

Effluent Quality Assessment

Kerry I and F Contracting Company

Hillsborough County

NPDES #FL0037389

Sampled March 24, 2014

June 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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Kerry I and F Contracting Company, 1111 W. Dr. Martin Luther King Jr. Blvd., Plant City, Hillsborough County, Florida, 33563. NPDES #FL0037389.

Facility Overview

Kerry I and F Contracting Company's industrial wastewater stream consists of once through cooling water. The wastewater stream is treated to increase the dissolved oxygen content prior to discharge through Outfall D-001 to Westside Canal. See Appendix A for a description of the facility, summary of permit limits, Administrative Order (AO) and Discharge Monitoring Report (DMR) information.

Methods

Effluent grab samples for toxicity testing, biological, and chemical analyses for this facility were collected on March 24, 2014. All samples were collected from the EFF-01 NPDES sampling point for Outfall D-001 by Ramandeep Kaur and Gitta Schmitt (FDEP Southwest District) following DEP-SOP-001/01 FS 2400 Wastewater Sampling (see Appendix B).

The acute definitive toxicity tests and algal growth potential test were performed following internal DEP SOPs TA07_01, TA07_02, and TA08_01 through TA08_09 (see Appendix B).

Results

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

- The total ammonia concentration in the grab sample collected and preserved for chemical analysis was 0.19 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.
- No organic constituents were detected in the effluent sample.
- Alkalinity, turbidity and fluoride were detected in the effluent at levels that comply with Class III Freshwater Quality Criteria (62-302.530, F.A.C.). Carbonaceous biochemical oxygen demand (CBOD) and iron were detected between the laboratory method detection limits (MDL) and practical quantitation limits (PQL).

Algal Growth Potential (See Table 2, Table 4 and Appendix C)

- The effluent Algal Growth Potential (AGP) was 2.21 A 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 - 29, 2014.

  Ceriodaphnia dubia 96-hour acute definitive bioassay – LC50: >100%

  Cyprinella leedsi 96-hour acute definitive bioassay – LC50: >100%

- The bioassay samples were not acutely toxic to the test organisms.

Conclusion

The effluent sample collected from the EFF-01 NPDES sampling point for this facility on March 24, 2014, was not acutely toxic to either test species during the acute definitive bioassays. The AGP result was less than the "problem" threshold for fresh receiving waters. Effluent water quality samples collected on March 24, 2014, did not exceed any applicable water quality standards or exceed any permit conditions.

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

Literature Cited

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

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.

Manahan, S. E. 1994. Environmental Chemistry, 6th edition. Lewis Publishers, USA. 811 pp

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.

USEPA. 2002. Methods for measuring the acute toxicity of effluents to freshwater and marine organisms. 5th edition. EPA-821-R-02-012.

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

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

Kerry I and F Contracting Company	Units	Class III Criteria	Effluent Permit Limits	EFF-01
Temperature	C	-	≤ 33.3	30.46
pH	SU	6.0 - 8.5 s	6.0 - 8.5 s	7.9
Specific Conductance	umhos/cm	≤ 1,275	-	390
Salinity	ppth	-	-	0.2 c
Dissolved Oxygen Criteria- time of day corrected	% saturation	36.04	-	82.9
Dissolved Oxygen	mg/L	-	≥ 5.0	6.21
Flow	MGD	-	Report	2.03 a
Total Residual Chlorine	mg/L	≤ 0.01	-	< 0.03 QU£

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

Value exceeds the Class III Water Quality Criteria or permit limits

a - Annual average

c - Value is calculated

Q - Sample held beyond normal holding time

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

£ - measurement taken in the FDEP laboratory

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

Kerry I and F Contracting Company	Units	Class III Criteria	Effluent Permit Limits	EFF-01
Ortho-phosphate	mg P/L	-	Report	0.044
Total Phosphorus	mg P/L	-	Report	0.044
Total Ammonia	mg N/L	-	Report	0.19
Un-ionized Ammonia	mg N/L	≤ 0.02 s	≤ 0.02 s	< 0.02
Nitrate and Nitrite	mg N/L	-	Report	0.004 U
Total Kjeldahl Nitrogen	mg N/L	-	Report	0.32
Organic Nitrogen	mg N/L	-	-	0.13 c
Total Nitrogen	mg N/L	-	Report	0.32 c
Total Organic Carbon	mg C/L	-	-	2.2
Chlorophyll *a* - Corrected	ug/L	-	-	0.94 I
Phaeophytin	ug/L	-	-	0.40 U
CBOD, 5 day, N - inhibited	mg/L	-	Report	0.46 I
Hardness	mg $CaCO_3$/L	-	-	191 c
Total Suspended Solids	mg/L	-	-	2 U
Turbidity	NTU	< 29 t	-	0.45
Color (true)	PCU	-	-	5.8 I
Alkalinity	mg $CaCO_3$/L	≥ 20	-	178
Chloride	mg Cl/L	-	-	12
Fluoride	mg F/L	≤ 10.0	-	0.38
Sulfate	mg SO_4/L	-	-	7.6
Toxicity (Acute Definitive, percent LC50)				
Bioassay - Water flea *(Ceriodaphnia dubia)*	%	≥ 100	≥ 100	> 100
Bioassay - Fish *(Cyprinella leedsi)*	%	≥ 100	≥ 100	> 100

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

Value exceeds the Class III Water Quality Criteria or permit limits

c - Value is calculated

s - Single sample

t - Shall not exceed 29 NTUs above background

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

Kerry I and F Contracting Company	Units	Class III Criteria	Effluent Permit Limits	EFF-01 Class III Criteria	EFF-01
Hardness	mg $CaCO_3$/L	-	-	-	191 c
Aluminum	ug/L	-	-	-	5.0 U
Arsenic	ug/L	≤ 50	-	≤ 50	0.25 U
Cadmium	ug/L	0.437 b	-	0.437 b	0.050 U
Calcium	mg/L	-	-	-	58.2
Chromium, Total [1]	ug/L	≤ 146 b	-	146 b	0.30 U
Copper	ug/L	-	-	16.2 b	0.50 U
Iron	ug/L	≤ 1,000	-	≤ 1,000	49 I
Lead	ug/L	≤ 7.25 b	-	7.25 b	0.20 U
Magnesium	mg/L	-	-	-	11.1
Nickel	ug/L	≤ 90.2 b	-	90.2 b	0.25 U
Potassium	mg/L	-	-	-	0.66 I
Selenium	ug/L	≤ 5.0	-	≤ 5.0	0.20 U
Silver	ug/L	≤ 0.07	-	≤ 0.07	0.025 U
Sodium	mg/L	-	-	-	9.2
Zinc	ug/L	≤ 207	-	207 b	5.0 U

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

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

c - Value is calculated

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

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

Kerry I and F Contracting Company								
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**
EFF-01	*Pseudokirchneriella subcapitata*	2.21 A	7.22 ± 1.44	18.9 ± 3.8	12.2 ± 2.44	18.9 ± 3.8	4.32	7.27

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

Appendix A
Facility Summary

State of Florida
Department of Environmental Protection Facility Introduction & Summary

PART I: Information gathered prior to sampling event	
Prepared By: Ramandeep Kaur	**Contact Number: (813)-470-5771**
Facility Name (as it appears on permit): *Kerry I & F Contracting Company*	**Former Names:**
NPDES Permit Number: FL0037389	**Permit Expiration Date: December 3, 2014**
Physical Address: 1111 W. Dr. Martin Luther King Jr. Blvd., Plant City, FL 33563	
District: SWD	**County: Hillsborough**
Function of Facility: Industrial Wastewater Facility	
Facility Type: Industrial Wastewater	**Permitted Capacity (MGD):**
Mean Flow for previous 12 months for all EXTERNAL outfalls listed in permit (list date range including months):	
If applicable, Mean Flow for previous 12 months for REUSE outfall(s) (list date range including months):	

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

Sample Point	Description of Monitoring Location
FLW-1-Well #1	In line flow meter downstream of the well head #1 using an Yokogawa Flow meter and converter at Outfall 001
FLW-2-Well #2	In line flow meter downstream of the well head #2 using an Yokogawa Flow meter and converter at Outfall 001
FLW-3 = FLW-1-Well #1 + FLW-2-Well #2	Total Flow
EFF-1	At the point of discharge at Outfall D-001

Description of Permitted Outfall(s):

Surface Water Discharge:
An existing discharge to Westside Canal, WBID #1542A, (Class III Fresh waters) , thence to Pemberton Creek, WBID #1542, (Class III Fresh waters), D-001. The discharge outfall line to Westside Canal is approximately one hundred feet in length, and at a depth of approximately

two feet. The point of discharge is located approximately at latitude 28° 00' 44" N, longitude 82° 07' 56"W.

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

The once through non-contact cooling water is the wastewater stream. A splash box at the outlet of the 18-inch outfall pipe provides additional treatment to increase the Dissolved Oxygen (DO) of the effluent prior to the discharge. The splash box has a mechanical aeration chamber consisting of subsurface propellers that are mounted on the side of the barometric condenser hot well tanks pipe to enhance the DO content of the effluent prior to the discharge. Splash plates are installed to provide additional passive agitation prior to discharge through the Outfall D-001 into the Westside Canal and thence to Pemberton Creek.

Receiving Waters: Pemberton Creek
Classification (indicate whether fresh or marine): Class III Fresh water body

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

No major violations.

Describe previous FYI and WQBEL study: **2008 FYI report submitted as separate email attachment.** **Describe previous or current Enforcement Actions (including WLs): N/A**
Describe any violations or problems noted in previous inspection: N/A
Discuss whether DMR trends within previous five years are improving or declining: N/A
Additional Comments (this should include a trend of the Effluent, i.e. if the facility is now Reuse):

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

The permittee is authorized to discharge once-through non-contact cooling water from Outfall D-001.

	Discharge Limitations			Monitoring Requirements		
Parameters (units)	**Monthly Average**	**Maximum**	**Minimum**	**Monitoring Frequency**	**Sample Type**	**Sample Point**
Flow (MGD)	Report	Report	--	Continuous	Meter	FLW-1
Flow (MGD)	Report	Report	--	Continuous	Meter	FLW-2
Flow (MGD)	Report	Report	--	Continuous	Calculated	FLW-3
Temperature (F), Water (DEG.F)	--	92	--	Monthly	Instantaneous	EFF-1
Oxygen, Dissolved (DO) (MG/L)	--	--	5.0	Monthly	Instantaneous	EFF-1
pH (SU)	--	8.5	6	Monthly	Instantaneous	EFF-1
Temperature (C), Water (DEG.C)	--	Report See Cond. I.A.3	--	Monthly	Instantaneous	EFF-1
Ammonia, Unionized (MG/L)	--	0.02 See Cond. I.A.3	--	Monthly	Calculated	EFF-1
Nitrogen, Ammonia, Total (as N) (MG/L)	--	Report See Cond. I.A.3	--	Monthly	Grab	EFF-1
Nitrogen, Total As N (Tons/Year) as a 12 month rolling total*	See Cond. I.A.8 & 9			Monthly	Calculated	EFF-1
BOD, Carbonaceous 5 day, 20C (MG/L)	--	Report	--	Monthly	Grab	EFF-1
Nitrite plus Nitrate, Total 1 det. (as N) (MG/L)	--	Report	--	Monthly	Grab	EFF-1
Nitrogen, Kjeldahl, Total (as N) (MG/L)	--	Report	--	Monthly	Grab	EFF-1
Nitrogen, Total (MG/L)	--	Report	--	Monthly	Grab	EFF-1
Phosphorus, Total (as P) (MG/L)	--	Report	--	Monthly	Grab	EFF-1
Phosphate, Ortho (as P) (MG/L)	--	Report	--	Monthly	Grab	EFF-1
Whole Effluent Toxicity (Chronic)	See Permit Condition I.A.4					EFF-1

Chronic Toxicity Test requirements:

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

a. Effluent Limitation

(1) Whole effluent chronic toxicity shall not exceed a 25 percent inhibition concentration (IC25) of less than 100% effluent in any test. *[Rules 62-302.530(61) and 62- 4.241(1)(b), F.A.C.]*

(2) Whole effluent acute toxicity shall not exceed a 96 hour LC50 of 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 annually.

c. Sampling Requirements

(1) For each routine test or additional follow-up test conducted, a total of three grab 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 ed., 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.

e. Quality Assurance Requirements

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

in the reports for each companion routine or additional follow-up test required.

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

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

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

f. Reporting Requirements

(1) Results from all required tests shall be reported on the Discharge Monitoring Report (DMR) as follows:

(a) Routine and Additional Follow-up Test Results: The calculated IC25 for each test species shall be entered on the DMR.

(2) A bioassay laboratory report for each routine test shall be prepared according to EPA-821-R-02-013, Section 10, Report Preparation and Test Review, and mailed to the Department at the address below within 30 days after the last day of the test.

(3) For additional follow-up tests, a single bioassay laboratory report shall be prepared according to EPA-821-R-02-013, Section 10, and mailed within 30 days after the last day of the second valid additional follow-up test.

(4) Data for invalid tests shall be included in the bioassay laboratory report for the repeat test.

(5) The same bioassay data shall not be reported as the results of more than one test.

(6) All bioassay laboratory reports shall be sent to:

Department of Environmental Protection Southwest District Office
13051 N Telecom Pkwy
Temple Terrace, Florida 33637-0926

Test Failures-

(1) A test fails when the test results do not meet the limits in 4.a. (1).

(2) Additional Follow-up Tests:

(a) If a routine test does not meet the chronic toxicity limitation in 4.a.(1) above, the permittee shall notify the Department at the address above within 21 days after the last day of the failed routine test and conduct two additional follow-up tests on each species that failed the test in accordance with 4.d.

(b) The first test shall be initiated within 28 days after the last day of the failed

routine test. The remaining additional follow-up tests shall be conducted weekly thereafter until a total of two valid additional follow-up tests are completed.

(c) The first additional follow-up test shall be conducted using a control (0% effluent) and a minimum of five dilutions: 100%, 50%, 25%, 12.5%, and 6.25% effluent. The permittee may modify the dilution series in the second additional follow-up test to more accurately bracket the toxicity such that at least two dilutions above and two dilutions below the target concentration and a control (0% effluent) are run. All test results shall be statistically analyzed according to the Appendices in EPA-821-R-02-013.

(3) In the event of three valid test failures (whether routine or additional follow-up tests) within a 12-month period, the permittee shall notify the Department within 21 days after the last day of the third test failure.

(d) The permittee shall submit a plan for correction of the effluent toxicity within 60 days after the last day of the third test failure.

(e) The Department shall review and approve the plan before initiation.

(f) The plan shall be initiated within 30 days following the Department's written approval of the plan.

(g) Progress reports shall be submitted quarterly to the Department at the address above.

(h) During the implementation of the plan, the permittee shall conduct quarterly routine whole effluent toxicity tests in accordance with 4.d. Additional follow-up tests are not required while the plan is in progress. Following completion or termination of the plan, the frequency of monitoring for routine and additional follow-up tests shall return to the schedule established in 4.b. (1). If a routine test is invalid according to the acceptance criteria in EPA- 821-R-02-013, a repeat test shall be initiated within 21 days after the last day of the invalid routine test.

(i) Upon completion of four consecutive, valid routine tests that demonstrate compliance with the effluent limitation in 4.a. (1) above, the permittee may submit a written request to the Department to terminate the plan. The plan shall be terminated upon written verification by the Department that the facility has passed at least four consecutive valid routine whole effluent toxicity tests.

If a test within the sequence of the four is deemed invalid, but is replaced by a repeat valid test initiated within 21 days after the last day of the invalid test, the invalid test will not be counted against the requirement for four consecutive valid tests for the purpose of terminating the plan.

If chronic toxicity test results indicate greater than 50% mortality within 96 hours in an effluent concentration equal to or less than the effluent concentration specified as the acute toxicity limit in 4.(a)(2), the Department may revise this permit to require acute definitive whole effluent toxicity testing. *[62-4.241, 62-620.620(3)]*

Kerry I & F Contracting Company, Permit #: FL0037389; FYI3 PART II: Sampling Event Information	
Date(s) sample collected: March 24, 2014	**Sampler(s):** Ramandeep Kaur, Gitta Schmitt
Temperature (Deg C): 30.46	**pH (SU):** 7.90
Dissolved Oxygen (mg/L): 6.21 (DO% 82.9)	**Conductivity (umhos/cm):** Salinity: 0.18 PPTh
Total Residual Chlorine (mg/L):	**Total Residual Chlorine - after Disinfection (mg/L):**
Method of Chlorination: N/A	**Method of De-chlorination:** N/A
Flow During Sample Collection for each outfall(MGD):	
Mean Flow for each outfall for previous 12 months based on sampling date (If samples are taken on more than one day, indicate Mean Flow for each day): 2.0 MGD (February 2013- February 2014)	
Describe Discharge during Sampling Event: ☒ **Continuous** ☐ **Intermittent** ☐ **Seasonal** ☐ **Rainfall Dependent** ☐ **Other, please specify**	
Describe any conditions, difficulties or abnormal events that occurred during the sample collection and any other additional comments here: Samples were collected from EFF-001- Discharge sampling point at the outfall.	



Discharge Sampling point –EFF-01

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

(4) 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 5.0 mg dry weight/L represents a “problem” threshold for fresh 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 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 (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 62-302.530(61), F.A.C.

(5) Chlorophyll *a* Content

Chlorophyll a content is an estimate of 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) 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	Remark	MDL	PQL
3/24/2014 9:50	EFF-01	AGP/LN	Algal Growth Potential	2.21 A	mg DryWt/L	0.3	0.9
3/24/2014 9:50	EFF-01	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	0.46 I	mg/L	0.2	2
3/24/2014 9:50	EFF-01	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	0.94 I	ug/L	0.55	1.7
3/24/2014 9:50	EFF-01	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.40 U	ug/L	0.4	1.2
3/24/2014 9:50	EFF-01	Toxicology	Bioassay-Acute-Def-FW-C.dubia, LC50	100 L	LC50		
3/24/2014 9:50	EFF-01	Toxicology	Bioassay-Acute-Def-FW-Fish, LC50	100 L	LC50		
3/24/2014 9:50	EFF-01	Metals	Potassium	0.66 I	mg/L	0.3	1.2
3/24/2014 9:50	EFF-01	Metals	Zinc	5.0 U	ug/L	5	20
3/24/2014 9:50	EFF-01	Metals	Chromium	0.30 U	ug/L	0.3	1.2
3/24/2014 9:50	EFF-01	Metals	Iron	49 I	ug/L	30	120
3/24/2014 9:50	EFF-01	Metals	Arsenic	0.25 U	ug/L	0.25	1
3/24/2014 9:50	EFF-01	Metals	Magnesium	11.1	mg/L	0.04	0.16
3/24/2014 9:50	EFF-01	Metals	Aluminum	5.0 U	ug/L	5	20
3/24/2014 9:50	EFF-01	Metals	Sodium	9.2	mg/L	0.5	2
3/24/2014 9:50	EFF-01	Metals	Calcium	58.2	mg/L	0.075	0.3
3/24/2014 9:50	EFF-01	Metals	Selenium	0.20 U	ug/L	0.2	0.8
3/24/2014 9:50	EFF-01	Metals	Nickel	0.25 U	ug/L	0.25	1
3/24/2014 9:50	EFF-01	Metals	Silver	0.025 U	ug/L	0.025	0.1
3/24/2014 9:50	EFF-01	Metals	Cadmium	0.050 U	ug/L	0.05	0.2
3/24/2014 9:50	EFF-01	Metals	Copper	0.50 U	ug/L	0.5	1
3/24/2014 9:50	EFF-01	Metals	Lead	0.20 U	ug/L	0.2	0.8
3/24/2014 9:50	EFF-01	Nutrients	Turbidity	0.45	NTU	0.1	0.1
3/24/2014 9:50	EFF-01	Nutrients	Organic Carbon	2.2	mg C/L	0.5	1
3/24/2014 9:50	EFF-01	Nutrients	O-Phosphate-P	0.044	mg P/L	0.004	0.01
3/24/2014 9:50	EFF-01	Nutrients	TSS	2 U	mg/L	2	10
3/24/2014 9:50	EFF-01	Nutrients	Ammonia-N	0.19	mg N/L	0.002	0.005
3/24/2014 9:50	EFF-01	Nutrients	Sulfate	7.6	mg SO4/L	0.2	0.5
3/24/2014 9:50	EFF-01	Nutrients	Kjeldahl Nitrogen	0.32	mg N/L	0.08	0.2
3/24/2014 9:50	EFF-01	Nutrients	NO2NO3-N	0.004 U	mg N/L	0.004	0.01
3/24/2014 9:50	EFF-01	Nutrients	Alkalinity	178	mg CaCO3/L	0.65	2.5
3/24/2014 9:50	EFF-01	Nutrients	Color (true)	5.8 I	PCU	2.5	6
3/24/2014 9:50	EFF-01	Nutrients	Fluoride	0.38	mg F/L	0.035	0.1
3/24/2014 9:50	EFF-01	Nutrients	Total-P	0.044	mg P/L	0.002	0.005
3/24/2014 9:50	EFF-01	Nutrients	Chloride	12	mg Cl/L	0.2	0.5

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	MDL	PQL
3/24/2014 9:50	EFF-01	Pesticides	Fonofos	0.0096 U	ug/L	0.0096	0.038
3/24/2014 9:50	EFF-01	Pesticides	Hexazinone	0.029 U	ug/L	0.029	0.12
3/24/2014 9:50	EFF-01	Pesticides	Atrazine Desethyl	0.0096 U	ug/L	0.0096	0.038
3/24/2014 9:50	EFF-01	Pesticides	Ethion	0.0096 U	ug/L	0.0096	0.038
3/24/2014 9:50	EFF-01	Pesticides	Diazinon	0.0096 UJ	ug/L	0.0096	0.038
3/24/2014 9:50	EFF-01	Pesticides	Phorate	0.0048 UJ	ug/L	0.0048	0.019
3/24/2014 9:50	EFF-01	Pesticides	Prometryn	0.019 U	ug/L	0.019	0.077
3/24/2014 9:50	EFF-01	Pesticides	Malathion	0.0096 U	ug/L	0.0096	0.038
3/24/2014 9:50	EFF-01	Pesticides	Metolachlor	0.058 U	ug/L	0.058	0.23
3/24/2014 9:50	EFF-01	Pesticides	Mevinphos	0.0096 UJ	ug/L	0.0096	0.038
3/24/2014 9:50	EFF-01	Pesticides	Azinphos Methyl	0.019 U	ug/L	0.019	0.077
3/24/2014 9:50	EFF-01	Pesticides	Naled	0.038 U	ug/L	0.038	0.15
3/24/2014 9:50	EFF-01	Pesticides	Parathion Ethyl	0.019 U	ug/L	0.019	0.077
3/24/2014 9:50	EFF-01	Pesticides	Atrazine Desisopropyl	0.0096 U	ug/L	0.0096	0.038
3/24/2014 9:50	EFF-01	Pesticides	Ethoprop	0.0048 U	ug/L	0.0048	0.019
3/24/2014 9:50	EFF-01	Pesticides	Fenamiphos	0.029 UJ	ug/L	0.029	0.12
3/24/2014 9:50	EFF-01	Pesticides	Simazine	0.0096 U	ug/L	0.0096	0.038
3/24/2014 9:50	EFF-01	Pesticides	Demeton	0.023 U	ug/L	0.023	0.092
3/24/2014 9:50	EFF-01	Pesticides	Norflurazon	0.029 U	ug/L	0.029	0.12
3/24/2014 9:50	EFF-01	Pesticides	Parathion Methyl	0.0096 U	ug/L	0.0096	0.038
3/24/2014 9:50	EFF-01	Pesticides	Prometon	0.019 U	ug/L	0.019	0.077
3/24/2014 9:50	EFF-01	Pesticides	Alachlor	0.058 U	ug/L	0.058	0.23
3/24/2014 9:50	EFF-01	Pesticides	Atrazine	0.0096 U	ug/L	0.0096	0.038
3/24/2014 9:50	EFF-01	Pesticides	Chlorpyrifos Ethyl	0.0096 U	ug/L	0.0096	0.038
3/24/2014 9:50	EFF-01	Pesticides	Metalaxyl	0.038 U	ug/L	0.038	0.15
3/24/2014 9:50	EFF-01	Pesticides	Metribuzin	0.019 U	ug/L	0.019	0.077
3/24/2014 9:50	EFF-01	Pesticides	Ametryn	0.0096 UJ	ug/L	0.0096	0.038
3/24/2014 9:50	EFF-01	Pesticides	Bromacil	0.038 U	ug/L	0.038	0.15
3/24/2014 9:50	EFF-01	Pesticides	Butylate	0.019 U	ug/L	0.019	0.077
3/24/2014 9:50	EFF-01	Pesticides	Chlorpyrifos Methyl	0.0096 U	ug/L	0.0096	0.038
3/24/2014 9:50	EFF-01	Pesticides	Disulfoton	0.0048 U	ug/L	0.0048	0.019
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	2,6-Dinitrotoluene	0.95 U	ug/L	0.95	3.8
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Pentachlorophenol	2.9 U	ug/L	2.9	11
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.95 U	ug/L	0.95	3.8
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9 U	ug/L	2.9	11
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Di-n-octyl phthalate	0.95 U	ug/L	0.95	3.8
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Nitrobenzene	1.9 U	ug/L	1.9	7.6
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.95 U	ug/L	0.95	3.8

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	MDL	PQL
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Anthracene	0.19 U	ug/L	0.19	0.76
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Benzo(a)anthracene	0.19 U	ug/L	0.19	0.76
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Diethyl phthalate	0.95 U	ug/L	0.95	3.8
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Fluorene	0.19 U	ug/L	0.19	0.76
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Hexachloroethane	2.9 U	ug/L	2.9	11
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	2.9 U	ug/L	2.9	11
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	2,4-Dinitrotoluene	0.95 U	ug/L	0.95	3.8
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	4-Nitrophenol	14 U	ug/L	14	57
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Acenaphthylene	0.19 U	ug/L	0.19	0.76
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Dimethyl phthalate	0.95 U	ug/L	0.95	3.8
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.95 U	ug/L	0.95	3.8
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	2,4-Dinitrophenol	14 UJ	ug/L	14	57
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	2-Nitrophenol	0.95 U	ug/L	0.95	3.8
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	3,3'-Dichlorobenzidine	38 U	ug/L	38	150
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.95 U	ug/L	0.95	3.8
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Benzidine	95 U	ug/L	95	380
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.95 U	ug/L	0.95	3.8
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Chrysene	0.19 U	ug/L	0.19	0.76
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Fluoranthene	0.19 U	ug/L	0.19	0.76
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9 U	ug/L	2.9	11
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Isophorone	0.95 U	ug/L	0.95	3.8
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Phenanthrene	0.19 U	ug/L	0.19	0.76
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.95 U	ug/L	0.95	3.8
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	2,4-Dichlorophenol	0.95 U	ug/L	0.95	3.8
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9 U	ug/L	1.9	7.6
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Benzo(a)pyrene	0.19 U	ug/L	0.19	0.76
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Benzo(b)fluoranthene	0.19 U	ug/L	0.19	0.76
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.19 U	ug/L	0.19	0.76
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Benzo(k)fluoranthene	0.19 U	ug/L	0.19	0.76
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Hexachlorobenzene	0.95 U	ug/L	0.95	3.8
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Pyrene	0.19 U	ug/L	0.19	0.76
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	2-Chloronaphthalene	0.95 U	ug/L	0.95	3.8
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	1.9 U	ug/L	1.9	7.6
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.19 U	ug/L	0.19	0.76
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9 U	ug/L	1.9	7.6
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Phenol	0.95 U	ug/L	0.95	3.8
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	2,4-Dimethylphenol	9.5 U	ug/L	9.5	38
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	2-Chlorophenol	0.95 U	ug/L	0.95	3.8

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	MDL	PQL
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9 U	ug/L	2.9	11
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Butyl benzyl phthalate	0.95 U	ug/L	0.95	3.8
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Hexachlorobutadiene	2.9 U	ug/L	2.9	11
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.19 U	ug/L	0.19	0.76
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Naphthalene	0.19 U	ug/L	0.19	0.76
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Di-n-butyl phthalate	0.95 U	ug/L	0.95	3.8
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9 U	ug/L	1.9	7.6
3/24/2014 9:50	EFF-01	Priority Organic Pollutants	Acenaphthene	0.19 U	ug/L	0.19	0.76
3/24/2014 9:50	EFF-01	Field Parameter	Specific Conductance	390	umhos/cm		
3/24/2014 9:50	EFF-01	Field Parameter	Temperature	30.46	C		
3/24/2014 9:50	EFF-01	Field Parameter	pH	7.9			
3/24/2014 10:15	Field Blanks	Metals	Iron	30 U	ug/L	30	120
3/24/2014 10:15	Field Blanks	Metals	Calcium	0.075 U	mg/L	0.075	0.3
3/24/2014 10:15	Field Blanks	Metals	Selenium	0.20 U	ug/L	0.2	0.8
3/24/2014 10:15	Field Blanks	Metals	Potassium	0.30 U	mg/L	0.3	1.2
3/24/2014 10:15	Field Blanks	Metals	Silver	0.025 U	ug/L	0.025	0.1
3/24/2014 10:15	Field Blanks	Metals	Chromium	0.30 U	ug/L	0.3	1.2
3/24/2014 10:15	Field Blanks	Metals	Lead	0.20 U	ug/L	0.2	0.8
3/24/2014 10:15	Field Blanks	Metals	Nickel	0.25 U	ug/L	0.25	1
3/24/2014 10:15	Field Blanks	Metals	Copper	0.50 U	ug/L	0.5	1
3/24/2014 10:15	Field Blanks	Metals	Magnesium	0.040 U	mg/L	0.04	0.16
3/24/2014 10:15	Field Blanks	Metals	Cadmium	0.050 U	ug/L	0.05	0.2
3/24/2014 10:15	Field Blanks	Metals	Arsenic	0.25 U	ug/L	0.25	1
3/24/2014 10:15	Field Blanks	Metals	Zinc	5.0 U	ug/L	5	20
3/24/2014 10:15	Field Blanks	Metals	Aluminum	5.0 U	ug/L	5	20
3/24/2014 10:15	Field Blanks	Metals	Sodium	0.50 U	mg/L	0.5	2
3/24/2014 10:15	Field Blanks	Nutrients	Color (true)	2.5 U	PCU	2.5	6
3/24/2014 10:15	Field Blanks	Nutrients	Organic Carbon	0.50 U	mg C/L	0.5	1
3/24/2014 10:15	Field Blanks	Nutrients	Ammonia-N	0.002 I	mg N/L	0.002	0.005
3/24/2014 10:15	Field Blanks	Nutrients	Chloride	0.20 U	mg Cl/L	0.2	0.5
3/24/2014 10:15	Field Blanks	Nutrients	Fluoride	0.035 U	mg F/L	0.035	0.1
3/24/2014 10:15	Field Blanks	Nutrients	Alkalinity	0.65 U	mg CaCO3/L	0.65	2.5
3/24/2014 10:15	Field Blanks	Nutrients	Turbidity	0.10 U	NTU	0.1	0.1
3/24/2014 10:15	Field Blanks	Nutrients	Sulfate	0.20 U	mg SO4/L	0.2	0.5
3/24/2014 10:15	Field Blanks	Nutrients	Total-P	0.002 U	mg P/L	0.002	0.005
3/24/2014 10:15	Field Blanks	Nutrients	Kjeldahl Nitrogen	0.080 U	mg N/L	0.08	0.2
3/24/2014 10:15	Field Blanks	Nutrients	O-Phosphate-P	0.004 U	mg P/L	0.004	0.01
3/24/2014 10:15	Field Blanks	Nutrients	NO2NO3-N	0.004 U	mg N/L	0.004	0.01

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	MDL	PQL
3/24/2014 10:15	Field Blanks	Pesticides	Atrazine Desisopropyl	0.011 U	ug/L	0.011	0.043
3/24/2014 10:15	Field Blanks	Pesticides	Fenamiphos	0.033 UJ	ug/L	0.033	0.13
3/24/2014 10:15	Field Blanks	Pesticides	Malathion	0.011 U	ug/L	0.011	0.043
3/24/2014 10:15	Field Blanks	Pesticides	Phorate	0.0054 UJ	ug/L	0.0054	0.022
3/24/2014 10:15	Field Blanks	Pesticides	Atrazine	0.011 U	ug/L	0.011	0.043
3/24/2014 10:15	Field Blanks	Pesticides	Bromacil	0.043 U	ug/L	0.043	0.17
3/24/2014 10:15	Field Blanks	Pesticides	Chlorpyrifos Ethyl	0.011 U	ug/L	0.011	0.043
3/24/2014 10:15	Field Blanks	Pesticides	Diazinon	0.011 UJ	ug/L	0.011	0.043
3/24/2014 10:15	Field Blanks	Pesticides	Disulfoton	0.0054 U	ug/L	0.0054	0.022
3/24/2014 10:15	Field Blanks	Pesticides	Mevinphos	0.011 UJ	ug/L	0.011	0.043
3/24/2014 10:15	Field Blanks	Pesticides	Naled	0.043 U	ug/L	0.043	0.17
3/24/2014 10:15	Field Blanks	Pesticides	Butylate	0.022 U	ug/L	0.022	0.087
3/24/2014 10:15	Field Blanks	Pesticides	Ethoprop	0.0054 U	ug/L	0.0054	0.022
3/24/2014 10:15	Field Blanks	Pesticides	Metribuzin	0.022 U	ug/L	0.022	0.087
3/24/2014 10:15	Field Blanks	Pesticides	Simazine	0.011 U	ug/L	0.011	0.043
3/24/2014 10:15	Field Blanks	Pesticides	Azinphos Methyl	0.022 U	ug/L	0.022	0.087
3/24/2014 10:15	Field Blanks	Pesticides	Hexazinone	0.033 U	ug/L	0.033	0.13
3/24/2014 10:15	Field Blanks	Pesticides	Metolachlor	0.065 U	ug/L	0.065	0.26
3/24/2014 10:15	Field Blanks	Pesticides	Parathion Ethyl	0.022 U	ug/L	0.022	0.087
3/24/2014 10:15	Field Blanks	Pesticides	Atrazine Desethyl	0.011 U	ug/L	0.011	0.043
3/24/2014 10:15	Field Blanks	Pesticides	Ethion	0.011 U	ug/L	0.011	0.043
3/24/2014 10:15	Field Blanks	Pesticides	Metalaxyl	0.043 U	ug/L	0.043	0.17
3/24/2014 10:15	Field Blanks	Pesticides	Parathion Methyl	0.011 U	ug/L	0.011	0.043
3/24/2014 10:15	Field Blanks	Pesticides	Alachlor	0.065 U	ug/L	0.065	0.26
3/24/2014 10:15	Field Blanks	Pesticides	Ametryn	0.011 UJ	ug/L	0.011	0.043
3/24/2014 10:15	Field Blanks	Pesticides	Chlorpyrifos Methyl	0.011 U	ug/L	0.011	0.043
3/24/2014 10:15	Field Blanks	Pesticides	Prometon	0.022 U	ug/L	0.022	0.087
3/24/2014 10:15	Field Blanks	Pesticides	Demeton	0.026 U	ug/L	0.026	0.1
3/24/2014 10:15	Field Blanks	Pesticides	Fonofos	0.011 U	ug/L	0.011	0.043
3/24/2014 10:15	Field Blanks	Pesticides	Norflurazon	0.033 U	ug/L	0.033	0.13
3/24/2014 10:15	Field Blanks	Pesticides	Prometryn	0.022 U	ug/L	0.022	0.087
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	1,2,4-Trichlorobenzene	1.0 U	ug/L	1	4.1
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Dimethyl phthalate	1.0 U	ug/L	1	4.1
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Acenaphthylene	0.20 U	ug/L	0.2	0.82
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Benzo(k)fluoranthene	0.20 U	ug/L	0.2	0.82
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	2.0 U	ug/L	2	8.2
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Chrysene	0.20 U	ug/L	0.2	0.82
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Diethyl phthalate	1.0 U	ug/L	1	4.1

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	MDL	PQL
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Phenol	1.0 U	ug/L	1	4.1
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	2-Chloronaphthalene	1.0 U	ug/L	1	4.1
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Di-n-octyl phthalate	1.0 U	ug/L	1	4.1
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Butyl benzyl phthalate	1.0 U	ug/L	1	4.1
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	4-Chloro-3-methylphenol	1.0 U	ug/L	1	4.1
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	2,4-Dimethylphenol	10 U	ug/L	10	41
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Nitrobenzene	2.0 U	ug/L	2	8.2
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Hexachloroethane	3.1 U	ug/L	3.1	12
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	2,4-Dinitrophenol	15 UJ	ug/L	15	61
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	1.0 U	ug/L	1	4.1
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Hexachlorobutadiene	3.1 U	ug/L	3.1	12
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Isophorone	1.0 U	ug/L	1	4.1
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Naphthalene	0.20 U	ug/L	0.2	0.82
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Pyrene	0.20 U	ug/L	0.2	0.82
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	2,4-Dichlorophenol	1.0 U	ug/L	1	4.1
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	2,6-Dinitrotoluene	1.0 U	ug/L	1	4.1
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	4-Nitrophenol	15 U	ug/L	15	61
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Acenaphthene	0.20 U	ug/L	0.2	0.82
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.20 U	ug/L	0.2	0.82
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Fluoranthene	0.20 U	ug/L	0.2	0.82
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Hexachlorobenzene	1.0 U	ug/L	1	4.1
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Hexachlorocyclopentadiene	3.1 U	ug/L	3.1	12
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.0 U	ug/L	2	8.2
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Bis(2-chloroethyl)ether	1.0 U	ug/L	1	4.1
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.20 U	ug/L	0.2	0.82
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.20 U	ug/L	0.2	0.82
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	N-Nitrosodimethylamine	2.0 U	ug/L	2	8.2
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	2,4,6-Trichlorophenol	1.0 U	ug/L	1	4.1
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.1 U	ug/L	3.1	12
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	3,3'-Dichlorobenzidine	41 U	ug/L	41	160
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	4-Bromophenyl phenyl ether	1.0 U	ug/L	1	4.1
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Benzo(b)fluoranthene	0.20 U	ug/L	0.2	0.82
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Fluorene	0.20 U	ug/L	0.2	0.82
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.0 U	ug/L	2	8.2
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	3.1 U	ug/L	3.1	12
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	2-Chlorophenol	1.0 U	ug/L	1	4.1
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	2-Nitrophenol	1.0 U	ug/L	1	4.1
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Benzidine	100 U	ug/L	100	410

Date Sampled	Field ID	Analysis Group	Component	Result	Remark	MDL	PQL
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Benzo(a)anthracene	0.20 U	ug/L	0.2	0.82
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	3.1 U	ug/L	3.1	12
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Pentachlorophenol	3.1 U	ug/L	3.1	12
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Phenanthrene	0.20 U	ug/L	0.2	0.82
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	2,4-Dinitrotoluene	1.0 U	ug/L	1	4.1
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Anthracene	0.20 U	ug/L	0.2	0.82
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Benzo(a)pyrene	0.20 U	ug/L	0.2	0.82
3/24/2014 10:15	Field Blanks	Priority Organic Pollutants	Di-n-butyl phthalate	1.0 U	ug/L	1	4.1

The Bioassay of Kerry I and F Contracting Company effluent sampled on March 24, 2014. NPDES #FL0037389.

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 FL0037389	11 12	140324		18 **B**	19 **S**	20 2

Remarks

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The Priority Pollutants Analysis of Kerry I and F Contracting Company effluent sampled on March 24, 2014. NPDES #FL0037389.

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 FL0037389	11 12	140324		18 **X**	19 **S**	20 2

Remarks

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Biological Analyses of Kerry I and F Contracting Company effluent sampled on March 24, 2014. NPDES #FL0037389.

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 FL0037389	11 12	140324		18 **S**	19 **S**	20 2

Remarks

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