Effluent Quality Assessment of OCUD/Eastern WRF Orange County NPDES # FL0038849 Sampled April 26, 2021

Division of Environmental Assessment and Restoration
Florida Department of Environmental Protection
August 2021

DEP Laboratory, Biology Program
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Summary of Results

Compliance with permit limits could not be determined for water chemistry analytes received out of temperature and results that were Y qualified for improper preservation. The nutrients and AGP results do not indicate a potential for nutrient enrichment of the receiving waters due to effluent discharge. Fourteen organic constituents were detected in the effluent grab sample.

Facility Overview

The OCUD/Eastern WRF Facility is a domestic wastewater treatment facility. A Facility Summary, including a description of the facility, summary of permit limits, and any relevant Administrative Order (AO), Consent Order (CO), and Discharge Monitoring Report (DMR) information is provided in Appendix A. Long Form Consent Order OGC #20-1194 was executed on December 14, 2020 for unauthorized discharges. Administrative Order CD-19-WW-20 was executed on March 24, 2020 for greater than allowable maximum for total recoverable silver; interim limits were put in place until January 2022. The effluent is continuously discharged into an unnamed tributary [waterbody identification (WBID) 3037], through a wetland, then to the Big Econlockhatchee River, a Class III Fresh Water (WBID 2991) (Figure 1).

The Econlockhatchee River falls within the Peninsular Nutrient Watershed Region for Numeric Nutrient Criteria (NNC). For this region, the NNC, expressed as annual geometric means, are 0.12 mg/L total phosphorus and 1.54 mg/L total nitrogen (Paragraph 62-302.531(2)(c), F.A.C.). The Econlockhatchee River falls within the Peninsula bioregion; the daily average dissolved oxygen (DO) saturation shall not be below 38 percent in more than 10 percent of the values (Paragraph 62-302.533(1)(a), F.A.C.). This FYI event only provides single sample results. It should be noted that waterbody impairment assessments are based on longer-term data, and individual exceedances of a criterion do not indicate use impairment.
http://ca.dep.state.fl.us/mapdirect/?focus=nutrientcriteria

Methods

Effluent grab samples were taken from monitoring site location WEP-1 for outfall D-001 on April 26, 2021 (Figure 1). The permit limits for total nitrogen, total phosphorus, and total recoverable silver are based on 24-hour time proportioned composite samples; only grab samples were scheduled and collected for this sampling event. Whole effluent toxicity was not scheduled for this event. Many of the effluent grab samples were received out of temperature and results were Y qualified for improper preservation.

Samples were collected by Phil Kane and Sean Boyles (Central District Office). Analyses were performed by Eurofins Test America Laboratories in Tampa and DEP Laboratory in Tallahassee.

All field and laboratory methods followed DEP Standard Operating Procedures (see https://floridadep.gov/dear/quality-assurance/content/dep-sops and https://floridadep.gov/dear/florida-dep-laboratory/content/dep-laboratory-quality-assurance-

manual-and-sops for details) and met DEP quality assurance/quality control standards (see https://floridadep.gov/dear/quality-assurance). Explanations of specific methods and measurements can be found in Appendix B.

Class III Water Quality Criteria for Fresh and Marine Waters are found in Rule 62-302, F.A.C. All references to Rule 62-302.530, F.A.C. are to the surface water quality criteria table with an effective date of 02/17/2016 and a notice identification number of 17115667.

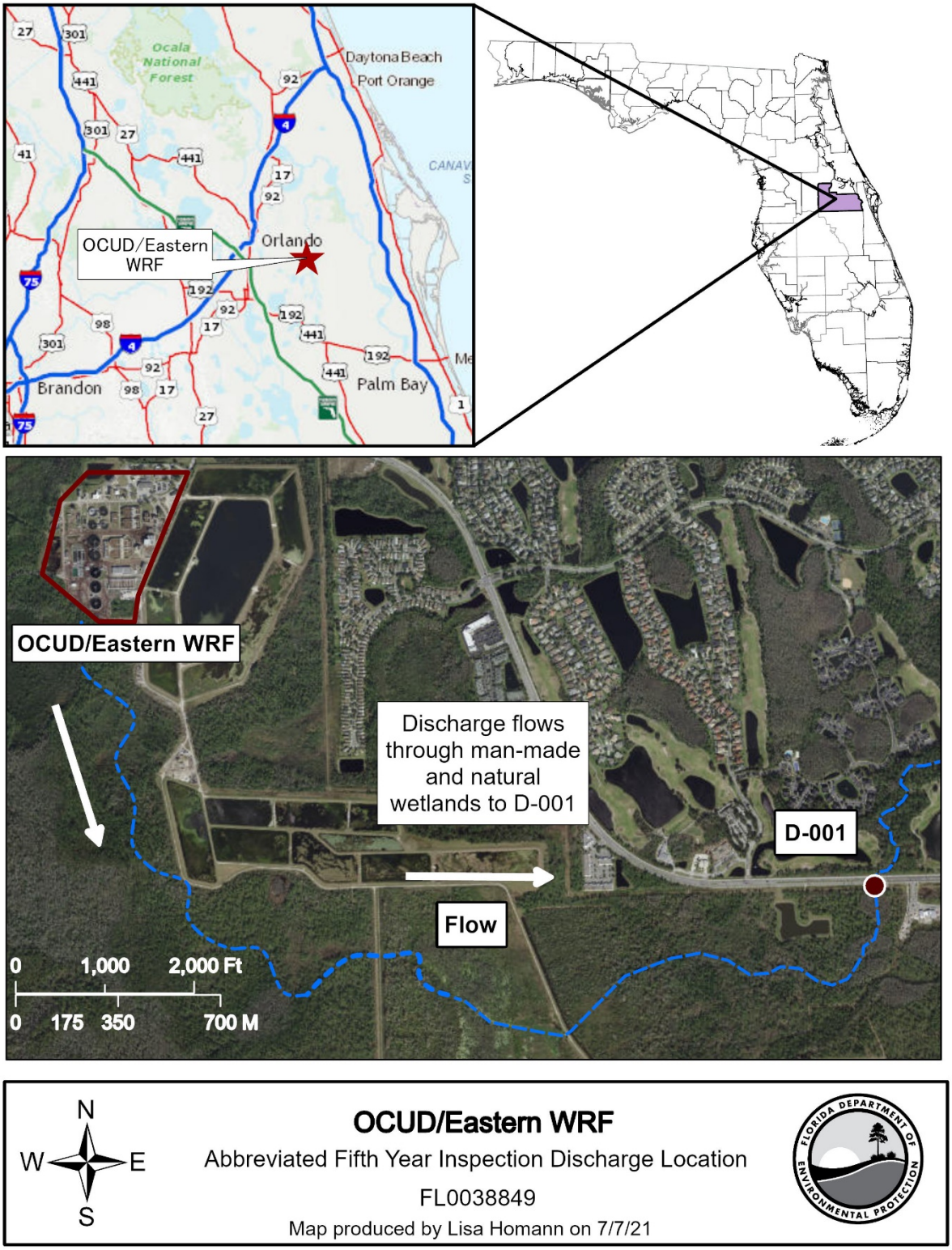


Figure 1. Map of Facility and Discharge Location

Results

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

- All measured effluent water quality parameters complied with Class III Water Quality Criteria for Fresh Waters and effluent permit limits.

Analytical Water Chemistry (See Table 2 and Appendix D)

- Compliance with permit limits for water chemistry analytes could not be determined since analyses were performed on improperly preserved samples and results were Y qualified.

- Total nitrogen and total phosphorus were calculated using Y-qualified data. For comparative purposes only, total nitrogen in the effluent grab sample was slightly greater than the annual geometric mean limit for NNC in the Peninsular Nutrient Watershed Region. Effluent total phosphorus was below the annual geometric mean limit.

Metals (See Table 3 and Appendix D)

- Effluent metals complied with Class III Water Quality Criteria for Fresh Waters and effluent permit limits.

- Copper and nickel were detected in the field blank between the MDL and PQL.

Algal Growth Potential (See Table 4 and Appendix B)

- The freshwater unicellular green alga, *Pseudokirchneriella subcapitata*, was used to determine the AGP values in the effluent grab sample. The analytical chemistry suggests that the effluent is nitrogen-phosphorus co-limited (Miller et al. 1978).

- The effluent grab sample AGP result of 18.2 mg dry wt/L is within the AGP range (6.10 to 20.0 mg dry wt/L) suggested to be representative of high productivity for freshwater (Miller et al. 1978).

Organic Constituents (See Table 5 and Appendix D)

- Atrazine, atrazine desethyl, azoxystrobin, fipronil desulfinyl, fipronil sulfide, fipronil sulfone, flutolanil, fluxapyroxad, myclobutanil, oxadiazon, prometon, propiconazole, sulfentrazone, and tebuconazole were detected in the effluent grab sample and results were Y qualified for improper preservation.

- There are no effluent permit limits for organic constituents.

Literature Cited

Miller, W. E., Maloney, T. E. and Greene, J. C. 1978. The *Selenastrum capricornutum* Printz algal assay bottle test. EPA600/978-018. U. S. EPA, Cincinnati, Ohio. 126 p.

Stevenson, R. J. and Bahls, L. L. 1999. Periphyton protocols. Pp. 6.1-6.22 in: Rapid bioassessment protocols for use in wadeable streams and rivers. 2nd edition. By: M. T. Barbour, J. Gerritsen, B. D. Snyder and J. B. Stribling. EPA 841-B-99-002. U. S. Environmental Protection Agency, Office of Water, Washington, D. C.

USEPA. 2000. Nutrient Criteria Technical Guidance Manual – River and Streams. EPA-822-B-00-002.

Table 1. Measured field parameters

Effluent limits, Class III Water Quality Criteria for Fresh Waters, and field parameters

Parameter	Units	Class III Criteria	Effluent Permit Limits	Effluent Grab
Temperature	C	-	-	21.2
pH	SU	6.0 - 8.5	6.0 - 8.5	7.9
Specific Conductance	µmhos/cm	≤ 1,275	-	754
Salinity	ppt	-	-	0.4 c
Dissolved Oxygen	% saturation	≥ 38	-	77.7 c
Dissolved Oxygen	mg/L	-	Report	6.9

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

Table 2. Analytical water chemistry

Effluent limits, Class III Water Quality Criteria for Fresh Waters, and analytical water chemistry data

Analyte	Units	Class III Criteria	Effluent Permit Limits	Effluent Grab
Ortho-phosphate	mg P/L	-	-	0.066 Y
Total Phosphorus	mg P/L	≤ 0.12 g	≤ 0.4 s p	0.099 Y
Total Ammonia	mg N/L	≤ 2.07 s c	-	0.028 Y
Un-ionized Ammonia (calculated salinity)	mg N/L	-	≤ 0.2 a	< 0.02 c
Nitrate and Nitrite	mg N/L	-	-	0.58 Y
Total Kjeldahl Nitrogen	mg N/L	-	-	1.0 Y
Organic Nitrogen	mg N/L	-	-	1 c
Total Nitrogen	mg N/L	≤ 1.54 g	≤ 4.4 s p	1.6 c
Total Organic Carbon	mg C/L	-	-	10 Y
Chlorophyll *a* - Corrected	µg/L	-	-	1.4 IY
Phaeophytin	µg/L	-	-	0.91 IY
CBOD, 5 day, N - inhibited	mg/L	-	-	2.0 U
Total Suspended Solids	mg/L	-	-	7 IY
Turbidity	NTU	≤ 29 t	-	2.3 Y
Color (true)	PCU	-	-	49 AY
Alkalinity	mg CaCO3/L	≥ 20	-	169 AY
Chloride	mg Cl/L	-	-	110 A
Fluoride	mg F/L	≤ 10.0	-	0.50
Sulfate	mg SO4/L	-	-	36 AY

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
a - Annual average
c - Value is calculated
g - Value expressed as an annual geometric mean
p - 24 hour time proportioned composite
s - Single sample
t - Shall not exceed 29 NTUs above background
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
U - Material analyzed for but not detected; value reported is the method detection limit
Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.

Table 3. Analytical metals data

Effluent limits, Class III Water Quality Criteria for Fresh Waters, and analytical metals data

Analyte	Units	Effluent Grab Class III Criteria	Effluent Permit Limits	Effluent Grab
Hardness	mg CaCO3/L	-	-	133 c
Aluminum	µg/L	-	-	53
Arsenic	µg/L	≤ 50	-	0.69
Cadmium	µg/L	≤ 0.334 b	-	0.036 I
Calcium	mg/L	-	-	40.7
Chromium, Total [1]	µg/L	≤ 109 b	-	0.65 I
Copper [2]	µg/L	≤ 11.9 b	-	0.93
Iron	µg/L	≤ 1,000	-	30 U
Lead	µg/L	≤ 4.57 b	-	0.20 U
Magnesium	mg/L	-	-	7.59
Nickel [2]	µg/L	≤ 66.3 b	-	1.4 I
Selenium	µg/L	≤ 5.0	-	0.20 U
Silver	µg/L	≤ 0.07	≤ 0.15	0.010 U
Sodium	mg/L	-	-	91.2
Zinc	µg/L	≤ 152 b	-	26

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
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
1 - Class III Freshwater Quality Criterion (62-302.530(19)(a), F.A.C.) is for chromium-III
2 - Analyte detected in the field blank at 0.56 I µg/L copper and 0.78 I µg/L nickel

Table 4. Algal Growth Potential (AGP)

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

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 Grab	*Pseudokirchneriella subcapitata*	18.2	23 ± 4.6	28 ± 5.7	60 ± 12	43 ± 8.5	9.2	16

Table 5. Detected Organic Constituents

Effluent limits, Class III Water Quality Criteria for Fresh Waters, and analytical organic and pesticide data

Analyte	Units	Class III Criteria	Effluent Permit Limits	Effluent Grab
Atrazine	ng/L	-	-	33 Y
Atrazine Desethyl	ng/L	-	-	4.3 IY
Azoxystrobin	ng/L	-	-	7.2 Y
Fipronil Desulfinyl	ng/L	-	-	0.21 IY
Fipronil Sulfide	ng/L	-	-	0.69 Y
Fipronil Sulfone	ng/L	-	-	0.28 IY
Flutolanil	ng/L	-	-	0.38 IY
Fluxapyroxad	ng/L	-	-	0.82 Y
Myclobutanil	ng/L	-	-	12 Y
Oxadiazon	ng/L	-	-	0.42 IY
Prometon	ng/L	-	-	0.95 IY
Propiconazole	ng/L	-	-	0.91 IY
Sulfentrazone	ng/L	-	-	4.3 Y
Tebuconazole	ng/L	-	-	11 Y

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.

Appendix A. Facility Summary

PART I: Information gathered prior to sampling event	
Prepared By: Sean M. Boyles	**Contact Number:** (407) 897-4164
Facility Name (as it appears on permit): OCUD/Eastern WRF	**Former Names:** N/A
NPDES Permit Number: FL0038849	**Permit Expiration Date:** March 22, 2025
Physical Address: 1621 S. Alafaya Trail	
District: Central	**County:** Orange
Function of Facility: Domestic Wastewater Treatment Facility	
Facility Type: Domestic Wastewater	**Permitted Capacity (MGD):** 24.0 MGD AADF
Mean Flow for previous 12 months for all EXTERNAL outfalls listed in permit (list date range including months): D-001 Big Econ outfall flow: 12.972 MGD AADF on the February 2021 DMR (March 2020 through February 2021 reporting period)	
If applicable, Mean Flow for previous 12 months for REUSE outfall(s) (list date range including months): R-001 flow to Rapid Infiltration Basin System: .008 MGD AADF; R-001 flow to Curtis Station Energy Center: 7.151 MGD AADF; R-003 flow to Wetland System: 7.37 MGD AADF; R-004 flow to Public Access Reuse System: 4.341 MGD AADF as reported on the February 2021 DMR (March 2021 through February 2021 reporting period)	
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): The sampling location of D-001 is WEP-1, locates at the berm near the natural wetland boundary, effluent t exiting the wetlands (R-003). The sampling location of R-001 is EFA-2, the sampling point is the final effluent from Phase III/IV chlorine contact chambers (CCC) to R-001. The sampling location of R-001 is EFA-3, the sampling point is the final effluent from Phase III/IV CCCs to R-002. The sampling locations of R-003 are EFA-4 and WEP-2, the sampling point for EFA-4 is the final effluent from Phase III/IV CCCs to R-003 and the sampling point for WEP-2 is Station XW-6, which is located at the exit of the wetlands. The sampling locations of R-004 are EFA-1 and EFA-1A. Sampling point EFA-1 is the final effluent from Phase I/II CCCs to R-004. The sampling location of EFA-1A is the final effluent from Phase III/IV CCCs to R-004. Total suspended solids (TSS) grab samples are collected from EFB-1, EFB-2, and EFB-3. The sampling location EFB-1 is located after filtration but prior to disinfection and is the effluent from Phase I/II. The sampling location EFB-2 is located after filtration but prior to disinfection and is the effluent from Phase III/IV. The sampling location EFB-3 is located after filtration but prior to disinfection and is the effluent from Phase V.	
Description of Permitted Outfall(s): D-001 outfall is a discharge to the Big Econlockhatchee River (Class III fresh water, WBID #2991) via discharge from R-003 to an unnamed tributary (WBID #3037, unnamed ditch) at outfall D-001, through an area of approximately 300 acres of a man-made and natural wetland, with berms and buffer zones, discharging into the Big Econlockhatchee River. D-001 is located at approximately at latitude 28° 30’ 36” N and longitude 81° 10’ 33” W.	

Description of Treatment Process (if multiple discharge points, include a detailed map or diagram of facility): This is a recently expanded 24.0 MGD annual average daily flow (AADF) permitted capacity advanced wastewater treatment facility with Class I reliability. The treatment processes include odor control, mechanical influent screening, grit removal, activated sludge/advanced wastewater treatment with nutrient removal, chemical feed facilities, secondary clarification, tertiary filtration and chlorination, with aerobic digestion, thickening and dewatering of residuals. Reclaimed water from the Phase I/II Chlorine Contact Chambers (CCCs) that does not meet the criteria for public access reuse is directed to the on-site reject pond and returned to the plant for re-treatment; reclaimed water not meeting public access reuse criteria from the Phase III/IV CCCs is discharged to one of the alternate reuse systems that require basic disinfection.

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	Annual Average	Monthly Average	Weekly Average	Single Sample	Monitoring Frequency	Sample Type	Monitoring Location Site Number	Notes
Flow, to River	MGD	Max	Report	Report	--	--	Continuous	Stage Level Recorder	EFF-1	See I.A.3
Nitrogen, Total	mg/L	Max	2.2	2.75	3.3	4.4	Weekly	24-hr TPC	WEP-1	--
Phosphorus, Total (as P)	mg/L	Max	0.2	0.25	0.3	0.4	Weekly	24-hr TPC	WEP-1	--
Ammonia, Unionized (as NH_3)	mg/L	Max	0.2	--	--	--	Weekly	Calculated	WEP-1	See I.A.6
Oxygen, Dissolved (DO)	mg/L	Min	--	--	--	Report	Weekly	Grab	WEP-1	--
pH	s.u.	Max Min	--	--	--	8.5 6.0	Weekly	Grab	WEP-1	--
Silver, Total Recoverable (AO limit until January 2022)	µg/L	Max	--	--	--	0.15	Weekly	24-hr TPC	WEP-1	
Siler, Total Recoverable (Permit limit after January 2022)	µg/L	Max	--	--	--	0.07	Weekly	24-hr TPC	WEP-1	See I.A.8 and note* below

PART I: Continued

Receiving Waters:	**Classification (indicate whether fresh or marine):**
Big Econlockhatchee	Class III, Fresh Water (WBID #2991)

Toxicity Test Requirements (routine and/or additional test language, test species, salinity adjustment, etc.): Not Applicable

Administrative or Consent Orders (date executed, specific requirements, interim limit dates-if applicable, etc.): A Long Form Consent Order with OGC #20-1194 was executed on December 14, 2020. The Consent Order referenced three unauthorized discharges: August 22, 2019, for approximately 275,000 gallons of untreated domestic wastewater, April 21, 2020, for approximately 20,000 gallons of untreated domestic wastewater, and May 8, 2020, for approximately 10,000 gallons of untreated domestic wastewater. Corrective actions in the Consent order include; complete all force main replacement projects identified in Table 1 of Exhibit 1, complete all sewer lining and replacement projects identified in Table 2 of Exhibit 1, complete all pump station rehabilitation projects identified in Table 3 of Exhibit 1, and complete the list of pump station rehabilitation projects identified in Table 4 of Exhibit 1.

Administrative Order number CD-19-WW-20 was executed on March 24, 2020 for greater than allowable maximum for Total Recoverable Silver, interim limits have been put in place for Total Recoverable Silver, until January 2022.

Facility Mixing Zone Details (if applicable): Not Applicable

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

Date	Parameter and Units	Limit	Result
April 2020	Coliform, Fecal, % less than detection, 1 Daily; 24 Hours, Percent	75.0% MinTotMo	67% MinTotMo
June 2020	Solis, Total Suspended, 1 Daily; 24 Hours, mg/L	5.0 mg/L Maximum	6.0 mg/L
June 2020	Coliform, Fecal, % less than detection, 1 Daily; 24 Hours, Percent	75.0% MinTotMo	60.0% MinTotMo

Describe previous FYI and WQBEL study: The last FYI sampling was conducted on March 2, 2009. Samples were collected from the WEP-1 sampling point for Outfall A-001. The samples collected for this facility were not acutely toxic to either test species during the 96-hour acute definitive bioassays. The effluent freshwater AGP result exceeded the "problem" threshold for fresh receiving waters, suggesting nutrient enrichment may be an issue. Effluent water quality samples did not exceed any applicable water quality standards or violate any permit conditions.

Describe previous or current Enforcement Actions (including WLs): See comments in the Consent Order/Administrative Order above. On March 4, 2021, a stipulated penalties letter was issued to the facility for multiple unauthorized discharges.

Describe any violations or problems noted in previous inspection: The most recent inspection was November 20, 2019. During the DMR review multiple effluent exceedances were noted for the following parameters: Total Nitrogen, Fecal Coliform, and Fecal Coliform % less than detection.

Discuss whether DMR trends within previous five years are improving or declining:
The annual average for flow has appeared to be steady for the last 5 years.

The annual average for Total Nitrogen has seen a dramatic decrease over the past 5 years.

The annual average for Unionized Ammonia has decreased over the past 5 years, with one spike in 2018.

Annual average for Total Phosphorus in March 2016 and now in March 2021 is relatively the same. In late 2017 and early 2018, there was a spike for the annual average of Total Phosphorus of approximately 0.42-0.45 mg/L.

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

Appendix B. Explanations of Measurements

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. References to Rule 62-302.530, F.A.C., are to the currently applicable surface water quality criteria table with an effective date of 02/17/2016 and a notice identification number of 17115667.

- **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.

- **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 Subsection 62-302.530(47), F.A.C., Paragraph 62-302.530(48)(a), F.A.C. and/or Paragraph 62-302.530(48)(b), F.A.C.

  The concentration of nutrients in a water sample may be used to calculate the expected yield of AGP 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 ± 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 (USEPA 2000). 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 Subsection 62-302.530(62), F.A.C.

- **Chlorophyll *a* Content**

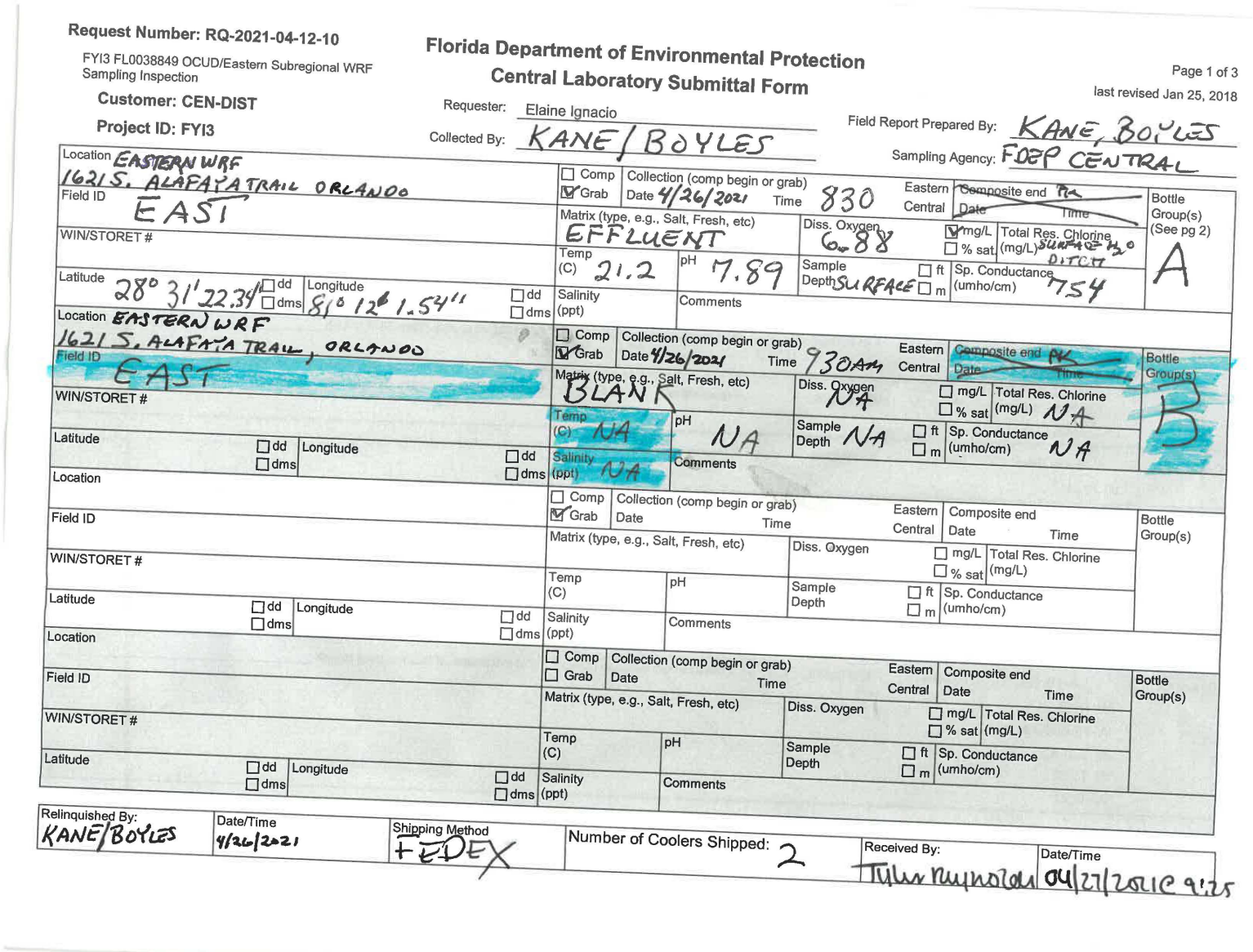
  Chlorophyll *a* content is an estimate of algal biomass. High algal biomass implies nutrient stress (Stevenson and Bahls 1999) and may be constitute exceedances of Subsection 62-302.530(47), F.A.C., Paragraph 62-302.530(48)(a) F.A.C. and/or Paragraph 62-302.530(48)(b) F.A.C..

- **Definition of Qualifiers** (Rule 62-160.700, F.A.C.)

  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. Chain of Custody



Request Number: RQ-2021-04-12-10

FYI3 FL0038849 OCUD/Eastern Subregional WRF Sampling Inspection

Customer: CEN-DIST

Project ID: FYI3

Florida Department of Environmental Protection
Central Laboratory Submittal Form

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last revised Jan 25, 2018

Requester: Elaine Ignacio
Collected By: KANE / BOYLES
Field Report Prepared By: KANE, BOYLES
Sampling Agency: FDEP CENTRAL

Location: EASTERN WRF 1621 S. ALAFAYA TRAIL ORLANDO	Field ID: EAST	WIN/STORET #	Latitude: 28° 31' 22.34" ☐dd ☐dms	Longitude: 81° 12' 1.54" ☐dd ☐dms	☐ Comp ☑ Grab	Collection (comp begin or grab) Date: 4/26/2021 Time: 830 Eastern Central	Composite end Date: — Time: —	Bottle Group(s) (See pg 2): A	Matrix (type, e.g., Salt, Fresh, etc): EFFLUENT	Diss. Oxygen: 6.88 ☑ mg/L ☐ % sat	Total Res. Chlorine (mg/L): SURFACE H2O DITCH	Temp (C): 21.2	pH: 7.89	Sample Depth: SURFACE ☐ ft ☐ m	Sp. Conductance (umho/cm): 754	Salinity (ppt):	Comments:
Location: EASTERN WRF 1621 S. ALAFAYA TRAIL, ORLANDO	Field ID: EAST	WIN/STORET #	Latitude: ☐dd ☐dms	Longitude: ☐dd ☐dms	☐ Comp ☑ Grab	Collection (comp begin or grab) Date: 4/26/2021 Time: 930AM Eastern Central	Composite end Date: — Time: —	Bottle Group(s): B	Matrix (type, e.g., Salt, Fresh, etc): BLANK	Diss. Oxygen: NA ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L): NA	Temp (C): NA	pH: NA	Sample Depth: NA ☐ ft ☐ m	Sp. Conductance (umho/cm): NA	Salinity (ppt): NA	Comments:
Location	Field ID	WIN/STORET #	Latitude: ☐dd ☐dms	Longitude: ☐dd ☐dms	☐ Comp ☑ Grab	Collection (comp begin or grab) Date: Time: Eastern Central	Composite end Date: Time:	Bottle Group(s)	Matrix (type, e.g., Salt, Fresh, etc):	Diss. Oxygen: ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	Temp (C):	pH:	Sample Depth: ☐ ft ☐ m	Sp. Conductance (umho/cm):	Salinity (ppt):	Comments:
Location	Field ID	WIN/STORET #	Latitude: ☐dd ☐dms	Longitude: ☐dd ☐dms	☐ Comp ☐ Grab	Collection (comp begin or grab) Date: Time: Eastern Central	Composite end Date: Time:	Bottle Group(s)	Matrix (type, e.g., Salt, Fresh, etc):	Diss. Oxygen: ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	Temp (C):	pH:	Sample Depth: ☐ ft ☐ m	Sp. Conductance (umho/cm):	Salinity (ppt):	Comments:

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
KANE/BOYLES	4/26/2021	FEDEX	2	Tyler Reynolds	04/27/2021 9:25

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
TASK ASSIGNMENT/NOTIFICATION FORM: LAB145

Contract Manager: Trenetta Wilson/Magan Bowden (850) 245-8084/ (850) 245-8095
2600 Blair Stone Rd., MS 6512
Tallahassee, FL 32399-2400

Contractor: Eurofins/TestAmerica Laboratories, Inc
5102 LaRoche Ave
Savannah, GA 31404
ATTN: Noel Savoie

DEP Approval By: Trenetta L Brinkley-Wilson Contractor Approval By: Noel Savoie
Project Manager

Contractor Representatives Contacted: Noel Savoie

Date: 3/17/2021
Means of Contact: Email

Task Assignment Number: OV201 Maximum Cost: **$36.25** Turnaround Time: 5 BD

Sample Delivery Date: 4/27/2021

Project Name/Description:
RQ-2021-04-12-10;FYI# FL0038849 OCUD/Eastern Sub-regional WRF

Deliverable Number/ Parameter Group/ Method	**Sample Matrix**	**# of Samples**	**# of Containers**	**DEP ID #**	**Unit Cost**	**% Mark-up (if any)**	**Cost**
Quote/OV-CBOD-IN CBOD, nitrogen-inhibited 5210B-2011	W	1	1 bottle		$33.75		$33.75
217/Sample Disposal Fee:	1				$2.50		$2.50
Total Number of Containers Shipped:	1					**Total:**	**$36.25**

660-110001 Chain of Custody

Loc: 660
110001

QC Instructions:

Comments: Quote #66015426 - 0

Samples released to Contract Lab by: _____ Date/Time: _____

Delivery Method: _____ Shipping

Samples Accepted by: _____ Date/Time 4/27/21 9:15

* **Please sign and return by email to** Trenetta.L.Wilson@FloridaDEP.gov and Magan.Bowden@dep.state.fl.us

3.8 / 2.9 CU-09

Appendix D. Chemical Analysis of Effluent

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/26/2021 8:30	Effluent Grab	AGP/LN	Algal Growth Potential	18.2	mg DryWt/L	0.300	0.900
4/26/2021 8:30	Effluent Grab	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.91 IY	µg/L	0.90	2.7
4/26/2021 8:30	Effluent Grab	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Uncorrected	2.0 Y	µg/L	0.60	1.8
4/26/2021 8:30	Effluent Grab	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	1.4 IY	µg/L	0.82	2.5
4/26/2021 8:30	Effluent Grab	Overflow	Carbonaceous Biochemical Oxygen Demand	2.0 U	mg/L	2.0	2.0
4/26/2021 8:30	Effluent Grab	Metals	Chromium	0.65 I	µg/L	0.40	1.6
4/26/2021 8:30	Effluent Grab	Metals	Magnesium	7.59	mg/L	0.040	0.16
4/26/2021 8:30	Effluent Grab	Metals	Nickel	1.4 I	µg/L	0.50	2.0
4/26/2021 8:30	Effluent Grab	Metals	Selenium	0.20 U	µg/L	0.20	0.80
4/26/2021 8:30	Effluent Grab	Metals	Lead	0.20 U	µg/L	0.20	0.40
4/26/2021 8:30	Effluent Grab	Metals	Sodium	91.2	mg/L	0.50	2.0
4/26/2021 8:30	Effluent Grab	Metals	Zinc	26	µg/L	5.0	20
4/26/2021 8:30	Effluent Grab	Metals	Silver	0.010 U	µg/L	0.010	0.040
4/26/2021 8:30	Effluent Grab	Metals	Copper	0.93	µg/L	0.40	0.80
4/26/2021 8:30	Effluent Grab	Metals	Cadmium	0.036 I	µg/L	0.020	0.080
4/26/2021 8:30	Effluent Grab	Metals	Arsenic	0.69	µg/L	0.050	0.20
4/26/2021 8:30	Effluent Grab	Metals	Aluminum	53	µg/L	5.0	20
4/26/2021 8:30	Effluent Grab	Metals	Iron	30 U	µg/L	30	120
4/26/2021 8:30	Effluent Grab	Metals	Calcium	40.7	mg/L	0.075	0.30
4/26/2021 8:30	Effluent Grab	Nutrients	Sulfate	36 AY	mg SO4/L	0.40	1.0
4/26/2021 8:30	Effluent Grab	Nutrients	Ammonia-N	0.028 Y	mg N/L	0.0020	0.0050
4/26/2021 8:30	Effluent Grab	Nutrients	Color (true)	49 AY	PCU	2.5	6.0
4/26/2021 8:30	Effluent Grab	Nutrients	Turbidity	2.3 Y	NTU	0.10	0.13
4/26/2021 8:30	Effluent Grab	Nutrients	Chloride	110 A	mg Cl/L	0.40	1.0
4/26/2021 8:30	Effluent Grab	Nutrients	NO2NO3-N	0.58 Y	mg N/L	0.0080	0.020
4/26/2021 8:30	Effluent Grab	Nutrients	Fluoride	0.50	mg F/L	0.035	0.10
4/26/2021 8:30	Effluent Grab	Nutrients	O-Phosphate-P	0.066 Y	mg P/L	0.0040	0.010
4/26/2021 8:30	Effluent Grab	Nutrients	Kjeldahl Nitrogen	1.0 Y	mg N/L	0.080	0.20
4/26/2021 8:30	Effluent Grab	Nutrients	TSS	7 IY	mg/L	2.0	10
4/26/2021 8:30	Effluent Grab	Nutrients	Total-P	0.099 Y	mg P/L	0.0050	0.050
4/26/2021 8:30	Effluent Grab	Nutrients	Total Alkalinity	169 AY	mg CaCO3/L	0.65	2.5

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/26/2021 8:30	Effluent Grab	Nutrients	Organic Carbon	10 Y	mg C/L	0.50	1.0
4/26/2021 8:30	Effluent Grab	Pesticides	Acetochlor	0.26 UY	ng/L	0.26	1.0
4/26/2021 8:30	Effluent Grab	Pesticides	Atrazine Desethyl	4.3 IY	ng/L	1.6	6.3
4/26/2021 8:30	Effluent Grab	Pesticides	Azinphos Methyl	2.1 UY	ng/L	2.1	8.4
4/26/2021 8:30	Effluent Grab	Pesticides	Azoxystrobin	7.2 Y	ng/L	0.52	2.1
4/26/2021 8:30	Effluent Grab	Pesticides	Fipronil Desulfinyl	0.21 IY	ng/L	0.13	0.52
4/26/2021 8:30	Effluent Grab	Pesticides	Fludioxonil	0.13 UY	ng/L	0.13	0.52
4/26/2021 8:30	Effluent Grab	Pesticides	Malathion	0.37 UY	ng/L	0.37	1.5
4/26/2021 8:30	Effluent Grab	Pesticides	Pronamide	0.16 UY	ng/L	0.16	0.63
4/26/2021 8:30	Effluent Grab	Pesticides	Prometryn	0.21 UY	ng/L	0.21	0.84
4/26/2021 8:30	Effluent Grab	Pesticides	Pyriproxyfen	0.13 UY	ng/L	0.13	0.52
4/26/2021 8:30	Effluent Grab	Pesticides	Sulfentrazone	4.3 Y	ng/L	0.52	2.1
4/26/2021 8:30	Effluent Grab	Pesticides	Imazalil	0.79 UY	ng/L	0.79	3.1
4/26/2021 8:30	Effluent Grab	Pesticides	Ibuprofen	0.020 UY	µg/L	0.020	0.080
4/26/2021 8:30	Effluent Grab	Pesticides	Simazine	0.52 UY	ng/L	0.52	2.1
4/26/2021 8:30	Effluent Grab	Pesticides	Terbuthylazine	0.45 UY	ng/L	0.45	1.8
4/26/2021 8:30	Effluent Grab	Pesticides	Atrazine	33 Y	ng/L	0.26	1.0
4/26/2021 8:30	Effluent Grab	Pesticides	Carfentrazone Ethyl	0.10 UY	ng/L	0.10	0.42
4/26/2021 8:30	Effluent Grab	Pesticides	Difenoconazole	0.63 UY	ng/L	0.63	2.5
4/26/2021 8:30	Effluent Grab	Pesticides	Disulfoton	0.52 UY	ng/L	0.52	2.1
4/26/2021 8:30	Effluent Grab	Pesticides	EPTC	1.3 UY	ng/L	1.3	5.2
4/26/2021 8:30	Effluent Grab	Pesticides	Fipronil	0.26 UY	ng/L	0.26	1.0
4/26/2021 8:30	Effluent Grab	Pesticides	Metolachlor	0.37 UY	ng/L	0.37	1.5
4/26/2021 8:30	Effluent Grab	Pesticides	Metribuzin	3.4 UY	ng/L	3.4	14
4/26/2021 8:30	Effluent Grab	Pesticides	Myclobutanil	12 Y	ng/L	0.26	1.0
4/26/2021 8:30	Effluent Grab	Pesticides	Naled	1.6 UY	ng/L	1.6	6.3
4/26/2021 8:30	Effluent Grab	Pesticides	Parathion Methyl	0.58 UY	ng/L	0.58	2.3
4/26/2021 8:30	Effluent Grab	Pesticides	Naproxen	0.0080 UY	µg/L	0.0080	0.032
4/26/2021 8:30	Effluent Grab	Pesticides	Alachlor	0.26 UY	ng/L	0.26	1.0
4/26/2021 8:30	Effluent Grab	Pesticides	Ametryn	0.63 UYJ	ng/L	0.63	2.5
4/26/2021 8:30	Effluent Grab	Pesticides	Fenbuconazole	0.13 UY	ng/L	0.13	0.52
4/26/2021 8:30	Effluent Grab	Pesticides	Fipronil Sulfone	0.28 IY	ng/L	0.16	0.63
4/26/2021 8:30	Effluent Grab	Pesticides	Flumioxazin	1.8 UYJ	ng/L	1.8	7.3
4/26/2021 8:30	Effluent Grab	Pesticides	Fluxapyroxad	0.82 Y	ng/L	0.10	0.42

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/26/2021 8:30	Effluent Grab	Pesticides	Oxyfluorfen	0.16 UY	ng/L	0.16	0.63
4/26/2021 8:30	Effluent Grab	Pesticides	Sucralose	64 Y	µg/L	0.10	0.40
4/26/2021 8:30	Effluent Grab	Pesticides	Butylate	0.42 UY	ng/L	0.42	1.7
4/26/2021 8:30	Effluent Grab	Pesticides	Dimethenamid	0.10 UY	ng/L	0.10	0.42
4/26/2021 8:30	Effluent Grab	Pesticides	Ethion	0.16 UY	ng/L	0.16	0.63
4/26/2021 8:30	Effluent Grab	Pesticides	Ethoprop	0.10 UY	ng/L	0.10	0.42
4/26/2021 8:30	Effluent Grab	Pesticides	Flutolanil	0.38 IY	ng/L	0.10	0.42
4/26/2021 8:30	Effluent Grab	Pesticides	Hexazinone	0.52 UY	ng/L	0.52	2.1
4/26/2021 8:30	Effluent Grab	Pesticides	Oxadiazon	0.42 IY	ng/L	0.31	1.3
4/26/2021 8:30	Effluent Grab	Pesticides	Phorate	0.55 UY	ng/L	0.55	2.2
4/26/2021 8:30	Effluent Grab	Pesticides	Prodiamine	0.18 UYJ	ng/L	0.18	0.73
4/26/2021 8:30	Effluent Grab	Pesticides	Prometon	0.95 IY	ng/L	0.94	3.7
4/26/2021 8:30	Effluent Grab	Pesticides	Chlorpyrifos Methyl	0.052 UY	ng/L	0.052	0.21
4/26/2021 8:30	Effluent Grab	Pesticides	Cyanazine	3.4 UY	ng/L	3.4	14
4/26/2021 8:30	Effluent Grab	Pesticides	Dithiopyr	0.18 UY	ng/L	0.18	0.73
4/26/2021 8:30	Effluent Grab	Pesticides	Fonofos	0.21 UY	ng/L	0.21	0.84
4/26/2021 8:30	Effluent Grab	Pesticides	Molinate	0.31 UY	ng/L	0.31	1.3
4/26/2021 8:30	Effluent Grab	Pesticides	Norflurazon	0.52 UY	ng/L	0.52	2.1
4/26/2021 8:30	Effluent Grab	Pesticides	Parathion Ethyl	0.26 UY	ng/L	0.26	1.0
4/26/2021 8:30	Effluent Grab	Pesticides	Tebuconazole	11 Y	ng/L	0.52	2.1
4/26/2021 8:30	Effluent Grab	Pesticides	Terbufos	0.10 UY	ng/L	0.10	0.42
4/26/2021 8:30	Effluent Grab	Pesticides	Carbophenothion	0.52 UY	ng/L	0.52	2.1
4/26/2021 8:30	Effluent Grab	Pesticides	Diazinon	0.13 UY	ng/L	0.13	0.52
4/26/2021 8:30	Effluent Grab	Pesticides	Fenamiphos	0.52 UY	ng/L	0.52	2.1
4/26/2021 8:30	Effluent Grab	Pesticides	Fipronil Sulfide	0.69 Y	ng/L	0.16	0.63
4/26/2021 8:30	Effluent Grab	Pesticides	Fluazifop-P-butyl	0.10 UY	ng/L	0.10	0.42
4/26/2021 8:30	Effluent Grab	Pesticides	Iprodione	0.63 UY	ng/L	0.63	2.5
4/26/2021 8:30	Effluent Grab	Pesticides	Metalaxyl	0.79 UY	ng/L	0.79	3.1
4/26/2021 8:30	Effluent Grab	Pesticides	Propiconazole	0.91 IY	ng/L	0.52	2.1
4/26/2021 8:30	Effluent Grab	Pesticides	Bromacil	0.52 UY	ng/L	0.52	2.1
4/26/2021 8:30	Effluent Grab	Pesticides	Caffeine	7.9 UY	ng/L	7.9	31
4/26/2021 8:30	Effluent Grab	Pesticides	Chlorpyrifos Ethyl	0.26 UY	ng/L	0.26	1.0
4/26/2021 8:30	Effluent Grab	Pesticides	Demeton	1.6 UY	ng/L	1.6	6.3
4/26/2021 8:30	Effluent Grab	Pesticides	Mevinphos	1.1 UY	ng/L	1.1	4.4

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/26/2021 8:30	Effluent Grab	Pesticides	Pendimethalin	1.0 UY	ng/L	1.0	4.2
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Benzidine	9.4 UY	µg/L	9.4	38
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Benzo(a)anthracene	0.024 UY	µg/L	0.024	0.094
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Hexachlorobenzene	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.024 UY	µg/L	0.024	0.094
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Chrysene	0.024 UY	µg/L	0.024	0.094
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.024 UY	µg/L	0.024	0.094
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Fluorene	0.024 UY	µg/L	0.024	0.094
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Pyrene	0.094 UY	µg/L	0.094	0.38
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	2,4-Dinitrotoluene	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	2,6-Dinitrotoluene	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Benzo(k)fluoranthene	0.024 UY	µg/L	0.024	0.094
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Diethyl phthalate	1.9 UY	µg/L	1.9	7.5
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Hexachlorobutadiene	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.024 UY	µg/L	0.024	0.094
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9 UY	µg/L	1.9	7.5
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.8 UY	µg/L	2.8	11
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Pentachlorophenol	0.47 UY	µg/L	0.47	1.9
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	2,4-Dinitrophenol	9.4 UY	µg/L	9.4	38
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Acenaphthene	0.024 UY	µg/L	0.024	0.094
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Acenaphthylene	0.024 UY	µg/L	0.024	0.094
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Benzo(b)fluoranthene	0.024 UY	µg/L	0.024	0.094
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Isophorone	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Naphthalene	0.094 UY	µg/L	0.094	0.38
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Nitrobenzene	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	2-Nitrophenol	0.047 UY	µg/L	0.047	0.19

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Phenanthrene	0.094 UY	µg/L	0.094	0.38
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Phenol	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	4-Nitrophenol	9.4 UY	µg/L	9.4	38
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Anthracene	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	4.7 UY	µg/L	4.7	19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Butyl benzyl phthalate	0.94 UY	µg/L	0.94	3.8
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Dimethyl phthalate	0.19 UY	µg/L	0.19	0.75
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Hexachloroethane	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	2,4-Dimethylphenol	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	3,3'-Dichlorobenzidine	9.4 UY	µg/L	9.4	38
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Benzo(a)pyrene	0.024 UY	µg/L	0.024	0.094
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Di-n-octyl phthalate	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Fluoranthene	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	2-Chloronaphthalene	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	2-Chlorophenol	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	2,4-Dichlorophenol	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	Di-n-butyl phthalate	1.9 UY	µg/L	1.9	7.5
4/26/2021 8:30	Effluent Grab	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.047 UY	µg/L	0.047	0.19
4/26/2021 8:30	Effluent Grab	Nutrients	Specific Conductance	754	µmhos/cm		
4/26/2021 8:30	Effluent Grab	Nutrients	Dissolved Oxygen mg/L	6.88	mg/L		
4/26/2021 8:30	Effluent Grab	Nutrients	Temperature	21.2	C		
4/26/2021 8:30	Effluent Grab	Nutrients	pH	7.89			
4/26/2021 9:30	Effluent Grab	Metals	Zinc	5.0 U	µg/L	5.0	20
4/26/2021 9:30	Effluent Grab	Metals	Copper	0.56 I	µg/L	0.40	0.80
4/26/2021 9:30	Effluent Grab	Metals	Calcium	0.075 U	mg/L	0.075	0.30
4/26/2021 9:30	Field Blank	Metals	Silver	0.010 U	µg/L	0.010	0.040
4/26/2021 9:30	Field Blank	Metals	Sodium	0.50 U	mg/L	0.50	2.0
4/26/2021 9:30	Field Blank	Metals	Cadmium	0.020 U	µg/L	0.020	0.080
4/26/2021 9:30	Field Blank	Metals	Arsenic	0.050 U	µg/L	0.050	0.20
4/26/2021 9:30	Field Blank	Metals	Chromium	0.40 U	µg/L	0.40	1.6
4/26/2021 9:30	Field Blank	Metals	Aluminum	5.0 U	µg/L	5.0	20
4/26/2021 9:30	Field Blank	Metals	Lead	0.20 U	µg/L	0.20	0.40
4/26/2021 9:30	Field Blank	Metals	Selenium	0.20 U	µg/L	0.20	0.80

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/26/2021 9:30	Field Blank	Metals	Nickel	0.78 I	µg/L	0.50	2.0
4/26/2021 9:30	Field Blank	Metals	Iron	30 U	µg/L	30	120
4/26/2021 9:30	Field Blank	Metals	Magnesium	0.040 U	mg/L	0.040	0.16
4/26/2021 9:30	Field Blank	Nutrients	Color (true)	2.5 UY	PCU	2.5	6.0
4/26/2021 9:30	Field Blank	Nutrients	NO2NO3-N	0.004 UY	mg N/L	0.0040	0.010
4/26/2021 9:30	Field Blank	Nutrients	O-Phosphate-P	0.004 UY	mg P/L	0.0040	0.010
4/26/2021 9:30	Field Blank	Nutrients	Total-P	0.002 UY	mg P/L	0.0020	0.0050
4/26/2021 9:30	Field Blank	Nutrients	Fluoride	0.035 U	mg F/L	0.035	0.10
4/26/2021 9:30	Field Blank	Nutrients	Chloride	0.20 U	mg Cl/L	0.20	0.50
4/26/2021 9:30	Field Blank	Nutrients	Kjeldahl Nitrogen	0.080 UY	mg N/L	0.080	0.20
4/26/2021 9:30	Field Blank	Nutrients	Total Alkalinity	0.65 UY	mg CaCO3/L	0.65	2.5
4/26/2021 9:30	Field Blank	Nutrients	Ammonia-N	0.002 UY	mg N/L	0.0020	0.0050
4/26/2021 9:30	Field Blank	Nutrients	Turbidity	0.10 UY	NTU	0.10	0.13
4/26/2021 9:30	Field Blank	Nutrients	Sulfate	0.20 UY	mg SO4/L	0.20	0.50
4/26/2021 9:30	Field Blank	Nutrients	Organic Carbon	0.50 UY	mg C/L	0.50	1.0
4/26/2021 9:30	Field Blank	Pesticides	Ibuprofen	0.020 UY	µg/L	0.020	0.080
4/26/2021 9:30	Field Blank	Pesticides	Diazinon	0.13 UY	ng/L	0.13	0.50
4/26/2021 9:30	Field Blank	Pesticides	Fenbuconazole	0.13 UY	ng/L	0.13	0.50
4/26/2021 9:30	Field Blank	Pesticides	Fipronil Sulfide	0.15 UY	ng/L	0.15	0.60
4/26/2021 9:30	Field Blank	Pesticides	Flutolanil	0.10 UY	ng/L	0.10	0.40
4/26/2021 9:30	Field Blank	Pesticides	Fluxapyroxad	0.10 UY	ng/L	0.10	0.40
4/26/2021 9:30	Field Blank	Pesticides	Metalaxyl	0.75 UY	ng/L	0.75	3.0
4/26/2021 9:30	Field Blank	Pesticides	Metribuzin	3.3 UY	ng/L	3.3	13
4/26/2021 9:30	Field Blank	Pesticides	Oxyfluorfen	0.15 UY	ng/L	0.15	0.60
4/26/2021 9:30	Field Blank	Pesticides	Propiconazole	0.50 UY	ng/L	0.50	2.0
4/26/2021 9:30	Field Blank	Pesticides	Pyriproxyfen	0.13 UY	ng/L	0.13	0.50
4/26/2021 9:30	Field Blank	Pesticides	Acetochlor	0.25 UY	ng/L	0.25	1.0
4/26/2021 9:30	Field Blank	Pesticides	Ametryn	0.60 UY	ng/L	0.60	2.4
4/26/2021 9:30	Field Blank	Pesticides	Azoxystrobin	0.50 UY	ng/L	0.50	2.0
4/26/2021 9:30	Field Blank	Pesticides	Cyanazine	3.3 UY	ng/L	3.3	13
4/26/2021 9:30	Field Blank	Pesticides	Ethion	0.15 UY	ng/L	0.15	0.60
4/26/2021 9:30	Field Blank	Pesticides	Hexazinone	0.50 UY	ng/L	0.50	2.0
4/26/2021 9:30	Field Blank	Pesticides	Norflurazon	0.50 UY	ng/L	0.50	2.0
4/26/2021 9:30	Field Blank	Pesticides	Tebuconazole	0.50 UY	ng/L	0.50	2.0

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/26/2021 9:30	Field Blank	Pesticides	Butylate	0.40 UY	ng/L	0.40	1.6
4/26/2021 9:30	Field Blank	Pesticides	Fludioxonil	0.13 UY	ng/L	0.13	0.50
4/26/2021 9:30	Field Blank	Pesticides	Iprodione	0.60 UY	ng/L	0.60	2.4
4/26/2021 9:30	Field Blank	Pesticides	Malathion	0.35 UY	ng/L	0.35	1.4
4/26/2021 9:30	Field Blank	Pesticides	Myclobutanil	0.25 UY	ng/L	0.25	1.0
4/26/2021 9:30	Field Blank	Pesticides	Azinphos Methyl	2.0 UY	ng/L	2.0	8.0
4/26/2021 9:30	Field Blank	Pesticides	Dimethenamid	0.10 UY	ng/L	0.10	0.40
4/26/2021 9:30	Field Blank	Pesticides	EPTC	1.3 UY	ng/L	1.3	5.0
4/26/2021 9:30	Field Blank	Pesticides	Fluazifop-P-butyl	0.10 UY	ng/L	0.10	0.40
4/26/2021 9:30	Field Blank	Pesticides	Metolachlor	0.35 UY	ng/L	0.35	1.4
4/26/2021 9:30	Field Blank	Pesticides	Sucralose	0.010 UY	µg/L	0.010	0.040
4/26/2021 9:30	Field Blank	Pesticides	Atrazine Desethyl	1.5 UY	ng/L	1.5	6.0
4/26/2021 9:30	Field Blank	Pesticides	Carfentrazone Ethyl	0.10 UY	ng/L	0.10	0.40
4/26/2021 9:30	Field Blank	Pesticides	Chlorpyrifos Methyl	0.050 UY	ng/L	0.050	0.20
4/26/2021 9:30	Field Blank	Pesticides	Difenoconazole	0.60 UY	ng/L	0.60	2.4
4/26/2021 9:30	Field Blank	Pesticides	Disulfoton	0.50 UY	ng/L	0.50	2.0
4/26/2021 9:30	Field Blank	Pesticides	Dithiopyr	0.18 UY	ng/L	0.18	0.70
4/26/2021 9:30	Field Blank	Pesticides	Fipronil Desulfinyl	0.13 UY	ng/L	0.13	0.50
4/26/2021 9:30	Field Blank	Pesticides	Mevinphos	1.1 UY	ng/L	1.1	4.2
4/26/2021 9:30	Field Blank	Pesticides	Parathion Ethyl	0.25 UY	ng/L	0.25	1.0
4/26/2021 9:30	Field Blank	Pesticides	Pendimethalin	1.0 UY	ng/L	1.0	4.0
4/26/2021 9:30	Field Blank	Pesticides	Prometon	0.90 UY	ng/L	0.90	3.5
4/26/2021 9:30	Field Blank	Pesticides	Atrazine	0.25 UY	ng/L	0.25	1.0
4/26/2021 9:30	Field Blank	Pesticides	Carbophenothion	0.50 UY	ng/L	0.50	2.0
4/26/2021 9:30	Field Blank	Pesticides	Chlorpyrifos Ethyl	0.25 UY	ng/L	0.25	1.0
4/26/2021 9:30	Field Blank	Pesticides	Demeton	1.5 UY	ng/L	1.5	6.0
4/26/2021 9:30	Field Blank	Pesticides	Imazalil	0.75 UY	ng/L	0.75	3.0
4/26/2021 9:30	Field Blank	Pesticides	Terbufos	0.10 UY	ng/L	0.10	0.40
4/26/2021 9:30	Field Blank	Pesticides	Terbuthylazine	0.43 UY	ng/L	0.43	1.7
4/26/2021 9:30	Field Blank	Pesticides	Naproxen	0.0080 UY	µg/L	0.0080	0.032
4/26/2021 9:30	Field Blank	Pesticides	Bromacil	0.50 UY	ng/L	0.50	2.0
4/26/2021 9:30	Field Blank	Pesticides	Molinate	0.30 UY	ng/L	0.30	1.2
4/26/2021 9:30	Field Blank	Pesticides	Naled	1.5 UY	ng/L	1.5	6.0
4/26/2021 9:30	Field Blank	Pesticides	Oxadiazon	0.30 UY	ng/L	0.30	1.2

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/26/2021 9:30	Field Blank	Pesticides	Parathion Methyl	0.55 UY	ng/L	0.55	2.2
4/26/2021 9:30	Field Blank	Pesticides	Phorate	0.53 UY	ng/L	0.53	2.1
4/26/2021 9:30	Field Blank	Pesticides	Pronamide	0.15 UY	ng/L	0.15	0.60
4/26/2021 9:30	Field Blank	Pesticides	Simazine	0.50 UY	ng/L	0.50	2.0
4/26/2021 9:30	Field Blank	Pesticides	Sulfentrazone	0.50 UY	ng/L	0.50	2.0
4/26/2021 9:30	Field Blank	Pesticides	Caffeine	7.5 UY	ng/L	7.5	30
4/26/2021 9:30	Field Blank	Pesticides	Alachlor	0.25 UY	ng/L	0.25	1.0
4/26/2021 9:30	Field Blank	Pesticides	Ethoprop	0.10 UY	ng/L	0.10	0.40
4/26/2021 9:30	Field Blank	Pesticides	Fenamiphos	0.50 UY	ng/L	0.50	2.0
4/26/2021 9:30	Field Blank	Pesticides	Fipronil	0.25 UY	ng/L	0.25	1.0
4/26/2021 9:30	Field Blank	Pesticides	Fipronil Sulfone	0.15 UY	ng/L	0.15	0.60
4/26/2021 9:30	Field Blank	Pesticides	Flumioxazin	1.8 UYJ	ng/L	1.8	7.0
4/26/2021 9:30	Field Blank	Pesticides	Fonofos	0.20 UY	ng/L	0.20	0.80
4/26/2021 9:30	Field Blank	Pesticides	Prodiamine	0.18 UYJ	ng/L	0.18	0.70
4/26/2021 9:30	Field Blank	Pesticides	Prometryn	0.20 UY	ng/L	0.20	0.80
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Fluorene	0.030 UY	µg/L	0.030	0.12
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Hexachlorobenzene	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Hexachloroethane	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Phenanthrene	0.12 UY	µg/L	0.12	0.49
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	2-Chlorophenol	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Benzo(b)fluoranthene	0.030 UY	µg/L	0.030	0.12
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.030 UY	µg/L	0.030	0.12
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Butyl benzyl phthalate	1.2 UY	µg/L	1.2	4.9
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Di-n-octyl phthalate	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Hexachlorobutadiene	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	2-Chloronaphthalene	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Di-n-butyl phthalate	2.4 UY	µg/L	2.4	9.8
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	2,4-Dimethylphenol	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	2,4-Dinitrotoluene	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	4-Nitrophenol	12 UY	µg/L	12	49

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Anthracene	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	6.1 UY	µg/L	6.1	24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Nitrobenzene	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Pentachlorophenol	0.61 UY	µg/L	0.61	2.4
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	2-Nitrophenol	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Benzidine	12 UY	µg/L	12	49
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Dimethyl phthalate	0.24 UY	µg/L	0.24	0.98
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Fluoranthene	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.030 UY	µg/L	0.030	0.12
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Isophorone	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Naphthalene	0.12 UY	µg/L	0.12	0.49
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Pyrene	0.12 UY	µg/L	0.12	0.49
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	2,4-Dinitrophenol	12 UY	µg/L	12	49
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	3,3'-Dichlorobenzidine	12 UY	µg/L	12	49
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	2,6-Dinitrotoluene	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Acenaphthene	0.030 UY	µg/L	0.030	0.12
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.030 UY	µg/L	0.030	0.12
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Diethyl phthalate	2.4 UY	µg/L	2.4	9.8
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	N-Nitrosodimethylamine	2.4 UY	µg/L	2.4	9.8
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Benzo(a)anthracene	0.030 UY	µg/L	0.030	0.12
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Chrysene	0.030 UY	µg/L	0.030	0.12
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Phenol	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	2,4-Dichlorophenol	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.061 UY	µg/L	0.061	0.24
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Acenaphthylene	0.030 UY	µg/L	0.030	0.12
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Benzo(a)pyrene	0.030 UY	µg/L	0.030	0.12
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	Benzo(k)fluoranthene	0.030 UY	µg/L	0.030	0.12
4/26/2021 9:30	Field Blank	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.7 UY	µg/L	3.7	15