

Effluent Quality Assessment

Jefferson Smurfit Corporation, U. S.

Nassau County

NPDES #FL0001104

Sampled February 11, 2008

April 2008

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

Jefferson Smurfit Corporation, U.S., North 8th Street, Fernandina Beach, Nassau County, Florida, 32035. NPDES #FL0001104. Effluent samples for this facility were collected on February 11, 2008.

Introduction

Jefferson Smurfit Corporation, U.S., is an industrial facility which manufactures Kraft linerboard using unbleached Kraft paper. The facility has an industrial wastewater treatment system consisting of:

- Grit chamber with mechanical screening;
- Primary clarifier;
- Wastewater cooling tower;
- A UNOX activated sludge system;
- Dual secondary clarifiers;
- A holding pond for influent loading control;
- Dewatering presses for primary and secondary wastewater solids;
- Blending tank systems for primary and secondary solids;

Effluent discharge from the facility is continuous and rainfall dependent. The facility has a design flow of 37.5 million gallons per day (MGD) (30 MGD design wastewater flow and 7.5 MGD stormwater flow) annual average daily flow (AADF). The AADF through the facility from December 2006 through November 2007 was 15 MGD.

Treated wastewater is discharged through a Parshall flume (outfall D-001) to the Class III Marine waters of the Amelia River via a multiport diffuser. The diffuser is 76.2 m (250 feet) long and has 20 ports spaced at 3.8 m (12.5 feet) intervals. The point of discharge is located approximately at latitude 30º 41' 09" N, longitude 81º 27' 32" W. Sludge is disposed of at an off-site, company owned landfill located in Callahan, Nassau County, Florida.

The facility has no current active Administrative Orders or Consent Orders. The facility has a mixing zone for dissolved oxygen, temperature, chronic toxicity, copper, nickel, and pH for effluent discharged from Outfall D-001 into the Amelia River. The mixing zone measures 106.22 m in length by 20 m in width and has a surface are of 2,124 m^2. The mixing zone includes the entire water column from the surface to the bottom, and runs parallel to, and is centered on, the diffuser structure. A review of the facility's Discharge Monitoring Report (DMR) data from June 2006 through November 2007 did not reveal any violations of permit conditions. The facility is required to prepare and to follow a Best Management Practices Plan. The facility completed an in-kind project to install five additional conductivity meters (total = 12) in its internal sewer pipelines. The facility submitted the final report of its Pollution Prevention Plan on July 16, 2006. (Facility information provided by Edward Jamro of FDEP Northeast District).

Methods

Samples were collected from the EFF-1 NPDES sampling point for Outfall D-001 by Eesa Ali (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/qa/sops.htm.

See Appendix A for the completed chain of custody form.

The 96-hour screening toxicity tests and algal growth potential test were performed following internal DEP SOPs TA07_01, TA07_02, and TA08_01 through TA08_09. All internal DEP SOPs are available on the web at: http://www.floridadep.org/labs/cgi-bin/sop/biosop.asp.

Prior to test initiation, bioassay samples were aerated for 20 minutes at approximately 100 bubbles per minute. The dissolved oxygen concentration was decreased from 10.2 mg/L to 7.9 mg/L.

Due to the apparent salinity (~ 1.5 parts per thousand) of the sample, an AGP test with the freshwater species, *Pseudokirchneriella subcapitata*, was not performed. The AGP test was salinity adjusted to meet the minimum salinity requirements of the marine test species.

Toxicity Test Results

Tests were performed February 12 - 16, 2008.

Ceriodaphnia dubia 96-hour acute screening bioassay – LC_{50} > 100%, 0% mortality in 100% sample at 96 hours

Cyprinella leedsi 96-hour acute screening bioassay – LC_{50} > 100%, 0% mortality in 100% sample at 96 hours

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

See Appendix B for bioassay bench sheets. See Appendix C for results of the last 20 standard reference toxicant (SRT) tests and the bench sheets and statistical analyses of the SRT tests that correspond to these facility tests. See Appendix D for test organism receipts.

Algal Growth Potential

The effluent Algal Growth Potential (AGP) was less than the method detection limit (MDL) of 3.0 mg dry wt/L of the saltwater species *Dunaliella tertiolecta.* Raschke and Shultz found that AGP values above 10.0 mg dry weight/L represent a “problem” threshold for marine receiving waters, implying nutrient enrichment (personal communication with Ron Raschke USEPA Region 4, 1987). The analytical chemistry suggests that the effluent is nitrogen-limited (Table 1; Maloney et al. 1974).

See Table 1 for AGP results.

Chemistry Results

Total residual chlorine (TRC) (0.11 mg/L) was detected in the bioassay sample in the laboratory. The TRC result is thought to be due to interference within the sample since chlorine is not used in the wastewater treatment process. Total ammonia was not detected in the bioassay sample in the laboratory. The total ammonia concentration in the sample collected and preserved for chemical analysis was 0.038 mg/L. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was < 0.02 mg/L.

Aluminum, iron, and nickel were detected in the effluent at levels that comply with Class III Marine water quality criteria (62-302.530, F.A.C.). Arsenic, cadmium, chromium, copper, lead, and zinc were detected between the laboratory (MDL(s)) and practical quantitation limits (PQL).

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

Conclusion

The effluent sample collected from the EFF-1 NPDES sampling point for Outfall D-001 for this facility on February 11, 2008, was not acutely toxic to either test species during the 96-hour acute

screening bioassays. The effluent AGP result was less than the "problem" threshold for marine receiving waters. Effluent water quality samples did not exceed any applicable water quality standards or violate any permit conditions.

Literature Cited

Maloney, T. E., W. E. Miller, and D. T. Specht. 1974. The Marine Algal Assay Procedure: Bottle Test. National Environmental Research Center Office of Research and Development. U. S. EPA, Corvallis, Oregon. 43 p.

Table 1. Measured and predicted algal growth potential (AGP; mg dry weight/L) of the saltwater species *Dunaliella tertiolecta* and ratios of nitrogen to phosphorus for samples from the Jefferson Smurfit Corporation, U.S., facility collected on February 11, 2008.

Jefferson Smurfit Corporation, U.S.				
Location	AGP (measured)		Inorganic N:P ratio	Total N:P ratio
Effluent	3.0	U	0.8	5.5

U - Material was analyzed for but was not detected. The value reported is the minimum detection limit.

Table 2. Effluent limits, Class III Criteria for predominantly marine waters and chemical data for samples collected from the Jefferson Smurfit Corporation, U.S., facility on February 11, 2008.

Jefferson Smurfit Corporation, U.S. NPDES #FL0001104	Class III Criteria	Effluent Limits	Effluent Outfall D-001	
Organic Constituents (µg/L)				
None Detected	-	-	-	
Metals (µg/L unless otherwise noted)				
Aluminum	≤ 1500	-	760	
Arsenic	≤ 50	-	0.9	I
Cadmium	≤ 8.8	-	0.055	I
Calcium (mg/L)	-	-	74	
Chromium-III	-	-	3.6	I
Copper	≤ 3.7	≤ 12.8 s	1.3	I
Iron	≤ 300	-	160	
Lead	≤ 8.5	-	0.5	I
Magnesium (mg/L)	-	-	25.1	
Mercury	≤ 0.025	-	0.12	U
Nickel	≤ 8.3	≤ 24.2 s	13.9	
Selenium	≤ 71	-	0.5	U
Silver	≤ 2.3	-	0.025	U
Zinc	≤ 86	-	17	I
Nutrients (mg/L)				
Ortho-phosphate	-	-	0.052	
Total Phosphorus	-	Report	0.55	
Total Ammonia	-	Report	0.038	
Un-ionized Ammonia	-	-	< 0.02	c
Nitrate and Nitrite	-	-	0.006	I
Total Kjeldahl Nitrogen	-	Report	3	
Organic Nitrogen	-	-	2.962	c
Total Nitrogen	-	-	3.006	c
General Physical and Chemical Parameters				
Dissolved Oxygen (mg/L)	≥ 4.0	≥ 1.7 s	5.9	
pH (SU)	6.5 - 8.5	6.0 - 9.0	6.1	
Conductivity (µmhos/cm)	-	-	3023	
Temperature °C	-	≤ 40.5 s	35.7	
Total Residual Chlorine (mg/L)	≤ 0.01	-	0.11 £Q	
BOD, 5 day (lbs/day), N - uninhibited	-	≤ 28,200 p	-	
BOD, 5 day (lbs/day), N - uninhibited	-	≤ 11,560 mp	-	
Total Suspended Solids (lbs/day)	-	≤ 45,200 p	-	
Total Suspended Solids (lbs/day)	-	≤ 21,250 mp	-	
Oils and Greases (mg/L)	≤ 5	≤ 5 s	-	
Flow (MGD)	-	≤ 37.5 m	15	a
Hardness (mg $CaCO_3$)	-	-	288.14	c

Value exceeds the Class III Water Quality Criteria or permit limits

a - Annual average
c - Value is calculated
m - monthly average
p - permit requires a flow porportioned sample
s - Single sample
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.
£ - Analysis performed in bioassay laboratory on bioassay sample. Result likely due to interference within the sample.
Q - Sample held beyond normal holding time.

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Request Number: RQ-2008-02-11-30
Jefferson Smurfit Corp-Fernandina Beach Mill

Event ID *

Requester: Jennifer Paris
Field Report Prepared By: EA
Collected By: EA ISN
Send Final Report To Tom Kallemeyn
Sampling Agency: DEP

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

2-10-08

Lab ID *	Location	Collection (begin)	Collection (end)	Bottle Group(s)**
	Jefferson Smurfit EFF-1	☑ Comp ☐ Grab Date ~~1600~~ Time 1600 ~~Eastern~~ Central	Date 2-11-08 Time 1600 ~~Eastern~~ Central	2xA
	Field ID	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L) 5.92	Storet Station Number
	Matrix (Include type e.g. Salt, Fresh, etc) Industrial Temp (C) 35.74 pH 6.10	Sample Depth ☑ m ☐ ft 1.54	☐ Salinity (PPTh) 3023 ☑ Sp Conductance (umho/cm)	NPDES Number
	Latitude o ' " Longitude o ' "	Comments 2 TOX bottles overfilled.		

Lab ID *	Location	Collection (begin)	Collection (end)	Bottle Group(s)**
	Jefferson Smurfit EFF-1	☐ Comp ☐ Grab Date 2-10-08 Time 1600 ~~Eastern~~ Central	Date Time Eastern Central	Ax13
	Field ID	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number
	Matrix (Include type e.g. Salt, Fresh, etc) Temp (C) pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number
	Latitude o ' " Longitude o ' "	Comments		

Lab ID *	Location	Collection (begin)	Collection (end)	Bottle Group(s)**
	Blank	☐ Comp ☐ Grab Date 2-11-08 Time 1620 ~~Eastern~~ Central	Date Time Eastern Central	B x 5
	Field ID	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number
	Matrix (Include type e.g. Salt, Fresh, etc) Temp (C) pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number
	Latitude o ' " Longitude o ' "	Comments		

Lab ID *	Location	Collection (begin)	Collection (end)	Bottle Group(s)**
		☐ Comp ☐ Grab Date Time Eastern Central	Date Time Eastern Central	
	Field ID	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number
	Matrix (Include type e.g. Salt, Fresh, etc) Temp (C) pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number
	Latitude o ' " Longitude o ' "	Comments 2 bio assy rec'd in TOX 1002 2.11.08 JD		

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
EA	2-11-08	DHL						

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

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meter readings taken @ 1604 2-11-08
Also have meter readings every @ 15 mins for 24 hours from 2/10 - 2/11 will email to N.A.

FDEP Biology Laboratory - Acute Screen Bioassay Bench Sheets

Facility: Jefferson Smurfit Corporation, US

Address: North 8th Street

City: Fernandina Beach **County:** Nassau

Contact/District: Ecoa Al. / North East

NPDES Permit #: FL 0001104

LIMS Job #: TH1-2008-02-12-61 **LIMS Sample #:** 1082403

Lims Data Entry: 2-22-08 MF **Data Entry Verification:** 2.22.08 JD

Sample Collection: Date: 2-11-2008 Time: 1600

Hold Time Start: Date: 2-11-2008 Time: 1600

Comments: Sample aerated prior to test initiation to reduce Dissolved Oxygen Concentration from 7.10 mg/L to ~ 7.9 mg/L. Duration was 20 minutes at approximately 100 bubbles per minute. MF 2-14-08

Instructions (for below): Circle appropriate wording. If yes is circled, complete blanks.

Test Type: (Screen)
Static / (Static Renewal) / Flow-through
Test Duration: 48 (96) Hours.

Test 1 validation: **Test 1:** SOP TA 07_01
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No

Test 2 validation: **Test 2:** SOP TA 07_02
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No

Initial sample handling:
PH adjustment: yes (no) Initial pH: ____ NaOH N HCl N ____ Drops mL Final pH: ____
Aeration : (yes) no Initial DO: 7.2 mg/L Final DO: 7.9 mg/L Duration: 20 minutes Rate: ~100 bubbles/min
Salinity adjusted (Test 1): yes (no) Initial Salinity: ____ Final Salinity: ____ Salts Hypersaline brine
Salinity adjusted (Test 2): yes (no) Initial Salinity: ____ Final Salinity: ____ Salts Hypersaline brine
Dechlorination: yes (no) ____ mL of 0.025N Sodium Thiosulfate per liter of sample. Final TRC: ____

Sample Validation:
Temperature: (Shipped) ≤6°C (Yes) No Hand Delivered: Cooling (received °C < collected °C) Yes No
Holding Time: ≤36 Hours (Yes) No (Composite-end of collection; grab-when collected; 4 in 24 - time last sample collected)

Light Intensity : 50 - 100 ft. candles
Photoperiod : 16 light 8 dark
Temperature Range °C:
Incubator # 2 min. 25.7 max. 26.6 mean 26.2
Incubator # ____ min. ____ max. ____ mean ____
Room B246 min. 22.8 max. 25.1 mean 24.0

Investigators' Signatures
James Branch
Marshall Faircloth
Bruce Alcock

REVIEWER

Water Quality Parameters	20% DMW 2-11-08	Moderately Hard Water/ 2-11-08 Well Water	Salt Water ASW NSW Test 1	Salt Water ASW NSW Test 2	Other:	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl_2 (mg/L):	N/A	N/A	N/A	N/A		—	not measured		MF
Lab Total Residual Cl_2 (mg/L):	<0.03	<0.03	—	—		0.11	HACH	JD	MF
Alkalinity (mg/L as $CaCO_3$):	83	142				165	HACH	BA	JD
Hardness (mg/L as $CaCO_3$):	81	135				—	HACH	BA	JD
Total Ammonia (mg/L as N):	<0.017	<0.017				<0.017	DENVER	MF	BA
Salinity (ppth):	<1	<1				~1.5	YSI (Mettler)	JD	MF

V 1.4 9/12/05

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1082403 Test #: 1/2 SOP#:TA 07 01 Test Started: Date 2-12-08 Time: 1250
Organism/Batch/Age: C.dubia / 6-08 / <24hours Test Ended: Date 2-16-08 Time: 10:00
Chamber/Test Volume: 30 / 20 ml Diluent/ Batch: DmW 2/11/08
Food/Batch: (YCT) 2-26-08 (P.sub) 1-31-08 Artemia 0hr — 24hr — 48hr — 72hr — Artemia Lot# —
Feeding: (Prior to Test) Prior to Renewal Daily

Concentration	Replicate	Chamber #	0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	A	5	5	5	5	5	5
	B	B	5	5	5	5	5	4 1D
	C	C	5	5	5	5	5	5
	D	D	5	5	5	5	5	5
100%	A	A	5	5	5	5	5	5
	B	B	5	5	5	5	5	5
	C	C	5	5	5	5	5	5
	D	D	5	5	5	5	5	5
Loaded/Verified by: MF BA		Checked by:	BA	MF	MF	BA	BA	BA

m = missing d = dead BR/AR = Before/After Renewal

Comments:

Test Results:
Screening Tests: Report LC50 as >100%, =100%, or <100%.
% mortality in 100% sample: Ø LC50: >100%
If Calculated: 95% CI____ Method____
Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

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Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1082403 Test #: 2/2 SOP#:TA 07_02 Test Started: Date 2-12-08 Time: 1200

Organism/Batch/Age: Gleeds'i / 2-12/08 / 12 days Test Ended: Date 2-16-08 Time: 10.10

Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: Well H2O / 2-11-08

Food/Batch: YCT — P.sub___ (Artemia) 0hr 2-12-08 24hr — 48hr 2-14-08 72hr — Artemia Lot# GSL-S36-90

Feeding: (Prior to Test) Prior to Renewal Daily

Concentration	Replicate	Chamber #	0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	F1	5	5	5	5	5	5
	B	F2	5	5	5	5	5	5
	C	F3	5	5	5	5	5	5
	D	F4	5	5	5	5	5	5
100%	A	F5	5	5	5	5	5	5
	B	F6	5	5	5	5	5	5
	C	F7	5	5	5	5	5	5
	D	F8	5	5	5	5	5	5
Loaded/Verified by: JD / BA		Checked by:	BA	JD	JD	JD	JD	BA

m = missing d = dead BR/AR = Before/After Renewal

Comments:

Test Results:

Screening Tests: Report LC50 as >100%, =100%, or ≤100%.

% mortality in 100% sample: Ø LC50: >100%

If Calculated: 95% CI_________ Method_________

Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

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FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 108403 Test #: 1 of 2

TEST SOP #: TA07_01 Test Species: (Ceriodaphnia dubia) Cyprinella leedsi Pimephales promelas Americamysis bahia Menidia beryllina Other:_____

Concentration Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M		M	M		M
pH (S.U.)	8.1		8.3	8.0		8.0
Temperature °C	25.8		24.6	24.5		24.0
Dissolved Oxygen mg/L	8.0		7.7	8.1		6.6
Conductivity (µmhos) mmhos	180		205	179		187
(initials) Measured by:	MF		MF	MF		BA
(initials) Recorded by:	MF		MF	MF		BA

Comments: M = meter vial MF 2-12-08

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M		M	M		M
pH (S.U.)	8.0		8.3	7.1		8.4
Temperature °C	25.9	MF ~~24.5~~	~~24.5~~ 25.8 MF	25.8		24.2
Dissolved Oxygen mg/L	7.2		7.6	8.1		6.8
Conductivity µmhos (mmhos)	2.97		3.04	3.05		3.17
(initials) Measured by:	MF		MF	MF		BA
(initials) Recorded by:	MF		MF	MF		BA

Comments: M = meter vial 2-12-08 MF

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate						
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity µmhos mmhos						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate						
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity µmhos mmhos						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

000029

V 2.0 2/24/04

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 108240 3 **Test #:** 2 of 2

TEST SOP #: TA07_02 **Test Species:** *Ceriodaphnia dubia* ~~*Cyprinella leedsi*~~ *Pimephales promelas* *Americamysis bahia* *Menidia beryllina* Other:_____

Concentration (Ctr)	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	7.9	8.2	8.4	8.0	8.1	8.0
Temperature °C	25.2	24.2	24.0	24.1	24.3	24.1
Dissolved Oxygen mg/L	7.6	7.0	7.2	7.8	6.9	6.0
Conductivity ~~µmhos~~ mmhos	287	286	283	280	273	295
(initials) Measured by:	JD	JD	JD	JD	JD	BA
(initials) Recorded by:	JD	JD	JD	JD	JD	BA

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.0	8.1	8.2	7.8	7.7	7.9
Temperature °C	25.4	24.5	24.2	24.9	24.7	24.7
Dissolved Oxygen mg/L	7.4	6.4	6.4	7.6	6.1	5.6
Conductivity µmhos ~~mmhos~~	3.00	3.07	3.07	3.10	2.99	3.31
(initials) Measured by:	JD	JD	JD	JD	JD	BA
(initials) Recorded by:	JD	JD	JD	JD	JD	BA

Comments:

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate						
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity µmhos mmhos						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate						
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity µmhos mmhos						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

Appendix C. SRT Bench Sheets and Statistical Analysis

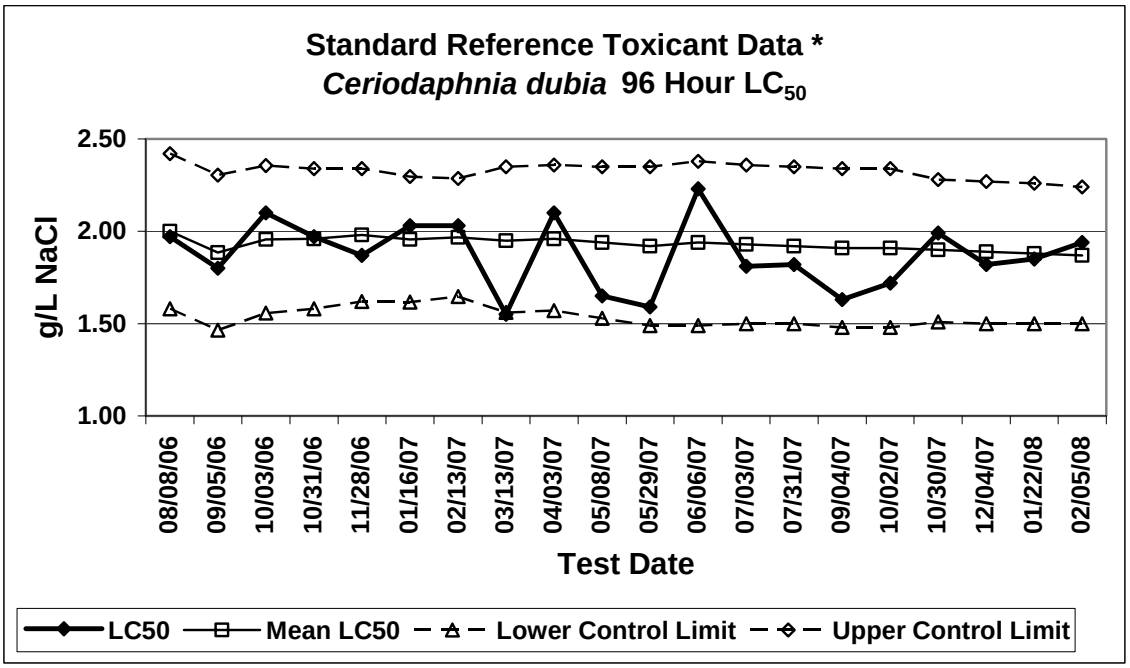
Florida Department of Environmental Protection
Bureau of Laboratories

Standard Reference Toxicant (SRT) Test Data - 96-hour Acute Toxicity
Ceriodaphnia dubia (water flea) - Sodium Chloride (NaCl)

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
08/08/06	1.97	2.00	0.21	1.58	2.42
09/05/06	1.80	1.89	0.21	1.47	2.31
10/03/06	2.10	1.96	0.20	1.56	2.36
10/31/06	1.97	1.96	0.19	1.58	2.34
11/28/06	1.87	1.98	0.18	1.62	2.34
01/16/07	2.03	1.96	0.17	1.62	2.30
02/13/07	2.03	1.97	0.16	1.65	2.29
03/13/07	1.55	1.95	0.20	1.56	2.35
04/03/07	2.10	1.96	0.19	1.57	2.36
05/08/07	1.65	1.94	0.20	1.53	2.35
05/29/07	1.59	1.92	0.22	1.49	2.35
06/06/07	2.23	1.94	0.22	1.49	2.38
07/03/07	1.81	1.93	0.22	1.50	2.36
07/31/07	1.82	1.92	0.21	1.50	2.35
09/04/07	1.63	1.91	0.22	1.48	2.34
10/02/07	1.72	1.91	0.21	1.48	2.34
10/30/07	1.99	1.90	0.19	1.51	2.28
12/04/07	1.82	1.89	0.19	1.50	2.27
01/22/08	1.85	1.88	0.19	1.50	2.26
02/05/08	1.94	1.87	0.18	1.50	2.24

Lower Control Limit = mean - 2 * Std Dev
Upper Control Limit = mean + 2 * Std Dev

CV = 9.86
EPA reference 75th quartile CV = 29%



Appendix C. (continued)

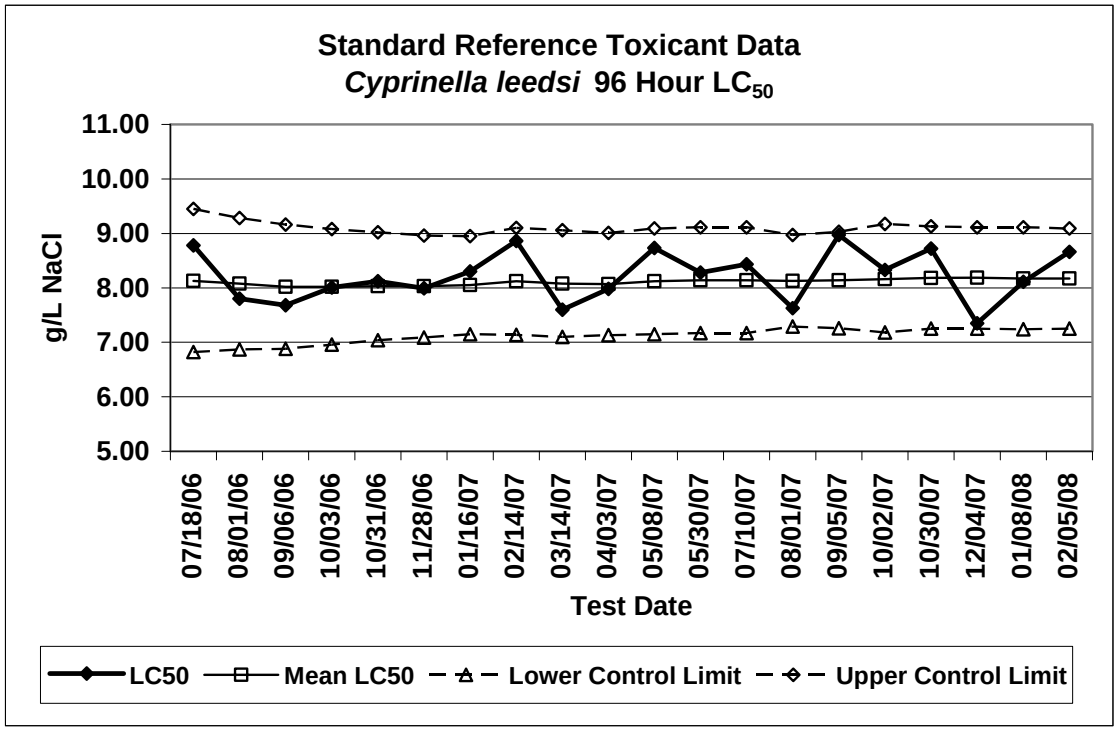
Florida Department of Environmental Protection
Bureau of Laboratories

Standard Reference Toxicant (SRT) Test Data - 96-hour Acute Toxicity
Cyprinella leedsi (bannerfin shiner) - Sodium Chloride (NaCl)

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
07/18/06	8.78	8.13	0.66	6.82	9.45
08/01/06	7.80	8.08	0.60	6.87	9.28
09/06/06	7.68	8.02	0.57	6.88	9.16
10/03/06	8.01	8.02	0.53	6.96	9.08
10/31/06	8.12	8.03	0.49	7.04	9.02
11/28/06	7.99	8.03	0.47	7.09	8.96
01/16/07	8.30	8.05	0.45	7.15	8.95
02/14/07	8.86	8.12	0.49	7.14	9.10
03/14/07	7.60	8.08	0.49	7.10	9.06
04/03/07	7.98	8.07	0.47	7.13	9.01
05/08/07	8.73	8.12	0.48	7.15	9.09
05/30/07	8.28	8.14	0.48	7.17	9.11
07/10/07	8.43	8.14	0.48	7.17	9.11
08/01/07	7.63	8.13	0.42	7.29	8.97
09/05/07	8.97	8.14	0.44	7.26	9.03
10/02/07	8.33	8.16	0.50	7.18	9.17
10/30/07	8.72	8.18	0.47	7.25	9.13
12/04/07	7.35	8.19	0.47	7.25	9.11
01/08/08	8.11	8.17	0.47	7.24	9.11
02/05/08	8.66	8.17	0.47	7.25	9.09

Lower Confidence Limit = mean - 2 * Std Dev
Upper Confidence Limit = mean + 2 * Std Dev

CV = 5.71
EPA reference 75th quartile CV = 19%



Appendix C. (continued)

FDEP Biology Laboratory - Acute SRT Bench Sheet

Method from EPA-821-R-02-012

Test Organism: *Americamysis bahia* Method 2007.0; *Menidia beryllina* Method 2006.0; *Hyalella azteca* Method 100.1 EPA-600-R-99-064; **(*Ceriodaphnia dubia* Method 2002.0)**; *Cyprinella leedsi* Method 2000.0; *Pimephales promelas* Method 2000.0; Other: _____

Test Type: 48 hour non-renewal; **(96 hour renewal)**

Test Page 1 of 2

Diluent/ Batch #: DMW / 1-31-08

Toxicant/ Batch#: NaCl / 12-4-08

Test Beginning: Date: 2-5-08 Time: 13:30

Test Ending: Date: 2-9-08 Time: 1000

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	MF
Alkalinity (mg/L as $CaCO_3$):	82	Hach	BA
Hardness (mg.L as $CaCO_3$):	86	Hach	BA
Total Ammonia (mg/L as N):	<0.07	Denver	MF
Salinity (ppth):	<1	Mettler	BA

Organism Batch #/ Age: 5-08/<24hr

Feeding: Prior to test / **(Prior to renewal)** Daily

Food: **(YCT)** **(*P.subcapitata*)** Artemia: Lot #_____

Food Batch: 7-26-07 / 1-31-08 0hr — 24hr — 48hr — 72hr —

Chamber size: 30 mL

Test volume: 20 mL per replicate

Conc.			Number Live			pH (SU)			Temperature (° C)			D.O. (mg/L)			Uncorrected Conductivity µmhos/cm **(mmhos/cm)**		
(%) µg/L mg/L	Rep.	Chamber #	**(0 hr)**	**(24 hr)**	**(48 hr)**	**(0 hr)**	**(24 hr)**	**(48 hr)**	**(0 hr)**	**(24 hr)**	**(48 hr)**	**(0 hr)**	**(24 hr)**	**(48 hr)**	**(0 hr)**	**(24 hr)**	**(48 hr)**
			48 hr	72 hr	96 hr	48 hr	72 hr	96 hr	48 hr	72 hr	96 hr	48 hr	72 hr	96 hr	48 hr	72 hr	96 hr
Control	A	A	5	5	5	8.0		8.1	24.0		24.0	7.9		7.7	0.179		0.181
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
1.5	A	A	5	5	5	8.0		8.0	24.0		24.0	7.5		7.4	2.90		2.93
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
2.0	A	A	5	5	4 1D	8.0		8.0	24.1		24.0	7.5		7.3	3.94		4.14
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	4 1D												
2.5	A	A	5	2 3D	1 1D	8.0		8.0	24.2		24.0	7.4		7.3	4.79		5.01
	B	B	5	4 1D	0 4D												
	C	C	5	5	1 5D												
	D	D	5	4 1D	0 4D												
3.0	A	A	5	2 3D	0 2D	8.0		8.0	24.0		24.0	7.4		7.3	5.65		5.62
	B	B	5	2 3D	0 2D												
	C	C	5	2 3D	0 2D												
	D	D	5	2 3D	0 2D												
4.0	A	A	5	0 5D	—	8.1	8.0	—	24.1	25.3	—	7.2	7.6	—	7.4	7.1	—
	B	B	5	0 5D	—												
	C	C	5	0 5D	—												
	D	D	5	0 5D	—												
	A																
	B																
	C																
	D																
Loaded / measured by:			MF	MF	BA	BA	MF	BA	BA	MF	BA	BA	MF	BA	BA	MF	BA
Recorded by:			BA	MF	BA	BA	MF	BA	BA	MF	BA	BA	MF	BA	BA	MF	BA

Investigators' Signatures

Bruce Adams

Marshall Fairchild

Jason Davis

Loretta C. Wolfe

REVIEWER

Concentrations prepared by: BA

Loading verified by: BA

Light Intensity: 50-100 Ft. candles

Photoperiod: 16 hours Light / 8 hours dark

Temperature Range °C:

Incubator # 2 min. 25.6 max. 26.6 mean 26.0

Incubator # ___ min. ___ max. ___ mean ___

Room B246 min. 23.6 max. 25.2 mean 24.4

Comments:

Statistics: Method: Spearman-Karber

48/ 96 hour LC_{50}: 2.25

95% Confidence Interval: lower 2.14 upper 2.36

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revised 08/24/06 SP

Appendix C. (continued)

FDEP Biology Laboratory - Acute SRT Bench Sheet

Test Organism: *Americamysis bahia* Method 2007.0 | *Menidia beryllina* Method 2006.0 | *Hyalella azteca* Method 100.1 EPA-600-R-99-064
Ceriodaphnia dubia Method 2002.0 | *Cyprinella leedsi* Method 2000.0 | *Pimephales promelas* Method 2000.0 | Other: _____

Method from EPA-821-R-02-012
Test Type: 48 hour non-renewal / 96 hour renewal
Test Page 2 of 2

Diluent/ Batch #: DMW, 1-31-08
Toxicant/ Batch#: NaCl, 2-4-08

Test Beginning: Date: 2-5-08 Time: 13:30
Test Ending: Date: 2-9-08 Time: 1000

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	MF
Alkalinity (mg/L as $CaCO_3$):	82	Hach	BA
Hardness (mg.L as $CaCO_3$):	86	Hach	BA
Total Ammonia (mg/L as N):	<0.017	Denver	MF
Salinity (ppth):	21	Mettler	BA

Organism Batch #/ Age: 5-058 / <24hr
Feeding: Prior to test / Prior to renewal / Daily
Food: YCT / P.subcapitata Artemia: Lot #: —
Food Batch: 7-26-07 / 1-31-08 0hr — 24hr — 48hr — 72hr —
Chamber size: 30 mL
Test volume: 20 mL per replicate

Conc. g/L µg/L mg/L	Rep.	Chamber #	Number Live 0 hr (48 hr)	24 hr (72 hr)	48 hr (96 hr)	pH (SU) 0 hr (48 hr)	24 hr (72 hr)	48 hr (96 hr)	Temperature (°C) 0 hr (48 hr)	24 hr (72 hr)	48 hr (96 hr)	D.O. (mg/L) 0 hr (48 hr)	24 hr (72 hr)	48 hr (96 hr)	Uncorrected Conductivity µmhos/cm / mmhos/cm 0 hr (48 hr)	24 hr (72 hr)	48 hr (96 hr)
Control	A	A	5	5	5	7.9		8.2	24.0		24.2	7.6			0.172		0.155
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
1.5	A	A	5	5	5	8.0		8.1	24.0		24.7	7.5			2.85		2.95
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
2.0	A	A	4	4	3 1D	8.0		8.1	24.0		24.7	7.5			3.76		3.88
	B	B	5	4 1D	2 2D												
	C	C	5	4 1D	3 1D												
	D	D	4	3 1D	1 2D												
2.5	A	A	1	1	0 1D	8.0		8.1	24.0		24.9	7.5			4.66		4.66
	B	B	—	—	—												
	C	C	2	0 2D	—												
	D	D	—	—	—												
3.0	A	A	—	—	—	8.0			24.0			7.5			5.54		
	B	B	—	—	—												
	C	C	—	—	—												
	D	D	—	—	—												
4.0	A	A	—	—	—												
	B	B	—	—	—												
	C	C	—	—	—												
	D	D	—	—	—												
	A																
	B																
	C																
	D																
Loaded / measured by:			BA	BA	MF	BA		MF	BA		MF	BA			BA		MF
Recorded by:			BA	BA	MF	BA		MF	BA		MF	BA			BA		MF

Investigators' Signatures
Brent Nash
Marshall Faircloth
James Davis

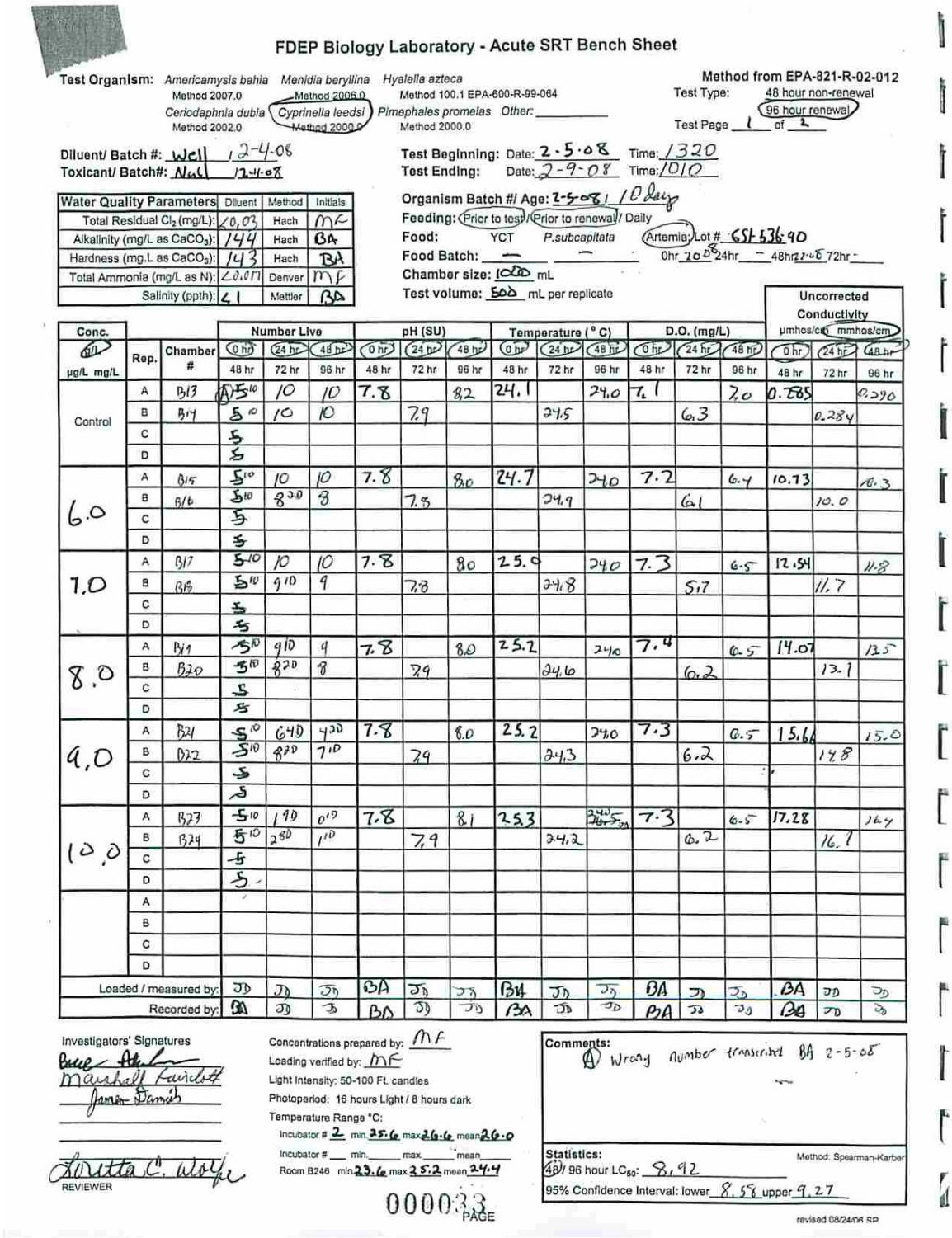
REVIEWER

Concentrations prepared by: BA
Loading verified by: BA
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min 25.6 max 26.6 mean 26.0
Incubator # ___ min ___ max ___ mean ___
Room B248 min 23.6 max 25.2 mean 24.4

Comments:

Statistics: Method: Spearman-Karber
48 / 96 hour LC_{50}: 1.94
95% Confidence Interval: lower 1.84 upper 2.06

Appendix C. (continued)



FDEP Biology Laboratory - Acute SRT Bench Sheet

Test Organism: *Americamysis bahia* Method 2007.0; *Menidia beryllina* Method 2006.0; *Hyalella azteca* Method 100.1 EPA-600-R-99-064; *Ceriodaphnia dubia* Method 2002.0; *Cyprinella leedsi* Method 2000.0; *Pimephales promelas* Method 2000.0; Other: _____

Method from EPA-821-R-02-012

Test Type: 48 hour non-renewal / 96 hour renewal

Test Page 1 of 2

Diluent/ Batch #: Well 12-4-08

Toxicant/ Batch#: NaCl 12-4-08

Test Beginning: Date: 2-5-08 Time: 1320

Test Ending: Date: 2-9-08 Time: 1010

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	MF
Alkalinity (mg/L as $CaCO_3$):	144	Hach	BA
Hardness (mg.L as $CaCO_3$):	143	Hach	BA
Total Ammonia (mg/L as N):	<0.017	Denver	MF
Salinity (ppth):	<1	Mettler	BA

Organism Batch #/ Age: 2-5-08 / 10 day

Feeding: Prior to test / Prior to renewal / Daily

Food: YCT *P.subcapitata* Artemia; Lot # GSL 536 90

Food Batch: — —

Chamber size: 1000 mL

Test volume: 500 mL per replicate

0hr 20.8 24hr — 48hr 22.6 72hr —

Conc.	Rep.	Chamber #	Number Live 0 hr / 48 hr	24 hr / 72 hr	48 hr / 96 hr	pH (SU) 0 hr / 48 hr	24 hr / 72 hr	48 hr / 96 hr	Temperature (°C) 0 hr / 48 hr	24 hr / 72 hr	48 hr / 96 hr	D.O. (mg/L) 0 hr / 48 hr	24 hr / 72 hr	48 hr / 96 hr	Uncorrected Conductivity µmhos/cm mmhos/cm 0 hr / 48 hr	24 hr / 72 hr	48 hr / 96 hr
Control	A	B13	5[10]	10	10	7.8		8.2	24.1		24.0	7.1		7.0	0.585		0.390
	B	B14	5[10]	10	10		7.9			24.5			6.3			0.284	
	C		5														
	D		5														
6.0	A	B15	5[10]	10	10	7.8		8.0	24.7		24.0	7.2		6.4	10.73		10.3
	B	B16	5[10]	8[20]	8		7.8			24.9			6.1			10.0	
	C		5														
	D		5														
7.0	A	B17	5[10]	10	10	7.8		8.0	25.0		24.0	7.3		6.5	12.54		11.8
	B	B18	5[10]	9[10]	9		7.8			24.8			5.7			11.7	
	C		5														
	D		5														
8.0	A	B19	5[10]	9[10]	9	7.8		8.0	25.2		24.0	7.4		6.5	14.07		13.5
	B	B20	5[10]	8[20]	8		7.9			24.6			6.2			13.1	
	C		5														
	D		5														
9.0	A	B21	5[10]	6[40]	4[20]	7.8		8.0	25.2		24.0	7.3		6.5	15.66		15.0
	B	B22	5[10]	8[20]	7[10]		7.9			24.3			6.2			14.8	
	C		5														
	D		5														
10.0	A	B23	5[10]	1[90]	0[10]	7.8		8.1	25.3		24.0 [5 hours]	7.3		6.5	17.28		16.4
	B	B24	5[10]	2[80]	1[10]		7.9			24.2			6.2			16.1	
	C		5														
	D		5														
	A																
	B																
	C																
	D																
Loaded / measured by:			JD	JD	JD	BA	JD	JD	BA	JD	JD	BA	JD	JD	BA	JD	JD
Recorded by:			BA	JD	JD	BA	JD	JD	BA	JD	JD	BA	JD	JD	BA	JD	JD

Investigators' Signatures

Bruce Ate

Marshall Faircloth

Jamie Daniels

Loretta C. Wolfe
REVIEWER

Concentrations prepared by: MF

Loading verified by: MF

Light Intensity: 50-100 Ft. candles

Photoperiod: 16 hours Light / 8 hours dark

Temperature Range °C:

Incubator # 2 min 25.6 max 26.6 mean 26.0

Incubator # ___ min. ___ max. ___ mean ___

Room B246 min 23.6 max 25.2 mean 24.4

000033 PAGE

Comments:

A) Wrong number transcribed BA 2-5-08

Statistics: Method: Spearman-Karber

48) 96 hour LC_{50}: 8.92

95% Confidence Interval: lower 8.58 upper 9.27

revised 08/24/06 SP

Appendix C. (continued)

FDEP Biology Laboratory - Acute SRT Bench Sheet

Test Organism: *Americamysis bahia* Method 2007.0 | *Menidia beryllina* Method 2006.0 | *Hyalella azteca* Method 100.1 EPA-600-R-99-064
Ceriodaphnia dubia Method 2002.0 | *Cyprinella leedsi* Method 2000.0 | *Pimephales promelas* Method 2000.0 | Other: _____

Method from EPA-821-R-02-012
Test Type: 48 hour non-renewal / 96 hour renewal
Test Page 1 of 2

Diluent/ Batch #: well 12-4-08
Toxicant/ Batch#: NaCl 12-4-08

Test Beginning: Date: 2-5-08 Time: 1330 MF
Test Ending: Date: 2-9-08 Time: 1010

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	MF
Alkalinity (mg/L as $CaCO_3$):	144	Hach	BA
Hardness (mg.L as $CaCO_3$):	143	Hach	BA
Total Ammonia (mg/L as N):	<0.07	Denver	MF
Salinity (ppth):	<1	Mettler	BA

Organism Batch #/ Age: 2-5-08 10 days
Feeding: (Prior to test) (Prior to renewal) / Daily
Food: YCT P.subcapitata Artemia: Lot #: SJ-536-90
Food Batch: _____ _____ 0hr 20-28 24hr - 48hr 22-28 72hr _____
Chamber size: 1000 mL
Test volume: 500 mL per replicate

Conc. µg/L mg/L	Rep.	Chamber #	Number Live 0 hr (48 hr)	24 hr (72 hr)	48 hr (96 hr)	pH (SU) 0 hr (48 hr)	24 hr (72 hr)	48 hr (96 hr)	Temperature (°C) 0 hr (48 hr)	24 hr (72 hr)	48 hr (96 hr)	D.O. (mg/L) 0 hr (48 hr)	24 hr (72 hr)	48 hr (96 hr)	Uncorrected Conductivity µmhos/cm (mmhos/cm) 0 hr (48 hr)	24 hr (72 hr)	48 hr (96 hr)
Control	A	B13	10	10	10	8.1		8.2	24.0		24.9	7.5		7.5	0.279 (A)		0.295
	B	B14	10	10	10		8.1			24.0			6.0			0.280	
	C																
	D																
6.0	A	B15	10	9/10	9	8.0		8.0	24.0		24.9	7.1		7.1	10.1		10.3
	B	B16	8	8	8		8.0			24.0			6.1			10.2	
	C																
	D																
7.0	A	B17	10	10	10	8.0		8.0	24.0		25.0	7.1		7.1	12.1		12.3
	B	B18	9	9	9		7.9			24.1			6.1			12.0	
	C																
	D																
8.0	A	B19	9	8/10	8	8.0		8.0	24.0		25.2	7.1		7.0	13.9		14.0
	B	B20	8	8	8		7.9			24.0			5.9			13.6	
	C																
	D																
9.0	A	B21	4	4	4	8.0		7.9	24.1		25.0	7.1		6.7	15.6		15.8
	B	B22	7	6/10	4 2D		7.9			24.1			5.8			15.3	
	C																
	D																
10.0	A		—	—	—	8.0											
	B	B24	1	0/10	—		7.9		24.2	24.1		7.0	5.9		10.9	16.6	
	C																
	D																
	A																
	B																
	C																
	D																
Loaded / measured by:			JD	JD	MF	JD	JD	MF	JD	JD	MF	JD	JD	MF	JD	JD	MF
Recorded by:			JD	JD	MF	JD	JD	MF	JD	JD	MF	JD	JD	MF	JD	JD	MF

Investigators' Signatures
Bill Alexander
Marshall Faircloth
James Franz
Anitta C. Wolfe
REVIEWER

Concentrations prepared by: JD
Loading verified by: MF
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 25.6 max. 26.6 mean 26.0
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 23.6 max. 25.2 mean 24.4

000034

Comments: (A) 0.279 MF 2-7-08 /JD

Statistics: Method: Spearman-Karber
48 / (96) hour LC_{50}: 8.66
95% Confidence Interval: lower 8.32 upper 9.01

Appendix C. (continued)

***Ceriodaphnia dubia* Acute Standard Reference Toxicant Test**

DATE: 2-5-08 DURATION: 96 hr TOXICANT : NaCl
SPECIES: *Ceriodaphnia dubia*

RAW DATA:	Concentration (g/L)	Number Exposed	Mortalities
	0.00	20	0
	1.50	20	0
	2.00	20	11
	2.50	20	20
	3.00	20	20
	4.00	20	20

SPEARMAN-KARBER TRIM: .00%

SPEARMAN-KARBER ESTIMATES: **LC50: 1.94**
95% LOWER CONFIDENCE: 1.84
95% UPPER CONFIDENCE: 2.06

***Cyprinella leedsi* Acute Standard Reference Toxicant Test**

DATE: 2-5-08 DURATION: 96 hr TOXICANT : NaCl
SPECIES: *Cyprinella leedsi*

RAW DATA:	Concentration (g/L)	Number Exposed	Mortalities
	0.00	20	0
	6.00	20	2
	7.00	20	1
	8.00	20	4
	9.00	20	12
	10.00	20	20

SPEARMAN-KARBER TRIM: 7.50%

SPEARMAN-KARBER ESTIMATES: **LC50: 8.66**
95% LOWER CONFIDENCE: 8.32
95% UPPER CONFIDENCE: 9.01

NOTE: MORTALITY PROPORTIONS WERE NOT MONOTONICALLY INCREASING.
ADJUSTMENTS WERE MADE PRIOR TO SPEARMAN-KARBER ESTIMATION.

Appendix D. Test Organism Receipt(s)

MBL Aquaculture
4569 Samuel Street
Sarasota, Florida 34233
TEL: (800) 889-0384
FAX: (941) 922-3874
EMAIL: sales@mblaquaculture.com
WEB: www.MBLAquaculture.com

NELAC Accredited

Organism Shipment Record

State of Florida Aquaculture Certificate Number AQ0668007

Date: 2/4/08

Shipped to: FDEP

P.O. No: N/A

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia	150	4 DAYS	MS080131	25°C	20 ‰
Menidia beryllina	150	12 DAYS	SS080123	25°C	20 ‰
Cyprinella leedsi	200	9 DAYS	CL080126	25°C	
Pimephales promelas	150	10 days	FM080125	25°C	

Packed by:

Shipped Via: FedEx

Notes:

Thank you for your order.

Appendix D. (continued)

MBL Aquaculture
4569 Samuel Street
Sarasota, Florida 34233
TEL: (800) 889-0384
FAX: (941) 922-3874
EMAIL: sales@mblaquaculture.com
WEB: www.MBLAquaculture.com

NELAC Accredited

Organism Shipment Record

State of Florida Aquaculture Certificate Number AQ0668007

Date: 2/11/08

Shipped to: FDEP

P.O. No: N/A

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia	150	4 DAYS	MS080207	25°C	20 °/oo
	50	6 DAYS	MS080205	25°C	20‰
Menidia beryllina					
Cyprinella leedsi	100	11 days	CL080131	25°C	
Pimephales promelas					

Packed by: D.C.

Shipped Via: FedEx

Notes:

Thank you for your order.

Appendix E. Chemical Analyses performed on the effluent from the Jefferson Smurfit Corporation, U.S., Facility Outfall D-001, sampled on February 11, 2008.

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
2/11/2008 16:00	Effluent	AGP/LN	Algal Growth Potential	3.0	U	mg DryWt/L	3.0	3.0
2/11/2008 16:00	Effluent	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.44	U	ug/L	0.44	1.3
2/11/2008 16:00	Effluent	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	1	U	ug/L	1	3.1
2/11/2008 16:00	Effluent	Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	L	LC50		
2/11/2008 16:00	Effluent	Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	L	LC50		
2/11/2008 16:00	Effluent	Metals	Lead	0.5	I	ug/L	0.2	0.8
2/11/2008 16:00	Effluent	Metals	Iron	160		ug/L	30	120
2/11/2008 16:00	Effluent	Metals	Selenium	0.5	U	ug/L	0.5	2
2/11/2008 16:00	Effluent	Metals	Magnesium	25.1		mg/L	0.04	0.16
2/11/2008 16:00	Effluent	Metals	Chromium	3.6	I	ug/L	1	4
2/11/2008 16:00	Effluent	Metals	Copper	1.3	I	ug/L	0.5	2
2/11/2008 16:00	Effluent	Metals	Arsenic	0.9	I	ug/L	0.5	2
2/11/2008 16:00	Effluent	Metals	Silver	0.025	U	ug/L	0.025	0.1
2/11/2008 16:00	Effluent	Metals	Zinc	17	I	ug/L	5	20
2/11/2008 16:00	Effluent	Metals	Calcium	74		mg/L	0.075	0.3
2/11/2008 16:00	Effluent	Metals	Cadmium	0.055	I	ug/L	0.02	0.08
2/11/2008 16:00	Effluent	Metals	Mercury	0.12	U	ug/L	0.12	0.5
2/11/2008 16:00	Effluent	Metals	Aluminum	760		ug/L	60	240
2/11/2008 16:00	Effluent	Metals	Nickel	13.9		ug/L	0.25	1
2/11/2008 16:00	Effluent	Nutrients	NO2NO3-N	0.006	I	mg N/L	0.004	0.01
2/11/2008 16:00	Effluent	Nutrients	Kjeldahl Nitrogen	3		mg N/L	0.08	0.2
2/11/2008 16:00	Effluent	Nutrients	O-Phosphate-P	0.052		mg P/L	0.004	0.01
2/11/2008 16:00	Effluent	Nutrients	Total-P	0.55		mg P/L	0.02	0.06
2/11/2008 16:00	Effluent	Nutrients	Ammonia-N	0.038		mg N/L	0.01	0.02
2/11/2008 16:00	Effluent	Pesticides	Alachlor	0.67	U	ug/L	0.67	2.7
2/11/2008 16:00	Effluent	Pesticides	Metribuzin	0.11	U	ug/L	0.11	0.44
2/11/2008 16:00	Effluent	Pesticides	Ethion	0.056	U	ug/L	0.056	0.22
2/11/2008 16:00	Effluent	Pesticides	Chlorpyrifos Methyl	0.11	U	ug/L	0.11	0.44
2/11/2008 16:00	Effluent	Pesticides	Chlorpyrifos Ethyl	0.056	U	ug/L	0.056	0.22
2/11/2008 16:00	Effluent	Pesticides	Bromacil	0.22	U	ug/L	0.22	0.88
2/11/2008 16:00	Effluent	Pesticides	Azinphos Methyl	0.22	U	ug/L	0.22	0.88
2/11/2008 16:00	Effluent	Pesticides	Diazinon	0.056	U	ug/L	0.056	0.22
2/11/2008 16:00	Effluent	Pesticides	Simazine	0.056	U	ug/L	0.056	0.22

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
2/11/2008 16:00	Effluent	Pesticides	Naled	0.9	U	ug/L	0.9	3.6
2/11/2008 16:00	Effluent	Pesticides	Metalaxyl	0.28	U	ug/L	0.28	1.1
2/11/2008 16:00	Effluent	Pesticides	Malathion	0.17	U	ug/L	0.17	0.68
2/11/2008 16:00	Effluent	Pesticides	Ethoprop	0.11	U	ug/L	0.11	0.44
2/11/2008 16:00	Effluent	Pesticides	Butylate	0.22	U	ug/L	0.22	0.88
2/11/2008 16:00	Effluent	Pesticides	Parathion Ethyl	0.17	U	ug/L	0.17	0.68
2/11/2008 16:00	Effluent	Pesticides	Norflurazon	0.17	U	ug/L	0.17	0.68
2/11/2008 16:00	Effluent	Pesticides	Fenamiphos	0.22	U	ug/L	0.22	0.88
2/11/2008 16:00	Effluent	Pesticides	Parathion Methyl	0.11	U	ug/L	0.11	0.44
2/11/2008 16:00	Effluent	Pesticides	Hexazinone	0.11	U	ug/L	0.11	0.44
2/11/2008 16:00	Effluent	Pesticides	Fonofos	0.11	U	ug/L	0.11	0.44
2/11/2008 16:00	Effluent	Pesticides	Prometryn	0.17	U	ug/L	0.17	0.68
2/11/2008 16:00	Effluent	Pesticides	Phorate	0.056	U	ug/L	0.056	0.22
2/11/2008 16:00	Effluent	Pesticides	Mevinphos	0.22	U	ug/L	0.22	0.88
2/11/2008 16:00	Effluent	Pesticides	Atrazine	0.056	U	ug/L	0.056	0.22
2/11/2008 16:00	Effluent	Pesticides	Ametryn	0.056	U	ug/L	0.056	0.22
2/11/2008 16:00	Effluent	Pesticides	Metolachlor	0.56	U	ug/L	0.56	2.2
2/11/2008 16:00	Effluent	Priority Organic Pollutants	1,2,4-Trichlorobenzene	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	2,4-Dichlorophenol	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	2-Chloronaphthalene	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	2-Chlorophenol	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Benzidine	110	U	ug/L	110	440
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	3.3	U	ug/L	3.3	13
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Dibenzo(a,h)anthracene	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Fluoranthene	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Hexachloroethane	3.3	U	ug/L	3.3	13
2/11/2008 16:00	Effluent	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.2	U	ug/L	2.2	8.8
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Naphthalene	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	beta-BHC	1.6	U	ug/L	1.6	6.6
2/11/2008 16:00	Effluent	Priority Organic Pollutants	2,4,6-Trichlorophenol	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	2,4-Dinitrotoluene	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Acenaphthene	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Anthracene	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Butyl benzyl phthalate	5.5	U	ug/L	5.5	22

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Heptachlor	1.6	U	ug/L	1.6	6.6
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Heptachlor epoxide	1.6	UJ	ug/L	1.6	6.6
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Pentachlorophenol	3.3	UJ	ug/L	3.3	13
2/11/2008 16:00	Effluent	Priority Organic Pollutants	gamma-BHC	1.6	U	ug/L	1.6	6.6
2/11/2008 16:00	Effluent	Priority Organic Pollutants	4,4'-DDE	1.6	U	ug/L	1.6	6.6
2/11/2008 16:00	Effluent	Priority Organic Pollutants	4-Nitrophenol	16	U	ug/L	16	66
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Benzo(g,h,i)perylene	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Benzo(k)fluoranthene	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Phenanthrene	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	alpha-BHC	1.6	U	ug/L	1.6	6.6
2/11/2008 16:00	Effluent	Priority Organic Pollutants	2,6-Dinitrotoluene	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.3	U	ug/L	3.3	13
2/11/2008 16:00	Effluent	Priority Organic Pollutants	4,4'-DDD	1.6	U	ug/L	1.6	6.6
2/11/2008 16:00	Effluent	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.2	U	ug/L	2.2	8.8
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	16	U	ug/L	16	66
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Endosulfan sulfate	1.6	U	ug/L	1.6	6.6
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Fluorene	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Hexachlorocyclopentadiene	3.3	U	ug/L	3.3	13
2/11/2008 16:00	Effluent	Priority Organic Pollutants	N-Nitrosodimethylamine	2.2	U	ug/L	2.2	8.8
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Pyrene	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	3,3'-Dichlorobenzidine	44	UJ	ug/L	44	180
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Benzo(a)anthracene	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Di-n-butyl phthalate	5.5	U	ug/L	5.5	22
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Di-n-octyl phthalate	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Hexachlorobenzene	1.1	UJ	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	3.3	U	ug/L	3.3	13
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Phenol	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	2,4-Dinitrophenol	16	U	ug/L	16	66
2/11/2008 16:00	Effluent	Priority Organic Pollutants	4,4'-DDT	1.6	U	ug/L	1.6	6.6
2/11/2008 16:00	Effluent	Priority Organic Pollutants	4-Bromophenyl phenyl ether	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Dimethyl phthalate	11	U	ug/L	11	44
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Hexachlorobutadiene	3.3	U	ug/L	3.3	13
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Isophorone	1.1	U	ug/L	1.1	4.4

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
2/11/2008 16:00	Effluent	Priority Organic Pollutants	2,4-Dimethylphenol	11	U	ug/L	11	44
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Benzo(a)pyrene	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Bis(2-chloroethyl)ether	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Chrysene	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Dieldrin	1.6	U	ug/L	1.6	6.6
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Endosulfan II	4.4	U	ug/L	4.4	18
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Endrin	1.6	U	ug/L	1.6	6.6
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Endrin aldehyde	4.4	UJ	ug/L	4.4	18
2/11/2008 16:00	Effluent	Priority Organic Pollutants	2-Nitrophenol	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	4-Chloro-3-methylphenol	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Acenaphthylene	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Aldrin	1.6	UJ	ug/L	1.6	6.6
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Benzo(b)fluoranthene	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Diethyl phthalate	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Endosulfan I	4.4	U	ug/L	4.4	18
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	1.1	U	ug/L	1.1	4.4
2/11/2008 16:00	Effluent	Priority Organic Pollutants	Nitrobenzene	2.2	U	ug/L	2.2	8.8
2/11/2008 16:00	Effluent	Priority Organic Pollutants	delta-BHC	1.6	U	ug/L	1.6	6.6
2/11/2008 16:00	Effluent	Field Parameters	Dissolved Oxygen	5.92		mg/L		
2/11/2008 16:00	Effluent	Field Parameters	Specific Conductance	3023		umhos/cm		
2/11/2008 16:00	Effluent	Field Parameters	Temperature	35.74		C		
2/11/2008 16:00	Effluent	Field Parameters	Sample Depth	3.2		m		
2/11/2008 16:00	Effluent	Field Parameters	pH	6.1				
2/11/2008 16:00	Blank	Metals	Silver	0.025	U	ug/L	0.025	0.1
2/11/2008 16:00	Blank	Metals	Aluminum	60	U	ug/L	60	240
2/11/2008 16:00	Blank	Metals	Calcium	0.075	U	mg/L	0.075	0.3
2/11/2008 16:00	Blank	Metals	Iron	30	U	ug/L	30	120
2/11/2008 16:00	Blank	Metals	Lead	0.2	U	ug/L	0.2	0.8
2/11/2008 16:00	Blank	Metals	Arsenic	0.5	U	ug/L	0.5	2
2/11/2008 16:00	Blank	Metals	Nickel	0.25	U	ug/L	0.25	1
2/11/2008 16:00	Blank	Metals	Cadmium	0.02	U	ug/L	0.02	0.08
2/11/2008 16:00	Blank	Metals	Selenium	0.5	U	ug/L	0.5	2
2/11/2008 16:00	Blank	Metals	Chromium	1	U	ug/L	1	4
2/11/2008 16:00	Blank	Metals	Mercury	0.12	U	ug/L	0.12	0.5

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
2/11/2008 16:00	Blank	Metals	Magnesium	0.04	U	mg/L	0.04	0.16
2/11/2008 16:00	Blank	Metals	Zinc	5	U	ug/L	5	20
2/11/2008 16:00	Blank	Metals	Copper	0.5	U	ug/L	0.5	2
2/11/2008 16:00	Blank	Nutrients	Ammonia-N	0.01	U	mg N/L	0.01	0.02
2/11/2008 16:00	Blank	Nutrients	NO2NO3-N	0.004	U	mg N/L	0.004	0.01
2/11/2008 16:00	Blank	Nutrients	Total-P	0.02	U	mg P/L	0.02	0.06
2/11/2008 16:00	Blank	Nutrients	O-Phosphate-P	0.004	U	mg P/L	0.004	0.01
2/11/2008 16:00	Blank	Nutrients	Kjeldahl Nitrogen	0.08	U	mg N/L	0.08	0.2
2/11/2008 16:00	Blank	Pesticides	Fonofos	0.11	U	ug/L	0.11	0.44
2/11/2008 16:00	Blank	Pesticides	Mevinphos	0.22	U	ug/L	0.22	0.88
2/11/2008 16:00	Blank	Pesticides	Norflurazon	0.16	U	ug/L	0.16	0.64
2/11/2008 16:00	Blank	Pesticides	Atrazine	0.054	U	ug/L	0.054	0.22
2/11/2008 16:00	Blank	Pesticides	Metalaxyl	0.27	U	ug/L	0.27	1.1
2/11/2008 16:00	Blank	Pesticides	Metolachlor	0.54	U	ug/L	0.54	2.2
2/11/2008 16:00	Blank	Pesticides	Chlorpyrifos Ethyl	0.054	U	ug/L	0.054	0.22
2/11/2008 16:00	Blank	Pesticides	Hexazinone	0.11	U	ug/L	0.11	0.44
2/11/2008 16:00	Blank	Pesticides	Chlorpyrifos Methyl	0.11	U	ug/L	0.11	0.44
2/11/2008 16:00	Blank	Pesticides	Butylate	0.22	U	ug/L	0.22	0.88
2/11/2008 16:00	Blank	Pesticides	Azinphos Methyl	0.22	U	ug/L	0.22	0.88
2/11/2008 16:00	Blank	Pesticides	Alachlor	0.65	U	ug/L	0.65	2.6
2/11/2008 16:00	Blank	Pesticides	Prometryn	0.16	U	ug/L	0.16	0.64
2/11/2008 16:00	Blank	Pesticides	Phorate	0.054	U	ug/L	0.054	0.22
2/11/2008 16:00	Blank	Pesticides	Simazine	0.054	U	ug/L	0.054	0.22
2/11/2008 16:00	Blank	Pesticides	Ethion	0.054	U	ug/L	0.054	0.22
2/11/2008 16:00	Blank	Pesticides	Bromacil	0.22	U	ug/L	0.22	0.88
2/11/2008 16:00	Blank	Pesticides	Naled	0.86	U	ug/L	0.86	3.4
2/11/2008 16:00	Blank	Pesticides	Fenamiphos	0.22	U	ug/L	0.22	0.88
2/11/2008 16:00	Blank	Pesticides	Ethoprop	0.11	U	ug/L	0.11	0.44
2/11/2008 16:00	Blank	Pesticides	Parathion Methyl	0.11	U	ug/L	0.11	0.44
2/11/2008 16:00	Blank	Pesticides	Malathion	0.16	U	ug/L	0.16	0.64
2/11/2008 16:00	Blank	Pesticides	Metribuzin	0.11	U	ug/L	0.11	0.44
2/11/2008 16:00	Blank	Pesticides	Diazinon	0.054	U	ug/L	0.054	0.22
2/11/2008 16:00	Blank	Pesticides	Ametryn	0.054	U	ug/L	0.054	0.22
2/11/2008 16:00	Blank	Pesticides	Parathion Ethyl	0.16	U	ug/L	0.16	0.64

Appendix E. (continued)

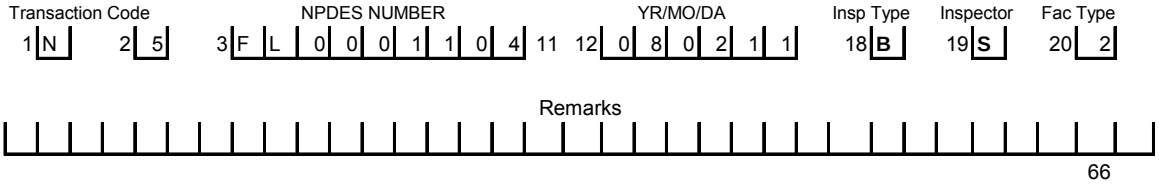
Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
2/11/2008 16:00	Blank	Priority Organic Pollutants	4-Nitrophenol	16	U	ug/L	16	65
2/11/2008 16:00	Blank	Priority Organic Pollutants	Benzo(a)pyrene	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Benzo(g,h,i)perylene	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Naphthalene	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Pyrene	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	2-Chloronaphthalene	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	4,4'-DDT	1.6	U	ug/L	1.6	6.5
2/11/2008 16:00	Blank	Priority Organic Pollutants	4-Chloro-3-methylphenol	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Acenaphthene	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Benzo(b)fluoranthene	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	16	U	ug/L	16	65
2/11/2008 16:00	Blank	Priority Organic Pollutants	Fluoranthene	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	2,4-Dimethylphenol	11	U	ug/L	11	43
2/11/2008 16:00	Blank	Priority Organic Pollutants	2-Chlorophenol	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Benzo(k)fluoranthene	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Di-n-octyl phthalate	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Dibenzo(a,h)anthracene	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Endosulfan I	4.3	U	ug/L	4.3	17
2/11/2008 16:00	Blank	Priority Organic Pollutants	Endrin aldehyde	4.3	UJ	ug/L	4.3	17
2/11/2008 16:00	Blank	Priority Organic Pollutants	N-Nitrosodimethylamine	2.2	U	ug/L	2.2	8.7
2/11/2008 16:00	Blank	Priority Organic Pollutants	Nitrobenzene	2.2	U	ug/L	2.2	8.7
2/11/2008 16:00	Blank	Priority Organic Pollutants	2,4,6-Trichlorophenol	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	4-Bromophenyl phenyl ether	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Benzidine	110	U	ug/L	110	430
2/11/2008 16:00	Blank	Priority Organic Pollutants	Butyl benzyl phthalate	5.4	U	ug/L	5.4	22
2/11/2008 16:00	Blank	Priority Organic Pollutants	Endosulfan II	4.3	U	ug/L	4.3	17
2/11/2008 16:00	Blank	Priority Organic Pollutants	Endosulfan sulfate	1.6	U	ug/L	1.6	6.5
2/11/2008 16:00	Blank	Priority Organic Pollutants	Pentachlorophenol	3.3	UJ	ug/L	3.3	13
2/11/2008 16:00	Blank	Priority Organic Pollutants	gamma-BHC	1.6	U	ug/L	1.6	6.5
2/11/2008 16:00	Blank	Priority Organic Pollutants	2,4-Dinitrophenol	16	U	ug/L	16	65
2/11/2008 16:00	Blank	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.3	U	ug/L	3.3	13
2/11/2008 16:00	Blank	Priority Organic Pollutants	3,3'-Dichlorobenzidine	43	UJ	ug/L	43	170
2/11/2008 16:00	Blank	Priority Organic Pollutants	Acenaphthylene	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Anthracene	1.1	U	ug/L	1.1	4.3

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
2/11/2008 16:00	Blank	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Chrysene	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Diethyl phthalate	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Dimethyl phthalate	11	U	ug/L	11	43
2/11/2008 16:00	Blank	Priority Organic Pollutants	Heptachlor epoxide	1.6	UJ	ug/L	1.6	6.5
2/11/2008 16:00	Blank	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.2	U	ug/L	2.2	8.7
2/11/2008 16:00	Blank	Priority Organic Pollutants	alpha-BHC	1.6	U	ug/L	1.6	6.5
2/11/2008 16:00	Blank	Priority Organic Pollutants	beta-BHC	1.6	U	ug/L	1.6	6.5
2/11/2008 16:00	Blank	Priority Organic Pollutants	delta-BHC	1.6	U	ug/L	1.6	6.5
2/11/2008 16:00	Blank	Priority Organic Pollutants	2,4-Dinitrotoluene	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Hexachlorobenzene	1.1	UJ	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Phenanthrene	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Phenol	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	1,2,4-Trichlorobenzene	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	2,4-Dichlorophenol	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	2-Nitrophenol	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	4,4'-DDD	1.6	U	ug/L	1.6	6.5
2/11/2008 16:00	Blank	Priority Organic Pollutants	4,4'-DDE	1.6	U	ug/L	1.6	6.5
2/11/2008 16:00	Blank	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.2	U	ug/L	2.2	8.7
2/11/2008 16:00	Blank	Priority Organic Pollutants	Aldrin	1.6	UJ	ug/L	1.6	6.5
2/11/2008 16:00	Blank	Priority Organic Pollutants	Benzo(a)anthracene	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Endrin	1.6	U	ug/L	1.6	6.5
2/11/2008 16:00	Blank	Priority Organic Pollutants	Isophorone	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	3.3	U	ug/L	3.3	13
2/11/2008 16:00	Blank	Priority Organic Pollutants	2,6-Dinitrotoluene	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Bis(2-chloroethyl)ether	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	3.3	U	ug/L	3.3	13
2/11/2008 16:00	Blank	Priority Organic Pollutants	Di-n-butyl phthalate	5.4	U	ug/L	5.4	22
2/11/2008 16:00	Blank	Priority Organic Pollutants	Dieldrin	1.6	U	ug/L	1.6	6.5
2/11/2008 16:00	Blank	Priority Organic Pollutants	Fluorene	1.1	U	ug/L	1.1	4.3
2/11/2008 16:00	Blank	Priority Organic Pollutants	Heptachlor	1.6	U	ug/L	1.6	6.5
2/11/2008 16:00	Blank	Priority Organic Pollutants	Hexachlorobutadiene	3.3	U	ug/L	3.3	13
2/11/2008 16:00	Blank	Priority Organic Pollutants	Hexachlorocyclopentadiene	3.3	U	ug/L	3.3	13
2/11/2008 16:00	Blank	Priority Organic Pollutants	Hexachloroethane	3.3	U	ug/L	3.3	13

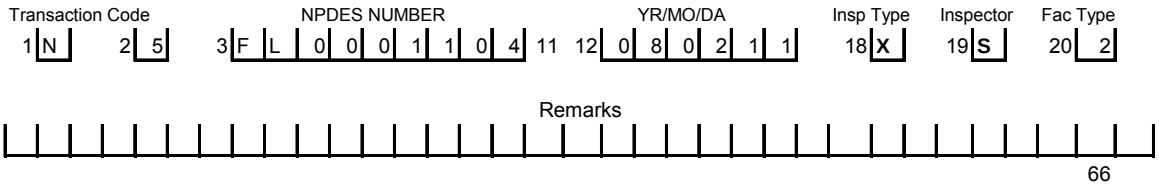
The Bioassay of Jefferson Smurfit Corporation, U.S., effluent sampled on February 11, 2008. NPDES #FL0001104.

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



The Priority Pollutants Analysis of Jefferson Smurfit Corporation, U.S., effluent sampled on February 11, 2008. NPDES #FL0001104.

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



Biological Analyses of Jefferson Smurfit Corporation, U.S., effluent sampled on February 11, 2008. NPDES #FL0001104.

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

