 1	Metals-Water	W-SURF-FRH	Cadmium	0.020	I	ug/L	0.020	0.080
1/24/2017 11:25:00 AM	Station # 1	Metals-Water	W-SURF-FRH	Calcium	6.30		mg/L	0.075	0.30
1/24/2017 11:25:00 AM	Station # 1	Metals-Water	W-SURF-FRH	Chromium	0.61	I	ug/L	0.40	1.6
1/24/2017 11:25:00 AM	Station # 1	Metals-Water	W-SURF-FRH	Copper	1.09		ug/L	0.20	0.80
1/24/2017 11:25:00 AM	Station # 1	Metals-Water	W-SURF-FRH	Hardness	20.6		mg/L	0.35	1.4
1/24/2017 11:25:00 AM	Station # 1	Metals-Water	W-SURF-FRH	Iron	470		ug/L	30	120
1/24/2017 11:25:00 AM	Station # 1	Metals-Water	W-SURF-FRH	Lead	0.40		ug/L	0.050	0.20
1/24/2017 11:25:00 AM	Station # 1	Metals-Water	W-SURF-FRH	Magnesium	1.18		mg/L	0.040	0.16
1/24/2017 11:25:00 AM	Station # 1	Metals-Water	W-SURF-FRH	Nickel	3.03		ug/L	0.20	0.80
1/24/2017 11:25:00 AM	Station # 1	Metals-Water	W-SURF-FRH	Potassium	1.7		mg/L	0.30	1.2
1/24/2017 11:25:00 AM	Station # 1	Metals-Water	W-SURF-FRH	Selenium	0.20	U	ug/L	0.20	0.80
1/24/2017 11:25:00 AM	Station # 1	Metals-Water	W-SURF-FRH	Silver	0.010	U	ug/L	0.010	0.040
1/24/2017 11:25:00 AM	Station # 1	Metals-Water	W-SURF-FRH	Sodium	9.2		mg/L	0.50	2.0
1/24/2017 11:25:00 AM	Station # 1	Metals-Water	W-SURF-FRH	Zinc	8.6	I	ug/L	5.0	20
1/24/2017 11:25:00 AM	Station # 1	Nutrients-Liquid	W-SURF-FRH	Ammonia-N	0.011		mg N/L	0.0020	0.0050
1/24/2017 11:25:00 AM	Station # 1	Nutrients-Liquid	W-SURF-FRH	Chloride	14	A	mg Cl/L	0.20	0.50
1/24/2017 11:25:00 AM	Station # 1	Nutrients-Liquid	W-SURF-FRH	Color (true)	79	A	PCU	2.5	6.0
1/24/2017 11:25:00 AM	Station # 1	Nutrients-Liquid	W-SURF-FRH	Fluoride	0.035	U	mg F/L	0.035	0.10
1/24/2017 11:25:00 AM	Station # 1	Nutrients-Liquid	W-SURF-FRH	Kjeldahl Nitrogen	0.38		mg N/L	0.080	0.20
1/24/2017 11:25:00 AM	Station # 1	Nutrients-Liquid	W-SURF-FRH	NO2NO3-N	0.42		mg N/L	0.0040	0.010
1/24/2017 11:25:00 AM	Station # 1	Nutrients-Liquid	W-SURF-FRH	O-Phosphate-P	0.095		mg P/L	0.0040	0.010
1/24/2017 11:25:00 AM	Station # 1	Nutrients-Liquid	W-SURF-FRH	Organic Carbon	8.3		mg C/L	0.50	1.0
1/24/2017 11:25:00 AM	Station # 1	Nutrients-Liquid	W-SURF-FRH	Sulfate	4.9	A	mg SO4/L	0.20	0.50
1/24/2017 11:25:00 AM	Station # 1	Nutrients-Liquid	W-SURF-FRH	TSS	4	I	mg/L	2.0	10
1/24/2017 11:25:00 AM	Station # 1	Nutrients-Liquid	W-SURF-FRH	Total Alkalinity	9.5		mg CaCO3/L	0.65	2.5
1/24/2017 11:25:00 AM	Station # 1	Nutrients-Liquid	W-SURF-FRH	Total-P	0.15		mg P/L	0.0050	0.050

DATE SAMPLED	FIELD ID	ANALYSIS GROUP	MATRIX	COMPONENT	RESULT	REMARK	UNITS	MDL	PQL
1/24/2017 11:25:00 AM	Station # 1	Nutrients-Liquid	W-SURF-FRH	Turbidity	7.6		NTU	0.10	0.10
1/24/2017 11:25:00 AM	Station # 1	VOC-Water	W-SURF-FRH	1,4-Dioxane	0.71		ug/L	0.020	0.080

The Bioassay of Milton Waste Water Treatment Facility effluent sampled on January 23, 2017. NPDES #FL0021903.

Fill Out This Section For All Surface Water Discharger Inspections(CEI, CSI, CBI, PAI, XSI-RI Optional)

Transaction Code		NPDES NUMBER											YR/MO/DA						Insp Type	Inspector	Fac Type	
1	N	2	5	3	F	L	0	0	2	1	9	0	3	11	12	1	7	0	1	2	3	18	**B**	19	**S**	#	1

Remarks

The Priority Pollutants Analysis of Milton Wastewater Treatment Facility effluent sampled on January 23, 2017. NPDES #FL0021903.

Fill Out This Section For All Surface Water Discharger Inspections(CEI, CSI, CBI, PAI, XSI-RI Optional)

Transaction Code		NPDES NUMBER											YR/MO/DA						Insp Type	Inspector	Fac Type	
1	N	2	5	3	F	L	0	0	2	1	9	0	3	11	12	1	7	0	1	2	3	18	**X**	19	**S**	#	1

Remarks

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Biological Analyses of Milton Wastewater Treatment Facility effluent sampled on January 23, 2017. NPDES #FL0021903.

Fill Out This Section For All Surface Water Discharger Inspections(CEI, CSI, CBI, PAI, XSI-RI Optional)

Transaction Code		NPDES NUMBER									YR/MO/DA						Insp Type	Inspector	Fac Type	
1	N	2	5	3	F	L	0	0	2	1	9	0	3	11	12	1	7	0	1	2	3	18 **S**	19 **S**	#	1

Remarks

#