

Effluent Quality Assessment

Georgia-Pacific Corporation – Palatka Operations

Putnam County

NPDES #FL0002763

Sampled September 12, 2012

February 2013

Biology Section
Bureau of Laboratories
Division of Environmental Assessment and Restoration

Quality Manual No. 870346G
NELAC Certification No. E31780

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Georgia-Pacific Corporation – Palatka Operations, 215 County Road 216, Palatka, Duval County, Florida, 32177. NPDES #FL0002763. Effluent grab and composite samples for biological and chemical analyses for this facility were collected on September 12, 2012.

Introduction

Georgia-Pacific Corporation – Palatka Operations is a pulp and paper mill which produces both bleached and unbleached pulp and paper utilizing the Kraft process. The facility operates a 40 MGD permitted capacity wastewater treatment facility providing primary clarification followed by secondary treatment consisting of 900 plus acres of facultative and aerobic lagoons.

See the Facility Summary (Appendix C) for detailed facility information provided by Herndon Sims of FDEP Northeast District. The Discharge Monitoring Report (DMR) information (Table 3) immediately follows the Facility Summary.

Methods

Samples were collected from the EFF-1 NPDES sampling point for Outfall D-001 by Sharon Piltz and Herndon Sims (FDEP Northeast District) following DEP-SOP-001/01 FS 2400 Wastewater Sampling. All DEP SOPs are available on the web at: http://www.floridadep.org/labs/bars/sas/sop/index.htm.

See Appendix A for the completed chain of custody form.

The algal growth potential test was performed following internal DEP SOPs TA08_01 through TA08_09. All internal DEP SOPs are available on the web at: http://www.dep.state.fl.us/water/sas/sop/index.htm.

Results and Discussion

- **Toxicity Test Results**
  Bioassay samples were not collected during this sampling event.

- **Algal Growth Potential**
  The effluent Algal Growth Potential (AGP) was 12.9 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 wt/L represent a “problem” threshold for fresh receiving waters, implying nutrient enrichment. The ratio (7.9:1) of total nitrogen to total phosphorus suggests that the effluent was nitrogen limited. (Table 1; Miller et al. 1978).

- **Chemistry Results**
  Adsorbable organic halides, chemical oxygen demand (COD), and settleable solids analyses were performed by Test America – Savannah.

  The total ammonia concentration in the grab sample collected and preserved for chemical analysis was 0.035 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.

  The effluent’s dissolved oxygen (4.6 mg/L) was below the minimum limit for Class III Freshwater Quality Criterion (≥ 5.0 mg/L (62-302.530 (30), F.A.C.)) but did not exceed the facility’s permitted limit. The effluent pH complied with Class III Freshwater Quality Criterion (62-302.530, F.A.C.) and/or the permitted limit (NPDES #FL0002763). Due to a field meter malfunction, the conductivity and salinity of the effluent (Table 2) is from analyses performed in the Central Laboratory. Iron, total Kjeldahl nitrogen, total nitrogen, total suspended solids, turbidity, color, chemical oxygen demand (COD), and hardness were detected in the effluent at levels that comply with Class III Freshwater Quality Criteria (62-302.530, F.A.C.) and/or permitted limits (NPDES #FL0002763). The settleable solids result was below the detection limit for the analysis which was also the permitted limit. Arsenic, chromium-III, nickel, and

zinc were detected between the laboratory method detection limits (MDL) and practical quantitation limits (PQL). The permit has a limit for biochemical oxygen demand (BOD) but the analysis run was carbonaceous biochemical oxygen demand (CBOD). Although adsorbable organic halides (AOX) were detected in the effluent, the limit was unable to be calculated as the flow for the day of sampling was not readily available.

In the trip blank, methylene chloride was detected between the laboratory method detection limit (MDL) and practical quantitation limit (PQL).

See Table 2 for results of analytes detected in the effluent, corresponding limits, and qualifiers. See Appendix B for a complete list of chemical analyses performed.

- **Microbiology**
  Fecal coliform analyses were performed by Columbia Analytical Services - Jacksonville.

  Fecal coliforms were detected in the effluent at levels which complied with Class III Freshwater Quality Criterion (62-302.530 (6), F.A.C.) and facility permit limits.

  See Table 2 for results of analytes detected in the effluent, corresponding limits, and qualifiers. See Appendix B for a complete list of chemical analyses performed.

Conclusion

The effluent sample was collected from the EFF-1 NPDES sampling point for this facility on September 12, 2012. The effluent AGP result was greater than the "problem" threshold for fresh receiving waters suggesting that nutrient enrichment may be an issue. The effluent's dissolved oxygen concentration (4.6 mg/L) was below the minimum dissolved oxygen concentration criterion for Class III freshwater (≥ 5.0 mg/L (62-302.530 (30), F.A.C.)). Due to the absence of a concurrent background conductivity value and problems with the field meter used to measure conductivity, it cannot be determined if the effluent's conductivity exceeded Class III freshwater criterion.

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.

Table 1. Measured and predicted algal growth potential (AGP; mg dry weight/L) for total soluble inorganic nitrogen (TSIN) and total nitrogen (TN) limitation of the freshwater species *Pseudokirchneriella subcapitata* and ratios of nitrogen to phosphorus.

Georgia-Pacific Corporation - Palatka Operations					
Location	AGP (measured)	Predicted AGP (TSIN) ± 20%	Predicted AGP (TN) ± 20%	Inorganic N:P ratio	Total N:P ratio
Effluent	12.9	9.7 ± 1.9	111.0 ± 22.2	8.2	7.9

Table 2. Effluent limits, Class III Freshwater Criteria and chemical and microbiological data.

Georgia-Pacific Corporation - Palatka Operations	Class III Criteria	Effluent Limits	Effluent	Trip Blank
Organic Constituents (µg/L)				
Methylene chloride	-	-	-	0.73 I
Adsorbable Organic Halides (ug/L)	-	1,644*	489 p	-
AOX Result 2 (ug/L)	-	1,644*	504 p	-
AOX Result 1 (ug/L)	-	1,644*	475 p	-
Metals (µg/L unless otherwise noted)				
Aluminum	-	-	1,640	-
Arsenic	≤ 50	-	1.1 I	-
Cadmium	≤ 0.35 b	Report	0.15 U	-
Calcium (mg/L)	-	-	42.3	-
Chromium-III	≤ 115 b	-	1.5 I	-
Copper	≤ 12.6 b	-	1.5 U	-
Iron	≤ 1,000	Report	410	-
Lead	≤ 4.95 b	Report	0.6 U	-
Magnesium (mg/L)	-	-	8.73	-
Nickel	≤ 70.0 b	-	2.4 I	-
Selenium	≤ 5.0	-	0.6 U	-
Silver	≤ 0.07	-	0.075 U	-
Sodium (mg/L)	-	-	464	-
Zinc	≤ 161 b	≤ 142 b	5.6 I	-
Nutrients (mg/L)				
Organic Carbon (mg C/L)	-	-	68	-
Ortho-phosphate	-	-	0.031	-
Total Phosphorus	-	-	0.37	-
Total Ammonia	-	Report	0.035	-
Un-ionized Ammonia	≤ 0.02 s	Report	≤ 0.02 c	-
Nitrate and Nitrite	-	-	0.22	-
Total Kjeldahl Nitrogen	-	Report	2.7	-
Organic Nitrogen	-	-	2.665 c	-
Total Nitrogen	-	Report	2.92 c	-
General Physical and Chemical Parameters				
Habitat Assessment	-	-	-	-
Dissolved Oxygen (mg/L)	≥ 5.0	≥ 4.0	4.6	-
pH (SU)	6.0 - 8.5	≤ 8.5	8.0	-
Conductivity (µmhos/cm)	≤ 1,275	Report	1,596 £	-
Temperature (°C)	-	Report	27.6	-
Salinity (ppth)	-	-	0.88 £	-
Sample Depth (m)	-	-	0.15	-
Chlorophyll *a* (µg/L) - Corrected	-	-	96	-
Phaeophytin (µg/L)	-	-	37	-
Settleable solids (ml/L)	-	≤ 0.1	0.1 UQ	-
Total Suspended Solids (mg/L)	-	Report	15 p	-
Turbidity (NTU)	< 29 t	Report	11	-
Color (true) (PCU)	-	Report	1,100	-
Alkalinity (mg CaCO3/L)	-	-	458 A	-
CBOD, 5 day (mg/L), N - inhibited	-	-	6.1 Ap	-
BOD, 5 day (lbs/day), N - uninhibited	-	Report	-	-
Chemical Oxygen Demand (mg/L)	-	Report	420 p	-
Chloride (mg/L)	-	-	130	-
Sulfate (mg/L)	-	-	260	-
Hardness (mg/L)	-	Report	142	-
Microbiology (Number of colony forming units/100ml)				
Fecal Coliforms ¥	≤ 400s #	800	120	-

Value exceeds the Class III Water Quality Criteria or permit limits

c - Value is calculated
p - 24 hour flow proportioned composite
t - Shall not exceed 29 NTUs above background
A - Value reported is the mean of two or more determinations
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
Q - Sample held beyond normal holding time
U - Material analyzed for but not detected; value reported is the method detection limit
¥ - Fecal coliform analysis performed by Columbia Analytical Services, E82502 lab
- If 10 or fewer samples are taken within a month, the single sample limit is 400 CFU (62-302.530(6), F.A.C.)
* - Effluent limit is in lbs/day
£ - measurement taken in the FDEP laboratory

Appendix A. Chain of Custody Form

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2012-09-10-43
FYI3 Georgia Pacific Sampling Inspection

Requester: Michelle Fish
Field Report Prepared By: S. Piltz
Collected By: S. Piltz / H. Sims
Send Final Report To: Tom Rauth
Sampling Agency: DEP NED

Customer: NE-DIST
Project ID: FYI3
PMAS: 1143

Lab ID *							
Local: Georgia Pacific 3YI 24hfpc Field				☐ Comp ☐ Grab Collection (comp begin or grab) Eastern Central: Date 9/11/12 Time 0900	Composite end Eastern Central: Date 9/12/12 Time 0900	Bottle Group(s)**: A
Matrix (include type e.g. Salt, Fresh, etc): EFF	Temp (C): 2.6	pH		Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms			Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number	
				Comments: Temp when picked up (of Samples)			
Local: Georgia Pacific 3YI Grabs Field				☐ Comp ☑ Grab Collection (comp begin or grab) Eastern Central: Date 9/12/12 Time 1040	Composite end Date Time Eastern Central	Bottle Group(s)**: B	
Matrix (include type e.g. Salt, Fresh, etc): EFF	Temp (C): 27.57	pH 8.02		Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L): 4.55	Storet Station Number	
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms			Sample Depth ☑ m 0.15 ☐ ft	☐ Salinity (PPTh) ☑ Sp Conductance (umho/cm): J 9.13 15696	NPDES Number	
				Comments: field sp. cond. CCV			
Local: Georgia Pacific Field Blanks Field				☐ Comp ☑ Grab Collection (comp begin or grab) Eastern Central: Date 9/12/12 Time 1045	Composite end Date Time Eastern Central	Bottle Group(s)**: CD	
Matrix (include type e.g. Salt, Fresh, etc): DI	Temp (C)	pH		Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms			Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number	
				Comments			
Location: GP e platform (D) compliance pt.				☐ Comp ☑ Grab Collection (comp begin or grab) Eastern Central: Date 9/12/12 Time 1110	Composite end Date Time Eastern Central	Bottle Group(s)**: n/a	
Field ID				Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L): 4.79	Storet Station Number	
Matrix (include type e.g. Salt, Fresh, etc):	Temp (C): 27.63	pH 8.01		Sample Depth ☑ m 0.15 ☐ ft	☐ Salinity (PPTh) ☑ Sp Conductance (umho/cm): J 9.14 15720	NPDES Number	
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms			Comments: no samples, only meter. field CCV recvd			

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
	9/10/12 1209	Fed EX		9-13-12 09:05				

* Shaded Areas for Lab use only

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

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Appendix B. Chemical Analyses performed on the effluent from the Georgia-Pacific Corporation – Palatka Operations facility's EFF-1 NPDES sampling point for Outfall D-001, sampled on September 12, 2012.

Date	UDL	Analysis	Component	Value	Qualifier	Units	MDL	PQL
9/12/2012 9:00	Effluent	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	6.1	A	mg/L	0.2	2
9/12/2012 9:00	Effluent	Nutrients	TSS	15		mg/L	2	10
9/12/2012 9:00	Effluent	Overflow	Adsorbable Organic Halides	489		ug/L	6.2	20
9/12/2012 9:00	Effluent	Overflow	AOX Result 2	504		ug/L	6.2	20
9/12/2012 9:00	Effluent	Overflow	AOX Result 1	475		ug/L	6.2	20
9/12/2012 9:00	Effluent	Overflow	Chemical Oxygen Demand	420		mg/L	6.3	20
9/12/2012 9:00	Effluent	Field Parameter	Dissolved Oxygen			mg/L		
9/12/2012 9:00	Effluent	Field Parameter	Sample Depth			m		
9/12/2012 9:00	Effluent	Field Parameter	Specific Conductance			umhos/cm		
9/12/2012 9:00	Effluent	Field Parameter	Temperature	2.6		C		
9/12/2012 9:00	Effluent	Field Parameter	pH					
9/12/2012 9:00	Effluent	Field Parameter	Salinity			PPTh		
9/12/2012 9:00	Effluent	Field Parameter	Total Residual Chlorine			mg/L		
9/12/2012 10:40	Effluent	AGP/LN	Algal Growth Potential	12.9		mg DryWt/L	0.3	0.9
9/12/2012 10:40	Effluent	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	96		ug/L	1.4	4.2
9/12/2012 10:40	Effluent	Chlorophyll/Grain Size/BOD	Phaeophytin-a	37		ug/L	1	3
9/12/2012 10:40	Effluent	Microbiology	Total Coliforms-Membrane Filter			cfu/100 mL		
9/12/2012 10:40	Effluent	Overflow	Fecal Coliforms-Membrane Filter	120		cfu/100 mL	2	
9/12/2012 10:40	Effluent	Metals	Sodium	464		mg/L	10	40
9/12/2012 10:40	Effluent	Metals	Silver	0.075	U	ug/L	0.075	0.3
9/12/2012 10:40	Effluent	Metals	Copper	1.5	U	ug/L	1.5	3
9/12/2012 10:40	Effluent	Metals	Cadmium	0.15	U	ug/L	0.15	0.6
9/12/2012 10:40	Effluent	Metals	Arsenic	1.1	I	ug/L	0.75	3
9/12/2012 10:40	Effluent	Metals	Lead	0.6	U	ug/L	0.6	2.4
9/12/2012 10:40	Effluent	Metals	Iron	410		ug/L	30	120
9/12/2012 10:40	Effluent	Metals	Selenium	0.6	U	ug/L	0.6	2.4
9/12/2012 10:40	Effluent	Metals	Nickel	2.4	I	ug/L	0.75	3
9/12/2012 10:40	Effluent	Metals	Magnesium	8.73		mg/L	0.04	0.16
9/12/2012 10:40	Effluent	Metals	Calcium	42.3		mg/L	0.075	0.3
9/12/2012 10:40	Effluent	Metals	Hardness	142		mg/L	0.4	1.6
9/12/2012 10:40	Effluent	Metals	Chromium	1.5	I	ug/L	0.9	3.6
9/12/2012 10:40	Effluent	Metals	Zinc	5.6	I	ug/L	5	20
9/12/2012 10:40	Effluent	Metals	Aluminum	1640		ug/L	15	60

Date	UDL	Analysis	Component	Value	Qualifier	Units	MDL	PQL
9/12/2012 10:40	Effluent	Nutrients	Kjeldahl Nitrogen	2.7		mg N/L	0.4	1
9/12/2012 10:40	Effluent	Nutrients	Organic Carbon	68		mg C/L	0.8	1.6
9/12/2012 10:40	Effluent	Nutrients	Sulfate	260		mg SO4/L	10	25
9/12/2012 10:40	Effluent	Nutrients	O-Phosphate-P	0.031		mg P/L	0.008	0.02
9/12/2012 10:40	Effluent	Nutrients	Total-P	0.37		mg P/L	0.005	0.05
9/12/2012 10:40	Effluent	Nutrients	Turbidity	11		NTU	0.1	0.1
9/12/2012 10:40	Effluent	Nutrients	Chloride	130		mg Cl/L	10	25
9/12/2012 10:40	Effluent	Nutrients	Color (true)	1100		PCU	25	60
9/12/2012 10:40	Effluent	Nutrients	Ammonia-N	0.035		mg N/L	0.01	0.02
9/12/2012 10:40	Effluent	Nutrients	Alkalinity	458	A	mg CaCO3/L	0.65	2.5
9/12/2012 10:40	Effluent	Nutrients	NO2NO3-N	0.22		mg N/L	0.004	0.01
9/12/2012 10:40	Effluent	Overflow	Settleable solids	0.1	UQ	ml/L		
9/12/2012 10:40	Effluent	Pesticides	Metalaxyl	0.2	U	ug/L	0.2	0.79
9/12/2012 10:40	Effluent	Pesticides	Chlorpyrifos Ethyl	0.05	U	ug/L	0.05	0.2
9/12/2012 10:40	Effluent	Pesticides	Azinphos Methyl	0.099	U	ug/L	0.099	0.4
9/12/2012 10:40	Effluent	Pesticides	Parathion Methyl	0.05	U	ug/L	0.05	0.2
9/12/2012 10:40	Effluent	Pesticides	Norflurazon	0.15	U	ug/L	0.15	0.59
9/12/2012 10:40	Effluent	Pesticides	Metolachlor	0.3	U	ug/L	0.3	1.2
9/12/2012 10:40	Effluent	Pesticides	Hexazinone	0.15	U	ug/L	0.15	0.59
9/12/2012 10:40	Effluent	Pesticides	Diazinon	0.05	U	ug/L	0.05	0.2
9/12/2012 10:40	Effluent	Pesticides	Butylate	0.099	U	ug/L	0.099	0.4
9/12/2012 10:40	Effluent	Pesticides	Simazine	0.05	U	ug/L	0.05	0.2
9/12/2012 10:40	Effluent	Pesticides	Mevinphos	0.05	U	ug/L	0.05	0.2
9/12/2012 10:40	Effluent	Pesticides	Ethoprop	0.025	U	ug/L	0.025	0.099
9/12/2012 10:40	Effluent	Pesticides	Metribuzin	0.099	U	ug/L	0.099	0.4
9/12/2012 10:40	Effluent	Pesticides	Parathion Ethyl	0.099	U	ug/L	0.099	0.4
9/12/2012 10:40	Effluent	Pesticides	Ethion	0.05	U	ug/L	0.05	0.2
9/12/2012 10:40	Effluent	Pesticides	Bromacil	0.2	UJ	ug/L	0.2	0.79
9/12/2012 10:40	Effluent	Pesticides	Phorate	0.025	U	ug/L	0.025	0.099
9/12/2012 10:40	Effluent	Pesticides	Prometryn	0.099	U	ug/L	0.099	0.4
9/12/2012 10:40	Effluent	Pesticides	Naled	0.2	U	ug/L	0.2	0.79
9/12/2012 10:40	Effluent	Pesticides	Chlorpyrifos Methyl	0.05	U	ug/L	0.05	0.2
9/12/2012 10:40	Effluent	Pesticides	Atrazine	0.05	U	ug/L	0.05	0.2
9/12/2012 10:40	Effluent	Pesticides	Alachlor	0.3	U	ug/L	0.3	1.2
9/12/2012 10:40	Effluent	Pesticides	Fenamiphos	0.15	U	ug/L	0.15	0.59
9/12/2012 10:40	Effluent	Pesticides	Ametryn	0.05	U	ug/L	0.05	0.2
9/12/2012 10:40	Effluent	Pesticides	Malathion	0.05	U	ug/L	0.05	0.2
9/12/2012 10:40	Effluent	Pesticides	Fonofos	0.05	U	ug/L	0.05	0.2

Date	UDL	Analysis	Component	Value	Qualifier	Units	MDL	PQL
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Benzidine	110	U	ug/L	110	450
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Benzo(a)pyrene	0.23	U	ug/L	0.23	0.91
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	1.1	U	ug/L	1.1	4.5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Di-n-butyl phthalate	5.7	U	ug/L	5.7	23
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Di-n-octyl phthalate	1.1	U	ug/L	1.1	4.5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Isophorone	1.1	U	ug/L	1.1	4.5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	2,4,5-Trichlorophenol	1.1	U	ug/L	1.1	4.5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	1,1,1-Trichloroethane	1	U	ug/L	1	5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Methylene chloride	2.5	U	ug/L	2.5	10
9/12/2012 10:40	Effluent	Priority Organic Pollutants	cis-1,3-Dichloropropene	2.5	UJ	ug/L	2.5	10
9/12/2012 10:40	Effluent	Priority Organic Pollutants	2,4-Dinitrotoluene	1.1	U	ug/L	1.1	4.5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	2,6-Dinitrotoluene	1.1	U	ug/L	1.1	4.5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.23	U	ug/L	0.23	0.91
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.23	U	ug/L	0.23	0.91
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Naphthalene	0.23	U	ug/L	0.23	0.91
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Pyrene	0.23	U	ug/L	0.23	0.91
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Chlorobenzene	1	U	ug/L	1	5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Chloromethane	2.5	U	ug/L	2.5	10
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Toluene	2.5	U	ug/L	2.5	10
9/12/2012 10:40	Effluent	Priority Organic Pollutants	trans-1,2-Dichloroethene	2.5	U	ug/L	2.5	10
9/12/2012 10:40	Effluent	Priority Organic Pollutants	2,4,6-Trichlorophenol	1.1	U	ug/L	1.1	4.5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	2-Chloronaphthalene	1.1	U	ug/L	1.1	4.5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.3	U	ug/L	2.3	9.1
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Anthracene	0.23	U	ug/L	0.23	0.91
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Benzo(b)fluoranthene	0.23	U	ug/L	0.23	0.91
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Benzo(k)fluoranthene	0.23	U	ug/L	0.23	0.91
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Dimethyl phthalate	11	U	ug/L	11	45
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Hexachlorobenzene	1.1	U	ug/L	1.1	4.5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Nitrobenzene	2.3	U	ug/L	2.3	9.1
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Carbon tetrachloride	1	U	ug/L	1	5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Dibromochloromethane	1	U	ug/L	1	5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Trichloroethene	1	U	ug/L	1	5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	2,4-Dichlorophenol	1.1	U	ug/L	1.1	4.5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	2-Nitrophenol	1.1	U	ug/L	1.1	4.5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	4-Bromophenyl phenyl ether	1.1	U	ug/L	1.1	4.5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	4-Chloro-3-methylphenol	1.1	U	ug/L	1.1	4.5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	3.4	U	ug/L	3.4	14
9/12/2012 10:40	Effluent	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.3	U	ug/L	2.3	9.1

Date	UDL	Analysis	Component	Value	Qualifier	Units	MDL	PQL
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Phenanthrene	0.23	U	ug/L	0.23	0.91
9/12/2012 10:40	Effluent	Priority Organic Pollutants	1,1,2,2-Tetrachloroethane	2.5	U	ug/L	2.5	10
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Bromomethane	2.5	U	ug/L	2.5	10
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Trichlorofluoromethane	2.5	U	ug/L	2.5	10
9/12/2012 10:40	Effluent	Priority Organic Pollutants	4-Nitrophenol	17	U	ug/L	17	68
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.23	U	ug/L	0.23	0.91
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Butyl benzyl phthalate	5.7	U	ug/L	5.7	23
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Hexachloroethane	3.4	U	ug/L	3.4	14
9/12/2012 10:40	Effluent	Priority Organic Pollutants	1,2-Dichloropropane	2.5	U	ug/L	2.5	10
9/12/2012 10:40	Effluent	Priority Organic Pollutants	1,4-Dichlorobenzene	2.5	U	ug/L	2.5	10
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Chloroethane	2.5	UJ	ug/L	2.5	10
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Chloroform	1	U	ug/L	1	5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Tetrachloroethene	2.5	U	ug/L	2.5	10
9/12/2012 10:40	Effluent	Priority Organic Pollutants	1,2,4-Trichlorobenzene	1.1	U	ug/L	1.1	4.5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	3,3'-Dichlorobenzidine	45	U	ug/L	45	180
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Bis(2-chloroethyl)ether	1.1	U	ug/L	1.1	4.5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Fluoranthene	0.23	U	ug/L	0.23	0.91
9/12/2012 10:40	Effluent	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	3.4	U	ug/L	3.4	14
9/12/2012 10:40	Effluent	Priority Organic Pollutants	1,2-Dichlorobenzene	2.5	U	ug/L	2.5	10
9/12/2012 10:40	Effluent	Priority Organic Pollutants	1,2-Dichloroethane	1	U	ug/L	1	5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	trans-1,3-Dichloropropene	1	U	ug/L	1	5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	2,4-Dimethylphenol	11	U	ug/L	11	45
9/12/2012 10:40	Effluent	Priority Organic Pollutants	2-Chlorophenol	1.1	U	ug/L	1.1	4.5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.4	U	ug/L	3.4	14
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Acenaphthene	0.23	U	ug/L	0.23	0.91
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Benzo(a)anthracene	0.23	U	ug/L	0.23	0.91
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	17	U	ug/L	17	68
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Chrysene	0.23	U	ug/L	0.23	0.91
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Fluorene	0.23	U	ug/L	0.23	0.91
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Hexachlorobutadiene	3.4	U	ug/L	3.4	14
9/12/2012 10:40	Effluent	Priority Organic Pollutants	N-Nitrosodimethylamine	2.3	U	ug/L	2.3	9.1
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Phenol	1.1	U	ug/L	1.1	4.5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	1,1-Dichloroethene	2.5	U	ug/L	2.5	10
9/12/2012 10:40	Effluent	Priority Organic Pollutants	1,3-Dichlorobenzene	2.5	U	ug/L	2.5	10
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Benzene	1	U	ug/L	1	5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Bromodichloromethane	1	U	ug/L	1	5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	2,4-Dinitrophenol	17	U	ug/L	17	68
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Acenaphthylene	0.23	U	ug/L	0.23	0.91

Date	UDL	Analysis	Component	Value	Qualifier	Units	MDL	PQL
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Diethyl phthalate	1.1	U	ug/L	1.1	4.5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Hexachlorocyclopentadiene	3.4	U	ug/L	3.4	14
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Pentachlorophenol	3.4	U	ug/L	3.4	14
9/12/2012 10:40	Effluent	Priority Organic Pollutants	1,1,2-Trichloroethane	1	U	ug/L	1	5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	1,1-Dichloroethane	1	U	ug/L	1	5
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Bromoform	2.5	U	ug/L	2.5	10
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Ethylbenzene	2.5	U	ug/L	2.5	10
9/12/2012 10:40	Effluent	Priority Organic Pollutants	Vinyl chloride	2.5	U	ug/L	2.5	10
9/12/2012 10:40	Effluent	Field Parameter	Dissolved Oxygen	4.55		mg/L		
9/12/2012 10:40	Effluent	Field Parameter	pH	8.02				
9/12/2012 10:40	Effluent	Field Parameter	Specific Conductance	15696		umhos/cm		
9/12/2012 10:40	Effluent	Field Parameter	Salinity			PPTh		
9/12/2012 10:40	Effluent	Field Parameter	Total Residual Chlorine			mg/L		
9/12/2012 10:40	Effluent	Field Parameter	Temperature	27.57		C		
9/12/2012 10:40	Effluent	Field Parameter	Sample Depth	0.15		m		
9/12/2012 10:45	Field Blank	Metals	Iron	30	U	ug/L	30	120
9/12/2012 10:45	Field Blank	Metals	Arsenic	0.25	U	ug/L	0.25	1
9/12/2012 10:45	Field Blank	Metals	Copper	0.5	U	ug/L	0.5	1
9/12/2012 10:45	Field Blank	Metals	Aluminum	5	U	ug/L	5	20
9/12/2012 10:45	Field Blank	Metals	Nickel	0.25	U	ug/L	0.25	1
9/12/2012 10:45	Field Blank	Metals	Zinc	5	U	ug/L	5	20
9/12/2012 10:45	Field Blank	Metals	Silver	0.025	U	ug/L	0.025	0.1
9/12/2012 10:45	Field Blank	Metals	Sodium	0.5	U	mg/L	0.5	2
9/12/2012 10:45	Field Blank	Metals	Magnesium	0.04	U	mg/L	0.04	0.16
9/12/2012 10:45	Field Blank	Metals	Calcium	0.075	U	mg/L	0.075	0.3
9/12/2012 10:45	Field Blank	Metals	Chromium	0.3	U	ug/L	0.3	1.2
9/12/2012 10:45	Field Blank	Metals	Lead	0.2	U	ug/L	0.2	0.8
9/12/2012 10:45	Field Blank	Metals	Hardness	0.4	U	mg/L	0.4	1.6
9/12/2012 10:45	Field Blank	Metals	Cadmium	0.05	U	ug/L	0.05	0.2
9/12/2012 10:45	Field Blank	Metals	Selenium	0.2	U	ug/L	0.2	0.8
9/12/2012 10:45	Field Blank	Nutrients	Chloride	0.2	U	mg Cl/L	0.2	0.5
9/12/2012 10:45	Field Blank	Nutrients	Color (true)	2.5	U	PCU	2.5	6
9/12/2012 10:45	Field Blank	Nutrients	Kjeldahl Nitrogen	0.08	U	mg N/L	0.08	0.2
9/12/2012 10:45	Field Blank	Nutrients	Total-P	0.004	U	mg P/L	0.004	0.01
9/12/2012 10:45	Field Blank	Nutrients	Sulfate	0.2	U	mg SO4/L	0.2	0.5
9/12/2012 10:45	Field Blank	Nutrients	Ammonia-N	0.01	U	mg N/L	0.01	0.02
9/12/2012 10:45	Field Blank	Nutrients	Organic Carbon	0.4	U	mg C/L	0.4	0.8
9/12/2012 10:45	Field Blank	Nutrients	O-Phosphate-P	0.004	U	mg P/L	0.004	0.01

Date	UDL	Analysis	Component	Value	Qualifier	Units	MDL	PQL
9/12/2012 10:45	Field Blank	Nutrients	Turbidity	0.1	U	NTU	0.1	0.1
9/12/2012 10:45	Field Blank	Nutrients	Alkalinity	0.65	U	mg CaCO3/L	0.65	2.5
9/12/2012 10:45	Field Blank	Nutrients	NO2NO3-N	0.004	U	mg N/L	0.004	0.01
9/12/2012 10:45	Field Blank	Overflow	Chemical Oxygen Demand	6.3	U	mg/L	6.3	20
9/12/2012 10:45	Field Blank	Overflow	AOX Result 2	6.2	U	ug/L	6.2	20
9/12/2012 10:45	Field Blank	Overflow	AOX Result 1	6.2	U	ug/L	6.2	20
9/12/2012 10:45	Field Blank	Overflow	Adsorbable Organic Halides	6.2	U	ug/L	6.2	20
9/12/2012 10:45	Field Blank	Pesticides	Hexazinone	0.15	U	ug/L	0.15	0.59
9/12/2012 10:45	Field Blank	Pesticides	Ethoprop	0.025	U	ug/L	0.025	0.098
9/12/2012 10:45	Field Blank	Pesticides	Butylate	0.098	U	ug/L	0.098	0.39
9/12/2012 10:45	Field Blank	Pesticides	Simazine	0.049	U	ug/L	0.049	0.2
9/12/2012 10:45	Field Blank	Pesticides	Norflurazon	0.15	U	ug/L	0.15	0.59
9/12/2012 10:45	Field Blank	Pesticides	Fonofos	0.049	U	ug/L	0.049	0.2
9/12/2012 10:45	Field Blank	Pesticides	Chlorpyrifos Ethyl	0.049	U	ug/L	0.049	0.2
9/12/2012 10:45	Field Blank	Pesticides	Phorate	0.025	U	ug/L	0.025	0.098
9/12/2012 10:45	Field Blank	Pesticides	Fenamiphos	0.15	U	ug/L	0.15	0.59
9/12/2012 10:45	Field Blank	Pesticides	Bromacil	0.2	UJ	ug/L	0.2	0.79
9/12/2012 10:45	Field Blank	Pesticides	Atrazine	0.049	U	ug/L	0.049	0.2
9/12/2012 10:45	Field Blank	Pesticides	Parathion Methyl	0.049	U	ug/L	0.049	0.2
9/12/2012 10:45	Field Blank	Pesticides	Naled	0.2	U	ug/L	0.2	0.79
9/12/2012 10:45	Field Blank	Pesticides	Metribuzin	0.098	U	ug/L	0.098	0.39
9/12/2012 10:45	Field Blank	Pesticides	Metalaxyl	0.2	U	ug/L	0.2	0.79
9/12/2012 10:45	Field Blank	Pesticides	Mevinphos	0.049	U	ug/L	0.049	0.2
9/12/2012 10:45	Field Blank	Pesticides	Alachlor	0.29	U	ug/L	0.29	1.2
9/12/2012 10:45	Field Blank	Pesticides	Prometryn	0.098	U	ug/L	0.098	0.39
9/12/2012 10:45	Field Blank	Pesticides	Metolachlor	0.29	U	ug/L	0.29	1.2
9/12/2012 10:45	Field Blank	Pesticides	Ethion	0.049	U	ug/L	0.049	0.2
9/12/2012 10:45	Field Blank	Pesticides	Parathion Ethyl	0.098	U	ug/L	0.098	0.39
9/12/2012 10:45	Field Blank	Pesticides	Malathion	0.049	U	ug/L	0.049	0.2
9/12/2012 10:45	Field Blank	Pesticides	Diazinon	0.049	U	ug/L	0.049	0.2
9/12/2012 10:45	Field Blank	Pesticides	Chlorpyrifos Methyl	0.049	U	ug/L	0.049	0.2
9/12/2012 10:45	Field Blank	Pesticides	Azinphos Methyl	0.098	U	ug/L	0.098	0.39
9/12/2012 10:45	Field Blank	Pesticides	Ametryn	0.049	U	ug/L	0.049	0.2
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	2,4-Dichlorophenol	0.96	U	ug/L	0.96	3.8
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	2,4-Dimethylphenol	9.6	U	ug/L	9.6	38
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	2-Chloronaphthalene	0.96	U	ug/L	0.96	3.8
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	3,3'-Dichlorobenzidine	38	U	ug/L	38	150
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Anthracene	0.19	U	ug/L	0.19	0.77

Date	UDL	Analysis	Component	Value	Qualifier	Units	MDL	PQL
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Benzidine	96	U	ug/L	96	380
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Hexachloroethane	2.9	U	ug/L	2.9	12
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.7
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Nitrobenzene	1.9	U	ug/L	1.9	7.7
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	1,1,2,2-Tetrachloroethane	0.5	U	ug/L	0.5	2
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	1,2-Dichlorobenzene	0.5	U	ug/L	0.5	2
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	1,4-Dichlorobenzene	0.5	U	ug/L	0.5	2
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Benzene	0.2	U	ug/L	0.2	1
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Chloroethane	0.5	UJ	ug/L	0.5	2
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Dibromochloromethane	0.2	U	ug/L	0.2	1
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	trans-1,2-Dichloroethene	0.5	U	ug/L	0.5	2
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.96	U	ug/L	0.96	3.8
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Benzo(a)anthracene	0.19	U	ug/L	0.19	0.77
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.19	U	ug/L	0.19	0.77
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.19	U	ug/L	0.19	0.77
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Fluoranthene	0.19	U	ug/L	0.19	0.77
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9	U	ug/L	2.9	12
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	2.9	U	ug/L	2.9	12
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Carbon tetrachloride	0.2	U	ug/L	0.2	1
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Vinyl chloride	0.5	U	ug/L	0.5	2
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	cis-1,3-Dichloropropene	0.5	UJ	ug/L	0.5	2
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.96	U	ug/L	0.96	3.8
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Isophorone	0.96	U	ug/L	0.96	3.8
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Phenol	0.96	U	ug/L	0.96	3.8
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	2,4,5-Trichlorophenol	0.96	U	ug/L	0.96	3.8
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	1,1,1-Trichloroethane	0.2	U	ug/L	0.2	1
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	1,2-Dichloroethane	0.2	U	ug/L	0.2	1
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	1,2-Dichloropropane	0.5	U	ug/L	0.5	2
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	1,3-Dichlorobenzene	0.5	U	ug/L	0.5	2
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Bromoform	0.5	U	ug/L	0.5	2
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Benzo(a)pyrene	0.19	U	ug/L	0.19	0.77
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Chrysene	0.19	U	ug/L	0.19	0.77
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Di-n-octyl phthalate	0.96	U	ug/L	0.96	3.8
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Fluorene	0.19	U	ug/L	0.19	0.77
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Hexachlorobenzene	0.96	U	ug/L	0.96	3.8
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Hexachlorobutadiene	2.9	U	ug/L	2.9	12
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	1,1-Dichloroethene	0.5	U	ug/L	0.5	2
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Chloroform	0.2	U	ug/L	0.2	1

Date	UDL	Analysis	Component	Value	Qualifier	Units	MDL	PQL
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Chloromethane	0.5	U	ug/L	0.5	2
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Trichlorofluoromethane	0.5	U	ug/L	0.5	2
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.96	U	ug/L	0.96	3.8
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	2,4-Dinitrophenol	14	U	ug/L	14	58
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	2,4-Dinitrotoluene	0.96	U	ug/L	0.96	3.8
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	2,6-Dinitrotoluene	0.96	U	ug/L	0.96	3.8
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.96	U	ug/L	0.96	3.8
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Benzo(k)fluoranthene	0.19	U	ug/L	0.19	0.77
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.96	U	ug/L	0.96	3.8
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	14	U	ug/L	14	58
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Dimethyl phthalate	9.6	U	ug/L	9.6	38
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.7
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	1,1,2-Trichloroethane	0.2	U	ug/L	0.2	1
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Bromodichloromethane	0.2	U	ug/L	0.2	1
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Chlorobenzene	0.2	U	ug/L	0.2	1
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Toluene	0.5	U	ug/L	0.5	2
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	4-Nitrophenol	14	U	ug/L	14	58
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Acenaphthene	0.19	U	ug/L	0.19	0.77
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Di-n-butyl phthalate	4.8	U	ug/L	4.8	19
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Pyrene	0.19	U	ug/L	0.19	0.77
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Bromomethane	0.5	U	ug/L	0.5	2
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Trichloroethene	0.2	U	ug/L	0.2	1
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	2-Chlorophenol	0.96	U	ug/L	0.96	3.8
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	12
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	2-Nitrophenol	0.96	U	ug/L	0.96	3.8
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Benzo(b)fluoranthene	0.19	U	ug/L	0.19	0.77
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.19	U	ug/L	0.19	0.77
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Pentachlorophenol	2.9	U	ug/L	2.9	12
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Phenanthrene	0.19	U	ug/L	0.19	0.77
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Ethylbenzene	0.5	U	ug/L	0.5	2
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Tetrachloroethene	0.5	U	ug/L	0.5	2
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	trans-1,3-Dichloropropene	0.2	U	ug/L	0.2	1
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.7
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Acenaphthylene	0.19	U	ug/L	0.19	0.77
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.96	U	ug/L	0.96	3.8
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	12
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Butyl benzyl phthalate	4.8	U	ug/L	4.8	19
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Diethyl phthalate	0.96	U	ug/L	0.96	3.8

Date	UDL	Analysis	Component	Value	Qualifier	Units	MDL	PQL
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Naphthalene	0.19	U	ug/L	0.19	0.77
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	1,1-Dichloroethane	0.2	U	ug/L	0.2	1
9/12/2012 10:45	Field Blank	Priority Organic Pollutants	Methylene chloride	0.5	U	ug/L	0.5	2
9/12/2012 10:45	Field Blank	Field Parameter	Temperature			C		
9/12/2012 10:45	Field Blank	Field Parameter	Temperature			C		
9/12/2012 10:45	Field Blank	Field Parameter	Sample Depth			m		
9/12/2012 10:45	Field Blank	Field Parameter	Dissolved Oxygen			mg/L		
9/12/2012 10:45	Field Blank	Field Parameter	Dissolved Oxygen			mg/L		
9/12/2012 10:45	Field Blank	Field Parameter	pH					
9/12/2012 10:45	Field Blank	Field Parameter	Salinity			PPTh		
9/12/2012 10:45	Field Blank	Field Parameter	Total Residual Chlorine			mg/L		
9/12/2012 10:45	Field Blank	Field Parameter	Salinity			PPTh		
9/12/2012 10:45	Field Blank	Field Parameter	Sample Depth			m		
9/12/2012 10:45	Field Blank	Field Parameter	Specific Conductance			umhos/cm		
9/12/2012 10:45	Field Blank	Field Parameter	Total Residual Chlorine			mg/L		
9/12/2012 10:45	Field Blank	Field Parameter	pH					
9/12/2012 10:45	Field Blank	Field Parameter	Specific Conductance			umhos/cm		
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	1,2-Dichlorobenzene	0.5	U	ug/L	0.5	2
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	Trichlorofluoromethane	0.5	U	ug/L	0.5	2
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	Dibromochloromethane	0.2	U	ug/L	0.2	1
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	Bromoform	0.5	U	ug/L	0.5	2
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	Chloroethane	0.5	UJ	ug/L	0.5	2
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	Chlorobenzene	0.2	U	ug/L	0.2	1
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	1,4-Dichlorobenzene	0.5	U	ug/L	0.5	2
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	1,1,1-Trichloroethane	0.2	U	ug/L	0.2	1
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	trans-1,2-Dichloroethene	0.5	U	ug/L	0.5	2
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	Vinyl chloride	0.5	U	ug/L	0.5	2
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	1,1-Dichloroethene	0.5	U	ug/L	0.5	2
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	Benzene	0.2	U	ug/L	0.2	1
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	Tetrachloroethene	0.5	U	ug/L	0.5	2
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	1,2-Dichloropropane	0.5	U	ug/L	0.5	2
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	Chloromethane	0.5	U	ug/L	0.5	2
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	trans-1,3-Dichloropropene	0.2	U	ug/L	0.2	1
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	Bromodichloromethane	0.2	U	ug/L	0.2	1
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	Chloroform	0.2	U	ug/L	0.2	1
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	Ethylbenzene	0.5	U	ug/L	0.5	2
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	1,3-Dichlorobenzene	0.5	U	ug/L	0.5	2
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	Methylene chloride	0.73	I	ug/L	0.5	2

Date	UDL	Analysis	Component	Value	Qualifier	Units	MDL	PQL
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	Trichloroethene	0.2	U	ug/L	0.2	1
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	1,1,2,2-Tetrachloroethane	0.5	U	ug/L	0.5	2
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	Toluene	0.5	U	ug/L	0.5	2
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	cis-1,3-Dichloropropene	0.5	UJ	ug/L	0.5	2
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	1,1,2-Trichloroethane	0.2	U	ug/L	0.2	1
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	1,1-Dichloroethane	0.2	U	ug/L	0.2	1
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	1,2-Dichloroethane	0.2	U	ug/L	0.2	1
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	Bromomethane	0.5	U	ug/L	0.5	2
9/12/2012 10:40	Trip Blank	Priority Organic Pollutants	Carbon tetrachloride	0.2	U	ug/L	0.2	1
9/12/2012 10:40	Trip Blank	Field Parameter	Sample Depth			m		
9/12/2012 10:40	Trip Blank	Field Parameter	Salinity			PPTh		
9/12/2012 10:40	Trip Blank	Field Parameter	pH					
9/12/2012 10:40	Trip Blank	Field Parameter	Dissolved Oxygen			mg/L		
9/12/2012 10:40	Trip Blank	Field Parameter	Total Residual Chlorine			mg/L		
9/12/2012 10:40	Trip Blank	Field Parameter	Temperature			C		
9/12/2012 10:40	Trip Blank	Field Parameter	Specific Conductance			umhos/cm		

Appendix C. Facility Summary, Effluent Limits, and Permit Violations Recorded on Discharge Monitoring Report

Facility Summary

Facility Name (as it appears on permit): Georgia-Pacific Palatka Operation		**Former Names:**
Physical Address: Palatka Florida	**NPDES Permit No.:** FL0002763 **Expiration Date:** Aug. 5, 2007	**Prepared By:** Herndon Sims
County: Putnam	**District:** Northeast District	**Facility Type:** Industrial Wastewater
Function of Facility: Pulp and paper mill producing both bleached and unbleached pulp and paper utilizing the Kraft process.		
Sampling Locations (actual permit designation of permitted sampling point): **Outfall D-001** EFF-1:Monitoring Point A after final treatment prior to discharge at mile point 3.4 EFF-3: Monitoring Point B mile point 3.4 PPI-1: Internal Bleach point plant sample SWA-B: Mixing zone for mile point 3.4 SWU-B:Side stream oxygen injection monitoring point for outfall D-001 mile point 3.4 SWU-R3: Monitoring Point R3 mile point 1.4 **Outfall D-002** EFF-2: Flow monitoring point for D-002 mile point 2.4 SWA-C: Mixing zone for mile point 2.4 SWU-C: Mile point 2.4		
Description of permitted outfall: This existing permitted discharge at Outfall D-001 and D-002, to Rice Creek, a Class III surface water and thence to the St. Johns River a Class III surface water. Under the proposed modifications the permittee will discharge directly to Outfall D-003. Outfall D-003 is the direct discharge to the St. Johns River through a 1043-foot diffuser located approximately 3,300 feet from the western shoreline. Outfall D-001 is located at latitude 29°40'44" N, longitude 81°41'33" W, Outfall D-002 is located at latitude 29°41'14" N, longitude 81°40'58" W, and the proposed diffuser for Outfall D-003 is centered at latitude 29°41'13" N, longitude 81°38'24" W.		
Description of treatment process (if multiple discharge points, include a map or diagram of facility): This is a 40 MGD average wastewater treatment facility providing primary clarification followed by secondary treatment consisting of 900 plus acres of facultative and aerobic lagoons. Wastewater treatment solids from the primary clarifier are pumped to sludge lagoons for dewatering. The dewatered wastewater treatment solids are land applied on-site. Treated effluent is discharged through an effluent riffle channel to Outfall D-001 with effluent for sidestream oxygenation discharging at Outfall D-002. A liquid oxygen injection system also injects pure oxygen at Outfall D-001 to offset the BOD of the effluent. This is a fully integrated pulp and paper mill producing both bleached and unbleached pulp and paper utilizing the kraft process. Products include kraft paper and finished tissue products. The facility also operates and maintains an on-site solid waste disposal facility which receives clean construction debris, calcium carbonate, boiler ash, and other solids generated as by-products from the pulping and papermaking operation. The facility operates and maintains the surface water management system including in-line retention basins 1, 4, 5 and wet detention basin 2 to receive and treat storm water runoff from the solid waste disposal area.		

Receiving Waters: Rice Creek	**Classification (indicate whether fresh or marine):** Fresh water
Temperature (C):	**Design Flow:** 40.0 MGD
pH (SU):	**Mean Flow (for previous 12 months):** 25.9 MGD
Conductivity (umhos/cm):	**Flow During Survey:** MGD
Dissolved Oxygen (mg/L):	**Total Residual Chlorine (mg/L):**
Discharge is: Continuous	

Toxicity Test Requirements (routine and/or additional test species, salinity adjustment, etc.):
The testing requirements are noted in Administrative Order 039NE.

Acute Whole Effluent Toxicity Monitoring:
To conduct 96 hour acute static renewal toxicity tests using the *Ceriodaphnia dubia* (water flea) and the *Cyprinella Leedsi* (bannerfin shiner). All tests shall be 24-hour composite samples and shall consist of 6 representative separate grab samples taken every 4 hours or the 24 hour accumulation of a continuous sampler.

Chronic Whole Effluent Toxicity Monitoring:
To conduct a daphnid, Ceriodaphnia dubia, Survival and Reproduction test and a fathead minnow, Pimephales promelas, Larval Survival and Growth Test. These tests shall be conducted using a control (0% effluent) and one test concentration of 100%.

Administrative or Consent Orders: Facility is operating under Administrative Order 039-NE with interim effluent limits.

Facility Mixing Zone Details:
A mixing zone for total dissolved gases (TDG) is established in AO 039 NE for the side stream discharges into Rice Creek. The discharges shall not cause an exceedance of the Chapter 62-302.530(67) F.A.C., Class III fresh water standard of 110% of the saturation value for gases at the existing atmosphere and hydrostatic pressures outside the boundaries of the mixing zones described below:

Milepoint 2.4
The mixing zone shall extend linearly upstream and downstream from the discharge point such that the cumulative upstream and downstream distances from the discharge point does not exceed 725 meters, in the tidal influenced areas of Rice Creek.

Milepoint 3.4
The mixing zone shall extend linearly upstream and downstream from the discharge point such that the cumulative upstream and downstream distances from the discharge point does not exceed 225 meters in the tidal influenced areas of Rice Creek.

List permit violations (DMR data) and plant upsets that occurred at the plant within the last year:
Violations:
6/30/2011 Dissolved Oxygen (DO) -0.1; limit 0
6/30/2011 Dissolved Oxygen (DO) Injected 1550 lb/d; max limit 0
9/30/2011 Dissolved Oxygen (DO) -1.5; limit 0
9/30/2011 Dissolved Oxygen (DO) Injected 5513 lb/d; max limit 0
11/30/2011 Dissolved Oxygen (DO) -0.6; limit 0
11/30/2011 Dissolved Oxygen (DO) Injected 23; limit 0
11/30/2011 Dissolved Oxygen (DO) Injected 171; max limit 0

Upsets (Abnormal Events):
1/7/2011 treated ww entering Rice Creek near mp 3.4
1/13/2011 1000 gals in contact with dirt (from equipment Demineralized Water Processing Area)
1/26/2011 4500 gals untreated ww in Rice Creek
1/31/2011 200 gals process water entering wooded area near mill water plant
2/7/2011 200 gals process ww spill
4/27/2011 Foam concentrated near discharge location
6/2/2011 DO at R3 was 3.9 mg/l (oxygen not adjusted to summer rates)
6/3/2011 Low DO at mp 3.4 (min 4.0)
9/6/2011 Inadequate oxygen at mp 2.4
9/7/2011 Inadequate oxygen at mp 2.4
9/9/2011 Inadequate oxygen injected
11/21/2011 short 23 lbs oxygen at mp 3.4
11/21/2011 short 23 lbs oxygen at mp 2.4
11/22/2011 short 2 lbs oxygen at 2.4
12/12/2011 Inadequate oxygen injected
2/12/2012 Inadequate oxygen at mp 2.4
6/20/12 leak in incoming effluent line in wetlands

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

Annual Fish Tissue Dioxin Monitoring (28 Sep to 3 Oct 2011): Based on the GP analysis of the fish tissue, the concentrations were in the range of the current background conditions of Rice Creek.

FYI3 - June 2011 (Effluent Quality Assessment):

The bioassay samples were toxic to the *Ceriodaphnia dubia* test organisms, producing a no observed effect concentration (NOEC) for reproduction of 50% sample. The samples were not chronically toxic to the *Pimephales promelas* test species during the 7-day chronic bioassays.

Algal Growth Potential: The effluent Algal Growth Potential (AGP) was 11.2 mg dry wt/L of the unicellular green alga,*Pseudokirchneriella subcapitata*, formerly known as *Selenastrum capricornutum*. It was 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.

The salinity adjusted effluent Algal Growth Potential (AGP) was 3.6 mg dry wt/L of the saltwater species, *Dunaliella tertiolecta*. It was determined that AGP values above 10.0 mg dry weight/L represent a "problem" threshold for marine receiving waters, implying nutrient enrichment.

The effluent water quality samples collected did not exceed any applicable water quality standards or exceed any conditions of Administrative Order No. 039-NE.

There are no current enforcement actions pending.

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

Facility was having issues with meeting the Dissolved Oxygen (DO) and Dissolved Oxygen (DO) Injected parameters. In the last half of calendar year 2011, the trend fluctuated in readings.

List Effluent Limits (include additional sheets as necessary):

Parameters	Effluent Sampling Location	Discharge Limitations			Measure Frequency	Sample Method/Type
		Other	Daily Max.	Daily Average		
Flow, (MGD)	See Part III.2.b.	--	Report	Report	Continuous	Recorder
BOD5-day, mg/l	See Part III.2.b.	--	Report	Report	3 Days/Week	**24-hour composite
BOD5-day (lbs/day) Summer (June 1-Nov 30)	See Part III.2.b.	--	7,000, See Part III.2.k.	3,500, See Part III.2.k.	3 Days/Week	**24-hour composite
BOD5-day (lbs/day) Winter (Dec. 1 - May 31)	See Part III.2.b.	--	14,340, See Part III2.k.	7,170, See Part III.2.k.	3 Days/Week	**24-hour composite
TSS, mg/l	See Part III.2.b.	--	Report	Report	3 Days/Week	**24-hour composite
TSS (lbs/day) - Summer (June 1 - Nov. 30)	See Part III.2.b.	--	10,000, See Part III.2.k.	5,000, See Part III.2.k.	3 Days/Week	**24-hour composite
TSS (lbs/day) -	See Part		17,500,	10,000,	3	**24-hour

Winter (Dec. 1 - May 31)	III.2.b.	--	See Part III.2.k.	See Part III.2.k.	Days/Week	composite
pH (S.U.)	See Part III.2.b.	6.0 Daily Min	8.5	--	5 Days/Week	Grab
Total Nitrogen, as N (mg/l)	See Part III.2.b.	--	Report	--	1/Month	Grab
TKN, as N (mg/L)	See Part III.2.b.	--	Report	--	1/Month	Grab
Total Ammonia, as N (mg/l)	See Part III.2.b.	--	Report	--	1/Month	Grab
Un-ionized Ammonia (mg/L) as NH_3	See Part III.2.b.	--	Report	--	1/Quarter	Calculated, See Pt III.2.u.
Color, PCU	See Part III.2.b.	--	Report	--	1/Month	Grab
Fecal Coliform, #/100 ml	See Part III.2.b.	200	800	--	1/Month	Grab
Total Coliform, #/100 ml	See Part III.2.b. and t.	1000	2400	--	1/Month	Grab
Settleable Solids, (ml/l/hr)	See Part III.2.b.	--	0.1	--	1/Month	Grab
*Iron, total recoverable, mg/L	See Part III.2.b.	--	Report	--	1/Quarter	Grab
*Zinc, total recoverable, ug/l	See Part III.2.b.	--	See Part III.2.f.	--	1/Quarter	Grab
*Cadmium, total recoverable (ug/l)	See Part III.2.b.	--	Report	--	1/Quarter	Grab
*Lead, total recoverable (ug/l)	See Part III.2.b.	--	Report	--	1/Quarter	Grab
Temperature, Degrees F.	See Part III.2.b.	--	Report	--	1/Quarter	Grab
Total hardness, mg/l as CaCO3	See Part III.2.b.	--	Report	--	1/Quarter	Grab
Specific Conductance, umhos/cm	See Part III.2.b.	--	Report	--	1/Month	Grab
Turbidity, NTU	See Part III.2.b.	--	Report	--	1/Month	Grab
Dissolved Oxygen, mg/l	See Part III.2.b.,d.,e.	Report	--	--	5 Days/Week	Grab or insitu
Dissolved Oxygen, mg/l Summer-Jun. 1 -	See Part III.2.h.	4.0 daily min., See Pt	--	--	5 Days/Week	Grab or insitu

Nov. 30		III.2.g.				
Dissolved Oxygen, mg/l Winter-Dec. 1 - May 31	See Part III.2.h.	5.0 daily min., See Part III.2.g.	--	--	5 Days/Week	Grab or insitu
Oxygen Injected, lb/day Summer-Jun. 1 - Nov. 30	See Part III.2.d.	4,150, See Part III.2.g.	--	--	5 Days/Week	Log
Oxygen Injected, lb/day Winter-Dec. 1 - May 31	See Part III.2.d.	1,950, See Part III.2.g.	--	--	5 Days/Week	Log
Oxygen Injected, lb/day Summer-Jun. 1 - Nov. 30	See Part III.2.e.	5,750, See Part III.2.g.	--	--	5 Days/Week	Log
Oxygen Injected, lb/day Winter-Dec. 1 - May 31	See Part III.2.e.	2,800, See Part III2.g.	--	--	5 Days/Week	Log
2,3,7,8-TCDD, pg/l	See Part III.2.b.	--	--	0.014, See Part III.2.n.	Quarterly, See Part III.2.n.	Composite See Part III.2.n.
COD, mg/l	See Part III.2.b.	--	Report	--	1/Month	**24-hour composite
Adsorbable Organic Halides (AOX), (lbs/day) (EPA Method 1650)	See Part III.2.b.	1077 monthly average	1644	--	Daily	**24 hour composite
2,3,7,8 TCDD, pg/l (EPA Method 1613)	See Part III.2.c.	--	<10.0	--	Monthly	**24 hour composite
2,3,7,8 TCDF, pg/l (EPA Method 1613)	See Part III.2.c.	--	<31.9	--	Monthly	**24 hour composite
Chloroform, (lbs/day)	See Part III.2.c.	--	11.96	7.16	Weekly	**24 hour composite
Trichlorosyringol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<2.5	--	Monthly	**24 hour composite
3,4,5 - trichlorocatechol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<5.0	--	Monthly	**24 hour composite
3,4,6 - trichlorocatechol, ug/l (EPA Method	See Part III.2.c.	--	<5.0	--	Monthly	**24 hour composite

1653)						
3,4,5 - trichloroguaiacol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<2.5	--	Monthly	**24 hour composite
3,4,6 - trichloroguaiacol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<2.5	--	Monthly	**24 hour composite
4,5,6 trichloroguaiacol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<2.5	--	Monthly	**24 hour composite
2,4,5 - trichlorophenol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<2.5	--	Monthly	**24 hour composite
2,4,6 - trichlorophenol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<2.5	--	Monthly	**24 hour composite
Tetrachlorocatechol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<5.0	--	Monthly	**24 hour composite
Tetrachloroguaiacol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<5.0	--	Monthly	**24 hour composite
2,3,4,6 - tetrachloro-phenol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<2.5	--	Monthly	**24 hour composite
Pentachlorophenol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<5.0	--	Monthly	**24 hour composite
Acute Whole Effluent Toxicity, (%)	Effluent See Part III.2.b.	LC50 >100, see Part III.6.a			See Part III.6.a	**24-hour composite
Chronic Whole Effluent Toxicity, (%)	Effluent See Part III.2.b.	Report, see Part III.6.b.			See Part III.6.b	**24-hour composite

* Applied based on the total recoverable fraction pursuant to Rule 62-302.500(2)(d), FAC. The Permittee may request department approval for an alternative fraction.
** The 24-hour composite sample shall consist of 6 representative separate grab samples taken every 4 hours or continuous sampler.

The effluent sampling location conditions Part III.2..:

b. Monitoring point A shall be located after final treatment but prior to actual discharge or mixing with the receiving waters. Monitoring of all parameters except effluent dissolved oxygen and internal bleach plant monitoring required by the Cluster Rule may be at a point above the effluent riffleway. Monitoring and reporting for effluent dissolved oxygen shall be monitored below the effluent riffleway. Flow shall be reported as the sum of flows from Outfalls D-001 and D-002.

c. The Permittee shall submit a plan identifying internal monitoring locations for the internal bleach plant monitoring required by the Cluster Rule. Upon Department review and approval, these internal monitoring locations will become an enforceable part of this permit.

d. Outfall D-001 (Monitoring Point B) - Shall be located near Little Rice Creek mile point 3.4 (upstream from mouth) and shall measure total pounds of oxygen injected per day and flow for one of two oxygenated effluent sidestreams.

e. Outfall D-002 (Monitoring Point C) - Shall be located near Rice Creek mile point 2.4 (upstream from mouth) and shall measure total pounds of oxygen injected per day and flow for one of two oxygenated effluent sidestreams.

f. A sample for effluent hardness as mg/l CaCO3 must be taken at the same time of sampling for zinc from the effluent discharge. The hardness value must be used to determine compliance with the standard in rule 62-302.530(71) where the total recoverable zinc concentration in the effluent shall not be > $e^{(0.8473[\ln H]+0.7614)}$, where [ln H] is the natural logarithm of total hardness expressed as mg/l of CaCO3. The hardness shall be set at 25 mg/l if actual hardness is <25 mg/l and set at 400 mg/l if actual hardness is >400 mg/l.

g. The oxygen injection rates shall be adjusted at the specified monitoring locations (B&C) to maintain applicable dissolved oxygen standards within Rice Creek. The dissolved oxygen concentrations apply at location R3 (Rice Creek mile point 1.4) when the high tide condition of Etonia and Rice Creek is less than 1.5 feet. When the high tide condition of Etonia and Rice Creek is greater than or equal to 1.5 feet, the minimum amount of liquid oxygen injected (lbs/day) shall be met, unless instream D.O. concentration (mg/l) exceeds the standards listed in Part III.2.a. During periods of high stage levels (greater than or equal to 1.5 feet) in Rice and Etonia Creeks, the Permittee will only be held responsible for violations of the D.O. standards (listed in Part III.2.a) attributable to the mill effluent. If at anytime the facility is adding more oxygen than is listed in Part III.2.a. the dissolved oxygen standards do not apply at monitoring location R3. It is the responsibility of the Permittee to monitor and maintain records of the stage heights within the creeks. The Permittee shall obtain Department approval for an alternate method to add oxygen to Rice Creek which does not include the use of effluent.

h. Instream monitoring point shall be located at sample point R3 (Rice Creek mile point 1.4, upstream from mouth).

i. There shall be no discharge of floating solids or visible foam in other than trace amounts.

j. The discharge shall not cause a visible sheen on the receiving water.

k. For BOD_5 and TSS, the total loadings per day (lb/day) shall be determined by measuring the 24 hour composited effluent concentrations (mg/l) at the monitoring point in Part III.2.b. and multiplying these values by the sum of the effluent flows (MGD) from Outfalls D-001 and D-002 and by the conversion factor.

l. The effluent sidestreams discharged through Outfalls D-001 and D-002 shall be withdrawn from the final wastewater treatment pond at a location adjacent to where the effluent is routed through the monitoring point referenced in Part III.2.b. of this order.

m. A mixing zone for total dissolved gases (TDG) is hereby established for the side stream discharges into Rice Creek. The Permittee's discharges shall not cause an exceedance of the Chapter 62-302.530(67) F.A.C., Class III fresh water standard of 110% of the saturation value for gases at the existing atmosphere and hydrostatic pressures outside the boundaries of the mixing zones described below.

Milepoint 2.4
The mixing zone shall extend linearly upstream and downstream from the discharge point such that the cumulative upstream and downstream distances from the discharge point does not exceed 725 meters, in the tidal influenced areas of Rice Creek.

Milepoint 3.4
The mixing zone shall extend linearly upstream and downstream from the discharge point such that the cumulative upstream and downstream distances from the discharge point does not exceed 225 meters in the tidal influenced areas of Rice Creek.

n. After three consecutive sampling events indicating dioxin compliance the sampling analysis frequency shall be reduced to once per year. If the concentration of 2,3,7,8-TCDD is determined to be less than the minimum detection level of 10 pg/l for method 1613, then compliance with the 2,3,7,8-TCDD limitation in this permit is demonstrated. The samples shall be a 72-hour composite sample consisting of three 24-hour composite samples. The effluent limitation for 2,3,7,8-TCDD is for that isomer only.

o. Fish Tissue - Interim

The Permittee shall submit, within 30 days of the effective date of this Administrative Order, a revised Plan of Study (POS) to annually assess the levels of all chloro-dibenzo dioxin and furans in ambient fish and shellfish tissue in Rice Creek.

p. Dissolved Oxygen Maintenance Plan (Interim)

The Permittee is allowed to perform maintenance of the oxygen injection sidestream stations B and C, as defined in Parts III.2.d. and e. of this order, under the following conditions:

1. When maintenance occurs at Station C, oxygen shall be injected at Station B at such a rate that applicable dissolved oxygen levels are maintained in accordance with Part III.2.a.

2. When maintenance occurs at Station B, oxygen shall be injected at Station C such that applicable dissolved oxygen levels are maintained in accordance with Part III.2.a.

3. Maintenance which does not comply with items 1. and 2 above is allowed at Stations B and C due to upsets, provided it shall not exceed a total of 36 hours in any calendar month and shall not exceed a total of 12 hours in any 24 hours period. For purposes of calculating the maximum time frames set forth in this Specific condition, concurrent discharges from Stations B and C shall be considered as one Discharge.

4. Exceedances of the above time restrictions shall not result in violations of this Order if the Permittee can demonstrate to the satisfaction of the Department through stream monitoring during the time frame of the exceedance that applicable water quality standards were maintained.

q. If planned maintenance is scheduled for Station B and C which will exceed the time limits of Part III.3.p. above, the Permittee shall notify the Department in writing 7 days in advance of the maintenance. Such maintenance shall be performed only under favorable stream conditions which shall be documented in the written notification (i.e., winter months, high stream flows, etc.). The Permittee shall perform a stream survey in accordance with Part I.D.4 of the permit each day during the maintenance period until the system is operational to verify compliance with applicable

dissolved oxygen levels within Rice Creek. The Permittee may temporarily discontinue the discharge into the creek during the maintenance period in lieu of performing the daily stream surveys.

r. The effluent sidestream discharged at Monitoring Locations B and C shall be withdrawn from the final wastewater treatment pond at a location adjacent to the existing parshall flume.

s. The Permittee shall conduct quarterly instream surveys at R7, E2, and Buffalo Bluff in accordance with Part I.D.4. of Permit Fl0002763.

t. After three consecutive years of demonstrating compliance with the Total Coliform standard pursuant to 62-302.530(7), FAC, the Permittee may discontinue monitoring for Total Coliform. In the event that after three years of monitoring compliance with the Total Coliform is not achieved, the Permittee shall submit a Corrective Actin Plan to the Department for review and approval in accordance with Part III. 5.l. of this order.

u. Shall be calculated based on the effluent pH, temperature, and total ammonia as N at the time of sampling using attachment 2.

Table 3. Georgia-Pacific Corporation - Palatka Operations Discharge Monitoring Report Violations for 1 Year Prior to Sampling

Facility ID	Facility Name	District	Outfall Type	Monitoring Date	Outfall Indicator	Parameter Description	Conc. (2)	Conc. Limit (2)	Conc. Statistical Base (2)	Conc. (3)	Conc. Limit (3)	Conc. Statistical Base (3)	Conc. Units	Violation Code
FL0002763	Georgia-Pacific Consumer Opera	JA	EXO	7/31/2012	001-1	COLIFORM, FECAL	250	200	MO GEOMN	250	800	DAILY MX	#/100mL	E90

Appendix D. EPA End Sheet

The Priority Pollutants Analysis of Georgia-Pacific Corporation - Palatka Operations effluent sampled on September 12, 2012. NPDES #FL0002763.

Fill Out This Section For All Surface Water Discharger Inspections(CEI, CSI, CBI, PAI, XSI-RI Optional)

Transaction Code	NPDES NUMBER	YR/MO/DA	Insp Type	Inspector	Fac Type
1 N 2 5	3 F L 0 0 0 2 7 6 3 11	12 1 2 0 9 1 2	18 X	19 S	20 2

Remarks

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Biological Analyses of Georgia-Pacific Corporation - Palatka Operations effluent sampled on September 12, 2012. NPDES #FL0002763.

Fill Out This Section For All Surface Water Discharger Inspections(CEI, CSI, CBI, PAI, XSI-RI Optional)

Transaction Code	NPDES NUMBER	YR/MO/DA	Insp Type	Inspector	Fac Type
1 N 2 5	3 F L 0 0 0 2 7 6 3 11	12 1 2 0 9 1 2	18 S	19 S	20 2

Remarks

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