

Effluent Quality Assessment

City of Palatka Wastewater Treatment Facility

Putnam County

NPDES #FL0040061

Sampled March 24, 26 and 28, 2014

August 2014

Biology Section
Bureau of Laboratories
Division of Environmental Assessment and Restoration
2014 FDEP Bureau of Labs Quality Manual
NELAC Certification No. E31780

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City of Palatka Wastewater Treatment Facility (WWTF), 3010 Browns Landing, Palatka, Putnam County, Florida, 32177. NPDES #FL0040061.

Facility Overview

City of Palatka WWTF uses the conventional activated sludge 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 March 24, 2014, 26, and 28, 2014. Effluent grab and composite samples for biological and chemical analyses for this facility were collected on March 24, 2014. All samples were collected from the EFA-01 NPDES sampling point for Outfall D-001 by Sharon Piltz and Jeremy Parrish (FDEP Northeast District) following DEP-SOP-001/01 FS 2400 Wastewater Sampling (see Appendix B). The post-dechlorination sampling point (EFD-01) was not accessible to the sample collection team (email confirmation-6/12/2014).

The 24-hour acute screening and 7 day chronic definitive toxicity tests and algal growth potential test were performed following internal DEP SOPs TA07_01, TA07_02, TA07_05, TA07_09, and TA08_01 through TA08_09 (see Appendix B).

Results

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

- Total residual chlorine was detected in the effluent in the field in each of the three sample collection events. The total ammonia concentration in the grab sample collected and preserved for chemical analysis was 8.4 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.
- Organic nitrogen, total residual chlorine, turbidity, alkalinity, fluoride, and nickel were detected in the effluent at levels that comply with Class III Freshwater Quality Criteria (62-302.530, F.A.C.) and/or permitted limits. Total suspended solids (TSS), arsenic, total chromium, iron, 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 278 mg dry wt/L of the unicellular green alga, *Pseudokirchneriella subcapitata*, formerly known as *Selenastrum capricornutum*. Raschke and Schultz (1987) determined that AGP values above 5.0 mg dry weight/L represent a “problem” threshold for fresh receiving waters, implying nutrient enrichment. The analytical chemistry suggests that the effluent is nitrogen –limited (Miller et al. 1978).

Toxicity Test Results (See Appendix C)

- Tests were performed March 25 – April 1, 2014.

Ceriodaphnia dubia 24-hour acute screening bioassay – Original chlorinated sample	LC_{50} < 100%, 100%* mortality in 100% sample at 24 hours
Pimaphales promelas 24-hour acute screening bioassay – Original chlorinated sample	LC_{50} < 100%, 100%* mortality in 100% sample at 24 hours

Ceriodaphnia dubia 7-day chronic definitive bioassay – Dechlorinated sample — No Result**

Pimephales promelas 7-day chronic definitive bioassay – Dechlorinated sample — No Result**

*NOTE: 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.

**NOTE: The Ceriodaphnia dubia chronic test was invalidated due to reproduction in the controls not meeting the required minimum number of neonates per female (USEPA, 2002). The *Pimephales promelas* chronic test was reported as no result because of the unexplained 100% mortality in one control replicate.

- The original bioassay samples containing total residual chlorine were acutely toxic to the test organisms. The cause of toxicity was attributed to the residual chlorine in the sample.
- Total residual chlorine (TRC) was detected in each of the three bioassay samples in the field (1.08 mg/L, 0.60 mg/L and 0.68 mg/L, respectively in samples 1, 2, and 3) and in the bioassay laboratory (0.46 mg/L, 0.42 mg/L, and 0.54 mg/L, respectively in samples 1, 2, and 3). An aliquot of each sample, for use in the chronic bioassays, was dechlorinated by the addition of sodium thiosulfate (0.025 N) at a rate of 0.5 mL sodium thiosulfate per 0.5 mg/L TRC per liter of sample to neutralize the chlorine. The same concentration of sodium thiosulfate was added to the dechlorinated test controls. The purpose of the dechlorinated test controls was to confirm that there was no adverse effect of adding sodium thiosulfate to the sample. There was 10% mortality in the *Ceriodaphnia dubia* dechlorinated controls and 7.5% mortality in the *Pimephales promelas* dechlorinated controls.

Conclusion

The effluent sample for toxicity testing collected on March 24, 2014, was acutely toxic to both test species during the 24-hour acute screening bioassays. The acute toxicity was attributed to the residual chlorine in the sample. Since the permit limit for toxicity applies to EFD-01, the sampling point after dechlorination and before discharge to Outfall D-001, the toxicity sample should have been collected at that point; however, this sampling point was reported as not being accessible to the sampling team. It is strongly recommended that the facility be required to provide access to all permitted sampling points. The *Ceriodaphnia dubia* chronic test performed with the dechlorinated aliquots of the effluent samples collected on March 24, 2014, March 26, 2014, and March 28, 2014, was invalidated due to control reproduction not meeting the minimum requirement of the test method. The *Pimephales promelas* chronic test was reported as no result due to the unexplained 100% mortality in one control replicate. The effluent AGP result was significantly greater than the “problem” threshold for fresh receiving waters suggesting that nutrient enrichment may be an issue. Effluent water quality samples collected on March 24, 2014, did not exceed any applicable water quality standards or exceed any permit conditions for the EFA-01 compliance monitoring point.

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.

Raschke, R. L. and D. A. Schultz. 1987. The use of the algal growth potential test for data assessment. J. Wat. Poll. Cont. Fed. 59(4): 222-227.

Stevenson, R. J. and L. L. Bahls. 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.

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

City of Palatka WWTF	Units	Class III Criteria	Effluent Permit Limits	Effluent Grab 3/24	Effluent Comp 3/24	Effluent Comp 3/26	Effluent Grab 3/26	Effluent Grab 3/28	Effluent Comp 3/28
Sample Depth	m	-	-	0.5	-	-	0.5	0.5	-
Temperature	°C	-	Report	22.1	0.9	-	20.9	21.4	1.1
pH	SU	6.0 - 8.5	6.0 - 8.5	6.6	-	-	6.3	6.0	-
Specific Conductance	umhos/cm	≤ 1,275	Report	760	-	-	870	830	-
Salinity	ppth	-	-	0.4 c	-	-	0.5 c	0.4 c	-
Dissolved Oxygen	% saturation	34	-	72.36	-	-	71.3	65.7	-
Dissolved Oxygen	mg/L	≥ 5.0 s	≥ 5.0 s	6.3	-	-	6.4	5.8	-
Flow	MGD	-	≤ 3.0 a	0.59 a	-	-	-	-	-
Total Residual Chlorine (before dechlorination)	mg/L	-	≥ 0.5 s	1.08	1.08	0.6	-	-	0.68

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

e - Value exceeds the Class III Water Quality Criteria or permit limits

a - Annual average

c - Value is calculated

s - Single sample

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

City of Palatka WWTF	Units	Class III Criteria	Effluent Permit Limits	Effluent Grab 3/24	Effluent Comp 3/24
Ortho-phosphate	mg P/L	-	Report	1.4	-
Total Phosphorus	mg P/L	-	Report	1.7	1.8
Total Ammonia	mg N/L	-	Report	8.4	10
Un-ionized Ammonia (calculated salinity)	mg/L	≤ 0.02 s	≤ 0.02 s	0.02 c	-
Nitrate and Nitrite	mg N/L	-	Report	0.96	0.98
Total Kjeldahl Nitrogen	mg N/L	-	-	9.5	11
Organic Nitrogen	mg N/L	-	≤ 8.0 s	1.1 c	1 c
Total Nitrogen	mg N/L	-	Report	10.5 c	12 c
Total Organic Carbon	mg C/L	-	-	11	-
Chlorophyll *a* - Corrected	ug/L	-	-	3.3	-
Phaeophytin	ug/L	-	-	0.40 U	-
CBOD, 5 day, N - inhibited	mg/L	-	≤ 20.0 a	-	0.20 U
Hardness	mg CaCO3/L	-	-	-	170 c
Total Residual Chlorine (before dechlorination)	mg/L	-	≥ 0.5 s	1.08	1.08
Total Suspended Solids	mg/L	-	≤ 20.0 a	-	3 I
Turbidity	NTU	< 29 t	-	1	-
Color (true)	PCU	-	-	39	-
Alkalinity	mg CaCO3/L	≥ 20	-	102	-
Chloride	mg Cl/L	-	-	130	-
Cyanide	mg CN/L	≤ 0.0052	≤ 0.0052 s	0.005 UJ	-
Fluoride	mg F/L	≤ 10.0	-	0.16	-
Sulfate	mg SO4/L	-	-	34	-
Microbiology					
Fecal Coliforms ¥	cfu/100 mL	≤ 400 s #	≤ 800 s	2 U	-
Toxicity					
Bioassay - Water flea *(Ceriodaphnia dubia)* LC50	%	≥ 100 %	≥ 100 %	-	< 100 %
Bioassay - Water flea dechlorinated IC25	%	≥ 100 %	≥ 100 %	-	No Result
Bioassay - Fish *(Pimephales promelas)* LC50	%	≥ 100 %	≥ 100 %	-	< 100 %
Bioassay - Fish dechlorinated IC25	%	≥ 100 %	≥ 100 %	-	No Result

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

e - Value exceeds the Class III Water Quality Criteria or permit limits

a - Annual average

b - Value is calculated based on hardness

c - Value is calculated

s - Single sample

t - Shall not exceed 29 NTUs above background

Table 2. Continued

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

J - Estimated value

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

¥ - Fecal coliform analysis performed by Columbia Analytical Services, Jacksonville

- If 10 or fewer samples are taken within a month, the single sample limit is 400 CFU (62-302.530(6), F.A.C.)

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

City of Palatka WWTF	Units	Class III Criteria	Effluent Permit Limits	Effluent Comp 3/24
Aluminum	ug/L	-	-	33
Arsenic	ug/L	≤ 50	-	0.85 I
Cadmium	ug/L	≤ 0.404 b	-	0.050 U
Calcium	mg/L	-	-	47.5
Chromium, Total [1]	ug/L	≤ 134.5 b	-	0.72 I
Copper	ug/L	≤ 14.8 b	-	0.50 U
Iron	ug/L	≤ 1,000	-	79 I
Lead	ug/L	≤ 6.35 b	-	0.20 U
Magnesium	mg/L	-	-	13
Nickel	ug/L	≤ 82.6 b	-	1.14
Potassium	mg/L	-	-	6.1
Selenium	ug/L	≤ 5.0	-	0.22 I
Silver	ug/L	≤ 0.07	≤ 0.07 s	0.025 U
Sodium	mg/L	-	-	64.8
Zinc	ug/L	≤ 189.8 b	-	9.8 I

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

e -Value exceeds the Class III Water Quality Criteria or permit limits

1 - Class III Freshwater Quality Criterion (62-302.530(19)(a), F.A.C.) is for chromium-III

b - Value is calculated based on hardness, (62-302.530(3))

s - Single sample

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

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 Palatka WWTF								
Location	**Test Species**	**AGP (measured)**	**Predicted AGP (TSIN) ± 20%**	**Predicted AGP (OP) ± 20%**	**Predicted AGP (TN) ± 20%**	**Predicted AGP (TP) ± 20%**	**Inorganic N:P ratio**	**Total N:P ratio**
Effluent	*Pseudokirchneriella subcapitata*	278	355.7 ± 71.1	602 ± 120.4	397.5 ± 79.5	731 ± 146.2	6.7	6.2

Appendix A
Facility Summary

State of Florida
Department of Environmental Protection

Facility Introduction & Summary

Facility Name (as it appears on permit): **City of Palatka WWTF**		Former Names: **NA**
Physical Address: **3010 Browns Landing** **Palatka, Fl 32177**	NPDES Permit No.: **FL0040061** Expiration Date: **April 15, 2015**	Prepared By: **Herndon Sims**
County: **Putnam**	District: **Northeast**	Facility Type: **Domestic Wastewater**
Function of Facility: **Conventional activated sludge domestic wastewater treatment facility**		

Sampling Location (actual permit designation of permitted sampling point):

Effluent sampling location:

EFD-1 Sample point after dechlorination and before discharge to the Outfall D-001
EFA-1 Sample point after disinfection (basic-level disinfection) and prior to dechlorination
SWB-1 50 yards upstream from Outfall D-001 on the north bank
SWB-2 50 yards upstream from Outfall D-001 on the south bank
SWD-1 50 yards downstream from Outfall D-001 on the north bank
SWD-2 50 yards downstream from Outfall D-001 on the south bank

Reclaimed water sampling location:

EFA-2 Sample point after disinfection (high-level disinfection) and prior reuse of reclaimed water
RWS-A Sample point (same as EFA-2) for Primary and Secondary drinking water standards.
EFB-1 Sample point after filtration and prior to disinfection (high-level disinfection)

Description of permitted outfall:

EFFLUENT DISPOSAL (Surface Water Discharge):

Surface Water Discharge D-001: An existing 3.0 MGD annual average daily flow discharge to St. Johns River (Class III fresh waters WBID 2213M) from Outfall D-001 which is approximately 250 feet in length and discharges at a depth of approximately 11 feet. The point of discharge D-001 is located approximately at latitude 29°35' 49" N, longitude 81°38' 22" W.

Reuse System:

An existing 0.854 MGD annual average daily flow permitted capacity slow-rate public access system, R-001, which is a reuse system consisting of the Palatka Golf Course.

PERMIT REVISION HISTORY

Re-rating and Modification to the Facility (FL00400610 – 009 – DW1P/NR)

- **To re-rate capacity of the wastewater treatment system from 3.0 MGD to 3.5 MGD annual average daily flow (AADF).**
- **To construct one automatic backwash disk filter which has a capacity of 1.50 MGD AADF or 4.35 MGD peak hourly flow;**
- **To construct a chlorine contact basin which has a capacity for 3.5 MGD AADF or a 10.15 MGD peak- hour flow. The basin will be 44 feet long by 15 feet wide by 10 feet deep (a total volume of 98,740 gallons), divided into three (3) channels.**

Upon completion and placing into service of the expansion of the public access reuse system, permitted capacity of the wastewater treatment facility will be 3.5 MGD AADF.

Modification to the Facility (FL00400610 – 010 – DW1P/NR)

Modify the aeration basin from mechanical surface aeration to a fine bubble diffused air system. The new diffused air system that will consist of:

- A new 22 feet by 34 feet blower building that will house three 75 hp 36,000 rpm variable speed motors with Tri-lobe blower. Two motor will be duty with one backup.
- Each rectangular aeration basins will have 252 Diffuser. Each diffuser will have a 63 mm diameter and 1 meter in length and a capacity of 5.7 SCFM.

Modification to the Facility (FL00400610 – 011 – DW1/GR)

The modification is for the addition of Cemetery and Airport a Major User of Reclaim Water.

Modification to the Facility (FL00400610 – 012 – DW1/MR)

Permit revision includes modifications of Biosolids Section (Section II):

- To allow the facility to accept biosolids form other facilities,
- To remove the annual biosolids quantities generated and land fill and add the monthly quantity biosolids received from other facilities.

Modification to the Facility (FL00400610 – 013 – DWF/MM)

This permit revision modifies the following in the permit:

- The sampling location for Total Suspended Solids sampling at R-001 has been changed to EFB-1 (sample point after filtration and prior to disinfection).

The sampling frequency for influent TSS and CBOD5 has been modified from weekly to biweekly.

These parameters are based on previous submitted DMRs:

Receiving Waters: **-St. Johns River – WBID 2213M, D-001, located approximately at latitude 29°35' 49" N, longitude 81°38' 22" W**	Classification (indicate whether fresh or marine): **Class III Fresh waters**
Temperature (C): Based on October 2013 DMR: **St. Johns River –27.3 (°C)**	Design Flow: **3.0 MGD annual average daily flow; will**
pH (SU): **Based on October 2013 DMR** **6 to 6.5 s.u.**	Mean Flow (MGD) (for previous 12 months):
Conductivity (umhos/cm): **Based on September 2013 Quarterly DMR** **-1033 to 1086 μmhos/cm**	Flow During Survey: S**urvey not yet completed**
Method of Chlorination: **Chlorine gas (Cl_2)**	Method of Dechlorination: **Sulfur Dioxide (SO_2)**
Dissolved Oxygen (mg/L): **Based on October 2013 DMR** **0.59 mg/L**	Total Residual Chlorine (mg/L) (after disinfection): **NA**
Discharge is: Continuous Intermittent Seasonal Rainfall Dependent Other **Facility is doing mostly reuse discharge**	

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

The permittee shall evaluate chronic whole effluent toxicity of the discharge from outfall D-001.

a. Effluent Limitation

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

(2) For acute whole effluent toxicity, the 96-hour LC_{50} shall not be less than 100% effluent in any test. [Rule 62-302.500(1)(a)4. and 62-4.241(1)(a), F.A.C.]

b. Monitoring Frequency

(1) Routine toxicity tests shall be conducted semi-annually, twice per year, the first starting within 6 months of the issuance date of this permit and lasting for the duration of this permit.

c. Sampling Requirements

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

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

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

d. Test Requirements

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

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

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

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

Administrative or Consent Orders:

Administrative Order, AO 140 issued April 16, 2010, interim effluent limits for annual mass load of total nitrogen and total phosphorus.

Consent Order, CO 06-2155 closure letter issued August6, 2010 for silver and cyanide violations.

Facility Mixing Zone Details:
NA

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

Permit Violations:

D-001	**10/31/2013**	**EFD-1**	**P 00300**	**Oxygen, Dissolved (DO)**	**0.59**	**5.0**	**mg/L**	**ME - Minimum**
R-001	**7/31/2013**	**EFB-1**	**P 00530**	**Solids, Total Suspended**	**18**	**5.0**	**mg/L**	**MB - Maximum**
D-001	**6/30/2013**	**EFD-1**	**P 01079**	**Silver, Total Recoverable**	**500**	**0.07**	**ug/L**	**MB - Maximum**
R-001	**5/31/2013**	**EFA-2**	**P 00530**	**Solids, Total Suspended**	**6**	**5.0**	**mg/L**	**MB - Maximum**
R-001	**4/30/2013**	**EFA-2**	**P 00530**	**Solids, Total Suspended**	**5.5**	**5.0**	**mg/L**	**MB - Maximum**
R-001	**2/28/2013**	**EFA-2**	**P 00530**	**Solids, Total Suspended**	**11.5**	**5.0**	**mg/L**	**MB - Maximum**
R-001	**12/31/2012**	**EFA-2**	**P 00530**	**Solids, Total Suspended**	**6**	**5.0**	**mg/L**	**MB - Maximum**
R-001	**11/30/2012**	**EFA-2**	**P 74055**	**Coliform, Fecal**	**76**	**25**	**#/100mL**	**MB - Maximum**

No plant upsets report during the last year.

Describe previous impact bioassessments, WQBEL's, and previous or current enforcement actions:

A review of the facility records and reports from December 2010 May 2013 note the following issues. The facility failed C.dubia in December 2012. The IC25 results were 65%. A retest was conducted, the IC25 was >100%. In October 2013, the dissolved oxygen (DO) dropped below 5.0 mg/L. For the past 3 years, the average DO was around 5.9 mg/L. An Administrative Order (AO) was issued for the effluent mass loading of total nitrogen (TN) and total phosphorus (TP). The TN/TP allocations are being met because most of the effluent is being discharged to the reuse system. The effluent is discharged into the lower St. Johns River Basin which is impaired for mercury, lead, cadmium, copper, silver and nutrients. The permit limit for silver, total recoverable is 0.07 μg/L. The Department was concerned with the silver detection limit that the facility's contract laboratory was using. The laboratory MDL was 0.25 mg/L. The laboratory has acquired new instrumentation that will be capable to detect below the permitted limit for silver. During the past year, silver has exceeded the permit limit.
In 2006, a CO was issued for silver and cyanide violations. The CO is now closed. There are no pending enforcement actions.

Discuss MOR trends to prior data; is trend improving or declining:

A review of the DMR for the past 3 years noted that DO, silver, TSS, Nitrate, TDS, fecal and pH have exceeded the permitted limit. Most of these parameters are groundwater monitoring related. The other surface water pollutant parameters were well within the permit limit.

List Effluent Limits (include additional sheets as necessary):

Surface Water Discharges:

			Effluent Limitations		Monitoring Requirements		
Parameter	**Units**	**Max/Min**	**Limit**	**Statistical Basis**	**Frequency of Analysis**	**Sample Type**	**Monitoring Site Number**
Flow (to St. Johns River)	**MGD**	**Max Max Max**	**3.0 Report Report**	**Annual Average Quarterly Average Monthly Average**	**Continuous**	**Recording Flow Meter with Totalizer**	**EFD-1**
BOD, Carbonaceous 5-day, 20°C	**mg/L**	**Max Max Max Max**	**20.0 25.0 40.0 60.0**	**Annual Average Monthly Average Weekly Average Single Sample**	**Weekly**	**16-hr FPC**	**EFA-1**
CBOD, % Removal, 5-day	**percent**	**Min**	**85.0**	**Monthly Average**	**Monthly**	**Calculated**	**CAL-1**
Solids, Total Suspended	**mg/L**	**Max Max Max Max**	**20.0 30.0 45.0 60.0**	**Annual Average Monthly Average Weekly Average Single Sample**	**Weekly**	**16-hr FPC**	**EFA-1**
Solids, Total Suspended, % Removal	**percent**	**Min**	**85.0**	**Monthly Average**	**Monthly**	**Calculated**	**CAL-1**
Coliform, Fecal	**#/100mL**	**Max Max Max**	**200 200 800**	**Annual Average Monthly Geometric Mean Single Sample**	**Weekly**	**Grab**	**EFD-1**
pH	**s.u.**	**Min Max**	**6.0 8.5**	**Single Sample Single Sample**	**Continuous**	**Meter**	**EFD-1**
Chlorine, Total Residual (For Disinfection)	**mg/L**	**Min**	**0.5**	**Single Sample**	**Continuous**	**Meter**	**EFA-1**
Chlorine, Total Residual (For Dechlorination)	**mg/L**	**Max**	**0.01**	**Single Sample**	**7 Days/Week**	**Grab**	**EFD-1**
Nitrogen, Organic, Total (as N)	**mg/L**	**Max Max Max Max**	**5.0 5.0 6.0 8.0**	**Annual Average Monthly Average Weekly Average Single Sample**	**Weekly**	**16-hr FPC**	**EFD-1**
Nitrogen, Ammonia, Total (as N)	**mg/L**	**Max**	**Report**	**Single Sample**	**Weekly**	**Grab**	**EFD-1**

Nitrogen, Ammonia, Total unionized (as N)	**mg/L**	**Max**	**0.02**	**Single Sample**	**Weekly**	**Calculated**	**CAL-1**
Temperature (°C), Water	**Deg C**	**Max**	**Report**	**Single Sample**	**Weekly**	**Meter**	**EFD-1**
Nitrogen, Total	**mg/L**	**Max**	**Report**	**Annual Average**	**Weekly**	**16-hr FPC**	**EFD-1**
		Max	**Report**	**Monthly Average**			
		Max	**Report**	**Weekly Average**			
		Max	**Report**	**Single Sample**			
Nitrogen, Total (TMDL Mass Load)	**lb/month**	**Max**	**Report**	**Monthly Total**	**Monthly**	**Calculated**	**CAL-1**
	lb/yr	**Max**	**19,821**	**Annual Total**			
Phosphorus, Total (as P)	**mg/L**	**Max**	**Report**	**Annual Average**	**Weekly**	**16-hr FPC**	**EFD-1**
		Max	**Report**	**Monthly Average**			
		Max	**Report**	**Weekly Average**			
		Max	**Report**	**Single Sample**			
Phosphorus, Total (as P) (TMDL Mass Load)	**lb/month**	**Max**	**Report**	**Monthly Total**	**Monthly**	**Calculated**	**CAL-1**
	lb/yr	**Max**	**2,369.3**	**Annual Total**			
Phosphate, Ortho (as P)	**mg/L**	**Max**	**Report**	**Single Sample**	**Weekly**	**Grab &Filter**	**EFD-1**
Oxygen, Dissolved (DO)	**mg/L**	**Min**	**5.0**	**Single Sample**	**7 Days/Week**	**Meter**	**EFD-1**
Silver, Total Recoverable	**ug/L**	**Max**	**0.07**	**Single Sample**	**Monthly**	**16-hr FPC**	**EFD-1**
Cyanide, Total (as CN)	**ug/L**	**Max**	**5.2**	**Single Sample**	**Monthly**	**Grab**	**EFD-1**
Nitrogen, Organic, Total (as N)	**mg/L**	**Max**	**Report**	**Single Sample**	**Quarterly**	**Grab**	**EFD-1**
Nitrite plus Nitrate, Total 1 det. (as N)	**mg/L**	**Max**	**Report**	**Single Sample**	**Quarterly**	**Grab**	**EFD-1**
Specific Conductance	**umhos/ cm**	**Max**	**Report**	**Single Sample**	**Quarterly**	**Meter**	**EFD-1**
BOD, Carbonaceous 5-day, 20°C	**mg/L**	**Max**	**Report**	**Single Sample**	**Quarterly**	**Grab**	**SWB-1,SWB-2, SWD-1,SWD-2**

Solids, Total Suspended	**mg/L**	**Max**	**Report**	**Single Sample**	**Quarterly**	**Grab**	**SWB-1,SWB-2, SWD-1,SWD-2**
Nitrogen, Total	**mg/L**	**Max**	**Report**	**Single Sample**	**Quarterly**	**Grab**	**SWB-1,SWB-2, SWD-1,SWD-2**
Nitrogen, Ammonia, Total (as N)	**mg/L**	**Max**	**Report**	**Single Sample**	**Quarterly**	**Grab**	**SWB-1,SWB-2, SWD-1,SWD-2**
Nitrogen, Organic, Total (as N)	**mg/L**	**Max**	**Report**	**Single Sample**	**Quarterly**	**Grab**	**SWB-1,SWB-2, SWD-1,SWD-2**
Nitrite plus Nitrate, Total 1 det. (as N)	**mg/L**	**Max**	**Report**	**Single Sample**	**Quarterly**	**Grab**	**SWB-1,SWB-2, SWD-1,SWD-2**
pH	**s.u.**	**Max**	**Report**	**Single Sample**	**Quarterly**	**Meter**	**SWB-1,SWB-2, SWD-1,SWD-2**
Oxygen, Dissolved (DO)	**mg/L**	**Min**	**Report**	**Single Sample**	**Quarterly**	**Meter**	**SWB-1,SWB-2, SWD-1,SWD-2**
Temperature (ºC), Water	**Deg C**	**Max**	**Report**	**Single Sample**	**Quarterly**	**Meter**	**SWB-1,SWB-2, SWD-1,SWD-2**
Specific Conductance	**umhos/cm**	**Max**	**Report**	**Single Sample**	**Quarterly**	**Meter**	**SWB-1,SWB-2, SWD-1,SWD-2**
Phosphorus, Total (as P)	**mg/L**	**Max**	**Report**	**Single Sample**	**Quarterly**	**Grab**	**SWB-1,SWB-2, SWD-1,SWD-2**
Phosphate, Ortho (as P)	**mg/L**	**Max**	**Report**	**Single Sample**	**Quarterly**	**Grab & Filter**	**SWB-1,SWB-2, SWD-1,SWD-2**
Chlorophyll a	**mg/L**	**Max**	**Report**	**Single Sample**	**Quarterly**	**Grab**	**SWB-1,SWB-2, SWD-1,SWD-2**
Chronic Whole Effluent Toxicity, 7-Day IC25 (*Ceriodaphnia dubia*)	**percent**	**Min**	**100**	**Single Sample**	**Semi-Annually; twice per year**	**24-hr TPC**	**EFD-1**
Chronic Whole Effluent Toxicity, 7-Day IC25 (*Pimephales promelas*)	**percent**	**Min**	**100**	**Single Sample**	**Semi-Annually; twice per year**	**24-hr TPC**	**EFD-1**

			Reclaimed Water Limitations		Monitoring Requirements		
Parameter	**Units**	**Max/Min**	**Limit**	**Statistical Basis**	**Frequency of Analysis**	**Sample Type**	**Monitoring Site Number**
Flow, Before Expansion of Reuse System	**MGD**	**Max Max**	**0.854 Report**	**Annual Average Monthly Average**	**Continuous**	**Recording Flow Meter with Totalizer**	**EFA-2**
Flow, Upon completion and placing into service of Expanded reuse system	**MGD**	**Max Max**	**3.5 Report**	**Annual Average Monthly Average**	**Continuous**	**Recording Flow Meter with Totalizer**	**EFA-2**
BOD, Carbonaceous 5-day, 20°C	**mg/L**	**Max Max Max Max**	**20.0 30.0 45.0 60.0**	**Annual Average Monthly Average Weekly Average Single Sample**	**Weekly**	**16-hr FPC**	**EFA-2**
Solids, Total Suspended	**mg/L**	**Max**	**5.0**	**Single Sample**	**5 Days/Week**	**Grab**	**EFB-1**
Coliform, Fecal	**#/100mL**	**Max**	**25**	**Single Sample**	**5 Days/Week**	**Grab**	**EFA-2**
Coliform, Fecal, % less than detection	**percent**	**Min**	**75**	**Monthly Total**	**Monthly**	**Calculated**	**CAL-1**
pH	**s.u.**	**Min Max**	**6.0 8.5**	**Single Sample Single Sample**	**Continuous**	**Meter**	**EFA-2**
Chlorine, Total Residual (For Disinfection)	**mg/L**	**Min**	**1.0**	**Single Sample**	**Continuous**	**Meter**	**EFA-2**
Turbidity	**NTU**	**Max**	**Report**	**Single Sample**	**Continuous**	**Meter**	**EFB-1**
Nitrite plus Nitrate, Total 1 det. (as N)	**mg/L**	**Max**	**Report**	**Single Sample**	**Monthly**	**16-hr FPC**	**EFA-2**
Nitrogen, Total	**mg/L**	**Max**	**Report**	**Single Sample**	**Monthly**	**16-hr FPC**	**EFA-2**
Phosphorus, Total (as P)	**mg/L**	**Max**	**Report**	**Single Sample**	**Monthly**	**16-hr FPC**	**EFA-2**
Primary Drinking Water Standards (Reclaimed Water)	**-**	**-**	**-**	**-**	**Annually**	**24-hr FPC**	**RWS-A**
Secondary Drinking Water Standards (Reclaimed Water)	**-**	**-**	**-**	**-**	**Annually**	**24-hr FPC**	**RWS-A**
Giardia	**cysts/100L**	**Max**	**Report**	**Single Sample**	**Bi-annually; every 2 years**	**Grab**	**EFA-2**
Cryptosporidium	**oocysts/ 100L**	**Max**	**Report**	**Single Sample**	**Bi-annually; every 2 years**	**Grab**	**EFA-2**

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. Raschke and Shultz (1987) found that an AGP above 10.0 mg dry weight/L represents a “problem” threshold for marine receiving waters, implying nutrient enrichment. 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 Analyses of Effluent

Date Sampled	Field ID	Analysis Group	Component	Result	Units	MDL	PQL
3/24/2014 10:05	Palatka FYI3-GRAB	AGP/LN	Algal Growth Potential	278	mg DryWt/L	0.3	0.9
3/24/2014 10:05	Palatka FYI3-GRAB	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	3.3	ug/L	0.55	1.7
3/24/2014 10:05	Palatka FYI3-GRAB	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.40 U	ug/L	0.4	1.2
3/24/2014 10:05	Palatka FYI3-GRAB	Overflow	Fecal Coliforms-Membrane Filter	2 U	cfu/100 mL	2	2
3/24/2014 10:05	Palatka FYI3-GRAB	Nutrients	Color (true)	39	PCU	2.5	6
3/24/2014 10:05	Palatka FYI3-GRAB	Nutrients	Alkalinity	102	mg CaCO3/L	0.65	2.5
3/24/2014 10:05	Palatka FYI3-GRAB	Nutrients	Cyanide	0.005 UJ	mg CN/L	0.005	0.02
3/24/2014 10:05	Palatka FYI3-GRAB	Nutrients	O-Phosphate-P	1.4	mg P/L	0.04	0.1
3/24/2014 10:05	Palatka FYI3-GRAB	Nutrients	Sulfate	34	mg SO4/L	0.4	1
3/24/2014 10:05	Palatka FYI3-GRAB	Nutrients	Total-P	1.7	mg P/L	0.025	0.25
3/24/2014 10:05	Palatka FYI3-GRAB	Nutrients	Organic Carbon	11	mg C/L	0.5	1
3/24/2014 10:05	Palatka FYI3-GRAB	Nutrients	Turbidity	1	NTU	0.1	0.1
3/24/2014 10:05	Palatka FYI3-GRAB	Nutrients	Kjeldahl Nitrogen	9.5	mg N/L	0.4	1
3/24/2014 10:05	Palatka FYI3-GRAB	Nutrients	Chloride	130	mg Cl/L	0.4	1
3/24/2014 10:05	Palatka FYI3-GRAB	Nutrients	Ammonia-N	8.4	mg N/L	0.2	0.5
3/24/2014 10:05	Palatka FYI3-GRAB	Nutrients	Fluoride	0.16	mg F/L	0.035	0.1
3/24/2014 10:05	Palatka FYI3-GRAB	Nutrients	NO2NO3-N	0.96	mg N/L	0.008	0.02
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Atrazine Desisopropyl	0.013 U	ug/L	0.013	0.052
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Azinphos Methyl	0.020 U	ug/L	0.02	0.08
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Bromacil	0.040 U	ug/L	0.04	0.16
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Diazinon	0.010 UJ	ug/L	0.01	0.04
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Disulfoton	0.0050 UJ	ug/L	0.005	0.02
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Butylate	0.020 U	ug/L	0.02	0.08
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Metribuzin	0.020 U	ug/L	0.02	0.08
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Prometryn	0.020 U	ug/L	0.02	0.08
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Atrazine Desethyl	0.010 U	ug/L	0.01	0.04
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Chlorpyrifos Ethyl	0.010 U	ug/L	0.01	0.04
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Chlorpyrifos Methyl	0.010 U	ug/L	0.01	0.04
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Ethion	0.010 U	ug/L	0.01	0.04
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Fenamiphos	0.030 UJ	ug/L	0.03	0.12
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Naled	0.040 U	ug/L	0.04	0.16
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Parathion Ethyl	0.020 U	ug/L	0.02	0.08
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Alachlor	0.060 U	ug/L	0.06	0.24

Date Sampled	Field ID	Analysis Group	Component	Result	Units	MDL	PQL
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Atrazine	0.010 U	ug/L	0.01	0.04
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Demeton	0.024 U	ug/L	0.024	0.096
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Phorate	0.0050 UJ	ug/L	0.005	0.02
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Ametryn	0.010 UJ	ug/L	0.01	0.04
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Hexazinone	0.030 U	ug/L	0.03	0.12
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Malathion	0.010 U	ug/L	0.01	0.04
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Mevinphos	0.010 UJ	ug/L	0.01	0.04
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Norflurazon	0.030 U	ug/L	0.03	0.12
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Parathion Methyl	0.010 U	ug/L	0.01	0.04
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Prometon	0.020 U	ug/L	0.02	0.08
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Ethoprop	0.0050 U	ug/L	0.005	0.02
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Fonofos	0.010 U	ug/L	0.01	0.04
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Simazine	0.010 U	ug/L	0.01	0.04
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Metalaxyl	0.040 U	ug/L	0.04	0.16
3/24/2014 10:05	Palatka FYI3-GRAB	Pesticides	Metolachlor	0.060 U	ug/L	0.06	0.24
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	2-Chlorophenol	0.95 U	ug/L	0.95	3.8
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Anthracene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Butyl benzyl phthalate	0.95 U	ug/L	0.95	3.8
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9 U	ug/L	2.9	11
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Benzo(a)pyrene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Benzo(a)anthracene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9 U	ug/L	2.9	11
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	2,4-Dinitrophenol	14 UJ	ug/L	14	57
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Fluoranthene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Hexachlorobutadiene	2.9 U	ug/L	2.9	11
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Isophorone	0.95 U	ug/L	0.95	3.8
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	2.9 U	ug/L	2.9	11
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Pentachlorophenol	2.9 U	ug/L	2.9	11
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.95 U	ug/L	0.95	3.8
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	2,6-Dinitrotoluene	0.95 U	ug/L	0.95	3.8
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	2-Chloronaphthalene	0.95 U	ug/L	0.95	3.8
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.95 U	ug/L	0.95	3.8
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Acenaphthylene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Di-n-butyl phthalate	0.95 U	ug/L	0.95	3.8
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Dimethyl phthalate	0.95 U	ug/L	0.95	3.8
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.95 U	ug/L	0.95	3.8
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9 U	ug/L	1.9	7.6
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.19 U	ug/L	0.19	0.76

Date Sampled	Field ID	Analysis Group	Component	Result	Units	MDL	PQL
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Fluorene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	2-Nitrophenol	0.95 U	ug/L	0.95	3.8
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Benzo(k)fluoranthene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.95 U	ug/L	0.95	3.8
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Chrysene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Di-n-octyl phthalate	0.95 U	ug/L	0.95	3.8
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9 U	ug/L	1.9	7.6
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Naphthalene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Phenol	0.95 U	ug/L	0.95	3.8
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	2,4-Dimethylphenol	9.5 U	ug/L	9.5	38
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Benzidine	95 U	ug/L	95	380
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Acenaphthene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Benzo(b)fluoranthene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	1.9 U	ug/L	1.9	7.6
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Phenanthrene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	2,4-Dinitrotoluene	0.95 U	ug/L	0.95	3.8
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	3,3'-Dichlorobenzidine	38 U	ug/L	38	150
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.95 U	ug/L	0.95	3.8
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Diethyl phthalate	0.95 U	ug/L	0.95	3.8
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Hexachlorobenzene	0.95 U	ug/L	0.95	3.8
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Nitrobenzene	1.9 U	ug/L	1.9	7.6
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.95 U	ug/L	0.95	3.8
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	4-Nitrophenol	14 U	ug/L	14	57
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9 U	ug/L	2.9	11
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Hexachloroethane	2.9 U	ug/L	2.9	11
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9 U	ug/L	1.9	7.6
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	Pyrene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:05	Palatka FYI3-GRAB	Priority Organic Pollutants	2,4-Dichlorophenol	0.95 U	ug/L	0.95	3.8
3/24/2014 10:05	Palatka FYI3-GRAB	Nutrients	Sample Depth	0.5	m		
3/24/2014 10:05	Palatka FYI3-GRAB	Nutrients	Specific Conductance	760	umhos/cm		
3/24/2014 10:05	Palatka FYI3-GRAB	Nutrients	Dissolved Oxygen	6.3	mg/L		
3/24/2014 10:05	Palatka FYI3-GRAB	Nutrients	Temperature	22.12	C		
3/24/2014 10:05	Palatka FYI3-GRAB	Nutrients	pH	6.64			
3/24/2014 10:05	Palatka FYI3-GRAB	Nutrients	Total Residual Chlorine	1.08	mg/L		
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	0.20 U	mg/L	0.2	2
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100 K	LC50		

Date Sampled	Field ID	Analysis Group	Component	Result	Units	MDL	PQL
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Toxicology	Bioassay-Chron-Def-FW-C.dubia, IC25	No Result	IC25		
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100 K	LC50		
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Toxicology	Bioassay-Chron-Def-FW-C.dubia, NOEC	No Result	NOEC		
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Toxicology	Bioassay-Chron-Def-FW-Fish, IC25	No Result	IC25		
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Toxicology	Bioassay-Chron-Def-FW-Fish, NOEC	No Result	NOEC		
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Metals	Chromium	0.72 I	ug/L	0.3	1.2
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Metals	Copper	0.50 U	ug/L	0.5	1
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Metals	Selenium	0.22 I	ug/L	0.2	0.8
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Metals	Aluminum	33	ug/L	5	20
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Metals	Arsenic	0.85 I	ug/L	0.25	1
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Metals	Silver	0.025 U	ug/L	0.025	0.1
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Metals	Nickel	1.14	ug/L	0.25	1
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Metals	Cadmium	0.050 U	ug/L	0.05	0.2
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Metals	Zinc	9.8 I	ug/L	5	20
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Metals	Sodium	64.8	mg/L	0.5	2
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Metals	Lead	0.20 U	ug/L	0.2	0.8
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Metals	Calcium	47.5	mg/L	0.075	0.3
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Metals	Magnesium	13	mg/L	0.04	0.16
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Metals	Iron	79 I	ug/L	30	120
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Metals	Potassium	6.1	mg/L	0.3	1.2
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Nutrients	NO2NO3-N	0.98	mg N/L	0.04	0.1
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Nutrients	Kjeldahl Nitrogen	11	mg N/L	0.4	1
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Nutrients	Total-P	1.8	mg P/L	0.025	0.25
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Nutrients	TSS	3 I	mg/L	2	10
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Nutrients	Ammonia-N	10	mg N/L	0.2	0.5
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Nutrients	Temperature	0.9	C		
3/24/2014 8:00	Palatka FYI3-COMPOSITE	Nutrients	Total Residual Chlorine	1.08	mg/L		
3/24/2014 10:20	Field Blanks	Nutrients	Turbidity	0.10 U	NTU	0.1	0.1
3/24/2014 10:20	Field Blanks	Nutrients	O-Phosphate-P	0.004 U	mg P/L	0.004	0.01
3/24/2014 10:20	Field Blanks	Nutrients	Chloride	0.20 U	mg Cl/L	0.2	0.5
3/24/2014 10:20	Field Blanks	Nutrients	Fluoride	0.035 U	mg F/L	0.035	0.1
3/24/2014 10:20	Field Blanks	Nutrients	Alkalinity	0.65 U	mg CaCO3/L	0.65	2.5
3/24/2014 10:20	Field Blanks	Nutrients	Cyanide	0.005 U	mg CN/L	0.005	0.02
3/24/2014 10:20	Field Blanks	Nutrients	Sulfate	0.20 U	mg SO4/L	0.2	0.5
3/24/2014 10:20	Field Blanks	Nutrients	Color (true)	2.5 U	PCU	2.5	6
3/24/2014 10:20	Field Blanks	Nutrients	Organic Carbon	0.50 U	mg C/L	0.5	1
3/24/2014 10:20	Field Blanks	Pesticides	Hexazinone	0.029 U	ug/L	0.029	0.12
3/24/2014 10:20	Field Blanks	Pesticides	Metolachlor	0.058 U	ug/L	0.058	0.23

Date Sampled	Field ID	Analysis Group	Component	Result	Units	MDL	PQL
3/24/2014 10:20	Field Blanks	Pesticides	Parathion Methyl	0.0096 U	ug/L	0.0096	0.038
3/24/2014 10:20	Field Blanks	Pesticides	Prometryn	0.019 U	ug/L	0.019	0.077
3/24/2014 10:20	Field Blanks	Pesticides	Azinphos Methyl	0.019 U	ug/L	0.019	0.077
3/24/2014 10:20	Field Blanks	Pesticides	Ethoprop	0.0048 U	ug/L	0.0048	0.019
3/24/2014 10:20	Field Blanks	Pesticides	Fenamiphos	0.029 UJ	ug/L	0.029	0.12
3/24/2014 10:20	Field Blanks	Pesticides	Fonofos	0.0096 U	ug/L	0.0096	0.038
3/24/2014 10:20	Field Blanks	Pesticides	Malathion	0.0096 U	ug/L	0.0096	0.038
3/24/2014 10:20	Field Blanks	Pesticides	Simazine	0.0096 U	ug/L	0.0096	0.038
3/24/2014 10:20	Field Blanks	Pesticides	Phorate	0.0048 UJ	ug/L	0.0048	0.019
3/24/2014 10:20	Field Blanks	Pesticides	Ametryn	0.0096 UJ	ug/L	0.0096	0.038
3/24/2014 10:20	Field Blanks	Pesticides	Demeton	0.023 U	ug/L	0.023	0.092
3/24/2014 10:20	Field Blanks	Pesticides	Ethion	0.0096 U	ug/L	0.0096	0.038
3/24/2014 10:20	Field Blanks	Pesticides	Bromacil	0.038 U	ug/L	0.038	0.15
3/24/2014 10:20	Field Blanks	Pesticides	Butylate	0.019 U	ug/L	0.019	0.077
3/24/2014 10:20	Field Blanks	Pesticides	Chlorpyrifos Methyl	0.0096 U	ug/L	0.0096	0.038
3/24/2014 10:20	Field Blanks	Pesticides	Metalaxyl	0.038 U	ug/L	0.038	0.15
3/24/2014 10:20	Field Blanks	Pesticides	Metribuzin	0.019 U	ug/L	0.019	0.077
3/24/2014 10:20	Field Blanks	Pesticides	Naled	0.038 U	ug/L	0.038	0.15
3/24/2014 10:20	Field Blanks	Pesticides	Norflurazon	0.029 U	ug/L	0.029	0.12
3/24/2014 10:20	Field Blanks	Pesticides	Diazinon	0.0096 UJ	ug/L	0.0096	0.038
3/24/2014 10:20	Field Blanks	Pesticides	Mevinphos	0.0096 UJ	ug/L	0.0096	0.038
3/24/2014 10:20	Field Blanks	Pesticides	Chlorpyrifos Ethyl	0.0096 U	ug/L	0.0096	0.038
3/24/2014 10:20	Field Blanks	Pesticides	Atrazine Desethyl	0.0096 U	ug/L	0.0096	0.038
3/24/2014 10:20	Field Blanks	Pesticides	Atrazine	0.0096 U	ug/L	0.0096	0.038
3/24/2014 10:20	Field Blanks	Pesticides	Alachlor	0.058 U	ug/L	0.058	0.23
3/24/2014 10:20	Field Blanks	Pesticides	Parathion Ethyl	0.019 U	ug/L	0.019	0.077
3/24/2014 10:20	Field Blanks	Pesticides	Prometon	0.019 U	ug/L	0.019	0.077
3/24/2014 10:20	Field Blanks	Pesticides	Atrazine Desisopropyl	0.0096 U	ug/L	0.0096	0.038
3/24/2014 10:20	Field Blanks	Pesticides	Disulfoton	0.0048 U	ug/L	0.0048	0.019
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	2,4-Dimethylphenol	9.5 U	ug/L	9.5	38
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	2,4-Dinitrotoluene	0.95 U	ug/L	0.95	3.8
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Acenaphthylene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Chrysene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Fluoranthene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Fluorene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Hexachlorobutadiene	2.9 U	ug/L	2.9	11
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9 U	ug/L	1.9	7.6
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	2,6-Dinitrotoluene	0.95 U	ug/L	0.95	3.8

Date Sampled	Field ID	Analysis Group	Component	Result	Units	MDL	PQL
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9 U	ug/L	1.9	7.6
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Benzo(b)fluoranthene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Di-n-octyl phthalate	0.95 U	ug/L	0.95	3.8
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.95 U	ug/L	0.95	3.8
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Benzidine	95 U	ug/L	95	380
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	1.9 U	ug/L	1.9	7.6
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Hexachlorobenzene	0.95 U	ug/L	0.95	3.8
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9 U	ug/L	2.9	11
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Isophorone	0.95 U	ug/L	0.95	3.8
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	2.9 U	ug/L	2.9	11
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Naphthalene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Pentachlorophenol	2.9 U	ug/L	2.9	11
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Phenanthrene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Benzo(a)pyrene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.95 U	ug/L	0.95	3.8
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Butyl benzyl phthalate	0.95 U	ug/L	0.95	3.8
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Di-n-butyl phthalate	0.95 U	ug/L	0.95	3.8
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Hexachloroethane	2.9 U	ug/L	2.9	11
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9 U	ug/L	1.9	7.6
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.95 U	ug/L	0.95	3.8
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	2-Chloronaphthalene	0.95 U	ug/L	0.95	3.8
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	2-Nitrophenol	0.95 U	ug/L	0.95	3.8
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	3,3'-Dichlorobenzidine	38 U	ug/L	38	150
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Benzo(a)anthracene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Phenol	0.95 U	ug/L	0.95	3.8
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.95 U	ug/L	0.95	3.8
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Benzo(k)fluoranthene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9 U	ug/L	2.9	11
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Diethyl phthalate	0.95 U	ug/L	0.95	3.8
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	2,4-Dichlorophenol	0.95 U	ug/L	0.95	3.8
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	2-Chlorophenol	0.95 U	ug/L	0.95	3.8
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9 U	ug/L	2.9	11
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Acenaphthene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Anthracene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.95 U	ug/L	0.95	3.8
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Nitrobenzene	1.9 U	ug/L	1.9	7.6

Date Sampled	Field ID	Analysis Group	Component	Result	Units	MDL	PQL
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	2,4-Dinitrophenol	14 UJ	ug/L	14	57
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.95 U	ug/L	0.95	3.8
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	4-Nitrophenol	14 U	ug/L	14	57
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.19 U	ug/L	0.19	0.76
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Dimethyl phthalate	0.95 U	ug/L	0.95	3.8
3/24/2014 10:20	Field Blanks	Priority Organic Pollutants	Pyrene	0.19 U	ug/L	0.19	0.76
3/26/2014 8:00	Palatka FYI3-COMPOSITE	Nutrients	Total Residual Chlorine	0.6	mg/L		
3/26/2014 9:45	Palatka 3YI EFA-1 GRAB	Nutrients	Sample Depth	0.5	m		
3/26/2014 9:45	Palatka 3YI EFA-1 GRAB	Nutrients	Specific Conductance	870	umhos/cm		
3/26/2014 9:45	Palatka 3YI EFA-1 GRAB	Nutrients	pH	6.5			
3/26/2014 9:45	Palatka 3YI EFA-1 GRAB	Nutrients	Temperature	20.88	C		
3/26/2014 9:45	Palatka 3YI EFA-1 GRAB	Nutrients	Dissolved Oxygen	6.35	mg/L		
3/28/2014 8:00	Palatka FYI3-COMPOSITE	Nutrients	Total Residual Chlorine	0.68	mg/L		
3/28/2014 8:00	Palatka FYI3-COMPOSITE	Nutrients	Temperature	1.1	C		
3/28/2014 11:00	Equipment Blanks	Metals	Magnesium	0.040 U	mg/L	0.04	0.16
3/28/2014 11:00	Equipment Blanks	Metals	Sodium	0.50 U	mg/L	0.5	2
3/28/2014 11:00	Equipment Blanks	Metals	Zinc	5.0 U	ug/L	5	20
3/28/2014 11:00	Equipment Blanks	Metals	Aluminum	5.0 U	ug/L	5	20
3/28/2014 11:00	Equipment Blanks	Metals	Potassium	0.30 U	mg/L	0.3	1.2
3/28/2014 11:00	Equipment Blanks	Metals	Lead	0.20 U	ug/L	0.2	0.8
3/28/2014 11:00	Equipment Blanks	Metals	Nickel	0.25 U	ug/L	0.25	1
3/28/2014 11:00	Equipment Blanks	Metals	Cadmium	0.050 U	ug/L	0.05	0.2
3/28/2014 11:00	Equipment Blanks	Metals	Selenium	0.20 U	ug/L	0.2	0.8
3/28/2014 11:00	Equipment Blanks	Metals	Arsenic	0.25 U	ug/L	0.25	1
3/28/2014 11:00	Equipment Blanks	Metals	Iron	30 U	ug/L	30	120
3/28/2014 11:00	Equipment Blanks	Metals	Calcium	0.075 U	mg/L	0.075	0.3
3/28/2014 11:00	Equipment Blanks	Metals	Chromium	0.30 U	ug/L	0.3	1.2
3/28/2014 11:00	Equipment Blanks	Metals	Copper	0.50 U	ug/L	0.5	1
3/28/2014 11:00	Equipment Blanks	Metals	Silver	0.025 U	ug/L	0.025	0.1
3/28/2014 11:00	Equipment Blanks	Nutrients	NO2NO3-N	0.004 U	mg N/L	0.004	0.01
3/28/2014 11:00	Equipment Blanks	Nutrients	Ammonia-N	0.003 I	mg N/L	0.002	0.005
3/28/2014 11:00	Equipment Blanks	Nutrients	Total-P	0.002 U	mg P/L	0.002	0.005
3/28/2014 11:00	Equipment Blanks	Nutrients	Kjeldahl Nitrogen	0.080 U	mg N/L	0.08	0.2

EPA End Sheet

The Bioassay of City of Palatka WWTF effluent sampled on March 24, 2014. NPDES #FL0040061.

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	4	0	0	6	1	11	12	1	4	0	3	2	4	18 **B**	19 **S**	20 1

Remarks

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The Priority Pollutants Analysis of City of Palatka WWTF effluent sampled on March 24, 2014. NPDES #FL0040061.

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	4	0	0	6	1	11	12	1	4	0	3	2	4	18 **X**	19 **S**	20 1

Remarks

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Biological Analyses of City of Palatka WWTF effluent sampled on March 24, 2014. NPDES #FL0040061.

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	4	0	0	6	1	11	12	1	4	0	3	2	4	18 **S**	19 **S**	20 1

Remarks

66