

Effluent Quality Assessment

Coca-Cola North America

Pinellas County

NPDES #FL0000477

Sampled February 17, 19, 21, 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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Coca-Cola North America, 427 San Christopher Drive, Dunedin, Pinellas County, Florida, 34698. NPDES #FL0000477.

Facility Overview

Coca-Cola North America's Industrial Wastewater Treatment Plant (IWTP) is an activated sludge system designed to collect and treat industrial process wastewater. Wastewater is treated and discharged to St. Joseph's Sound, a tidal estuary and Outstanding Florida Water (OFW). 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 February 17, 19, and 21, 2014. Effluent composite and grab samples for biological and chemical analyses for this facility were collected on February 17, 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 chronic definitive toxicity tests were performed following internal DEP SOPs TA07_05 and TA07_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 0.017 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.
- Fecal coliform bacteria detected in the effluent represents a potential exceedance of Class III Marine Water Quality Criterion (62-302-530(6), F.A.C.).
- No organic constituents were detected in the effluent sample.
- Total phosphorus, total nitrogen, total suspended solids (TSS), fluoride, and aluminum were detected in the effluent at levels that comply with Class III Marine Water Quality Criteria (62-302.530, F.A.C.) and/or permit limits. Carbonaceous biochemical oxygen demand (CBOD) was detected in the effluent; however, the permit limit is for biochemical oxygen demand (BOD). Total chromium, iron, nickel, selenium, and zinc were detected between the laboratory method detection limits (MDL) and practical quantitation limits (PQL).

Toxicity Test Results (See Appendix C)

- Tests were performed February 18 - 25, 2014.

Ceriodaphnia dubia 7-day chronic definitive bioassay – IC25: 29.1%
NOEC: 25%

Pimephales promelas 7-day chronic definitive bioassay – IC25: 33.2%
NOEC: 25%

- The bioassay samples were chronically toxic to the test organisms. Potential factors contributing to the observed toxicity include but are not limited to ion imbalance, total alkalinity and concentrations of potassium, chloride and sodium. A study by the facility confirmed that ion imbalance was the probable cause of toxicity in other chronic tests. Total alkalinity exceeded levels thought to contribute to toxicity noted in *Ceriodaphnia dubia* tests (Cowgill and Milazzo, 1991).

Concentrations of chloride, sodium and potassium exceeded concentrations shown to produce toxicity to the *Ceriodaphnia dubia* and *Pimephales promelas* used by the FDEP bioassay laboratory. Additional potential factors contributing to the observed toxicity cannot be ruled out.

Conclusion

The effluent samples collected from the EFF-01 NPDES sampling point for this facility on February 17, 19, and 21, 2014, were chronically toxic to both test species during the chronic definitive bioassays. The observed toxicity was attributed at least in part to ionic imbalance, total alkalinity, and the sodium and potassium concentrations of the effluent. Effluent water quality samples collected on February 17, 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

Cowgill, U.M., and D. P. Milazzo. 1991. The Sensitivity of Two Cladocerans to Water Quality Variables: Alkalinity. *Archives of Environmental Contamination and Toxicology* 21: 224-2328

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

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 Marine Criteria and field parameters

Coca-Cola North America	Units	Class III Criteria	Effluent Permit Limits	Effluent Composite	Effluent Grab
Sample Depth	m	-	-	-	0.42
Temperature	C	-	-	-	15.13
pH	SU	6.5 - 8.5	6.5 - 8.5	-	8.38
Specific Conductance	umhos/cm	-	Report	-	2980
Salinity	ppth	-	-	-	1.9 c
Dissolved Oxygen	% saturation	42	-	-	93.9
Dissolved Oxygen	mg/L	-	≥ 5.0	-	9.34
Flow	MGD	-	≤ 0.45	-	0.13

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

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

Coca-Cola North America	Units	Class III Criteria	Effluent Permit Limits	Effluent Composite	Effluent Grab
Ortho-phosphate	mg P/L	-	-	-	0.005 I
Total Phosphorus	mg P/L	-	≤ 1.0 m	0.32	0.31
Total Ammonia	mg N/L	-	-	-	0.017
Un-ionized Ammonia (calculated salinity)	mg N/L	-	-	-	< 0.02 c
Nitrate and Nitrite	mg N/L	-	-	0.009 I	0.012
Total Kjeldahl Nitrogen	mg N/L	-	Report	1.3	1.2
Organic Nitrogen	mg N/L	-	-	-	1.2 c
Total Nitrogen	mg N/L	-	≤ 3.0 m	1.3 c	1.2 c
Total Organic Carbon	mg C/L	-	-	-	15
Chlorophyll *a* - Corrected	ug/L	-	-	-	2.8 U
Phaeophytin	ug/L	-	-	-	2.0 U
CBOD, 5 day, N - inhibited	mg/L	-	-	5.3 J	-
BOD, 5 day, N - uninhibited	mg/L	-	≤ 20.0 p	-	-
Hardness	mg CaCO3/L	-		77.4 c	79.4 c
Total Suspended Solids	mg/L	-	≤ 20.0 p	10	-
Turbidity	NTU	≤ 29 t	-	-	2
Color (true)	PCU	-	-	-	15
Alkalinity	mg CaCO3/L	-	-	-	1.42E
Chloride	mg Cl/L	-	-	-	140
Fluoride	mg F/L	≤ 5.0	-	-	0.94
Sulfate	mg SO4/L	-	-	-	9
Alpha, Total	pCi/L	-	≤ 15 p	4.5 U	-
Alpha-Counting Error	pCi/L	-	-	2.9	-
Radium 226	pCi/L	-	-	0.3 U	-
Radium 226-Counting Error	pCi/L	-	-	0.2	-
Radium 228	pCi/L	-	-	0.8 U	-
Radium 228-Counting Error	pCi/L	-	-	0.5	-
Radium 226 + 228		-	≤ 5 p	0 c	-
Microbiology					
Fecal Coliforms ¥	cfu/100 mL	400 #	-	-	640 B

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

m - Monthly average

p - 24 hour flow proportioned composite

t - Shall not exceed 29 NTUs above background

B - Results based on colony counts outside the acceptance range

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 Advanced Environmental Laboratories, Inc. - Tamp, FL

- 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 Marine Criteria and analytical metals data

Coca-Cola North America	Units	Class III Criteria	Effluent Permit Limits	Effluent Composite	Effluent Grab
Aluminum	ug/L	≤ 1500	-	814	989
Arsenic	ug/L	-	≤ 50 p	0.25 U	0.25 U
Cadmium	ug/L	≤ 8.8	-	0.050 U	0.050 U
Calcium	mg/L	-	-	19.9	20.5
Chromium, Total [1]	ug/L	≤ 50	-	0.46 I	0.50 I
Copper	ug/L	≤ 3.7	≤ 3.7 p	0.50 U	0.50 U
Iron	ug/L	≤ 300	-	31 I	34 I
Lead	ug/L	≤ 8.5	≤ 8.5 p	0.20 U	0.20 U
Magnesium	mg/L	-	-	6.72	6.86
Nickel	ug/L	≤ 8.3	-	0.84 I	0.74 I
Potassium	mg/L	-	-	273	251
Selenium	ug/L	≤ 71	-	0.23 I	0.21 I
Silver	ug/L	≤ 2.3	-	0.025 U	0.025 U
Sodium	mg/L	-	-	586	615
Zinc	ug/L	≤ 86	-	12 I	15 I

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 Marine Water Quality Criterion (62-302.530(19)(b), F.A.C.) is for chromium-VI

p - 24 hour flow proportioned composite

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

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): Coca-Cola North America	Former Names:
NPDES Permit Number: FL0000477	Permit Expiration Date: October 28, 2014
Physical Address: 427 San Christopher Drive, Dunedin, FL 34698	
District: SWD	County: Pinellas
Function of Facility: Industrial Wastewater Facility	
Facility Type: Industrial Wastewater	Permitted Capacity (MGD): 0.45
Mean Flow for previous 12 months for all EXTERNAL outfalls listed in permit (list date range including months): 0.13 MGD (January2013- December 2013)	
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-01	Flow measured via Parshall flume on discharge line after filtration bank.
EFF-01	After polishing filter prior to Parshall flume.

Description of Permitted Outfall(s):

Surface Water Discharge:

An existing 0.45 MGD maximum daily discharge to St. Joseph's Sound (Class III marine waters, WBID #1528C), via a 6-inch submerged diameter pipe approximately 820-feet from shore. The submerged Outfall (D-001) is located approximately at latitude 28° 01' 13" N, longitude 82° 47' 38" W.

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

The facility's Industrial Wastewater Treatment Plant (IWTP) is an activated sludge system designed to collect and treat industrial process wastewater utilizing flow equalization, aeration, clarification and filtration for treatment of the industrial process related wastewater streams. The process wastewater consists of process blending, tank cleaning, boiler blowdown, cleaning of the truck unloading area, non-contact defrost water, and well water used for cleaning the activated sludge treatment plant, maintenance of the wastewater treatment plant and collection of contaminated stormwater runoff, as needed, from parking lots and paved areas of the plant. (See attached Diagram 1 Dunedin IWTP Basic Block Flow)

The permitted capacity of the system is 0.45 MGD maximum daily flow 1/09/09.

All sanitary wastewater is separated from process industrial wastewater and sent directly to the City of Dunedin WWTP for treatment. Stormwater runoff is separated and collected from impervious plant areas and sent to the onsite stormwater retention pond. Any sludge generated from the on-site IWTP is treated in a filter press and trucked off-site for disposal/re-use.

In 2007 the facility installed a 70-gallon per minute reverse osmosis (RO) system to treat well water obtained from two on-site permitted wells. Well water will be pumped at a daily combined rate not exceed 165,000 gallons per day from the two wells. Sodium hypochlorite will be added at a dosage rate of 2.0 parts per million (ppm) with a static mixer and the dosed water will be filtered through a greensand filter containing gravel, greensand, and anthracite. The filtered water will be sent through the RO cellulose acetate membranes. The permeate will be blended with incoming city water and treated with the existing water treatment system prior to use as an ingredient into the products. The concentrate water from the RO system, and backwash water from the existing water treatment system will be collected in the reclaim water tank and discharged to the existing on-site wastewater treatment plant. Well water from the two wells is also used for various cleaning and washing operations.

The wastewater is treated and discharged to St. Joseph's Sound, a tidal estuary and Outstanding Florida Water (OFW) body, through a submerged Outfall D-001.

Receiving Waters: St. Joseph's Sound **Classification (indicate whether fresh or marine): Class III Marine water body**

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

Facility ID	Monitoring Date	Outfall Indicator	Parameter Description	Data	Limit	Statistical Base	Units
FL0000477	6/30/2010	001-1	PHOSPHORUS, TOTAL (AS P)	1.5	1	MO AVG	mg/L
FL0000477	6/30/2010	001-1	PHOSPHORUS, TOTAL (AS P)	1.5	Report	DAILY MX	mg/L
FL0000477	6/30/2010	001-T	IC25 STATRE 7DAY CHR MYSID BAHIA	58.7	100	MINIMUM	%
FL0000477	8/31/2010	001-T	IC25 STATRE 7DAY CHR MYSID BAHIA	60.2	100	MINIMUM	%
FL0000477	8/31/2010	001-T	IC25 STATRE 7DAY CHR MYSID BAHIA	53.7	100	MINIMUM	%
FL0000477	11/30/2010	001-1	BIOCHEMICAL OXYGEN DEMAND-5	12.5	10	MO AVG	mg/L
FL0000477	11/30/2010	001-1	BIOCHEMICAL OXYGEN DEMAND-5	24	20	DAILY MX	mg/L
FL0000477	11/30/2010	001-T	IC25 STATRE 7DAY CHR MYSID BAHIA	60.52	100	MINIMUM	%
FL0000477	12/31/2010	001-1	SOLIDS, TOTAL SUSPENDED	36.4	10	MO AVG	mg/L
FL0000477	12/31/2010	001-1	SOLIDS, TOTAL SUSPENDED	74	20	DAILY MX	mg/L
FL0000477	1/31/2011	001-1	SOLIDS, TOTAL SUSPENDED	13	10	MO AVG	mg/L
FL0000477	1/31/2011	001-1	SOLIDS, TOTAL SUSPENDED	30	20	DAILY MX	mg/L
FL0000477	6/30/2011	001-1	PHOSPHORUS, TOTAL (AS P)	1.9	1	MO AVG	mg/L
FL0000477	6/30/2011	001-1	PHOSPHORUS, TOTAL (AS P)	1.9	Report	DAILY MX	mg/L
FL0000477	6/30/2011	001-T	IC25 STATRE 7DAY CHR MYSID BAHIA	61.88	100	MINIMUM	%
FL0000477	9/30/2011	001-T	IC25 STATRE 7DAY CHR MYSID BAHIA	62.5	100	MINIMUM	%
FL0000477	12/31/2011	001-T	IC25 STATRE 7DAY CHR MYSID BAHIA	56.59	100	MINIMUM	%
FL0000477	3/31/2012	001-T	IC25 STATRE 7DAY CHR MYSID BAHIA	56.6	100	MINIMUM	%
FL0000477	6/30/2012	001-T	IC25 STATRE 7DAY CHR MYSID BAHIA	56.5	100	MINIMUM	%
FL0000477	10/31/2012	001-1	PHOSPHORUS, TOTAL (AS P)	3.6	1	MO AVG	mg/L
FL0000477	10/31/2012	001-1	PHOSPHORUS, TOTAL (AS P)	3.6	Report	DAILY MX	mg/L
FL0000477	12/31/2012	001-T	IC25 STATRE 7DAY CHR MYSID BAHIA	56	100	MINIMUM	%
FL0000477	3/31/2013	001-T	IC25 STATRE 7DAY CHR MYSID BAHIA	35.8	100	MINIMUM	%
FL0000477	6/30/2013	001-T	IC25 STATRE 7DAY CHR MENDIA	80.2	100	MINIMUM	%
FL0000477	9/30/2013	001-T	IC25 STATRE 7DAY CHR MYSID BAHIA	56.4	100	MINIMUM	%
FL0000477	12/31/2013	001-T	IC25 STATRE 7DAY CHR MYSID BAHIA	51.4	100	MINIMUM	%
FL0000477	12/31/2013	001-T	IC25 STATRE 7DAY CHR MENDIA	98.3	100	MINIMUM	%

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 There have been ongoing failures for Chronic whole effluent toxicity test at the facility. As per their study, the facility has determined that the toxicity was being created by an ion imbalance. Coca-Cola is working on projects to tie-in Coca-Cola's effluent discharge to the City Of Dunedin's ("City") reclaimed distribution system.
Discuss whether DMR trends within previous five years are improving or declining:
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)

Surface Water Discharges: During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge treated industrial wastewater from Outfall D-001. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with condition I.E.3:

	Discharge Limitations			Monitoring Requirements		
Parameters (units)	**Monthly Average**	**Maximum**	**Other (specified)**	**Monitoring Frequency**	**Sample Type**	**Sample Point**
Flow (MGD)	Report	0.45		Continuous	Recorder	FLW-01
pH (SU)		8.5	6.5 (Minimum)	Daily	Meter	EFF-01
BOD_5 (MG/L)	10.0	20.0		Weekly	24-Hour Composite	EFF-01
Solids, Total Suspended (MG/L)	10.0	20.0		Weekly	24-Hour Composite	EFF-01
Nitrogen, Total (MG/L)	3.0	Report		Monthly	24-Hour Composite	EFF-01
Nitrogen, Kjeldahl, Total (as N) (MG/L)	Report	Report		Monthly	24-Hour Composite	EFF-01
Oxygen, Dissolved (DO) (MG/L)	Report		5.0 (Minimum)	Daily	Meter	EFF-01
Phosphorus, Total (as P) (MG/L)	1.0	Report		Monthly	24-Hour Composite	EFF-01
Copper, Total Recoverable (UG/L)	Report	3.7		Monthly	24-Hour Composite	EFF-01
Arsenic, Total Recoverable (UG/L)		50		Quarterly	24-Hour Composite	EFF-01
Lead, Total Recoverable (UG/L)		8.5		Quarterly	24-Hour Composite	EFF-01
Specific Conductance (UMHO/CM)	Report	Report		Weekly	Meter	EFF-01
Gross Alpha (PI/L)		15		Quarterly	24-Hour Composite	EFF-01
Radium 226+228		5		Quarterly	24-Hour Composite	EFF-01
Whole Effluent Toxicity	See Permit Condition I.A.3					

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 once every six months.

c. Sampling Requirements

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

(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:

Florida Department of Environmental Protection

Southwest District

13051 North Telecom Parkway

Temple Terrace, Florida 33637

g. Test Failures

(1)A test fails when the test results do not meet the limits in 3.a.(1).

(2) Additional Follow-up Tests:

(a) If a routine test does not meet the chronic toxicity limitation in 3.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 3.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.

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

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

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

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

(e) During the implementation of the plan, the permittee shall conduct quarterly routine whole effluent toxicity tests in accordance with 3.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 3.b.(1). If a routine test is invalid according to the acceptance criteria in EPA-821-R-02-013, a repeat test shall be initiated within 21 days after the last day of the invalid routine test.

(f) Upon completion of four consecutive, valid routine tests that demonstrate compliance with the effluent limitation in 3.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.

(4) If chronic toxicity test results indicate greater than 50% mortality within 96 hours in an effluent concentration equal to or less than the effluent concentration specified as the acute toxicity limit in 3.(1)(b), the Department may revise this permit to require acute definitive whole effluent toxicity testing.

(5) The additional follow-up testing and the plan do not preclude the Department taking enforcement action for acute or chronic whole effluent toxicity permit limit violations.

Coca-Cola North America, Permit #: FL0000477; FYI3 PART II: Sampling Event Information	
Date(s) sample collected: February 17, 19 & 21, 2014	**Sampler(s):** Ramandeep Kaur, Gitta Schmitt
Temperature (Deg C): 15.13	**pH (SU):** 8.38
Dissolved Oxygen (mg/L): 9.34 (DO% 93.9)	**Conductivity (umhos/cm):** Salinity: 1.56 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): 0.27	
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): 0.13 MGD (January2013- December 2013)	
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.	



Discharge Sampling point –EFF-01 and Composite Samplers

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) Bacteriological Testing

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

(5) Chlorophyll *a* Content

Chlorophyll a content is an estimate 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	Units	MDL	PQL
2/17/2014 9:30	Effluent Composite	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	5.3 J	mg/L	0.2	2
2/17/2014 9:30	Effluent Composite	Toxicology	Bioassay-Chron-Def-FW-Fish, IC25	33.2	IC25		
2/17/2014 9:30	Effluent Composite	Toxicology	Bioassay-Chron-Def-FW-C.dubia, NOEC	25	NOEC		
2/17/2014 9:30	Effluent Composite	Toxicology	Bioassay-Chron-Def-FW-C.dubia, IC25	29.1	IC25		
2/17/2014 9:30	Effluent Composite	Toxicology	Bioassay-Chron-Def-FW-Fish, NOEC	25	NOEC		
2/17/2014 9:30	Effluent Composite	Metals	Chromium	0.46 I	ug/L	0.3	1.2
2/17/2014 9:30	Effluent Composite	Metals	Nickel	0.84 I	ug/L	0.25	1
2/17/2014 9:30	Effluent Composite	Metals	Potassium	273	mg/L	6	24
2/17/2014 9:30	Effluent Composite	Metals	Arsenic	0.25 U	ug/L	0.25	1
2/17/2014 9:30	Effluent Composite	Metals	Sodium	586	mg/L	2.5	10
2/17/2014 9:30	Effluent Composite	Metals	Copper	0.50 U	ug/L	0.5	1
2/17/2014 9:30	Effluent Composite	Metals	Cadmium	0.050 U	ug/L	0.05	0.2
2/17/2014 9:30	Effluent Composite	Metals	Calcium	19.9	mg/L	0.075	0.3
2/17/2014 9:30	Effluent Composite	Metals	Zinc	12 I	ug/L	5	20
2/17/2014 9:30	Effluent Composite	Metals	Iron	31 I	ug/L	30	120
2/17/2014 9:30	Effluent Composite	Metals	Selenium	0.23 I	ug/L	0.2	0.8
2/17/2014 9:30	Effluent Composite	Metals	Lead	0.20 U	ug/L	0.2	0.8
2/17/2014 9:30	Effluent Composite	Metals	Aluminum	814	ug/L	5	20
2/17/2014 9:30	Effluent Composite	Metals	Silver	0.025 U	ug/L	0.025	0.1
2/17/2014 9:30	Effluent Composite	Metals	Magnesium	6.72	mg/L	0.04	0.16
2/17/2014 9:30	Effluent Composite	Nutrients	TSS	10	mg/L	2	10
2/17/2014 9:30	Effluent Composite	Nutrients	Kjeldahl Nitrogen	1.3	mg N/L	0.08	0.2
2/17/2014 9:30	Effluent Composite	Nutrients	Total-P	0.32	mg P/L	0.005	0.05
2/17/2014 9:30	Effluent Composite	Nutrients	NO2NO3-N	0.009 I	mg N/L	0.004	0.01
2/17/2014 9:30	Effluent Composite	Overflow	Alpha-Counting Error	2.9	pCi/L	4.5	
2/17/2014 9:30	Effluent Composite	Overflow	Radium 226	0.3 U	pCi/L	0.3	
2/17/2014 9:30	Effluent Composite	Overflow	Radium 226-Counting Error	0.2	pCi/L	0.3	
2/17/2014 9:30	Effluent Composite	Overflow	Radium 228-Counting Error	0.5	pCi/L	0.8	
2/17/2014 9:30	Effluent Composite	Overflow	Alpha, Total	4.5 U	pCi/L	4.5	
2/17/2014 9:30	Effluent Composite	Overflow	Radium 228	0.8 U	pCi/L	0.8	
2/17/2014 10:30	Effluent Grab	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	2.8 U	ug/L	2.8	8.5
2/17/2014 10:30	Effluent Grab	Chlorophyll/Grain Size/BOD	Phaeophytin-a	2.0 U	ug/L	2	6
2/17/2014 10:30	Effluent Grab	Overflow	Fecal Coliforms-Membrane Filter	640 B	cfu/100 mL	9	
2/17/2014 10:30	Effluent Grab	Metals	Silver	0.025 U	ug/L	0.025	0.1
2/17/2014 10:30	Effluent Grab	Metals	Nickel	0.74 I	ug/L	0.25	1

Date Sampled	Field ID	Analysis Group	Component	Result	Units	MDL	PQL
2/17/2014 10:30	Effluent Grab	Metals	Cadmium	0.050 U	ug/L	0.05	0.2
2/17/2014 10:30	Effluent Grab	Metals	Sodium	615	mg/L	2.5	10
2/17/2014 10:30	Effluent Grab	Metals	Calcium	20.5	mg/L	0.075	0.3
2/17/2014 10:30	Effluent Grab	Metals	Magnesium	6.86	mg/L	0.04	0.16
2/17/2014 10:30	Effluent Grab	Metals	Aluminum	989	ug/L	5	20
2/17/2014 10:30	Effluent Grab	Metals	Lead	0.20 U	ug/L	0.2	0.8
2/17/2014 10:30	Effluent Grab	Metals	Chromium	0.50 I	ug/L	0.3	1.2
2/17/2014 10:30	Effluent Grab	Metals	Copper	0.50 U	ug/L	0.5	1
2/17/2014 10:30	Effluent Grab	Metals	Iron	34 I	ug/L	30	120
2/17/2014 10:30	Effluent Grab	Metals	Potassium	251	mg/L	6	24
2/17/2014 10:30	Effluent Grab	Metals	Selenium	0.21 I	ug/L	0.2	0.8
2/17/2014 10:30	Effluent Grab	Metals	Arsenic	0.25 U	ug/L	0.25	1
2/17/2014 10:30	Effluent Grab	Metals	Zinc	15 I	ug/L	5	20
2/17/2014 10:30	Effluent Grab	Nutrients	Ammonia-N	0.017	mg N/L	0.002	0.005
2/17/2014 10:30	Effluent Grab	Nutrients	Organic Carbon	15	mg C/L	0.5	1
2/17/2014 10:30	Effluent Grab	Nutrients	Chloride	140	mg Cl/L	4	10
2/17/2014 10:30	Effluent Grab	Nutrients	Turbidity	2	NTU	0.1	0.1
2/17/2014 10:30	Effluent Grab	Nutrients	Sulfate	9	mg SO4/L	0.2	0.5
2/17/2014 10:30	Effluent Grab	Nutrients	Kjeldahl Nitrogen	1.2	mg N/L	0.08	0.2
2/17/2014 10:30	Effluent Grab	Nutrients	O-Phosphate-P	0.005 I	mg P/L	0.004	0.01
2/17/2014 10:30	Effluent Grab	Nutrients	Total-P	0.31	mg P/L	0.005	0.05
2/17/2014 10:30	Effluent Grab	Nutrients	Alkalinity	1.42E	mg CaCO3/L	0.65	2.5
2/17/2014 10:30	Effluent Grab	Nutrients	Color (true)	15	PCU	2.5	6
2/17/2014 10:30	Effluent Grab	Nutrients	Fluoride	0.94	mg F/L	0.035	0.1
2/17/2014 10:30	Effluent Grab	Nutrients	NO2NO3-N	0.012	mg N/L	0.004	0.01
2/17/2014 10:30	Effluent Grab	Pesticides	Butylate	0.019 U	ug/L	0.019	0.078
2/17/2014 10:30	Effluent Grab	Pesticides	Chlorpyrifos Methyl	0.0097 U	ug/L	0.0097	0.039
2/17/2014 10:30	Effluent Grab	Pesticides	Fonofos	0.0097 U	ug/L	0.0097	0.039
2/17/2014 10:30	Effluent Grab	Pesticides	Norflurazon	0.029 U	ug/L	0.029	0.12
2/17/2014 10:30	Effluent Grab	Pesticides	Azinphos Methyl	0.019 U	ug/L	0.019	0.078
2/17/2014 10:30	Effluent Grab	Pesticides	Chlorpyrifos Ethyl	0.0097 U	ug/L	0.0097	0.039
2/17/2014 10:30	Effluent Grab	Pesticides	Diazinon	0.0097 U	ug/L	0.0097	0.039
2/17/2014 10:30	Effluent Grab	Pesticides	Ethoprop	0.0049 U	ug/L	0.0049	0.019
2/17/2014 10:30	Effluent Grab	Pesticides	Naled	0.039 UJ	ug/L	0.039	0.16
2/17/2014 10:30	Effluent Grab	Pesticides	Parathion Methyl	0.0097 U	ug/L	0.0097	0.039
2/17/2014 10:30	Effluent Grab	Pesticides	Fenamiphos	0.029 U	ug/L	0.029	0.12
2/17/2014 10:30	Effluent Grab	Pesticides	Metolachlor	0.058 U	ug/L	0.058	0.23
2/17/2014 10:30	Effluent Grab	Pesticides	Mevinphos	0.0097 U	ug/L	0.0097	0.039
2/17/2014 10:30	Effluent Grab	Pesticides	Phorate	0.0049 U	ug/L	0.0049	0.019

Date Sampled	Field ID	Analysis Group	Component	Result	Units	MDL	PQL
2/17/2014 10:30	Effluent Grab	Pesticides	Prometon	0.019 U	ug/L	0.019	0.078
2/17/2014 10:30	Effluent Grab	Pesticides	Bromacil	0.039 U	ug/L	0.039	0.16
2/17/2014 10:30	Effluent Grab	Pesticides	Malathion	0.0097 U	ug/L	0.0097	0.039
2/17/2014 10:30	Effluent Grab	Pesticides	Ametryn	0.0097 U	ug/L	0.0097	0.039
2/17/2014 10:30	Effluent Grab	Pesticides	Metribuzin	0.019 U	ug/L	0.019	0.078
2/17/2014 10:30	Effluent Grab	Pesticides	Parathion Ethyl	0.019 U	ug/L	0.019	0.078
2/17/2014 10:30	Effluent Grab	Pesticides	Simazine	0.0097 U	ug/L	0.0097	0.039
2/17/2014 10:30	Effluent Grab	Pesticides	Atrazine Desethyl	0.0097 U	ug/L	0.0097	0.039
2/17/2014 10:30	Effluent Grab	Pesticides	Atrazine Desisopropyl	0.0097 U	ug/L	0.0097	0.039
2/17/2014 10:30	Effluent Grab	Pesticides	Hexazinone	0.029 UJ	ug/L	0.029	0.12
2/17/2014 10:30	Effluent Grab	Pesticides	Metalaxyl	0.039 U	ug/L	0.039	0.16
2/17/2014 10:30	Effluent Grab	Pesticides	Alachlor	0.058 U	ug/L	0.058	0.23
2/17/2014 10:30	Effluent Grab	Pesticides	Atrazine	0.0097 U	ug/L	0.0097	0.039
2/17/2014 10:30	Effluent Grab	Pesticides	Demeton	0.023 U	ug/L	0.023	0.094
2/17/2014 10:30	Effluent Grab	Pesticides	Disulfoton	0.0049 U	ug/L	0.0049	0.019
2/17/2014 10:30	Effluent Grab	Pesticides	Prometryn	0.019 U	ug/L	0.019	0.078
2/17/2014 10:30	Effluent Grab	Pesticides	Ethion	0.0097 U	ug/L	0.0097	0.039
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Benzo(b)fluoranthene	0.22 U	ug/L	0.22	0.87
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.22 U	ug/L	0.22	0.87
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Benzo(k)fluoranthene	0.22 U	ug/L	0.22	0.87
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Benzo(a)pyrene	0.22 U	ug/L	0.22	0.87
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Acenaphthene	0.22 U	ug/L	0.22	0.87
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	4-Chloro-3-methylphenol	1.1 U	ug/L	1.1	4.3
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	2-Nitrophenol	1.1 U	ug/L	1.1	4.3
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	4-Bromophenyl phenyl ether	1.1 U	ug/L	1.1	4.3
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	3.3 U	ug/L	3.3	13
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	2.2 U	ug/L	2.2	8.7
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Chrysene	0.22 U	ug/L	0.22	0.87
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Nitrobenzene	2.2 U	ug/L	2.2	8.7
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.22 U	ug/L	0.22	0.87
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Fluoranthene	0.22 U	ug/L	0.22	0.87
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Hexachlorobenzene	1.1 U	ug/L	1.1	4.3
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Phenol	1.1 U	ug/L	1.1	4.3
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	2,4-Dimethylphenol	11 U	ug/L	11	43
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	4-Nitrophenol	16 U	ug/L	16	65
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Benzo(a)anthracene	0.22 U	ug/L	0.22	0.87
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Diethyl phthalate	1.1 U	ug/L	1.1	4.3
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Hexachlorobutadiene	3.3 U	ug/L	3.3	13

Date Sampled	Field ID	Analysis Group	Component	Result	Units	MDL	PQL
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Hexachloroethane	3.3 U	ug/L	3.3	13
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.22 U	ug/L	0.22	0.87
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	2,4-Dinitrotoluene	1.1 U	ug/L	1.1	4.3
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	2-Chloronaphthalene	1.1 U	ug/L	1.1	4.3
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.2 U	ug/L	2.2	8.7
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Benzidine	110 U	ug/L	110	430
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Fluorene	0.22 U	ug/L	0.22	0.87
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.2 U	ug/L	2.2	8.7
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.3 U	ug/L	3.3	13
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Acenaphthylene	0.22 U	ug/L	0.22	0.87
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	3.3 U	ug/L	3.3	13
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Isophorone	1.1 U	ug/L	1.1	4.3
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Phenanthrene	0.22 U	ug/L	0.22	0.87
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	1,2,4-Trichlorobenzene	1.1 U	ug/L	1.1	4.3
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	2,6-Dinitrotoluene	1.1 U	ug/L	1.1	4.3
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	3,3'-Dichlorobenzidine	43 U	ug/L	43	170
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Anthracene	0.22 U	ug/L	0.22	0.87
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroethyl)ether	1.1 U	ug/L	1.1	4.3
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Butyl benzyl phthalate	1.1 U	ug/L	1.1	4.3
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Di-n-butyl phthalate	1.1 U	ug/L	1.1	4.3
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Dimethyl phthalate	1.1 U	ug/L	1.1	4.3
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Hexachlorocyclopentadiene	3.3 U	ug/L	3.3	13
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	2,4,6-Trichlorophenol	1.1 U	ug/L	1.1	4.3
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	2,4-Dinitrophenol	16 UJ	ug/L	16	65
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	1.1 U	ug/L	1.1	4.3
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Di-n-octyl phthalate	1.1 U	ug/L	1.1	4.3
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	N-Nitrosodimethylamine	2.2 U	ug/L	2.2	8.7
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Naphthalene	0.22 U	ug/L	0.22	0.87
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Pentachlorophenol	3.3 U	ug/L	3.3	13
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	Pyrene	0.22 U	ug/L	0.22	0.87
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	2,4-Dichlorophenol	1.1 U	ug/L	1.1	4.3
2/17/2014 10:30	Effluent Grab	Priority Organic Pollutants	2-Chlorophenol	1.1 U	ug/L	1.1	4.3
2/17/2014 10:30	Effluent Grab	Nutrients	pH	8.38			
2/17/2014 10:30	Effluent Grab	Nutrients	Specific Conductance	2980	umhos/cm		
2/17/2014 10:30	Effluent Grab	Nutrients	Dissolved Oxygen	9.34	mg/L		
2/17/2014 10:30	Effluent Grab	Nutrients	Temperature	15.13	C		
2/17/2014 10:30	Effluent Grab	Nutrients	Sample Depth	0.42	m		
2/17/2014 13:50	Field Blank	Metals	Chromium	0.30 U	ug/L	0.3	1.2
2/17/2014 13:50	Field Blank	Metals	Copper	0.50 U	ug/L	0.5	1

Date Sampled	Field ID	Analysis Group	Component	Result	Units	MDL	PQL
2/17/2014 13:50	Field Blank	Metals	Selenium	0.20 U	ug/L	0.2	0.8
2/17/2014 13:50	Field Blank	Metals	Nickel	0.25 U	ug/L	0.25	1
2/17/2014 13:50	Field Blank	Metals	Sodium	0.50 U	mg/L	0.5	2
2/17/2014 13:50	Field Blank	Metals	Calcium	0.075 U	mg/L	0.075	0.3
2/17/2014 13:50	Field Blank	Metals	Zinc	5.0 U	ug/L	5	20
2/17/2014 13:50	Field Blank	Metals	Lead	0.20 U	ug/L	0.2	0.8
2/17/2014 13:50	Field Blank	Metals	Silver	0.025 U	ug/L	0.025	0.1
2/17/2014 13:50	Field Blank	Metals	Arsenic	0.25 U	ug/L	0.25	1
2/17/2014 13:50	Field Blank	Metals	Iron	30 U	ug/L	30	120
2/17/2014 13:50	Field Blank	Metals	Magnesium	0.040 U	mg/L	0.04	0.16
2/17/2014 13:50	Field Blank	Metals	Aluminum	5.0 U	ug/L	5	20
2/17/2014 13:50	Field Blank	Metals	Cadmium	0.050 U	ug/L	0.05	0.2
2/17/2014 13:50	Field Blank	Metals	Potassium	0.30 U	mg/L	0.3	1.2
2/17/2014 13:50	Field Blank	Nutrients	Sulfate	0.20 U	mg SO4/L	0.2	0.5
2/17/2014 13:50	Field Blank	Nutrients	Fluoride	0.035 U	mg F/L	0.035	0.1
2/17/2014 13:50	Field Blank	Nutrients	Kjeldahl Nitrogen	0.080 U	mg N/L	0.08	0.2
2/17/2014 13:50	Field Blank	Nutrients	NO2NO3-N	0.004 U	mg N/L	0.004	0.01
2/17/2014 13:50	Field Blank	Nutrients	Turbidity	0.10 U	NTU	0.1	0.1
2/17/2014 13:50	Field Blank	Nutrients	Organic Carbon	0.50 U	mg C/L	0.5	1
2/17/2014 13:50	Field Blank	Nutrients	Color (true)	2.5 U	PCU	2.5	6
2/17/2014 13:50	Field Blank	Nutrients	O-Phosphate-P	0.004 U	mg P/L	0.004	0.01
2/17/2014 13:50	Field Blank	Nutrients	Total-P	0.002 U	mg P/L	0.002	0.005
2/17/2014 13:50	Field Blank	Nutrients	Ammonia-N	0.002 U	mg N/L	0.002	0.005
2/17/2014 13:50	Field Blank	Nutrients	Alkalinity	0.65 U	mg CaCO3/L	0.65	2.5
2/17/2014 13:50	Field Blank	Nutrients	Chloride	0.20 U	mg Cl/L	0.2	0.5
2/17/2014 13:50	Field Blank	Overflow	Radium 228-Counting Error	0.4	pCi/L	0.8	
2/17/2014 13:50	Field Blank	Overflow	Radium 228	0.8 U	pCi/L	0.8	
2/17/2014 13:50	Field Blank	Overflow	Radium 226	0.2	pCi/L	0.2	
2/17/2014 13:50	Field Blank	Overflow	Alpha, Total	0.6 U	pCi/L	0.6	
2/17/2014 13:50	Field Blank	Overflow	Alpha-Counting Error	0.4	pCi/L	0.6	
2/17/2014 13:50	Field Blank	Overflow	Radium 226-Counting Error	0.1	pCi/L	0.2	
2/17/2014 13:50	Field Blank	Pesticides	Ethion	0.0099 U	ug/L	0.0099	0.04
2/17/2014 13:50	Field Blank	Pesticides	Hexazinone	0.030 UJ	ug/L	0.03	0.12
2/17/2014 13:50	Field Blank	Pesticides	Metribuzin	0.020 U	ug/L	0.02	0.079
2/17/2014 13:50	Field Blank	Pesticides	Mevinphos	0.0099 U	ug/L	0.0099	0.04
2/17/2014 13:50	Field Blank	Pesticides	Malathion	0.0099 U	ug/L	0.0099	0.04
2/17/2014 13:50	Field Blank	Pesticides	Ametryn	0.0099 U	ug/L	0.0099	0.04
2/17/2014 13:50	Field Blank	Pesticides	Azinphos Methyl	0.020 U	ug/L	0.02	0.079
2/17/2014 13:50	Field Blank	Pesticides	Bromacil	0.040 U	ug/L	0.04	0.16

Date Sampled	Field ID	Analysis Group	Component	Result	Units	MDL	PQL
2/17/2014 13:50	Field Blank	Pesticides	Butylate	0.020 U	ug/L	0.02	0.079
2/17/2014 13:50	Field Blank	Pesticides	Chlorpyrifos Ethyl	0.0099 U	ug/L	0.0099	0.04
2/17/2014 13:50	Field Blank	Pesticides	Chlorpyrifos Methyl	0.0099 U	ug/L	0.0099	0.04
2/17/2014 13:50	Field Blank	Pesticides	Diazinon	0.0099 U	ug/L	0.0099	0.04
2/17/2014 13:50	Field Blank	Pesticides	Parathion Methyl	0.0099 U	ug/L	0.0099	0.04
2/17/2014 13:50	Field Blank	Pesticides	Metalaxyl	0.040 U	ug/L	0.04	0.16
2/17/2014 13:50	Field Blank	Pesticides	Parathion Ethyl	0.020 U	ug/L	0.02	0.079
2/17/2014 13:50	Field Blank	Pesticides	Atrazine Desethyl	0.0099 U	ug/L	0.0099	0.04
2/17/2014 13:50	Field Blank	Pesticides	Phorate	0.0049 U	ug/L	0.0049	0.02
2/17/2014 13:50	Field Blank	Pesticides	Prometryn	0.020 U	ug/L	0.02	0.079
2/17/2014 13:50	Field Blank	Pesticides	Atrazine	0.0099 U	ug/L	0.0099	0.04
2/17/2014 13:50	Field Blank	Pesticides	Atrazine Desisopropyl	0.0099 U	ug/L	0.0099	0.04
2/17/2014 13:50	Field Blank	Pesticides	Fenamiphos	0.030 U	ug/L	0.03	0.12
2/17/2014 13:50	Field Blank	Pesticides	Prometon	0.020 U	ug/L	0.02	0.079
2/17/2014 13:50	Field Blank	Pesticides	Alachlor	0.059 U	ug/L	0.059	0.24
2/17/2014 13:50	Field Blank	Pesticides	Disulfoton	0.0049 U	ug/L	0.0049	0.02
2/17/2014 13:50	Field Blank	Pesticides	Ethoprop	0.0049 U	ug/L	0.0049	0.02
2/17/2014 13:50	Field Blank	Pesticides	Fonofos	0.0099 U	ug/L	0.0099	0.04
2/17/2014 13:50	Field Blank	Pesticides	Metolachlor	0.059 U	ug/L	0.059	0.24
2/17/2014 13:50	Field Blank	Pesticides	Norflurazon	0.030 U	ug/L	0.03	0.12
2/17/2014 13:50	Field Blank	Pesticides	Simazine	0.0099 U	ug/L	0.0099	0.04
2/17/2014 13:50	Field Blank	Pesticides	Demeton	0.024 U	ug/L	0.024	0.095
2/17/2014 13:50	Field Blank	Pesticides	Naled	0.040 UJ	ug/L	0.04	0.16
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Acenaphthene	0.20 U	ug/L	0.2	0.8
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Pentachlorophenol	3.0 U	ug/L	3	12
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	2.0 U	ug/L	2	8
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Diethyl phthalate	1.0 U	ug/L	1	4
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Fluoranthene	0.20 U	ug/L	0.2	0.8
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.0 U	ug/L	2	8
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Pyrene	0.20 U	ug/L	0.2	0.8
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	2,4,6-Trichlorophenol	1.0 U	ug/L	1	4
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Benzo(b)fluoranthene	0.20 U	ug/L	0.2	0.8
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.20 U	ug/L	0.2	0.8
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Di-n-butyl phthalate	1.0 U	ug/L	1	4
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.20 U	ug/L	0.2	0.8
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Dimethyl phthalate	1.0 U	ug/L	1	4
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Fluorene	0.20 U	ug/L	0.2	0.8
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Hexachlorobenzene	1.0 U	ug/L	1	4
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.0 U	ug/L	3	12

Date Sampled	Field ID	Analysis Group	Component	Result	Units	MDL	PQL
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	3,3'-Dichlorobenzidine	40 U	ug/L	40	160
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Benzo(a)pyrene	0.20 U	ug/L	0.2	0.8
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	1,2,4-Trichlorobenzene	1.0 U	ug/L	1	4
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	2,4-Dinitrophenol	15 UJ	ug/L	15	60
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	2,4-Dinitrotoluene	1.0 U	ug/L	1	4
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	2-Chloronaphthalene	1.0 U	ug/L	1	4
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	4-Chloro-3-methylphenol	1.0 U	ug/L	1	4
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Benzo(k)fluoranthene	0.20 U	ug/L	0.2	0.8
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Chrysene	0.20 U	ug/L	0.2	0.8
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.20 U	ug/L	0.2	0.8
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Phenanthrene	0.20 U	ug/L	0.2	0.8
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Phenol	1.0 U	ug/L	1	4
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	2-Chlorophenol	1.0 U	ug/L	1	4
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.0 U	ug/L	2	8
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Benzo(a)anthracene	0.20 U	ug/L	0.2	0.8
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Nitrobenzene	2.0 U	ug/L	2	8
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	2,4-Dichlorophenol	1.0 U	ug/L	1	4
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	2,6-Dinitrotoluene	1.0 U	ug/L	1	4
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	2-Nitrophenol	1.0 U	ug/L	1	4
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	4-Nitrophenol	15 U	ug/L	15	60
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	1.0 U	ug/L	1	4
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Acenaphthylene	0.20 U	ug/L	0.2	0.8
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Benzidine	100 U	ug/L	100	400
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Bis(2-chloroethyl)ether	1.0 U	ug/L	1	4
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	3.0 U	ug/L	3	12
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Di-n-octyl phthalate	1.0 U	ug/L	1	4
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Hexachloroethane	3.0 U	ug/L	3	12
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Isophorone	1.0 U	ug/L	1	4
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	N-Nitrosodimethylamine	2.0 U	ug/L	2	8
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	3.0 U	ug/L	3	12
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Naphthalene	0.20 U	ug/L	0.2	0.8
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	2,4-Dimethylphenol	10 U	ug/L	10	40
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	4-Bromophenyl phenyl ether	1.0 U	ug/L	1	4
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Butyl benzyl phthalate	1.0 U	ug/L	1	4
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Hexachlorobutadiene	3.0 U	ug/L	3	12
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Hexachlorocyclopentadiene	3.0 U	ug/L	3	12
2/17/2014 13:50	Field Blank	Priority Organic Pollutants	Anthracene	0.20 U	ug/L	0.2	0.8

EPA End Sheet

The Bioassay of Coca-Cola North America effluent sampled on February 17, 19 and 21, 2014. NPDES #FL0000477.

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	3 FL0000477	112140217	8 B	9 S	20 2

Remarks

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The Priority Pollutants Analysis of Coca-Cola North America effluent sampled on February 17, 2014. NPDES #FL0000477.

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	3 FL0000477	112140217	8 X	9 S	20 2

Remarks

66

Biological Analyses of Coca-Cola North America effluent sampled on February 17, 2014. NPDES #FL0000477.

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	3 FL0000477	112140217	8 S	9 S	20 2

Remarks

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