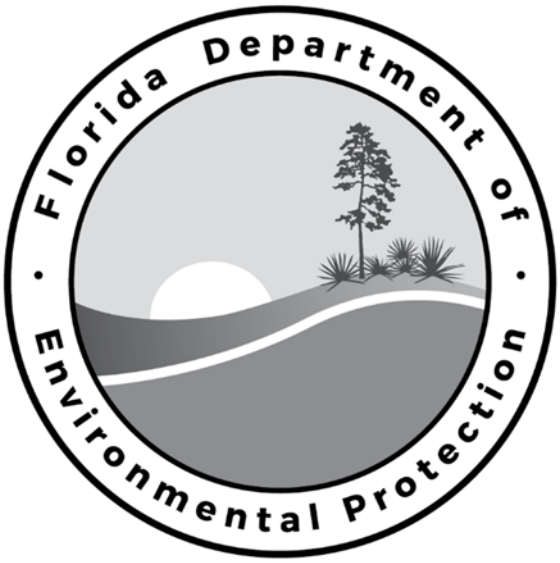


Effluent Quality Assessment of

Clearwater Marshall Street

Pinellas County

NPDES # FL0021857

Sampled May 9, 11 and 13, 2016

February 2017

Biology Program

DEP Laboratory

Division of Environmental Assessment and Restoration

DEP Laboratory Quality Manual

NELAC Certification No. E31780

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Clearwater Marshall Street Wastewater Treatment Facility (WWTF), 1605 Harbor Drive, Clearwater, Pinellas County, Florida, 33755. NPDES #FL0021857.

Facility Overview

Clearwater Marshall Street WWTF is a Type 1 advanced wastewater treatment facility which uses the Bardenpho process to treat domestic wastewater. See Appendix A for a description of the facility, summary of permit limits, Administrative Order (AO) and Discharge Monitoring Report (DMR) information.

Methods

Effluent composite samples for toxicity testing were collected on May 9, 11 and 13, 2016. Effluent grab and composite samples for biological and chemical analyses for this facility were collected on May 9, 2016. All samples were collected from the EFD-01 NPDES sampling point for Outfall D-001 by Lance Kautz, Peter Wenner and Erica Cooper (FDEP Southwest District) following DEP-SOP-001/01 FS 2400 Wastewater Sampling (see Appendix B).

The 7-day chronic definitive toxicity tests and algal growth potential test were performed following internal DEP SOPs TA07_05, TA07_09, and TA08_01 through TA08_09 (see Appendix B).

All field and laboratory methods followed DEP Standard Operating Procedures (see http://www.dep.state.fl.us/labs/library/lab_sops.htm and http://www.dep.state.fl.us/water/sas/sop/sops.htm 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.

Results

Chemistry Results (See Table 1, Table 2, Table 3. Table 5 and Appendix C)

- Receiving waters are located within the Clearwater Harbor/St. Joseph Sound Estuary Nutrient Region for Numeric Nutrient Criteria (NNC). For this region, the NNC thresholds, expressed as annual geometric means, are 0.05 mg/L total phosphorus and 0.61 mg/L total nitrogen. This FYI event can only provide single sample results; therefore, compliance should be determined with additional sampling events.
  http://ca.dep.state.fl.us/mapdirect/?focus=nutrientcriteria
- The total ammonia concentration in the grab sample collected and preserved for chemical analysis was 0.041 mg N/L. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was < 0.02 mg/L.
- Alkalinity, arsenic, bromodichloromethane, bromoform, chloroform, copper, dibromochloromethane, fluoride, iron, nickel, turbidity, and zinc were detected in the effluent at levels that comply with Class III Marine Water Quality Criteria (62-302.530, F.A.C.) and/or permit limits. Carbonaceous biochemical oxygen demand (CBOD), chromium, lead and selenium were detected between the laboratory method detection limits (MDL) and practical quantitation limits (PQL).

Algal Growth Potential (See Table 4 and Appendix C)

- The effluent Algal Growth Potential (AGP) was 12.8 mg dry wt/L of the unicellular green alga, *Pseudokirchneriella subcapitata*, formerly known as *Selenastrum capricornutum*. The analytical chemistry suggests that the effluent is nitrogen limited (Miller et al. 1978).
- To determine actual nutrient limitation, a limiting-nutrient algal growth potential test with associated nutrient chemistry should be performed (Miller et al. 1978).
- An aliquot of the AGP sample was salinity adjusted from an apparent salinity of approximately 0.9 parts per thousand (ppth) to a salinity of approximately 7.0 ppth by the addition of artificial sea salts to meet the salinity requirements of the test species.
- The salinity adjusted effluent algal growth potential (AGP) was 7.03 mg dry wt/L of the saltwater species *Dunaliella tertiolecta.*

Toxicity Test Results (See Appendix C)

- Tests were performed May 10 through 17, 2016.

  Ceriodaphnia dubia 7-day chronic definitive bioassay: (Twenty-Five Percent Inhibition Concentration) IC_{25} > 100% sample. (No Observed Effect Concentration) NOEC is 100% sample

  Pimephales promelas 7-day chronic definitive bioassay: (Twenty-Five Percent Inhibition Concentration) IC_{25} > 100% sample. (No Observed Effect Concentration) NOEC is 100% sample

*NOTE: 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 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 facility permit limits.

- The bioassay samples were not chronically toxic to the test organisms.
- Bioassay samples were aerated for approximately 15 minutes at a rate of approximately 100 bubbles per minute to decrease the dissolved oxygen (DO) from > 9 mg/L to < 9 mg/L.

Conclusion

The effluent samples collected from the EFD-01 NPDES sampling point for this facility on May 9, 11 and 13, 2016, were not chronically toxic to either test species during the 7-day chronic definitive bioassays. Effluent water quality samples collected on May 9, 2016, did not exceed any applicable water quality criteria or any permit conditions.

For additional information concerning this sampling event, including bioassay bench sheets and SRT data, please contact Diane.Power@dep.state.fl.us and/or Joseph.Faircloth@dep.state.fl.us.

Literature Cited

Miller, W. E., T. E. Maloney, and J. C. Greene. 1978. The *Selenastrum capricornutum* Printz algal assay bottle test. EPA-600/9-78-018. U. S. EPA, Cincinnati, Ohio. 126 p.

Maloney, T. E., W. E. Miller, and D. T. Specht. 1974. The Marine Algal Assay Procedure: Bottle Test. National Environmental Research Center Office of Research and Development. U. S. EPA, Corvallis, Oregon. 43 p

USEPA. 2002. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. 4th edition. EPA-821-R-02-013.

Table 1. Effluent limits, Class III Marine Criteria and field parameters

Clearwater Marshall Street WRF	Units	Class III Criteria	Effluent Permit Limits	EFD-01 Grab
Sample Depth	m	-	-	0.2
Temperature	C	-	-	27.4
pH	SU	6.0 - 8.5	-	7.5
Specific Conductance	µmhos/cm	-	-	1,827
Salinity	ppth	-	-	0.9
Dissolved Oxygen	% saturation	≥ 42	-	102.9 c
Dissolved Oxygen	mg/L	-	≥ 5.0 s	8.1
Total Residual Chlorine	mg/L	-	≤ 0.01 s	0

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
c - Value is calculated
s - Single sample

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

Clearwater Marshall Street WRF	Units	Class III Criteria	Effluent Permit Limits	EFD-01 Grab	EFD-01 Composite
Ortho-phosphate	mg P/L	-	-	0.076	-
Total Phosphorus	mg P/L	-	-	0.12	0.11F
Total Ammonia	mg N/L	-	-	0.041 F	-
Un-ionized Ammonia (calculated salinity)	mg N/L	-	-	< 0.02 c	-
Nitrate and Nitrite	mg N/L	-	-	0.16	0.17
Total Kjeldahl Nitrogen	mg N/L	-	-	0.78	0.73
Organic Nitrogen	mg N/L	-	-	0.74 c	-
Total Nitrogen	mg N/L	-	-	0.94 c	0.9 c
Total Organic Carbon	mg C/L	-	-	6.7	6.9 F
Chlorophyll *a* - Corrected	µg/L	-	-	0.55 U	-
Phaeophytin	µg/L	-	-	0.40 U	-
Chlorophyll *a* - uncorrected	µg/L	-	-	0.40 U	-
CBOD, 5 day, N - inhibited	mg/L	-	-	-	1.2 I
Total Suspended Solids	mg/L	-	-	-	4 I
Turbidity	NTU	< 29 t	-	0.80	-
Color (true)	PCU	-	-	9.1	-
Alkalinity	mg CaCO3/L	-	-	135	-
Chloride	mg Cl/L	-	-	410	-
Fluoride	mg F/L	≤ 5.0	-	0.42	-
Sulfate	mg SO4/L	-	-	110	-
Microbiology					
Fecal Coliforms [1]	cfu/100 mL	≤ 400s #	-	36 B	-
Enterococci	MPN/100 mL	-	-	6.3 Q	-
Toxicity (IC25, Chronic Definitive, % effluent)					
Bioassay - Water flea *(Ceriodaphnia dubia)*	% Effluent	≥ 100	≥ 100 p	-	> 100
Bioassay - Fish *(Pimephales promelas)*	% Effluent	≥ 100	≥ 100 p	-	> 100

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
c - Value is calculated
p – 24-hour flow proportioned composite
s - Single sample
t - Shall not exceed 29 NTUs above background
B - Results based on colony counts outside the acceptance range
F - Analyte was detected in both sample and field blank (field blank values Total Phosphorus 0.008 mg/L; Total Ammonia 0.004 I mg/L; total organic carbon 1.3 mg/L)
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
Q - Sample held beyond normal holding time
U - Material analyzed for but not detected; value reported is the method detection limit
- If 10 or fewer samples are taken within a month, the single sample limit is 400 CFU (62-302.530(6), F.A.C.)
1 - Fecal coliform analysis performed by Advanced Environmental Laboratories, Tampa, FL

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

City of Marshall Street WRF	Units	Class III Criteria	Effluent Permit Limits	EFD-01 Grab Class III Criteria	EFD-01 Grab
Hardness	mg/L	-	-	-	273 c
Aluminum	µg/L	≤ 1,500	-	≤ 1,500	68.9
Arsenic	µg/L	-	-	-	1.82
Cadmium	µg/L	≤ 8.8	-	≤ 8.8	0.020 U
Calcium	mg/L	-	-	-	70.2
Chromium, Total [2]	µg/L	≤ 50	-	≤ 50	0.19 I
Copper	µg/L	≤ 3.7	-	≤ 3.7	0.71
Iron	µg/L	≤ 300	-	≤ 300	56 I
Lead	µg/L	≤ 8.5	-	≤ 8.5	0.090 I
Magnesium	mg/L	-	-	-	23.8
Nickel	µg/L	≤ 8.3	-	≤ 8.3	1.13
Potassium	mg/L	-	-	-	17.3
Selenium	µg/L	≤ 71	-	≤ 71	0.21 I
Silver	µg/L	≤ 2.3	-	≤ 2.3	0.0050 U
Sodium	mg/L	-	-	-	272
Zinc	µg/L	≤ 86	-	≤ 86	24

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
c - Value is calculated
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
U - Material analyzed for but not detected; value reported is the method detection limit
2 - Class III Marine Water Quality Criterion (62-302.530(19)(b), F.A.C.) is for chromium-VI

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

City of Marshall Street WRF								
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**
EFD-01 Grab	*Pseudokirchneriella subcapitata*	12.8	7.6±1.5	32.7±6.5	35.7±7.1	51.6±10.3	2.6	7.8
EFD-01 Grab	*Dunaliella tertiolecta*	7.03 *	not applicable [3]	not applicable [3]	not applicable [3]	not applicable [3]	2.6	7.8

Freshwater species *Pseudokirchneriella subcapitata*
Saltwater species *Dunaliella tertiolecta*
* - sample salinity adjusted to 7.0 ppth
3 - predictions not applicable to marine matrix

Table 5. Effluent limits, Class III Marine Criteria and analytical organic and pesticide data

City of Marshall Street WRF	Units	Class III Criteria	Effluent Permit Limits	EFD-01 Grab
Atrazine	µg/L	-	-	0.042
Carbamazepine	µg/L	-	-	0.13
Sucralose	µg/L	-	-	39
Bromodichloromethane	µg/L	≤ 22 a	Report	17
Bromoform	µg/L	≤ 360 a	-	49
Chloroform	µg/L	≤ 470.8 a	-	5.8
Dibromochloromethane[4]	µg/L	≤ 34 a	Report	45
Di-n-butyl phthalate	µg/L	-	-	2.0 U

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

a – Annual average

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

4 – Facility is currently under Consent Order OGC File No. 10-2683

Appendix A

Facility Summary

State of Florida
Department of Environmental Protection
Facility Introduction & Summary

PART I: Information gathered prior to sampling event

Prepared By: Lance Kautz	**Contact Number:** 813-470-5903
Facility Name (as it appears on permit): Clearwater Marshall Street	**Former Names:**
NPDES Permit Number:FL0021857	**Permit Expiration Date:** February 1, 2017
Physical Address: 1605 Harbor Drive Clearwater, FL 33755	
District: Southwest	**County:** Pinellas
Function of Facility: Domestic Wastewater Treatment Facility	
Facility Type: Domestic Wastewater	**Permitted Capacity (MGD):** 10.0
Mean Flow for previous 12 months for all EXTERNAL outfalls listed in permit (list date range including months): 3.35MGD; 03/31/2016-03/31/2015	
If applicable, Mean Flow for previous 12 months for REUSE outfall(s) (list date range including months): 2.94MGD; 03/31/2016-03/31/2015	
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):

Monitoring Location Site Number	Description of Monitoring Location
EFA-01	After disinfection.
EFB-01	After filtration and prior to disinfection.
EFD-01	After dechlorination and prior to final discharge.
FLW-02	Flow measured with rectangular weir and sonic meter.

Description of Permitted Outfall(s):

Surface Water Discharge: An existing 10.0 MGD annual average daily flow (AADF) permitted discharge to Stevenson Creek to Clearwater Harbor (Class III Marine Waters and Outstanding Florida Water, WBID No. 1567) at Discharge Location D-001 which is approximately 20 feet in length and discharges at a depth of approximately 4 feet. The point of discharge is located approximately at latitude 27 ° 58' 53" N, longitude 82 ° 47' 14" W.

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

An existing 10.0 MGD annual average daily flow (AADF) Type I domestic advanced wastewater treatment facility (AWWTF), using the Bardenpho BNR process, consisting of the following components: an on-site influent pumping station with three variable rate dry-pit pumps; preliminary treatment consisting of two mechanically-cleaned fine bar screens, a three unit vortex-cyclonic grit removal system with associated grit classifier, influent flow measurement via a 36-inch Parshall flume with an ultrasonic flow meter; two Salsnes™ filters of 64.8 square feet each for a total

of 139.6 square feet, one common channel with 4,677 gallons total volume,; a biological treatment process consisting of a five-stage Bardenpho BNR process (capable and currently operating as a four-stage Bardenpho BNR process) that includes three 250,000 gallon fermentation basins (operated as first anoxic reactors in a four-stage configuration) , three 480,000 gallon first anoxic reactors, 13 aeration basins (three 246,000 gallon basins and ten 127,160 gallon basins), four 280,000 gallon second anoxic basins, and four 63,000 gallon re-aeration basins; four 100 foot diameter secondary clarifiers; four return activated sludge pumps; an intermediate effluent pumping station using six submersible pumps; polishing filtration consisting of 12 rapid sand, filtration gravity-type, automatic backwash filters with a total surface area of 4,320 square feet; an effluent high-rate disinfection system using sodium hypochlorite chlorination and a 315,000 gallon, dual channel chlorine contact basin. Also on-site is a 5 MG reclaimed water storage tank and accompanying high service pumps.

Chlorinated effluent from the chlorine contact basin is directed to the Master Reuse System (R-001) or to a 186,000 gallon dual channel de-chlorination/re-aeration basin that uses sodium bisulfite to eliminate the remaining chlorine residual and boost the dissolved oxygen in the effluent and finally through a 48-inch diameter outfall pipe that discharges to Stevenson Creek, 20 feet from shore (D-001) as described below.

Waste sludge from the primary clarifiers is pumped to a 1,290,000 gallon anaerobic digester. Waste sludge from the secondary clarifiers is pumped to two 108,000 gpd rotary drum thickeners equipped with polymer injection. The thickened waste sludge is pumped to the anaerobic digester. The sludge from the anaerobic digester is then directed to a single 127,000 gallon sludge blending tank. The digested sludge is dewatered using a 150 gpm centrifuge and a two-meter belt filter press as backup

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/Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	10.0 Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-02	See I.A.4
BOD, Carbonaceous 5 day, 20C	mg/L	Max Max Max	5.0 6.25 7.5	Annual Average Monthly Average Weekly Average	Monthly	Calculated	EFA-01	
BOD, Carbonaceous 5 day, 20C	mg/L	Max	10.0	Single Sample	5 Days/Week	24-hr FPC	EFA-01	
Solids, Total Suspended	mg/L	Max Max Max	5.0 6.25 7.5	Annual Average Monthly Average Weekly Average	Monthly	Calculated	EFA-01	
Solids, Total Suspended	mg/L	Max	10.0	Single Sample	5 Days/Week	24-hr FPC	EFA-01	
Nitrogen, Total	mg/L	Max Max Max	3.0 3.75 4.5	Annual Average Monthly Average Weekly Average	Monthly	Calculated	EFA-01	
Nitrogen, Total	mg/L	Max	6.0	Single Sample	5 Days/Week	24-hr FPC	EFA-01	
Phosphorus, Total (as P)	mg/L	Max Max Max	1.0 1.25 1.5	Annual Average Monthly Average Weekly Average	Monthly	Calculated	EFA-01	
Phosphorus, Total (as P)	mg/L	Max	2.0	Single Sample	5 Days/Week	24-hr FPC	EFA-01	
Solids, Total Suspended	mg/L	Max	5.0	Single Sample	Daily; 24 hours	Grab	EFB-01	
pH	s.u.	Min Max	6.5 8.5	Single Sample Single Sample	Continuous	Meter	EFA-01	See I.A.3
Coliform, Fecal, % less than detection	percent	Min	75	Monthly Total	Monthly	Calculated	EFA-01	See I.A.5
Coliform, Fecal	#/100mL	Max	25	Single Sample	Daily; 24 hours	Grab	EFA-01	
Chlorine, Total Residual (For Disinfection)	mg/L	Min	1.0	Single Sample	Continuous	Meter	EFA-01	See I.A.6
Chlorine, Total Residual (For Dechlorination)	mg/L	Max	0.01	Single Sample	Daily; 24 hours	Grab	EFD-01	
Enterococci	#/100mL	Max	35	Monthly Geometric Mean	Monthly	Calculated	EFA-01	See I.A.7
Enterococci	#/100mL	Max	276	Single Sample	5/Month	Grab	EFA-01	
Dichlorobromomethane	µg/L	Max	43.0	Annual Average	Monthly	Calculated	EFD-01	See I.A.9

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max/Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Dichlorobromomethane	µg/L	Max	Report	Single Sample	Monthly	Grab	EFD-01	
Dibromochloromethane	µg/L	Max	56.0	Annual Average	Monthly	Calculated	EFD-01	See I.A.9
Dibromochloromethane	µg/L	Max	Report	Single Sample	Monthly	Grab	EFD-01	
Oxygen, Dissolved (DO)	mg/L	Min	5.0	Single Sample	Daily; 24 hours	Grab	EFD-01	
Chronic Whole Effluent Toxicity, 7-Day IC25 (Ceriodaphnia dubia)	percent	Min	100	Single Sample	Quarterly	24-hr FPC	EFD-01	See I.A.10
Chronic Whole Effluent Toxicity, 7-Day IC25 (Pimephales promelas)	percent	Min	100	Single Sample	Quarterly	24-hr FPC	EFD-01	See I.A.10

PART I: Continued

Receiving Waters:	**Classification (indicate whether fresh or marine):**
Stevenson Creek to Clearwater Harbor	Class III Marine Water, Outstanding Florida Water

Toxicity Test Requirements (routine and/or additional test language, test species, salinity adjustment, etc.):

Chronic Whole Effluent Toxicity Testing

The permittee shall comply with the following whole effluent toxicity testing requirements and initiate the series of tests described below within 60 days of permit issuance, unless otherwise directed by the Department in writing, to evaluate chronic whole effluent toxicity of the discharge from outfall D-001.

a. Effluent Limitation
   (1) Whole effluent chronic toxicity shall not exceed a 25 percent inhibition concentration (IC_{25}) of less than 100% effluent in any test. [Rules 62-302.530(61) and 62-4.241(1)(b), F.A.C.]
   (2) In the chronic toxicity test, the effluent cannot be acutely toxic, in accordance with Rules 62-302.200(1) and 62-302.500(1)(a)(4), F.A.C.

b. Monitoring Frequency
   (1) The "routine" toxicity tests specified shall be conducted *once every three months.*

c. Sampling Requirements
   (1) For each routine test or additional follow-up test conducted, a total of three *flow-proportional 24-hour 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, or the most current edition.
   (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.
   (4) If the duration of the discharge is less than 24 hours, the duration of discharge shall be documented on the chain of custody. Each sample shall be analyzed for total residual chlorine and pH at the time of sample collection. Should the discharge last less than 24 hours, the bioassay shall be run on the volume collected. However, three samples must be collected.

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 ed., EPA-821-R-02-013 or the most current edition. Any deviation of the bioassay procedures outlined herein shall be submitted in writing to the Department for review and approval prior to use.
   (4) The control water and dilution water shall be moderately hard water as described in EPA-821-R-02-013, Section 7 or the most current edition.

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**) or the most current edition. 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 prior to the end of any test and the control mortality is less than 20% at that time, the test (including the control) shall be terminated with the conclusion that the test fails and constitutes non-compliance.

(4) 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., or the most current edition, 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 IC_{25} 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 or the most current edition, 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 or the most current edition, 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:

Department of Environmental Protection
Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
Telephone No.: (813) 470-5700
Email Address: swd_dw@dep.state.fl.us

g. Test Failures

(1) A test fails when the test results do not meet the limits in 10.a.(1) or (2).

(2) Additional Follow-up Tests:

(a) If a routine test does not meet the chronic toxicity limitation in 10.a.(1) or (2) 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 10.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 statistically analyzed according to the Appendices in EPA-821-R-02-013, or the most current edition.

(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 period of time that the approved plan is ongoing, the permittee shall conduct routine whole effluent toxicity testing at the frequency of once every three months, but shall not be required to perform additional follow-up tests. If a routine test is invalid as established in EPA Methods, EPA-821-R-02-012, EPA-821-R-02-013, or EPA-821-R-02-014, a retest must be started within 21 days for a chronic test or 14 days for an acute test after the last day of the invalid test.

(f) Following completion or termination of the plan, the frequency of monitoring for routine and additional follow-up whole effluent toxicity tests shall return to the schedule established in the facility wastewater permit. The permittee may terminate the plan at any time upon written verification by the Department that the facility has passed at least four consecutive valid routine whole effluent toxicity tests.

Administrative or Consent Orders (date executed, specific requirements, interim limit dates-if applicable, etc.):

Facility Mixing Zone Details (if applicable):

Mixing Zone: Pursuant to Rule 62-4.244, F.A.C., the permittee is hereby granted a mixing zone for Dichlorobromomethane and Dibromochloromethane for the effluent discharge at Outfalls D-001. The mixing zone for Dichlorobromomethane consisting of a distance of 7.5 meters. The mixing zone for Dibromochloromethane consisting of a distance of 5 meters from the centerline of the outfall in either direction of the discharge

List Permit Violations (DMR data) and plant upsets that occurred at the plant within the last year:

Date	Parameter and Units		Limit	Result
12/31/2015	**P 50060**	**mg/L**	**1.0**	**0.8**
12/31/2015	**P TRP3B**	**percent**	**100.0**	**100**
12/31/2015	**P TRP3B**	**percent**	**100.0**	**100**
11/30/2015	**P 32101**	**µg/L**	**30.0**	**30.5**
10/31/2015	**P TRP3B**	**PERCENT**	**100.0**	**100**
9/30/2015	**P 80082**	**MG/L**	**10.0**	**10.5**
8/31/2015	**P 00530**	**MG/L**	**6.25**	**8**
8/31/2015	**P 00530**	**MG/L**	**10.0**	**138**
8/31/2015	**P 00530**	**MG/L**	**7.5**	**28.4**
8/31/2015	**P 00665**	**MG/L**	**2.0**	**2.6**
8/31/2015	**P 51005**	**PERCENT**	**75.0**	**74**
8/31/2015	**P 50060**	**MG/L**	**1.0**	**0.2**
7/31/2015	**P 00530**	**mg/L**	**5.0**	**9.8**
7/31/2015	**P 50060**	**MG/L**	**1.0**	**0**

Describe previous FYI and WQBEL study:
N/A

Describe previous or current Enforcement Actions (including WLs):
Consent order OGC File No. 10-2683; 2010

Describe any violations or problems noted in previous inspection:

Deficiency Description: A review of the discharge monitoring reports (DMRs) from March 2013 through February 2015 indicated that the $CBOD_5$, total nitrogen and total phosphorus single sample maximum limits were each exceeded once in September 2013.

A review of the DMRs from March 2013 through February 2015 indicated that the total suspended solids monthly average, weekly average and single sample maximum limits were all exceeded in September 2013.

Deficiency Description: A review of the DMRs from March 2013 through February 2015 indicated that the minimum total chlorine residual required for disinfection was not met once in July 2013 and once in April 2014.

Deficiency Description: The effluent was chronically toxic to *Ceriodaphnia dubia* in February 2015.

Deficiency Description: A review of the 2014 biosolids annual summary indicated that the applied total nitrogen volume exceeded the maximum allowed nutrient loading for Albritton Zone One.

Discuss whether DMR trends within previous five years are improving or declining:
Declining; from 2011-2016 there are 29 Exceedances, 19 of those are in 2015.

Additional Comments (this should include a trend of the Effluent, i.e. if the facility is now Reuse):
The facility is under a toxicity correction plan because of three toxicity test failures in February, June and December 2015.

PART II: Sampling Event Information

Date(s) sample collected: 05/09/2016	**Sampler(s):** Lance Kautz, Peter Wenner, Erica Cooper, Michele Duggan, Michelle Holton
Temperature (Deg C): 27.44	**pH (SU):** 7.5
Dissolved Oxygen (mg/L): 8.08	**Conductivity (umhos/cm):** 1,827
Total Residual Chlorine (mg/L): 0.00	**Total Residual Chlorine - after Disinfection (mg/L):** 2.84
Method of Chlorination: hypochlorite	**Method of De-chlorination:** Sodium Bisulfite

Flow During Sample Collection for each outfall (MGD):
D-001: 2. 33 MGD

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):
D-001: 3.35MGD; 03/31/2016-03/31/2015

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:
3 of 4 BNA bottles were filled

Appendix B

Explanation of Measurements

(1) Quality Assurance and Quality Control

FDEP'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 (FDEP SOPs). Methods for all analyses are on file at the FDEP 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 FDEP 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 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 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 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 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. The AGP range of 6.10 to 20.0 mg dry wt/L is suggested to be representative of high productivity for freshwater (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) 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 C

Chemical analysis of effluent

Date Sampled	UDL	SCH_Group	Component	Result	Units	MDL	PQL
5/9/2016 10:00	EFD-01 Grab	AGP/LN	Algal Growth Potential-Salinity Adjusted	7.03	mg DryWt/L	3	3
5/9/2016 10:00	EFD-01 Grab	AGP/LN	Algal Growth Potential	12.8	mg DryWt/L	0.3	0.9
5/9/2016 10:00	EFD-01 Grab	Chlorophyll/Grain Size/BOD	Chlorophyll/Phaeophytin Ratio	3.2		0	0
5/9/2016 10:00	EFD-01 Grab	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Uncorrected	0.40 U	µg/L	0.4	1.2
5/9/2016 10:00	EFD-01 Grab	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	0.55 U	µg/L	0.55	1.7
5/9/2016 10:00	EFD-01 Grab	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.40 U	µg/L	0.4	1.2
5/9/2016 10:00	EFD-01 Grab	Microbiology	Enterococci-Quanti-Tray	6.3 Q	MPN/100 mL	1	1
5/9/2016 10:00	EFD-01 Grab	Overflow	Fecal Coliforms-Membrane Filter	36 B	cfu/100 mL	9	9
5/9/2016 10:00	EFD-01 Grab	Metals	Nickel	1.13	µg/L	0.05	0.2
5/9/2016 10:00	EFD-01 Grab	Metals	Aluminum	68.9	µg/L	2	8
5/9/2016 10:00	EFD-01 Grab	Metals	Lead	0.090 I	µg/L	0.05	0.2
5/9/2016 10:00	EFD-01 Grab	Metals	Zinc	24	µg/L	5	20
5/9/2016 10:00	EFD-01 Grab	Metals	Magnesium	23.8	mg/L	0.04	0.16
5/9/2016 10:00	EFD-01 Grab	Metals	Silver	0.0050 U	µg/L	0.005	0.02
5/9/2016 10:00	EFD-01 Grab	Metals	Calcium	70.2	mg/L	0.075	0.3
5/9/2016 10:00	EFD-01 Grab	Metals	Arsenic	1.82	µg/L	0.05	0.2
5/9/2016 10:00	EFD-01 Grab	Metals	Copper	0.71	µg/L	0.1	0.4
5/9/2016 10:00	EFD-01 Grab	Metals	Sodium	272	mg/L	2.5	10
5/9/2016 10:00	EFD-01 Grab	Metals	Chromium	0.19 I	µg/L	0.05	0.2
5/9/2016 10:00	EFD-01 Grab	Metals	Cadmium	0.020 U	µg/L	0.02	0.08
5/9/2016 10:00	EFD-01 Grab	Metals	Iron	56 I	µg/L	30	120
5/9/2016 10:00	EFD-01 Grab	Metals	Selenium	0.21 I	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Metals	Potassium	17.3	mg/L	0.3	1.2
5/9/2016 10:00	EFD-01 Grab	Nutrients	Total-P	0.12	mg P/L	0.005	0.05
5/9/2016 10:00	EFD-01 Grab	Nutrients	Total Alkalinity	135	mg CaCO3/L	0.65	2.5
5/9/2016 10:00	EFD-01 Grab	Nutrients	Sulfate	110	mg SO4/L	2	5
5/9/2016 10:00	EFD-01 Grab	Nutrients	Color (true)	9.1	PCU	2.5	6
5/9/2016 10:00	EFD-01 Grab	Nutrients	Ammonia-N	0.041	mg N/L	0.002	0.005
5/9/2016 10:00	EFD-01 Grab	Nutrients	NO2NO3-N	0.16	mg N/L	0.004	0.01
5/9/2016 10:00	EFD-01 Grab	Nutrients	Turbidity	0.8	NTU	0.1	0.1
5/9/2016 10:00	EFD-01 Grab	Nutrients	O-Phosphate-P	0.076	mg P/L	0.004	0.01
5/9/2016 10:00	EFD-01 Grab	Nutrients	Fluoride	0.42	mg F/L	0.035	0.1

Date Sampled	UDL	SCH_Group	Component	Result	Units	MDL	PQL
5/9/2016 10:00	EFD-01 Grab	Nutrients	Chloride	410	mg Cl/L	2	5
5/9/2016 10:00	EFD-01 Grab	Nutrients	Organic Carbon	6.7	mg C/L	0.5	1
5/9/2016 10:00	EFD-01 Grab	Nutrients	Kjeldahl Nitrogen	0.78	mg N/L	0.08	0.2
5/9/2016 10:00	EFD-01 Grab	Pesticides	Chlorpyrifos Ethyl	0.0097 U	µg/L	0.0097	0.039
5/9/2016 10:00	EFD-01 Grab	Pesticides	Diazinon	0.0097 U	µg/L	0.0097	0.039
5/9/2016 10:00	EFD-01 Grab	Pesticides	Parathion Ethyl	0.019 U	µg/L	0.019	0.077
5/9/2016 10:00	EFD-01 Grab	Pesticides	Simazine	0.0097 U	µg/L	0.0097	0.039
5/9/2016 10:00	EFD-01 Grab	Pesticides	Ametryn	0.0097 U	µg/L	0.0097	0.039
5/9/2016 10:00	EFD-01 Grab	Pesticides	Ethoprop	0.0048 U	µg/L	0.0048	0.019
5/9/2016 10:00	EFD-01 Grab	Pesticides	Mevinphos	0.0097 U	µg/L	0.0097	0.039
5/9/2016 10:00	EFD-01 Grab	Pesticides	Norflurazon	0.029 U	µg/L	0.029	0.12
5/9/2016 10:00	EFD-01 Grab	Pesticides	Phorate	0.0048 U	µg/L	0.0048	0.019
5/9/2016 10:00	EFD-01 Grab	Pesticides	Acetaminophen	0.0040 U	µg/L	0.004	0.016
5/9/2016 10:00	EFD-01 Grab	Pesticides	Carbamazepine	0.13	µg/L	0.0004	0.0016
5/9/2016 10:00	EFD-01 Grab	Pesticides	Atrazine Desethyl	0.0097 UJ	µg/L	0.0097	0.039
5/9/2016 10:00	EFD-01 Grab	Pesticides	Azinphos Methyl	0.019 U	µg/L	0.019	0.077
5/9/2016 10:00	EFD-01 Grab	Pesticides	Fenamiphos	0.029 UJ	µg/L	0.029	0.12
5/9/2016 10:00	EFD-01 Grab	Pesticides	Atrazine	0.042	µg/L	0.0097	0.039
5/9/2016 10:00	EFD-01 Grab	Pesticides	Atrazine Desisopropyl	0.0097 U	µg/L	0.0097	0.039
5/9/2016 10:00	EFD-01 Grab	Pesticides	Chlorpyrifos Methyl	0.0097 U	µg/L	0.0097	0.039
5/9/2016 10:00	EFD-01 Grab	Pesticides	Demeton	0.023 U	µg/L	0.023	0.093
5/9/2016 10:00	EFD-01 Grab	Pesticides	Ethion	0.0097 U	µg/L	0.0097	0.039
5/9/2016 10:00	EFD-01 Grab	Pesticides	Bromacil	0.039 U	µg/L	0.039	0.15
5/9/2016 10:00	EFD-01 Grab	Pesticides	Disulfoton	0.0048 U	µg/L	0.0048	0.019
5/9/2016 10:00	EFD-01 Grab	Pesticides	Fonofos	0.0097 U	µg/L	0.0097	0.039
5/9/2016 10:00	EFD-01 Grab	Pesticides	Hexazinone	0.029 U	µg/L	0.029	0.12
5/9/2016 10:00	EFD-01 Grab	Pesticides	Metalaxyl	0.039 UJ	µg/L	0.039	0.15
5/9/2016 10:00	EFD-01 Grab	Pesticides	Prometryn	0.019 U	µg/L	0.019	0.077
5/9/2016 10:00	EFD-01 Grab	Pesticides	Sucralose	39	µg/L	0.5	2
5/9/2016 10:00	EFD-01 Grab	Pesticides	Malathion	0.0097 U	µg/L	0.0097	0.039
5/9/2016 10:00	EFD-01 Grab	Pesticides	Metolachlor	0.058 U	µg/L	0.058	0.23
5/9/2016 10:00	EFD-01 Grab	Pesticides	Metribuzin	0.019 U	µg/L	0.019	0.077
5/9/2016 10:00	EFD-01 Grab	Pesticides	Naled	0.039 U	µg/L	0.039	0.15
5/9/2016 10:00	EFD-01 Grab	Pesticides	Prometon	0.019 UJ	µg/L	0.019	0.077
5/9/2016 10:00	EFD-01 Grab	Pesticides	Alachlor	0.058 U	µg/L	0.058	0.23

Date Sampled	UDL	SCH_Group	Component	Result	Units	MDL	PQL
5/9/2016 10:00	EFD-01 Grab	Pesticides	Butylate	0.019 U	µg/L	0.019	0.077
5/9/2016 10:00	EFD-01 Grab	Pesticides	Parathion Methyl	0.0097 U	µg/L	0.0097	0.039
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.20 U	µg/L	0.2	0.78
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.20 U	µg/L	0.2	0.78
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Fluoranthene	0.20 U	µg/L	0.2	0.78
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	2.9 U	µg/L	2.9	12
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Pentachlorophenol	0.98 U	µg/L	0.98	3.9
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Pyrene	0.20 U	µg/L	0.2	0.78
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	1,1,2-Trichloroethane	0.20 U	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	1,3-Dichlorobenzene	0.50 U	µg/L	0.5	2
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Bromoform	49	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Chloroform	5.8	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Tetrachloroethene	0.20 U	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	cis-1,3-Dichloropropene	0.20 U	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Benzo(a)anthracene	0.20 U	µg/L	0.2	0.78
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Diethyl phthalate	2.0 U	µg/L	2	7.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Hexachloroethane	2.9 U	µg/L	2.9	12
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	1,1,1-Trichloroethane	0.20 U	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	1,1-Dichloroethene	0.20 U	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Trichlorofluoromethane	0.20 U	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Benzo(a)pyrene	0.20 U	µg/L	0.2	0.78
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Benzo(k)fluoranthene	0.20 U	µg/L	0.2	0.78
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.98 U	µg/L	0.98	3.9
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Fluorene	0.20 U	µg/L	0.2	0.78
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Hexachlorobutadiene	2.9 U	µg/L	2.9	12
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9 U	µg/L	2.9	12
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Phenol	0.98 U	µg/L	0.98	3.9
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	1,1,2,2-Tetrachloroethane	0.20 U	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	1,4-Dichlorobenzene	0.50 U	µg/L	0.5	2
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Carbon tetrachloride	0.20 U	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Chloromethane	0.50 U	µg/L	0.5	2
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Toluene	0.50 U	µg/L	0.5	2
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	2-Chlorophenol	0.98 U	µg/L	0.98	3.9
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	3,3'-Dichlorobenzidine	39 U	µg/L	39	160
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	4-Nitrophenol	15 U	µg/L	15	59

Date Sampled	UDL	SCH_Group	Component	Result	Units	MDL	PQL
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Butyl benzyl phthalate	0.98 U	µg/L	0.98	3.9
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Di-n-butyl phthalate	2.0 U	µg/L	2	7.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Di-n-octyl phthalate	0.98 U	µg/L	0.98	3.9
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Hexachlorobenzene	0.98 U	µg/L	0.98	3.9
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	N-Nitrosodimethylamine	2.0 U	µg/L	2	7.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Naphthalene	0.20 U	µg/L	0.2	0.78
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Phenanthrene	0.20 U	µg/L	0.2	0.78
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	1,2-Dichlorobenzene	0.50 U	µg/L	0.5	2
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Bromodichloromethane	17	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Vinyl chloride	0.20 U	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.98 U	µg/L	0.98	3.9
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	2,4-Dichlorophenol	0.98 U	µg/L	0.98	3.9
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	2-Chloronaphthalene	0.98 U	µg/L	0.98	3.9
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9 U	µg/L	2.9	12
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	2-Nitrophenol	0.98 U	µg/L	0.98	3.9
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Anthracene	0.20 U	µg/L	0.2	0.78
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Benzo(b)fluoranthene	0.20 U	µg/L	0.2	0.78
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9 U	µg/L	2.9	12
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Isophorone	0.98 U	µg/L	0.98	3.9
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	1,1-Dichloroethane	0.20 U	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	1,2-Dichloroethane	0.20 U	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Benzene	0.20 U	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Dibromochloromethane	45	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Trichloroethene	0.20 U	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	2,4-Dimethylphenol	9.8 U	µg/L	9.8	39
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	2,4-Dinitrophenol	15 U	µg/L	15	59
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	2,6-Dinitrotoluene	0.98 U	µg/L	0.98	3.9
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.0 U	µg/L	2	7.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Acenaphthylene	0.20 U	µg/L	0.2	0.78
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Benzidine	98 U	µg/L	98	390
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.0 U	µg/L	2	7.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Nitrobenzene	2.0 U	µg/L	2	7.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	1,2-Dichloropropane	0.20 U	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Chlorobenzene	0.20 U	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	trans-1,3-Dichloropropene	0.20 U	µg/L	0.2	0.8

Date Sampled	UDL	SCH_Group	Component	Result	Units	MDL	PQL
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.98 U	µg/L	0.98	3.9
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.98 U	µg/L	0.98	3.9
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	2.0 U	µg/L	2	7.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.20 U	µg/L	0.2	0.78
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.98 U	µg/L	0.98	3.9
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Acenaphthene	0.20 U	µg/L	0.2	0.78
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Chrysene	0.20 U	µg/L	0.2	0.78
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Dimethyl phthalate	0.98 U	µg/L	0.98	3.9
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Bromomethane	0.50 U	µg/L	0.5	2
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Chloroethane	0.50 U	µg/L	0.5	2
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Ethylbenzene	0.20 U	µg/L	0.2	0.8
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	Methylene chloride	1.0 U	µg/L	1	4
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.98 U	µg/L	0.98	3.9
5/9/2016 10:00	EFD-01 Grab	Priority Organic Pollutants	2,4-Dinitrotoluene	0.98 U	µg/L	0.98	3.9
5/9/2016 10:00	EFD-01 Grab	Nutrients	Dissolved Oxygen	8.08	mg/L		
5/9/2016 10:00	EFD-01 Grab	Nutrients	Sample Depth	0.2	m		
5/9/2016 10:00	EFD-01 Grab	Nutrients	pH	7.5			
5/9/2016 10:00	EFD-01 Grab	Nutrients	Specific Conductance	1827	umhos/cm		
5/9/2016 10:00	EFD-01 Grab	Nutrients	Temperature	27.44	C		
5/9/2016 9:00	EFD-01 Comp	Toxicology	Bioassay-Chron-Def-FW-Fish, NOEC	100	NOEC		
5/9/2016 9:00	EFD-01 Comp	Toxicology	Bioassay-Chron-Def-FW-C.dubia, IC25	100 L	IC25		
5/9/2016 9:00	EFD-01 Comp	Toxicology	Bioassay-Chron-Def-FW-C.dubia, NOEC	100	NOEC		
5/9/2016 9:00	EFD-01 Comp	Toxicology	Bioassay-Chron-Def-FW-Fish, IC25	100 L	IC25		
5/10/2016 9:45	EFD-01 Comp	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	1.2 I	mg/L	0.2	2
5/10/2016 9:45	EFD-01 Comp	Nutrients	TSS	4 I	mg/L	2	10
5/10/2016 9:45	EFD-01 Comp	Nutrients	NO2NO3-N	0.17	mg N/L	0.004	0.01
5/10/2016 9:45	EFD-01 Comp	Nutrients	Kjeldahl Nitrogen	0.73	mg N/L	0.08	0.2
5/10/2016 9:45	EFD-01 Comp	Nutrients	Organic Carbon	6.9	mg C/L	0.5	1
5/10/2016 9:45	EFD-01 Comp	Nutrients	Total-P	0.11	mg P/L	0.005	0.05
5/9/2016 9:40	Field Blank	Metals	Magnesium	0.040 U	mg/L	0.04	0.16
5/9/2016 9:40	Field Blank	Metals	Iron	30 U	µg/L	30	120
5/9/2016 9:40	Field Blank	Metals	Calcium	0.075 U	mg/L	0.075	0.3
5/9/2016 9:40	Field Blank	Metals	Selenium	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Metals	Nickel	0.050 U	µg/L	0.05	0.2
5/9/2016 9:40	Field Blank	Metals	Chromium	0.050 U	µg/L	0.05	0.2

Date Sampled	UDL	SCH_Group	Component	Result	Units	MDL	PQL
5/9/2016 9:40	Field Blank	Metals	Cadmium	0.020 U	µg/L	0.02	0.08
5/9/2016 9:40	Field Blank	Metals	Arsenic	0.050 U	µg/L	0.05	0.2
5/9/2016 9:40	Field Blank	Metals	Aluminum	2.0 U	µg/L	2	8
5/9/2016 9:40	Field Blank	Metals	Sodium	0.50 U	mg/L	0.5	2
5/9/2016 9:40	Field Blank	Metals	Silver	0.0050 U	µg/L	0.005	0.02
5/9/2016 9:40	Field Blank	Metals	Lead	0.050 U	µg/L	0.05	0.2
5/9/2016 9:40	Field Blank	Metals	Copper	0.10 U	µg/L	0.1	0.4
5/9/2016 9:40	Field Blank	Metals	Potassium	0.30 U	mg/L	0.3	1.2
5/9/2016 9:40	Field Blank	Metals	Zinc	5.0 U	µg/L	5	20
5/9/2016 9:40	Field Blank	Nutrients	Turbidity	0.10 U	NTU	0.1	0.1
5/9/2016 9:40	Field Blank	Nutrients	Sulfate	0.20 U	mg SO4/L	0.2	0.5
5/9/2016 9:40	Field Blank	Nutrients	Color (true)	2.5 U	PCU	2.5	6
5/9/2016 9:40	Field Blank	Nutrients	Fluoride	0.035 U	mg F/L	0.035	0.1
5/9/2016 9:40	Field Blank	Nutrients	Total Alkalinity	0.65 U	mg CaCO3/L	0.65	2.5
5/9/2016 9:40	Field Blank	Nutrients	O-Phosphate-P	0.004 U	mg P/L	0.004	0.01
5/9/2016 9:40	Field Blank	Nutrients	Chloride	0.20 U	mg Cl/L	0.2	0.5
5/9/2016 9:40	Field Blank	Pesticides	Atrazine Desisopropyl	0.0096 U	µg/L	0.0096	0.038
5/9/2016 9:40	Field Blank	Pesticides	Alachlor	0.058 U	µg/L	0.058	0.23
5/9/2016 9:40	Field Blank	Pesticides	Ametryn	0.0096 U	µg/L	0.0096	0.038
5/9/2016 9:40	Field Blank	Pesticides	Demeton	0.023 U	µg/L	0.023	0.092
5/9/2016 9:40	Field Blank	Pesticides	Disulfoton	0.0048 U	µg/L	0.0048	0.019
5/9/2016 9:40	Field Blank	Pesticides	Fenamiphos	0.029 UJ	µg/L	0.029	0.12
5/9/2016 9:40	Field Blank	Pesticides	Mevinphos	0.0096 U	µg/L	0.0096	0.038
5/9/2016 9:40	Field Blank	Pesticides	Simazine	0.0096 U	µg/L	0.0096	0.038
5/9/2016 9:40	Field Blank	Pesticides	Fonofos	0.0096 U	µg/L	0.0096	0.038
5/9/2016 9:40	Field Blank	Pesticides	Carbamazepine	4.0E-04 U	µg/L	0.0004	0.0016
5/9/2016 9:40	Field Blank	Pesticides	Malathion	0.0096 U	µg/L	0.0096	0.038
5/9/2016 9:40	Field Blank	Pesticides	Prometryn	0.019 U	µg/L	0.019	0.077
5/9/2016 9:40	Field Blank	Pesticides	Metolachlor	0.058 U	µg/L	0.058	0.23
5/9/2016 9:40	Field Blank	Pesticides	Hexazinone	0.029 U	µg/L	0.029	0.12
5/9/2016 9:40	Field Blank	Pesticides	Ethion	0.0096 U	µg/L	0.0096	0.038
5/9/2016 9:40	Field Blank	Pesticides	Metribuzin	0.019 U	µg/L	0.019	0.077
5/9/2016 9:40	Field Blank	Pesticides	Metalaxyl	0.038 UJ	µg/L	0.038	0.15
5/9/2016 9:40	Field Blank	Pesticides	Butylate	0.019 U	µg/L	0.019	0.077
5/9/2016 9:40	Field Blank	Pesticides	Atrazine	0.0096 U	µg/L	0.0096	0.038

Date Sampled	UDL	SCH_Group	Component	Result	Units	MDL	PQL
5/9/2016 9:40	Field Blank	Pesticides	Azinphos Methyl	0.019 U	µg/L	0.019	0.077
5/9/2016 9:40	Field Blank	Pesticides	Prometon	0.019 UJ	µg/L	0.019	0.077
5/9/2016 9:40	Field Blank	Pesticides	Diazinon	0.0096 U	µg/L	0.0096	0.038
5/9/2016 9:40	Field Blank	Pesticides	Phorate	0.0048 U	µg/L	0.0048	0.019
5/9/2016 9:40	Field Blank	Pesticides	Sucralose	0.010 U	µg/L	0.01	0.04
5/9/2016 9:40	Field Blank	Pesticides	Acetaminophen	0.0040 UJ	µg/L	0.004	0.016
5/9/2016 9:40	Field Blank	Pesticides	Parathion Methyl	0.0096 U	µg/L	0.0096	0.038
5/9/2016 9:40	Field Blank	Pesticides	Norflurazon	0.029 U	µg/L	0.029	0.12
5/9/2016 9:40	Field Blank	Pesticides	Atrazine Desethyl	0.0096 UJ	µg/L	0.0096	0.038
5/9/2016 9:40	Field Blank	Pesticides	Naled	0.038 U	µg/L	0.038	0.15
5/9/2016 9:40	Field Blank	Pesticides	Ethoprop	0.0048 U	µg/L	0.0048	0.019
5/9/2016 9:40	Field Blank	Pesticides	Chlorpyrifos Ethyl	0.0096 U	µg/L	0.0096	0.038
5/9/2016 9:40	Field Blank	Pesticides	Bromacil	0.038 U	µg/L	0.038	0.15
5/9/2016 9:40	Field Blank	Pesticides	Parathion Ethyl	0.019 U	µg/L	0.019	0.077
5/9/2016 9:40	Field Blank	Pesticides	Chlorpyrifos Methyl	0.0096 U	µg/L	0.0096	0.038
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	2,6-Dinitrotoluene	0.97 U	µg/L	0.97	3.9
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.97 U	µg/L	0.97	3.9
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Dimethyl phthalate	0.97 U	µg/L	0.97	3.9
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Phenanthrene	0.19 U	µg/L	0.19	0.78
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	1,1,2,2-Tetrachloroethane	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	1,1,2-Trichloroethane	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	1,1-Dichloroethane	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	1,2-Dichloroethane	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	2-Chloronaphthalene	0.97 U	µg/L	0.97	3.9
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.97 U	µg/L	0.97	3.9
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9 U	µg/L	1.9	7.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9 U	µg/L	2.9	12
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Butyl benzyl phthalate	0.97 U	µg/L	0.97	3.9
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Pentachlorophenol	0.97 U	µg/L	0.97	3.9
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Chloromethane	0.50 U	µg/L	0.5	2
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Trichloroethene	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	2,4-Dichlorophenol	0.97 U	µg/L	0.97	3.9
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	4-Nitrophenol	15 U	µg/L	15	58
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Benzo(a)pyrene	0.19 U	µg/L	0.19	0.78
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Fluoranthene	0.19 U	µg/L	0.19	0.78

Date Sampled	UDL	SCH_Group	Component	Result	Units	MDL	PQL
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Fluorene	0.19 U	µg/L	0.19	0.78
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Naphthalene	0.19 U	µg/L	0.19	0.78
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Nitrobenzene	1.9 U	µg/L	1.9	7.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Dibromochloromethane	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Methylene chloride	1.0 U	µg/L	1	4
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Acenaphthene	0.19 U	µg/L	0.19	0.78
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.19 U	µg/L	0.19	0.78
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.19 U	µg/L	0.19	0.78
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Hexachlorobenzene	0.97 U	µg/L	0.97	3.9
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Hexachlorobutadiene	2.9 U	µg/L	2.9	12
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9 U	µg/L	2.9	12
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	1,2-Dichloropropane	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Chlorobenzene	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Chloroform	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Ethylbenzene	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.97 U	µg/L	0.97	3.9
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	2,4-Dinitrotoluene	0.97 U	µg/L	0.97	3.9
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	2-Chlorophenol	0.97 U	µg/L	0.97	3.9
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	2-Nitrophenol	0.97 U	µg/L	0.97	3.9
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	3,3'-Dichlorobenzidine	39 U	µg/L	39	160
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Benzo(k)fluoranthene	0.19 U	µg/L	0.19	0.78
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.97 U	µg/L	0.97	3.9
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Di-n-butyl phthalate	2.1 I	µg/L	1.9	7.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Diethyl phthalate	1.9 U	µg/L	1.9	7.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.19 U	µg/L	0.19	0.78
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	2.9 U	µg/L	2.9	12
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	1,1-Dichloroethene	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Benzene	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Chloroethane	0.50 U	µg/L	0.5	2
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	cis-1,3-Dichloropropene	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.97 U	µg/L	0.97	3.9
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9 U	µg/L	2.9	12
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Benzo(b)fluoranthene	0.19 U	µg/L	0.19	0.78
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	1.9 U	µg/L	1.9	7.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9 U	µg/L	1.9	7.8

Date Sampled	UDL	SCH_Group	Component	Result	Units	MDL	PQL
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	1,3-Dichlorobenzene	0.50 U	µg/L	0.5	2
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Carbon tetrachloride	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Toluene	0.50 U	µg/L	0.5	2
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	2,4-Dimethylphenol	9.7 U	µg/L	9.7	39
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	2,4-Dinitrophenol	15 U	µg/L	15	58
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.97 U	µg/L	0.97	3.9
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Acenaphthylene	0.19 U	µg/L	0.19	0.78
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Anthracene	0.19 U	µg/L	0.19	0.78
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Benzidine	97 U	µg/L	97	390
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Benzo(a)anthracene	0.19 U	µg/L	0.19	0.78
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Chrysene	0.19 U	µg/L	0.19	0.78
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Hexachloroethane	2.9 U	µg/L	2.9	12
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Isophorone	0.97 U	µg/L	0.97	3.9
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9 U	µg/L	1.9	7.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	1,1,1-Trichloroethane	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	1,2-Dichlorobenzene	0.50 U	µg/L	0.5	2
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	1,4-Dichlorobenzene	0.50 U	µg/L	0.5	2
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Bromodichloromethane	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Bromoform	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Bromomethane	0.50 U	µg/L	0.5	2
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Tetrachloroethene	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Trichlorofluoromethane	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	trans-1,3-Dichloropropene	0.20 U	µg/L	0.2	0.8
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Di-n-octyl phthalate	0.97 U	µg/L	0.97	3.9
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Phenol	0.97 U	µg/L	0.97	3.9
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Pyrene	0.19 U	µg/L	0.19	0.78
5/9/2016 9:40	Field Blank	Priority Organic Pollutants	Vinyl chloride	0.20 U	µg/L	0.2	0.8
5/9/2016 8:00	Equip Blank	Nutrients	NO2NO3-N	0.004 U	mg N/L	0.004	0.01
5/9/2016 8:00	Equip Blank	Nutrients	Total-P	0.008	mg P/L	0.002	0.005
5/9/2016 8:00	Equip Blank	Nutrients	Organic Carbon	1.3	mg C/L	0.5	1
5/9/2016 8:00	Equip Blank	Nutrients	Ammonia-N	0.004 I	mg N/L	0.002	0.005
5/9/2016 8:00	Equip Blank	Nutrients	Kjeldahl Nitrogen	0.080 U	mg N/L	0.08	0.2

EPA End Sheet

The Bioassay of Clearwater Marshall Street effluent sampled on May 9, 11 and 13, 2016. NPDES #FL0021857.

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 8 5 7	11 12 1 6 0 5 0 9	18 **B**	19 **S**	20 21

Remarks

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The Priority Pollutants Analysis of Clearwater Marshall Street effluent sampled on May 9, 2016. NPDES #FL0021857.

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 8 5 7	11 12 1 6 0 5 0 9	18 **X**	19 **S**	20 21

Remarks

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Biological Analyses of Clearwater Marshall Street effluent sampled on May 9, 2016. NPDES #FL0021857.

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 8 5 7	11 12 1 6 0 5 0 9	18 **S**	19 **S**	20 21

Remarks

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