

Effluent Quality Assessment

Cypress Landing WWTF

St. Johns County

NPDES #FL0043842

Sampled July 23, September 17, and October 9, 2007

January 2008

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

Cypress Landing WWTF, 116 Cypress Landing, Jacksonville, St. Johns County, Florida, 32259, NPDES #FL0043842. Effluent samples for this facility were collected on July 23, September 17, and October 9, 2007.

Introduction

Cypress Landing WWTF is an extended-aeration domestic wastewater treatment facility. The facility has a design flow of 0.0075 million gallons per day (MGD) annual average daily flow (AADF). The AADF from September 2006 through August 2007 was 0.0047 MGD. The facility consists of an influent bar screen, an aeration basin, a secondary clarifier, a chlorine contact chamber, a dechlorination unit, a post-aeration chamber and an aerobic digester. Liquid chlorine is used for disinfection. Sodium sulfite tablets are used for dechlorination. Treated effluent is discharged through Outfall D-001 to the Class III freshwaters of the St. Johns River. Outfall D-001 is approximately 6.1 m (20 feet) in length and discharges at a depth of approximately 0.6 m (2 feet). The outfall is located approximately at latitude 30º 7' 1" N, longitude 81º 38' 30" W. Domestic wastewater residuals are transported to the Circle C Farm Regional Residual Treatment Facility (RRTF) for further treatment and final disposal.

The facility has no Administrative Orders or Consent Orders. The facility has no mixing zones. A review of Discharge Monitoring Report (DMR) data for the past year revealed no permit violations or plant upsets. The DMR data showed no discernible trend in effluent quality. There are no toxicity test requirements in the NPDES permit for this facility. (Facility information provided by Joseph Emery of FDEP Northeast District.)

Due to physical/chemical characteristics of the bioassay samples that were collected on July 23, 2007, the acute toxicity tests were invalidated. The sample dissolved oxygen (DO) and pH could not be maintained within the ranges specified in the test method (USEPA. 2002). The DO in the field was 4.67 mg/L, and the pH in the field was 6.41 S.U. The DO concentration in the bioassay sample as received in the laboratory was less than 1.0 mg/L. When the samples were aerated, the sample pH decreased from 6.1 S.U. to less than 4 S.U.

A second set of bioassay samples was collected on September 17, 2007. These samples had the same physical/chemical issues as the initial bioassay samples. The bioassays for these samples were invalidated. Due to the physical/chemical characteristics exhibited within these samples, it was suspected that there was a problem within the facility's dechlorination unit.

To investigate the problems associated with the effluent used in the bioassay tests, samples were collected from both the chlorine contact chamber and the dechlorination unit for this facility on October 9, 2007. During the October 9 sampling event, FDEP Northeast District personnel were informed that the facility operator had made adjustments to the sodium bisulfite feed in the dechlorination unit. There were no physical/chemical characteristic issues with the samples collected during this event. FDEP personnel involved suspect that the high oxygen demand in the previous samples was due to excess sodium bisulfite from the dechlorination unit.

Methods

Samples were collected from the EFD-1 NPDES sampling point (after dechlorination and prior to final discharge) for Outfall D-001 during the sampling events of July 23 and September 17, 2007. Samples were collected from the EFD-1 and the EFA-1 (chlorine contact chamber, immediately after disinfection and prior to dechlorination) NPDES sampling points during the October 9, 2007, sampling event. All samples were collected by Joseph Emery (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 forms.

The 48-hour acute 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.

Manipulation of samples collected on July 23, 2007
Prior to test initiation, bioassay samples were aerated for 2 hours at approximately 100 bubbles per minute, to increase the dissolved oxygen (DO) concentration from 0.4 mg/L to 5.3 mg/L. It was noted during physical/chemical measurements taken after aeration that sample pH had decreased below the minimum test requirement of pH 6. Sample pH was adjusted by the addition of 1N NaOH to pH 7.0. A DO measurement taken prior to loading test organisms showed that the DO had decreased to 0.8 mg/L. Test replicates were aerated to DO of ~ 6.0 mg/L and then continuously aerated to maintain DO within test requirements. The pH appeared to be stable.

Manipulation of samples collected on September 17, 2007
Prior to test initiation, bioassay samples were aerated for 2 hours at approximately 300 bubbles per minute, to increase the dissolved oxygen concentration from 0.5 mg/L to 5.3 mg/L. It was noted during physical/chemical measurements taken after aeration that sample pH had decreased below the minimum test requirement of pH 6. Sample pH was adjusted by the addition of 1N NaOH to pH 7.3. The sample was then aerated for an additional hour at 100 bubbles per minute. The DO and pH appeared stable and were within test method limits when test organisms were loaded. Based on the history of the bioassays in the previous sampling event (July 23, 2007), all sample replicates were aerated after test initiation.

Manipulation of samples collected on October 9, 2007
Physical/chemical characteristics of the bioassay samples collected from the chlorine contact chamber (CCC) and the dechlorination unit were within test limits. An aliquot of the sample collected from the CCC was dechlorinated in the laboratory by the addition of 0.025 N sodium thiosulfate at the rate of 0.7 ml/L. The total residual chlorine (TRC) in the sample from the CCC as measured in the laboratory prior to dechlorination was 0.65 mg/L. The TRC reported by the facility operator for the effluent in the CCC was 0.34 mg/L. The facility operator measured 1.67 mg/L TRC in the effluent from the dechlorination unit; however, the TRC in the bioassay sample from the dechlorination unit was measured as 0.04 mg/L in the laboratory.

Toxicity Test Results

Tests performed July 24 - 25, 2007

Ceriodaphnia dubia 48-hour acute screening bioassay –	No Result Invalidated at 24 hours
Cyprinella leedsi 48-hour acute screening bioassay –	No Result Invalidated at 24 hours

Tests performed September 18 - 19, 2007

Ceriodaphnia dubia 48-hour acute screening bioassay –	No Result Invalidated at 24 hours
Cyprinella leedsi 48-hour acute screening bioassay –	No Result Invalidated at 24 hours

Tests performed October 10 - 12, 2007

Ceriodaphnia dubia 48-hour acute screening bioassay – **Sample collected from dechlorination unit**	LC_{50} > 100%, 0% mortality* in 100% sample at 48 hours

Cyprinella leedsi 48-hour acute screening bioassay – **Sample collected from dechlorination unit**	LC_{50} > 100%, 0% mortality* in 100% sample at 48 hours
Ceriodaphnia dubia 48-hour acute screening bioassay – **Sample collected from CCC - not adjusted**	LC_{50} < 100%, 100% mortality* in 100% sample at 48 hours
Cyprinella leedsi 48-hour acute screening bioassay – **Sample collected from CCC - not adjusted**	LC_{50} < 100%, 100% mortality* in 100% sample at 24 hours
Ceriodaphnia dubia 48-hour acute screening bioassay – **Sample collected from CCC - Dechlorinated in lab**	LC_{50} > 100%, 0% mortality* in 100% sample at 48 hours
Cyprinella leedsi 48-hour acute screening bioassay – **Sample collected from CCC - Dechlorinated in lab**	LC_{50} > 100%, 0% mortality* in 100% sample at 48 hours

The bioassay tests conducted on July 23 and September 17, 2007, were invalidated and reported as *No Result*.

The bioassay samples collected on October 9, 2007, from the facility's dechlorination unit and the dechlorinated aliquots of the samples collected from the CCC were not acutely toxic to the test organisms. The bioassay samples containing total residual chlorine, collected from the facility's chlorination unit, were acutely toxic to the test organisms. The observed toxicity was primarily attributed to the TRC in the sample. TRC concentrations as low as 0.028 mg/L have been found to be acutely toxic to some freshwater fish and invertebrates (EPA Quality Criteria for Water 1986, EPA 44015-86-001, 1986).

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.

*NOTE: In a 48-hour acute screening test of 100% effluent, mortality of <20% provides confidence that the effluent meets the acute toxicity criterion of Florida's Surface Water Quality Standards (Rule 62-302.500 (1)(a)4, F.A.C.). Mortality between 20-50% indicates low to moderate levels of toxicity, and further action may be required. Mortality of >50% indicates that the effluent fails to meet the minimum requirement to discharge to waters of the state (Rule 62-4.244(3)(a), F.A.C.).

Algal Growth Potential

Algal Growth Potential (AGP) in the effluent collected on July 23, 2007, was 526 mg dry wt/L of the unicellular green alga, *Pseudokirchneriella subcapitata*, formerly known as *Selenastrum capricornutum*. Raschke and Shultz (1987) found 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 predicted AGP based on inorganic nitrogen concentrations was 370.9 (±20%) mg dry wt/L (Table 1; Miller et al. 1978). AGP samples were not collected during the subsequent sampling events.

See Table 1 for AGP results.

Chemistry Results

Total residual chlorine (TRC) was not detected in the field nor in the laboratory and total ammonia was not detected in the laboratory in the bioassay sample collected on July 23, 2007. The total ammonia concentration in the sample collected and preserved for chemical analysis was 0.061 mg/L.

Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was < 0.02 mg/L.

TRC was not detected in the field or in the laboratory in the bioassay sample collected on September 17, 2007. Total ammonia was detected in the bioassay sample in the laboratory at a concentration of 0.13 mg/L. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was < 0.02 mg/L. Samples were not collected for nutrient analyses during this sampling event.

TRC measured during the sampling event of October 9, 2007, was 0.34 mg/L at the CCC and 1.67 mg/L at the dechlorination unit. The TRC as measured at the CCC was less than the permit limit (0.5 mg/L minimum) for disinfection. The TRC as measured after dechlorination exceeded both the permit limit (≤ 0.01 mg/L) and Class III freshwater quality criteria for TRC (≤ 0.01 mg/L) 62-302.530, (18) F.A.C.). The cause for these seemingly reversed values was not determined. TRC was measured in the laboratory at a concentration of 0.65 mg/L in the bioassay sample collected from the CCC and at a concentration of 0.04 mg/L in the bioassay sample collected from the dechlorination unit. Total ammonia was not detected in the laboratory in the bioassay sample collected from the CCC but was detected in the bioassay sample collected from the dechlorination unit at a concentration of 0.186 mg/L. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was < 0.02 mg/L. Samples were not collected for nutrient analyses during this sampling event.

Dissolved oxygen (DO) in the samples collected from the dechlorination unit on July 23 (4.7 mg/L) and September 17 (0.4 mg/L) violated both the permit limit (≥ 5.0 mg/L) and Class III freshwater criteria for dissolved oxygen (≥ 5.0 mg/L; 62-302.530(30), F.A.C.). DO in the sample collected from the dechlorination unit on October 9, 2007 (6.3 mg/L), complied with the permit limit and Class III water quality criterion for DO. The carbonaceous biochemical oxygen demand (CBOD) of the July 23, 2007, sample was 11 mg/L, which did not exceed the single sample permit limit (≤60 mg/L), but was somewhat higher than the annual average of 7.1 mg/L.

Aluminum, copper, iron, nickel, and zinc were detected in the effluent collected on July 23 at levels that comply with Class III fresh water quality criteria (62-302.530, F.A.C.). Arsenic, cadmium, and lead were detected between the laboratory method detection limits (MDL) and practical quantitation limits (PQL).

Copper detected in the effluent collected on September 17 complied with Class III fresh water quality criterion (62-302.530(23), F.A.C.).

Copper (19.9 µg/L) detected in the effluent from the CCC on October 9, 2007, violated the Class III freshwater criterion for copper (16.9 µg/L at a hardness of 200 mg/L as $CaCO_3$, 62-302.530(23), F.A.C.); however, the copper (5.7 µg/L) in the effluent collected from the dechlorination unit did not exceed the Class III freshwater criterion for copper.

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 acute bioassay tests performed on effluent samples collected from the EFD-1 NPDES sampling point for Outfall D-001 for this facility on July 23 and September 17, 2007, were invalidated due to unacceptable physical/chemical characteristics of the samples (low dissolved oxygen and pH). These characteristics were likely due to excess sodium bisulfite from the dechlorination unit, and the problem was corrected. Effluent samples collected from the EFA-1 NPDES sampling point for Outfall D-001 on October 9, 2007, were acutely toxic to both test species during the 48-hour acute toxicity tests. The observed mortality in these tests was

primarily attributed to the effluent total residual chlorine. Effluent samples collected from the EFD-1 NPDES sampling point for Outfall D-001 on October 9, 2007, were not acutely toxic to either test species during the 48-hour acute toxicity tests.

The effluent (July 23, 2007) AGP result greatly exceeded the "problem" threshold for fresh receiving waters, suggesting nutrient enrichment may be an issue. Effluent dissolved oxygen was in violation of the permit limit and Class III freshwater quality criteria for dissolved oxygen (62-302.530(30), F.A.C.) in samples collected on July 23 and September 17, 2007. Effluent total residual chlorine (TRC) in a sample from the chlorine contact chamber on October 9, 2007, was less than the permitted minimum. TRC in a sample collected from the dechlorination unit on October 9, 2007, exceeded both the permit limit and the Class III freshwater criteria for TRC (62-302.530(18), F.A.C.).

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.

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

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 for samples collected from the Cypress Landing WWTF on July 23, 2007.

Cypress Landing WWTF					
Location	AGP (measured)	Predicted AGP (TSIN) ± 20%	Predicted AGP (TN) ± 20%	Inorganic N:P ratio	Total N:P ratio
Effluent	526.0	370.9 ± 74.2	425.6 ± 85.1	4.9	4.9

Table 2. Effluent limits, Class III Criteria for predominantly freshwaters and chemical and microbiological data for samples collected from the Cypress Landing WWTF on July 23, September 17, and October 9, 2007.

Cypress Landing WWTF NPDES# FL0043842	Class III Standards	Effluent Limits EFD-1	Effluent July 23, 2007	Effluent September 17, 2007	Effluent EFA-1 October 9, 2007	Effluent EFD-1 October 9, 2007
Organic Constituents (µg/L)						
Bis(2-ethylhexyl)phthalate	-	-	-	-	-	-
Diethyl phthalate	-	-	1 IV	-	-	-
Diethyl phthalate	-	-	-	-	-	-
Metals (µg/L unless otherwise noted)						
Aluminum	-	-	88 A	-	-	-
Arsenic	≤ 50	-	0.52 I	-	-	-
Cadmium	≤ 0.4 b	-	0.032 I	-	-	-
Calcium (mg/L)	-	-	33.3 A	-	-	-
Chromium-III	≤ 121.1 b	-	1 U	-	-	-
Copper	≤ 13.3 b	-	6.05 A	2.62	19.9 *	5.7
Iron	≤ 1,000	-	190 A	-	-	-
Lead	≤ 5.4 b	-	0.38 I	-	-	-
Magnesium (mg/L)	-	-	16.6 A	-	-	-
Nickel	≤ 74.1 b	-	1.54 A	-	-	-
Selenium	≤ 5.0	-	0.5 U	-	-	-
Silver	≤ 0.07	-	0.025 U	-	-	-
Zinc	≤ 170.4 b	-	38 A	-	-	-
Nutrients (mg/L)						
Ortho-phosphate	-	-	2	-	-	-
Total Phosphorus	-	Report	2.3	-	-	-
Total Ammonia	-	-	0.061	0.13 £	< 0.017 £	0.186 £
Un-ionized Ammonia	≤ 0.02	-	< 0.02 c	< 0.02 c	< 0.02 c	< 0.02 c
Nitrate and Nitrite	-	-	9.7	-	-	-
Total Kjeldahl Nitrogen	-	Report	1.5	-	-	-
Organic Nitrogen	-	-	1.439 c	-	-	-
Total Nitrogen	-	Report	11.2 c	-	-	-

Table 2. (continued)

Cypress Landing WWTF NPDES# FL0043842	Class III Standards	Effluent Limits EFD-1	Effluent July 23, 2007	Effluent September 17, 2007	Effluent EFA-1 October 9, 2007	Effluent EFD-1 October 9, 2007
Dissolved Oxygen (mg/L)	≥ 5.0	≥ 5.0	4.7	0.4	2.5	6.3
pH (SU)	6.5 - 8.5	-	6.4	6.3	7.1	7.9
Conductivity (µmhos/cm)	-	-	894	1354	673	663
Temperature °C	-	-	21.7	25.6	25.7	25.6
Total Residual Chlorine (mg/L) post-dechlorination	≤ 0.01	≤ 0.01 s	≤ 0.02 U	≤ 0.02 U	-	1.67
Total Residual Chlorine (mg/L) disinfection	-	≥ 0.5 se	-	-	0.34	-
Total Suspended Solids (mg/L)	-	≤ 60 s	8 I	-	-	-
CBOD, 5 day (mg/L), N - inhibited	-	≤ 60 s	11	-	-	-
Sodium (mg/L)	-	-	-	-	49.2	51.6
Chloride (mg/L)	-	-	-	-	75	71
Sulfate (mg/L)	-	-	-	-	95	100
Flow (MGD)	-	0.0075 a	0.0047 a	NA	NA	-
Hardness (mg $CaCO_3$)	-	-	151.51 c	160 £	200 £	203 £
Microbiology (Number of colony forming units/100ml)						
Fecal Coliforms	≤ 800 s	≤ 800 s	2 U	-	-	-

Value exceeds the Class III Water Quality Criteria or permit limits

a - Annual average
b - Value is calculated based on hardness
c - Value is calculated
e - Limit is at EFA-1 sampling point
s - Single sample
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
U - Material analyzed for but not detected; value reported is the method detection limit
V - Analyte was detected in both sample and method blank
£ - Analaysis performed in FDEP Central Laboratory bioassay lab.
* - Class III freshwater standard 16.9 µg/L based on hardness of 200 mg/L as $CaCO_3$

Appendix A. Chain of Custody Form

NEDTS-01-06
1/19/07

Department of Environmental Protection Northeast District Field Sheet

Sample Source: Surface Water, Fresh ___ RQF: 2007-07-23-2 ___ Date 7-23-7 Page 1 of 1

Meter # 2 Acid Kit# 2 Ortho Kit # 3 Sampling Team Smith Fmrn

LAB ID #	Site Name:	Field/Stored #:	Measured By:	Matrix***
07165	Cross Landing WWTF			

Time	Temp °C	Cond µohm cm*	Sal %	pH s.u.	DO mg/L	DO Sat %	Secchi m	WTR V ft/sec	Tide Ebb/Fld,LS/HS	Total Depth	Sample Depth
10:18	21.69	841	.41	6.91	4.67	52.4					

Mode: ☐ Wading ☐ Shore ☐ Gas Motor ☐ Canoe ☐ Bridge ☐ Dock Equipment: ☐ Grab ☐ Horizontal Sampler ☐ Pole Sampler ____

Parameters / Method	Preserve*	Suite**	Initials
Preserved Nutrients: ☐ N/A ☒ All ☐ TKN ☐ NO_2-NO_3 ☐ NH_3 ☐ TOC ☐ TP	☒ Ice ☐ H_2SO_4 ☐ pH<2	A	
Filtered Nutrients: ☐ N/A ☒ oP ☐ Other: ____	☒ Ice ☐ 0.45µm flt	A	
BOD: ☐ N/A ☒ cBOD-Inhb ☐ BOD-Unin	☒ Ice	A	
Chlorophyll: ☐ N/A ☐ CHL-PPTN-W	☒ Ice	A	
Physical/Aggregate Properties: ☐ N/A ☐ All ☐ TSS ☐ Turbidity ☐ W-Cl-IC ☐ W-F ☐ W-SO4-IC ☐ Color ☐ TDS ☐ Alk	☒ Ice	A	
Metals: ☐ N/A ☐ W-ICP ☐ W-FIAS ☒ W-ICPMS ☐ W-ICP-Tr	☒ Ice ☐ HNO_3 ☐ pH <2	A	
AGP/Other: ☐ N/A ☐ AA-AGP ☐ AA-Lim-Nut ☐ Other	☒ Ice	A	
Micro: ☐ N/A ☐ All ☐ T Coli ☐ F Coli	☒ Ice	A	

Comments and conditions: chlorophyll .8 0.02 mg/L

LAB ID #	Site Name:	Field/Stored #:	Measured By:	Matrix***
	Blank			

Time	Temp °C	Cond µohm cm*	Sal %	pH s.u.	DO mg/L	DO Sat %	Secchi m	WTR V ft/sec	Tide Ebb/Fld,LS/HS	Total Depth	Sample Depth
9:50											

Mode: ☐ Wading ☐ Shore ☐ Gas Motor ☐ Canoe ☐ Bridge ☐ Dock Equipment: ☐ Grab ☐ Horizontal Sampler ☐ Pole Sampler ____

Parameters / Method	Preserve*	Suite**	Initials
Preserved Nutrients: ☐ N/A ☒ All ☐ TKN ☐ NO_2-NO_3 ☐ NH_3 ☐ TOC ☐ TP	☒ Ice ☐ H_2SO_4 ☐ pH <2		
Filtered Nutrients: ☐ N/A ☐ oP ☐ Other: ____	☒ Ice ☐ 0.45µm flt		
BOD: ☐ N/A ☐ cBOD-Inhb ☐ BOD-Unin	☐ Ice		
Chlorophyll: ☐ N/A ☐ CHL-PPTN-W	☐ Ice		
Physical/Aggregate Properties: ☐ N/A ☐ All ☐ TSS ☐ Turbidity ☐ W-Cl-IC ☐ W-F ☐ W-SO4-IC ☐ Color ☐ TDS ☐ Alk	☐ Ice		
Metals: ☐ N/A ☐ W-ICP ☐ W-FIAS ☒ W-ICPMS ☐ W-ICP-Tr	☒ Ice ☐ HNO_3 ☒ pH <2		
AGP/Other: ☐ N/A ☐ AA-AGP ☐ AA-Lim-Nut ☐ Other	☐ Ice		
Micro: ☐ N/A ☐ All ☐ T Coli ☐ F Coli	☐ Ice		

Comments and conditions:

LAB ID #	Site Name:	Field/Stored #:	Measured By:	Matrix***

Time	Temp °C	Cond µohm cm*	Sal %	pH s.u.	DO mg/L	DO Sat %	Secchi m	WTR V ft/sec	Tide Ebb/Fld,LS/HS	Total Depth	Sample Depth

Mode: ☐ Wading ☐ Shore ☐ Gas Motor ☐ Canoe ☐ Bridge ☐ Dock Equipment: ☐ Grab ☐ Horizontal Sampler ☐ Pole Sampler ____

Parameters / Method	Preserve*	Suite**	Initials
Preserved Nutrients: ☐ N/A ☐ All ☐ TKN ☐ NO_2-NO_3 ☐ NH_3 ☐ TOC ☐ TP	☐ Ice ☐ H_2SO_4 ☐ pH<2		
Filtered Nutrients: ☐ N/A ☐ oP ☐ Other: ____	☐ Ice ☐ 0.45µm flt		
BOD: ☐ N/A ☐ cBOD-Inhb ☐ BOD-Unin	☐ Ice		
Chlorophyll: ☐ N/A ☐ CHL-PPTN-W	☐ Ice		
Physical/Aggregate Properties: ☐ N/A ☐ All ☐ TSS ☐ Turbidity ☐ W-Cl-IC ☐ W-F ☐ W-SO4-IC ☐ Color ☐ TDS ☐ Alk	☐ Ice		
Metals: ☐ N/A ☐ W-ICP ☐ W-FIAS ☐ W-ICPMS ☐ W-ICP-Tr	☐ Ice ☐ HNO_3 ☐ pH <2		
AGP/Other: ☐ N/A ☐ AA-AGP ☐ AA-Lim-Nut ☐ Other	☐ Ice		
Micro: ☐ N/A ☐ All ☐ T Coli ☐ F Coli	☐ Ice		

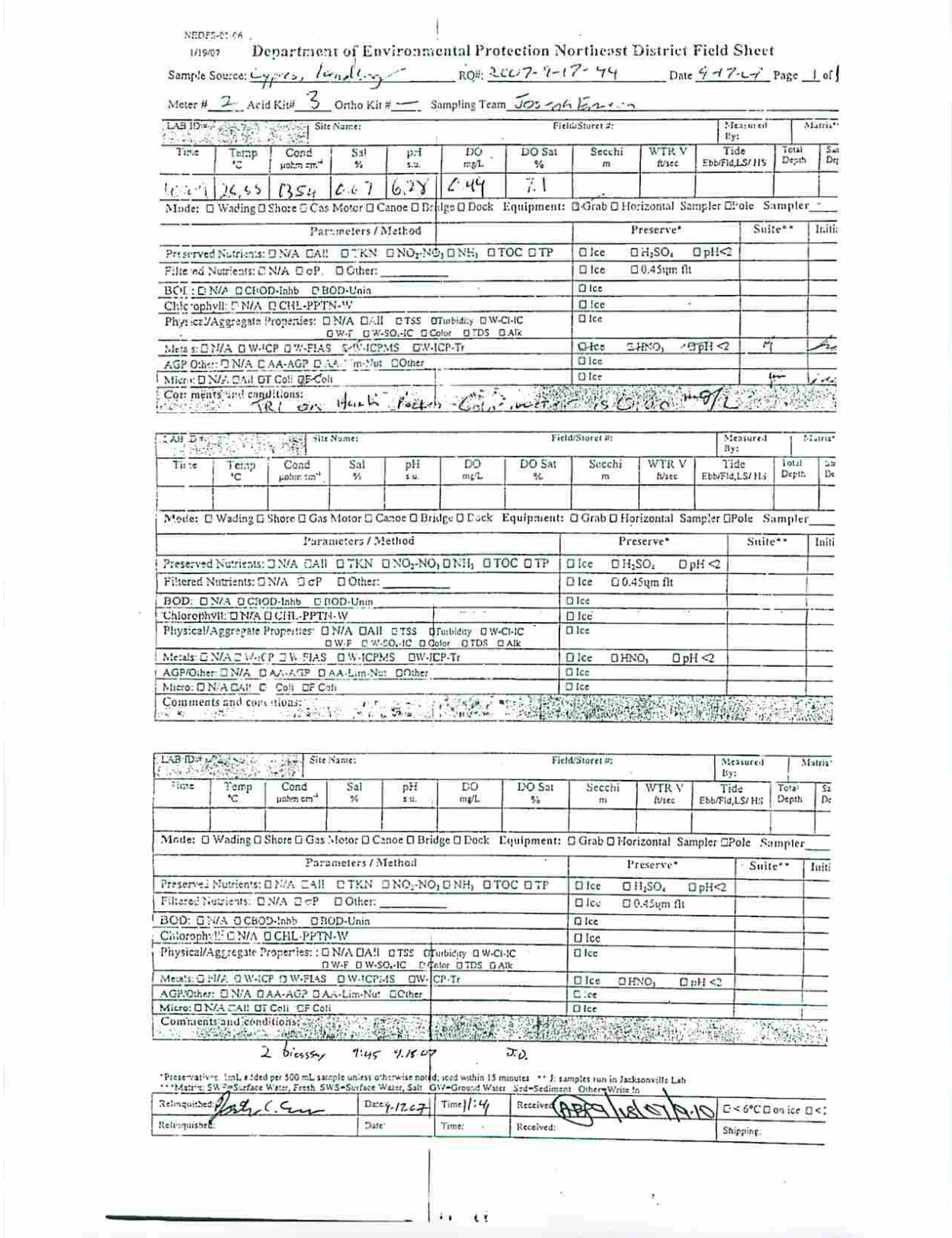
Comments and conditions:

*Preservatives, 1mL added per 500 mL sample unless otherwise noted; iced within 15 minutes ** If samples run in Jacksonville Lab
***Matrix: SWF=Surface Water, Fresh SWS=Surface Water, Salt GW=Ground Water Sed=Sediment Other=Write In

Relinquished	Date: 7-23-07	Time: 12:07	Received: [illegible] 7/24/07 8:50	☐ < 6°C ☐ on ice ☐ < 2 pH
Relinquished:	Date	Time	Received	Shipping

M Faircloth 07-24-07 0951 Lb mussay Jug

Appendix A. (continued)



NEDFS-01.06
1/19/07

Department of Environmental Protection Northeast District Field Sheet

Sample Source: Cypress, Landing RQ#: 2007-9-17-44 Date 9-17-07 Page 1 of 1

Meter # 2 Acid Kit# 3 Ortho Kit # — Sampling Team Joseph Emmons

LAB ID#	Site Name:	Field/Storet #:	Measured By:	Matrix**

Time	Temp °C	Cond µohm cm⁻¹	Sal %	pH s.u.	DO mg/L	DO Sat %	Secchi m	WTR V ft/sec	Tide Ebb/Fld,LS/HS	Total Depth	Sa De
1037	26.55	1354	0.67	6.28	6.44	7.1					

Mode: ☐ Wading ☐ Shore ☐ Gas Motor ☐ Canoe ☐ Bridge ☐ Dock Equipment: ☐ Grab ☐ Horizontal Sampler ☐ Pole Sampler —

Parameters / Method	Preserve*	Suite**	Initi
Preserved Nutrients: ☐ N/A ☐ All ☐ TKN ☐ NO_2-NO_3 ☐ NH_3 ☐ TOC ☐ TP	☐ Ice ☐ H_2SO_4 ☐ pH<2		
Filtered Nutrients: ☐ N/A ☐ oP ☐ Other: _____	☐ Ice ☐ 0.45µm flt		
BOD: ☐ N/A ☐ CBOD-Inhb ☐ BOD-Unin	☐ Ice		
Chlorophyll: ☐ N/A ☐ CHL-PPTN-W	☐ Ice		
Physical/Aggregate Properties: ☐ N/A ☐ All ☐ TSS ☐ Turbidity ☐ W-Cl-IC ☐ W-F ☐ W-SO_4-IC ☐ Color ☐ TDS ☐ Alk	☐ Ice		
Metals: ☐ N/A ☐ W-ICP ☐ W-FIAS ☐ W-ICPMS ☐ W-ICP-Tr	☐ Ice ☐ HNO_3 ☐ pH <2	M	
AGP Other: ☐ N/A ☐ AA-AGP ☐ AA-Lim-Nut ☐ Other	☐ Ice		
Micro: ☐ N/A ☐ All ☐ T Coli ☐ F Coli	☐ Ice	M	

Comments and conditions: TRI on Health Probe - Calibrated to 6.00 mg/L

LAB ID#	Site Name:	Field/Storet #:	Measured By:	Matrix*

Time	Temp °C	Cond µohm cm⁻¹	Sal %	pH s.u.	DO mg/L	DO Sat %	Secchi m	WTR V ft/sec	Tide Ebb/Fld,LS/HS	Total Depth	Sa De

Mode: ☐ Wading ☐ Shore ☐ Gas Motor ☐ Canoe ☐ Bridge ☐ Dock Equipment: ☐ Grab ☐ Horizontal Sampler ☐ Pole Sampler —

Parameters / Method	Preserve*	Suite**	Initi
Preserved Nutrients: ☐ N/A ☐ All ☐ TKN ☐ NO_2-NO_3 ☐ NH_3 ☐ TOC ☐ TP	☐ Ice ☐ H_2SO_4 ☐ pH <2		
Filtered Nutrients: ☐ N/A ☐ oP ☐ Other: _____	☐ Ice ☐ 0.45µm flt		
BOD: ☐ N/A ☐ CBOD-Inhb ☐ BOD-Unin	☐ Ice		
Chlorophyll: ☐ N/A ☐ CHL-PPTN-W	☐ Ice		
Physical/Aggregate Properties: ☐ N/A ☐ All ☐ TSS ☐ Turbidity ☐ W-Cl-IC ☐ W-F ☐ W-SO_4-IC ☐ Color ☐ TDS ☐ Alk	☐ Ice		
Metals: ☐ N/A ☐ W-ICP ☐ W-FIAS ☐ W-ICPMS ☐ W-ICP-Tr	☐ Ice ☐ HNO_3 ☐ pH <2		
AGP/Other: ☐ N/A ☐ AA-AGP ☐ AA-Lim-Nut ☐ Other	☐ Ice		
Micro: ☐ N/A ☐ All ☐ T Coli ☐ F Coli	☐ Ice		

Comments and conditions:

LAB ID#	Site Name:	Field/Storet #:	Measured By:	Matrix*

Time	Temp °C	Cond µohm cm⁻¹	Sal %	pH s.u.	DO mg/L	DO Sat %	Secchi m	WTR V ft/sec	Tide Ebb/Fld,LS/HS	Total Depth	Sa De

Mode: ☐ Wading ☐ Shore ☐ Gas Motor ☐ Canoe ☐ Bridge ☐ Dock Equipment: ☐ Grab ☐ Horizontal Sampler ☐ Pole Sampler —

Parameters / Method	Preserve*	Suite**	Initi
Preserved Nutrients: ☐ N/A ☐ All ☐ TKN ☐ NO_2-NO_3 ☐ NH_3 ☐ TOC ☐ TP	☐ Ice ☐ H_2SO_4 ☐ pH<2		
Filtered Nutrients: ☐ N/A ☐ oP ☐ Other: _____	☐ Ice ☐ 0.45µm flt		
BOD: ☐ N/A ☐ CBOD-Inhb ☐ BOD-Unin	☐ Ice		
Chlorophyll: ☐ N/A ☐ CHL-PPTN-W	☐ Ice		
Physical/Aggregate Properties: ☐ N/A ☐ All ☐ TSS ☐ Turbidity ☐ W-Cl-IC ☐ W-F ☐ W-SO_4-IC ☐ Color ☐ TDS ☐ Alk	☐ Ice		
Metals: ☐ N/A ☐ W-ICP ☐ W-FIAS ☐ W-ICPMS ☐ W-ICP-Tr	☐ Ice ☐ HNO_3 ☐ pH <2		
AGP/Other: ☐ N/A ☐ AA-AGP ☐ AA-Lim-Nut ☐ Other	☐ Ice		
Micro: ☐ N/A ☐ All ☐ T Coli ☐ F Coli	☐ Ice		

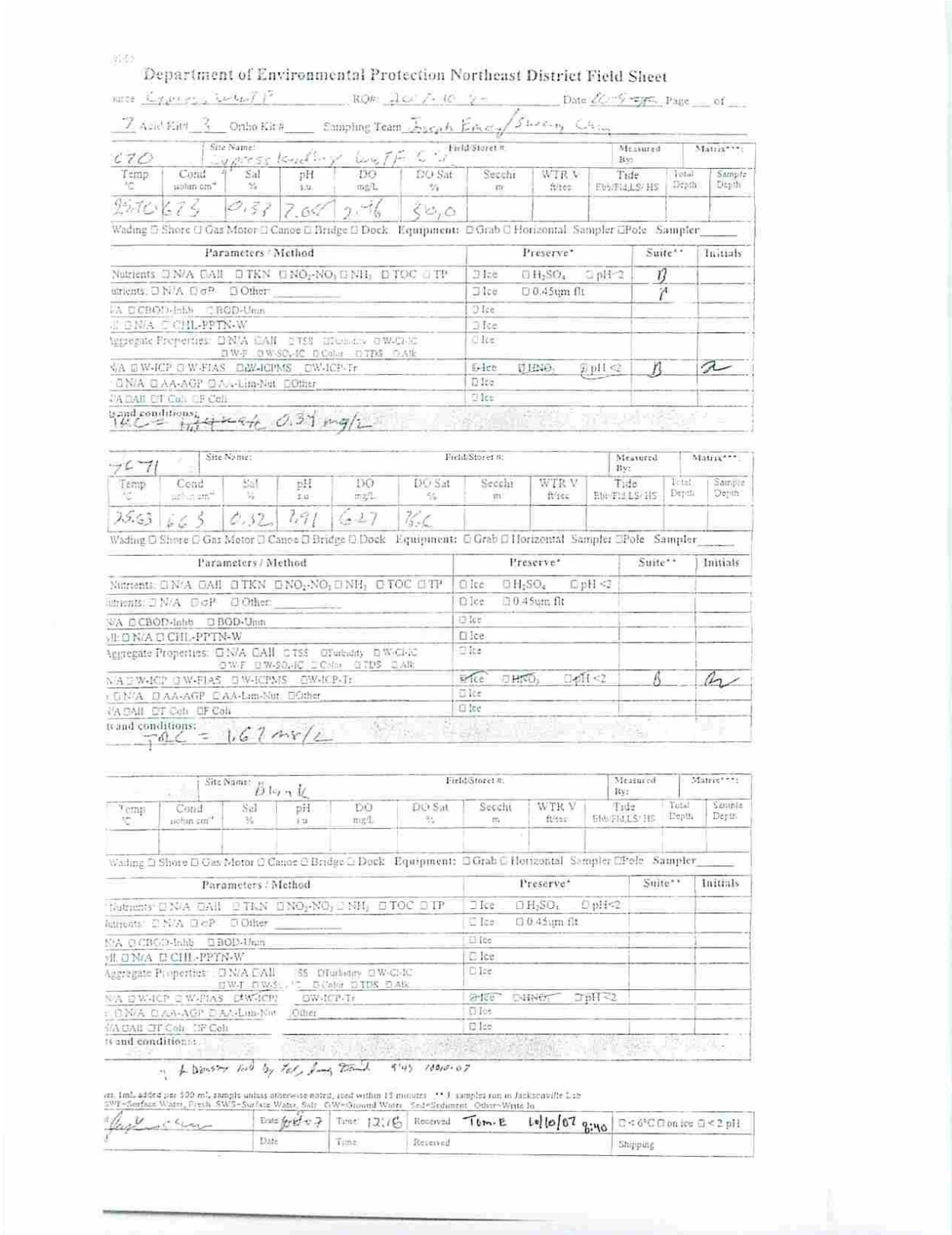
Comments and conditions:

2 biossay 9:45 9.18.07 D.O.

*Preservatives: 1mL # added per 500 mL sample unless otherwise noted; iced within 15 minutes ** J: samples run in Jacksonville Lab
***Matrix: SW=Surface Water, Fresh. SWS=Surface Water, Salt GW=Ground Water Sed=Sediment Other=Write In

Relinquished:	Date: 9.17.07	Time: 1:14	Received:	☐ < 6°C ☐ on ice ☐ <
Relinquished:	Date:	Time:	Received:	Shipping:

Appendix A. (continued)



Department of Environmental Protection Northeast District Field Sheet

Source Cypress Creek TF RO#: 20070102 Date 20-Sep-07 Page ___ of ___

7 Acid Kit# 3 Ortho Kit# ___ Sampling Team Joseph Emas/Stacey Chin

Site Name:	Field/Storet #:	Measured By:	Matrix***
C70	Cypress Creek Bridge TF 2.5		

Temp °C	Cond µohm cm*	Sal ‰	pH s.u.	DO mg/L	DO Sat %	Secchi m	WTR V ft/sec	Tide Ebb/Fld,LS/HS	Total Depth	Sample Depth
29.70	673	0.33	7.04	2.96	50.0					

Wading ☐ Shore ☐ Gas Motor ☐ Canoe ☐ Bridge ☐ Dock Equipment: ☐ Grab ☐ Horizontal Sampler ☐ Pole Sampler ___

Parameters / Method	Preserve*	Suite**	Initials
Nutrients ☐ N/A ☐ All ☐ TKN ☐ NO_2-NO_3 ☐ NH_3 ☐ TOC ☐ TP	☐ Ice ☐ H_2SO_4 ☐ pH<2	B	
utrients: ☐ N/A ☐ oP ☐ Other: ___	☐ Ice ☐ 0.45µm flt	P	
/A ☐ CBOD-Inhib ☐ BOD-Uninh	☐ Ice		
ll: ☐ N/A ☐ CHL-PPTN-W	☐ Ice		
Aggregate Properties: ☐ N/A ☐ All ☐ TSS ☐ Turbidity ☐ W-Cl-IC ☐ W-F ☐ W-SO_4-IC ☐ Color ☐ TDS ☐ Alk	☐ Ice		
/A ☐ W-ICP ☐ W-FIAS ☐ W-ICPMS ☐ W-ICP-Tr	☐ Ice ☐ HNO_3 ☐ pH<2	B	
☐ N/A ☐ AA-AGP ☐ AA-Lim-Nut ☐ Other ___	☐ Ice		
/A ☐ All ☐ T Coli ☐ F Coli	☐ Ice		

ts and conditions: TRC = Not Checked 0.37 mg/L

Site Name:	Field/Storet #:	Measured By:	Matrix***
C71			

Temp °C	Cond µohm cm*	Sal ‰	pH s.u.	DO mg/L	DO Sat %	Secchi m	WTR V ft/sec	Tide Ebb/Fld,LS/HS	Total Depth	Sample Depth
25.63	665	0.32	7.91	6.27	76.6					

Wading ☐ Shore ☐ Gas Motor ☐ Canoe ☐ Bridge ☐ Dock Equipment: ☐ Grab ☐ Horizontal Sampler ☐ Pole Sampler ___

Parameters / Method	Preserve*	Suite**	Initials
Nutrients: ☐ N/A ☐ All ☐ TKN ☐ NO_2-NO_3 ☐ NH_3 ☐ TOC ☐ TP	☐ Ice ☐ H_2SO_4 ☐ pH <2		
utrients: ☐ N/A ☐ oP ☐ Other: ___	☐ Ice ☐ 0.45µm flt		
/A ☐ CBOD-Inhib ☐ BOD-Uninh	☐ Ice		
ll: ☐ N/A ☐ CHL-PPTN-W	☐ Ice		
Aggregate Properties: ☐ N/A ☐ All ☐ TSS ☐ Turbidity ☐ W-Cl-IC ☐ W-F ☐ W-SO_4-IC ☐ Color ☐ TDS ☐ Alk	☐ Ice		
/A ☐ W-ICP ☐ W-FIAS ☐ W-ICPMS ☐ W-ICP-Tr	☐ Ice ☐ HNO_3 ☐ pH <2	B	
☐ N/A ☐ AA-AGP ☐ AA-Lim-Nut ☐ Other ___	☐ Ice		
/A ☐ All ☐ T Coli ☐ F Coli	☐ Ice		

ts and conditions: TRC = 1.67 mg/L

Site Name:	Field/Storet #:	Measured By:	Matrix***
Bridge			

Temp °C	Cond µohm cm*	Sal ‰	pH s.u.	DO mg/L	DO Sat %	Secchi m	WTR V ft/sec	Tide Ebb/Fld,LS/HS	Total Depth	Sample Depth

Wading ☐ Shore ☐ Gas Motor ☐ Canoe ☐ Bridge ☐ Dock Equipment: ☐ Grab ☐ Horizontal Sampler ☐ Pole Sampler ___

Parameters / Method	Preserve*	Suite**	Initials
Nutrients: ☐ N/A ☐ All ☐ TKN ☐ NO_2-NO_3 ☐ NH_3 ☐ TOC ☐ TP	☐ Ice ☐ H_2SO_4 ☐ pH<2		
utrients: ☐ N/A ☐ oP ☐ Other ___	☐ Ice ☐ 0.45µm flt		
/A ☐ CBOD-Inhib ☐ BOD-Uninh	☐ Ice		
ll: ☐ N/A ☐ CHL-PPTN-W	☐ Ice		
Aggregate Properties: ☐ N/A ☐ All ☐ TSS ☐ Turbidity ☐ W-Cl-IC ☐ W-F ☐ W-SO_4-IC ☐ Color ☐ TDS ☐ Alk	☐ Ice		
/A ☐ W-ICP ☐ W-FIAS ☐ W-ICPMS ☐ W-ICP-Tr	☐ Ice ☐ HNO_3 ☐ pH <2		
☐ N/A ☐ AA-AGP ☐ AA-Lim-Nut ☐ Other ___	☐ Ice		
/A ☐ All ☐ T Coli ☐ F Coli	☐ Ice		

ts and conditions:

Bridge not sampled by Tech, Low Tide 9:45 10/10/07

ect. 1mL added per 500 mL samples unless otherwise noted, used within 15 minutes ** 1 samples run in Jacksonville Lab
SWF=Surface Water, Fresh SWS=Surface Water, Salt GW=Ground Water Sed=Sediment Other=Write In

	Date 10/10/07	Time 12:15	Received Tom E 10/10/07 9:40	☐ < 6°C ☐ on ice ☐ < 2 pH
	Date	Time	Received	Shipping

FDEP Biology Laboratory - Acute Screen Bioassay Bench Sheets

Facility: CYPRESS LANDING WASTEWATER TREATMENT FACILITY

Address: 1110 CYPRESS LANDING

City: JACKSONVILLE County: ST. JOHNS

Contact/District: Joseph Emery / NORTHEAST

NPDES Permit #: FL0043842

LIMS Job #: TH-2007-07-24-25-01 LIMS Sample #: 1028578

Lims Data Entry: 7/31/07 MF Data Entry Verification: 7.31.07 JE

Sample Collection: Date: 7-23-07 Time: 1018

Hold Time Start: Date: 7-23-07 Time: 1018

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

Comments: Initial Sample D.O. = 0.4 mg/L. Sample aerated for 80min to increase D.O. to 5.3 mg/L MF 7-24-07 pH dropped from ~ 6.1 SU to ~ 3.65 SU. Sample pH adjusted with 6 drops of 1N (Terminal) NaOH per liter of sample to pH ~ 7.0 DO dropped to ~ 0.8 mg/L prior to loading (DO would not hold). Replicates aerated to DO 6.0 mg/L prior to loading and then continuously at ~ 200 bubbles per to hold DO. MF 7-24-07

NCR 2564 created. TAT Reported to NO

Initial sample handling:

PH adjustment: (Yes) no MF Initial pH: 6.1 (NaOH) 10N HCl N 6 (Drops) per liter mL Final pH: 7.0

Aeration: (yes) no Initial DO: 0.4 mg/L Final DO: 5.3 mg/L Duration: 80 minutes Rate: 200 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: _____

DO + pH fell out of test limits Result. MF 7/31/07 MF 8-2-07

Light Intensity: 50 - 100 ft. candles

Photoperiod: 16 light 8 dark

Temperature Range °C:

Incubator # 2 min. 24.2 max. 25.3 mean 24.8

Incubator # ____ min. _____ max. _____ mean _____

Room B246 min. 24.9 max. 26.5 mean 25.7

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)

(A) pH adjustment was secondary to aeration - pH not initially adjusted (in range) MF 7-24-07

Investigators' Signatures

Patsy Vichaikul

Bruce Hadley

Marshall Faircloth

James David

Nicole Wellendorf

REVIEWER

Water Quality Parameters	20% DMW	Moderately Hard Water/ (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		<0.02	Hach	Joseph Emery	MF
Lab Total Residual Cl_2 (mg/L):	<0.03	<0.03				<0.03	HACH	PDV	MF
Alkalinity (mg/L as $CaCO_3$):	82	137	~~64~~ PDV			161	HACH	SA	PDV
Hardness (mg/L as $CaCO_3$):	80	133	~~144~~ PDV			144	HACH	SA	PDV
Total Ammonia (mg/L as N):	<0.017	<0.017				<0.017	DENVER	MF	PDV
Salinity (ppth):	<1	<1				0.51	YSI / Mettler	MF	PDV

V 1.4 9/12/05

Appendix B. Bench Sheets

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1028578 Test #: 1/1 (1/30-07/) SOP#:TA 07 01 Test Started: Date 7/24/07 Time: 12:50

Organism/Batch/Age: C.DUBIA / < 24hrs Test Ended: Date 7/25/07 Time: 1100

Chamber/Test Volume: 30 / 20 ml Diluent/ Batch: 20% DHW / 7-23-07

Food/Batch: YCT 1-7-07 P.sub 1-07 Artemia 0hr — 24hr — 48hr — 72hr — Artemia Lot# —

Feeding: (Prior to Test) Prior to Renewal Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
CTRL aerated	A	A	5	5				
	B	B	5	5				
	C	C	5	5				
	D	D	5	5				
100% aerated	A	A	5	0 5D				
	B	B	5	0 5D				
	C	C	5	0 5D				
	D	D	5	0 5D				
CTRL Not aerated	A	A	5	5				
	B	B	5	5				
	C	C	5	5				
	D	D	5	5				
100% Not aerated	A	A	5	~~5~~ 0 5D				
	B	B	5	~~5~~ 0 5D				
	C	C	5	~~5~~ 0 5D				
	D	D	5	~~5~~ 0 5D				
Loaded/Verified by: PA/ MF		Checked by:	MF	MF				

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

Test Results:

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

% mortality in 100% sample: 100% LC50: < 100%

If Calculated: 95% CI______ Method______

Comments: all dead at 24 hrs in 100%. likely due to pH crash (drop) to 3.9. 7-25-07 MF

NCR 2564 wanted Terminated at 24 hours MF 7-31-07

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

PAGE V 2.1 11/01/2005

0000 47

Appendix B. Bench Sheets

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1028578 Test #: 2/2 SOP#:TA 07 02 Test Started: Date 7/24/07 Time: 1440

Organism/Batch/Age: C.LEEDSI/7-24-07/ Test Ended: Date 7/25/07 Time: 1115

Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: WELL / 7-24-07

Food/Batch: YCT — P.sub — Artemia 0hr 1140 24hr — 48hr — 72hr — Artemia Lot# GSL-53690

Feeding: (Prior to Test) Prior to Renewal Daily

Concentration	Replicate	Chamber #	Test Hour: 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
aerated CTRL	A	E1	5	5				
	B	E2	5	5				
	C	E3	5	5				
	D	E4	5	5				
aerated 100%	A	E5	5	05D				
	B	E6	5	05D				
	C	E7	5	05D				
	D	E8	5	05D				
Loaded/Verified by: JD / MF		Checked by:	JD	JD				

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

Test Results:

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

% mortality in 100% sample: 100% LC50: < 100%

If Calculated: 95% CI_____ Method_____

Comments: Controls and 100% sample replicates aerated continuously 7-25-07 mf
NCR 2564 created, Test terminated at 24hrs. mf 7/31/07

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

PAGE 00048 V 2.1 11/01/2005

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1028578 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 (24) MF	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	A (B)	A (C)			
pH (S.U.)	8.1	8.0	8.1			
Temperature °C	24.9	24.4	25.1			
Dissolved Oxygen mg/L	7.0	7.7	7.7			
Conductivity ~~µmhos~~ mmhos	171	258	185			
(initials) Measured by:	BA	MF	MF			
(initials) Recorded by:	BA	MF	MF			

Comments: (B) nothing from aerated containers MF 7-25-07
(C) reading from regular non-aerated test vessels Note in 100% sample the pH drop yet the DO recovered from 0.9 mg/L to 7.4 mg/L MF 7-25-07

Concentration 100 %	0 Hr.	24 Hr.	48 Hr. before renewal (24) MF	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	A (B)	A (C)			
pH (S.U.)	7.0	3.9	3.9			
Temperature °C	24.8	24.4	24.9			
Dissolved Oxygen mg/L	5.0 (A)	7.8	7.4			
Conductivity ~~µmhos~~ mmhos	1219	1486	1554			
(initials) Measured by:	BA	MF	MF			
(initials) Recorded by:	BA	MF	MF			

Comments: (A) DO checked after 15 minutes, DO dropped to 0.9 mg/L, an attempt to aerate tests was made by increasing container size + sample volume. Original caps/organisms maintained. MF 7-24-07

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: NOTE - Control Parameters and 100% The same for 8-control + 8-100% Test replicate - MF 7-25-07

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: 0000 49

V 2.0 2/24/04

Page

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1028578 **Test #:** 2 of 2

TEST SOP #: TA07_ 02 **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	A	B.				
pH (S.U.)	7.8	8.4				
Temperature °C	24.7	24.0				
Dissolved Oxygen mg/L	7.2	7.7				
Conductivity ~~µmhos~~ mmhos	272	278				
(initials) Measured by:	JD	JD				
(initials) Recorded by:	JJ	JJ				

Comments: Controls also aerated. MF 7-24-07

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A B	B				
pH (S.U.)	6.9	3.8				
Temperature °C	25.0	24.0				
Dissolved Oxygen mg/L	5.0 (A)	7.1				
Conductivity ~~µmhos~~ mmhos	1350	1472				
(initials) Measured by:	JD	JD				
(initials) Recorded by:	JD	JJ				

Comments: (A) DO rechecked after 15 minutes DO dropped to 0.8 mg/L all replicates aerated (prior to loading). DO raised to 6.4 mg/L MF 7-24-07

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:

FDEP Biology Laboratory - Acute Screen Bioassay Bench Sheets

Facility: Cypress Landing WWTF

Address: 116 Cypress Landing

City: Jacksonville County: St. Johns

Contact/District: Joseph Emmy NorthEast

NPDES Permit #: FL 0042943

LIMS Job # TLH-2007-09-18-44 LIMS Sample #: 1045864

Lims Data Entry: 9-21-07 MF Data Entry Verification: 9/21/07 JD

Sample Collection: Date: 9.17.07 Time: 1009

Hold Time Start: Date: 9/17/07 Time: 10:09

NCR 2628 created 9/21/07 MF

Comments: The Sample (bioassay) was aerated for 2 hours at an approximate rate of 300 bubbles per minute (rate based on sample history plus very slow increase in DO (Dissolved Oxygen) at a lesser rate, pH of sample decreased to 3.85 SU during aeration. pH adjusted to pH 7.3 with 2 mL/L of 1N NaOH. Sample aerated an additional hour to assist pH was holding. pH and DO both appeared stable and were within limits when the test was loaded. ~~Samples~~ All replicates were aerated overnight. Test ~~was~~ will be held at 24 hours due to pH decrease. All organisms died. Arrangements made to resample chronically effluent due to issues with Hypochlorite Sodium (Bleach), Bisulfate in sample (Antichlor), MF 9/21/07

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: 6.1 NaOH 1N HCl N 2 Drops ml Final pH: 7.3

Aeration yes no Initial DO: 0.5 mg/L Final DO: 5.3 mg/L Duration: 120 minutes Rate: ~300 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: _____

Light Intensity : 50 - 100 ft. candles

Photoperiod : 16 light 8 dark

Temperature Range °C:

Incubator # 2 min 23.7 max 25.8 mean 25.10

Incubator # ____ min _____ max _____ mean _____

Room B246 min 24.6 max 25.6 mean 25.1

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)

Investigators' Signatures

Joan Davis
Marshall Faircloth
Brent Fuller

Loretta C. Wolfe
REVIEWER

Water Quality Parameters	20% DMW	Moderately Hard Water/ Well Water	Salt Water ASW NSW Test 1	Salt Water ASW NSW Test 2	Other: ~~well~~ JD 9/18/07	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl_2 (mg/L):	N/A	N/A	N/A	N/A		<0.02*	Hach	JCinney	MF
Lab Total Residual Cl_2 (mg/L):	<0.03	<0.03			~~<0.03~~ JD	<0.03	HACH	JD	MF
Alkalinity (mg/L as $CaCO_3$):	~~95~~ 84	142				34	HACH	JD BA	MF
Hardness (mg/L as $CaCO_3$):	~~87~~ 87	147				160	HACH	JD BA	MF
Total Ammonia (mg/L as N):	<0.017	<0.017				0.130	DENVER	MF	JD
Salinity (ppth):	<1	<1				~~mg/L~~ 7 ppth	YSI (Mettler)	JD	MF

V 1.4 8/12/05

* TRC reported as 0.00 mg/L on field sheet, Method detection limit + Reported here. MF 9-21-07

Page 000021

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1045864 Test #: 1/2 SOP#:TA 07 01 Test Started: Date 9-18-07 Time: 1415

Organism/Batch/Age: cd.bin 37-07 <24 hours Test Ended: Date 9-21-07 Time: 10:00

Chamber/Test Volume: 30 / 20 ml Diluent/ Batch: 20% DMW / 9-8-07

Food/Batch: YCT 7-26-07 P.sub 4-4-07 Artemia 0hr — 24hr — 48hr — 72hr — Artemia Lot# —

Feeding: Prior to Test (circled) 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				
	B	B	5	5				
	C	C	5	5				
	D	D	5	5				
100%	4	A	5	0 5D				
	B	B	5	0 5D				
	C	C	5	0 5D				
	D	D	5	0 5D				
Loaded/Verified by: DD / MF		Checked by:	MF	DD				

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

Comments: Reported as No Result due to pH falling below 6.0 SU MF 9-21-07

Test Results:

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

% mortality in 100% sample: 100% LC50: No Result

If Calculated: 95% CI________ Method________

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

PAGE V 2.1 11/01/2005

000022

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1045864 Test #: 2/2 SOP#:TA 07 02 Test Started: Date 9/18/07 Time: 1410

Organism/Batch/Age: Cileodsi Test Ended: Date 9/20/07 Time: 10:00

Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: Well / 9-18-07 (1963)

Food/Batch: YCT — P.sub — Artemia 0hr 1370 24hr — 48hr — 72hr — Artemia Lot# 651-536-90

Feeding: Prior to Test (circled) Prior to Renewal Daily

Concentration	Replicate	Chamber #	Test Hour: 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	A9	5	5				
	B	A10	5	5	5 0D			
	C	A11	5	5				
	D	A12	5	5				
100%	A	A13	5	0 5D				
	B	A14	5	0 5D				
	C	A15	5	0 5D				
	D	A16	5	0 5D				
Loaded/Verified by: JJ / MF		Checked by:	MF	JJ				

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

Test Results:

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

% mortality in 100% sample: 100% LC50: No Result

If Calculated: 95% CI _____ Method _____

Comments: Reported as No Result due to pH falling below 6.0 SU. MF 9-21-07

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

PAGE V 2.1 11/01/2005

000023

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample #: 1075864 Test #: 1 of 2

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

Concentration (Ctl)	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	M				
pH (S.U.)	8.1	8.3				
Temperature °C	24.3	24.0				
Dissolved Oxygen mg/L	7.9	7.9				
Conductivity µmhos mmhos	185	205				
(initials) Measured by:	ZD	ZD				
(initials) Recorded by:	ZD	ZD				

Comments: Tests Terminated at 24 hours MEG-20-07

Concentration (100%)	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	M				
pH (S.U.)	7.3	7.8				
Temperature °C	24.4	24.1				
Dissolved Oxygen mg/L	5.0	7.7				
Conductivity µmhos mmhos	2.31	2.52				
(initials) Measured by:	ZD	ZD				
(initials) Recorded by:	ZD	ZD				

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: 000024

Page

V 2.0 2/24/04

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1045864 **Test #:** 2 of 2

TEST SOP #: TA07_02_ **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	A	B				
pH (S.U.)	7.9	8.5				
Temperature °C	24.0	24.0				
Dissolved Oxygen mg/L	7.5	7.7				
Conductivity (µmhos) mmhos	273	286				
(initials) Measured by:	JD	JD				
(initials) Recorded by:	JD	JD				

Comments: Test terminated at 24hours. MCG-20-07

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B				
pH (S.U.)	7.3	4.3				
Temperature °C	24.2	24.0				
Dissolved Oxygen mg/L	5.3	7.8				
Conductivity (µmhos) mmhos JD	2.32	2.29				
(initials) Measured by:	JD	JD				
(initials) Recorded by:	JD	JD				

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:

000025

0 2/24/04

FDEP Biology Laboratory - Acute Screen Bioassay Bench Sheets

Facility: Cypress Landing (1 sample (CCC)) WWTF

Address : 116 Cypress Landing

City: Jacksonville **County:** Duval

Contact/District: Joseph Emery / Northeast

NPDES Permit #: FL 0043842

LIMS Job #: TL#- 20071012 97-01 **LIMS Sample #:** 10 52837 84 JD

Lims Data Entry: 10-12-07 ML Data Entry Verification: 10.12.07 JD

Sample Collection: Date: 10.9.07 Time: 9:40

Hold Time Start: Date: 10.9.07 Time: 9:40

Comments:
100% mortality in 100% sample within 3 hrs of loading. (Cyprinodon variegatus) MF 10-12-07
Sample collected at Chlorine Contact Chamber MF 10-12-07
Adequate sample dechlor indicated by the addition of Sodium Thiosulfate (0.025N) at the rate of 0.7mL per liter of sample. Dechlorinated controls prepared by adding 0.7mL per liter of media MF 10-12-07 (Sodium thiosulfate 0.025N)

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: ____mg/L Final DO: ____mg/L Duration: ____minutes Rate: ~____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 0.7 mL of 0.025N Sodium Thiosulfate per liter of sample. Final TRC: 0.08

Light Intensity : 50 - 100 ft. candles
Photoperiod : 16 light 8 dark
Temperature Range °C:
Incubator # 2 min 24.9 max 25.9 mean 25.5
Incubator # ____ min.____ max.____ mean____
Room B246 min 24.5 max 25.9 mean 25.2

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)

Investigators' Signatures
Jason Daniel
Brian Dalton
Marybell Faircloth

Loretta C. Wolfe
REVIEWER

Water Quality Parameters	20% DMW	Moderately Hard Water/ (Well Water)	Salt Water ASW NSW Test 1	Salt Water ASW NSW Test 2	Other: dechlor sample	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl_2 (mg/L):	N/A	N/A	N/A	N/A	—	0.34	Facility Q	Loretta	MF
Lab Total Residual Cl_2 (mg/L):	<0.03	<0.03			0.08	0.65	HACH	JD	BA
Alkalinity (mg/L as $CaCO_3$):	83	143			121	124	HACH	BA	JD
Hardness (mg/L as $CaCO_3$):	82	137			203	200	HACH	BA	JD
Total Ammonia (mg/L as N):	<0.017	<0.017			<0.017	<0.017	DENVER	ML	BA
Salinity (ppth):	<1	<1			<1	<1	YSI / Mettler	BA/JD	BA

V 1.4 9/12/05

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1052884 Test #: 1/2 SOP#:TA 07 01 Test Started: Date 10.10.07 Time: 12:40

Organism/Batch/Age: C.dubia / <24hrs Test Ended: Date 10.12.07 Time: 10:30

Chamber/Test Volume: 30 / 20 ml Diluent/ Batch: Dmw / 10.9.07

Food/Batch: YCT 2.26.07 P.sub 4-4-07 Artemia 0hr — 24hr — 48hr — 72hr — Artemia Lot# —

Feeding: Prior to Test (circled) Prior to Renewal Daily

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

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

Test Results:

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

% mortality in 100% sample: 100% LC50: <100%

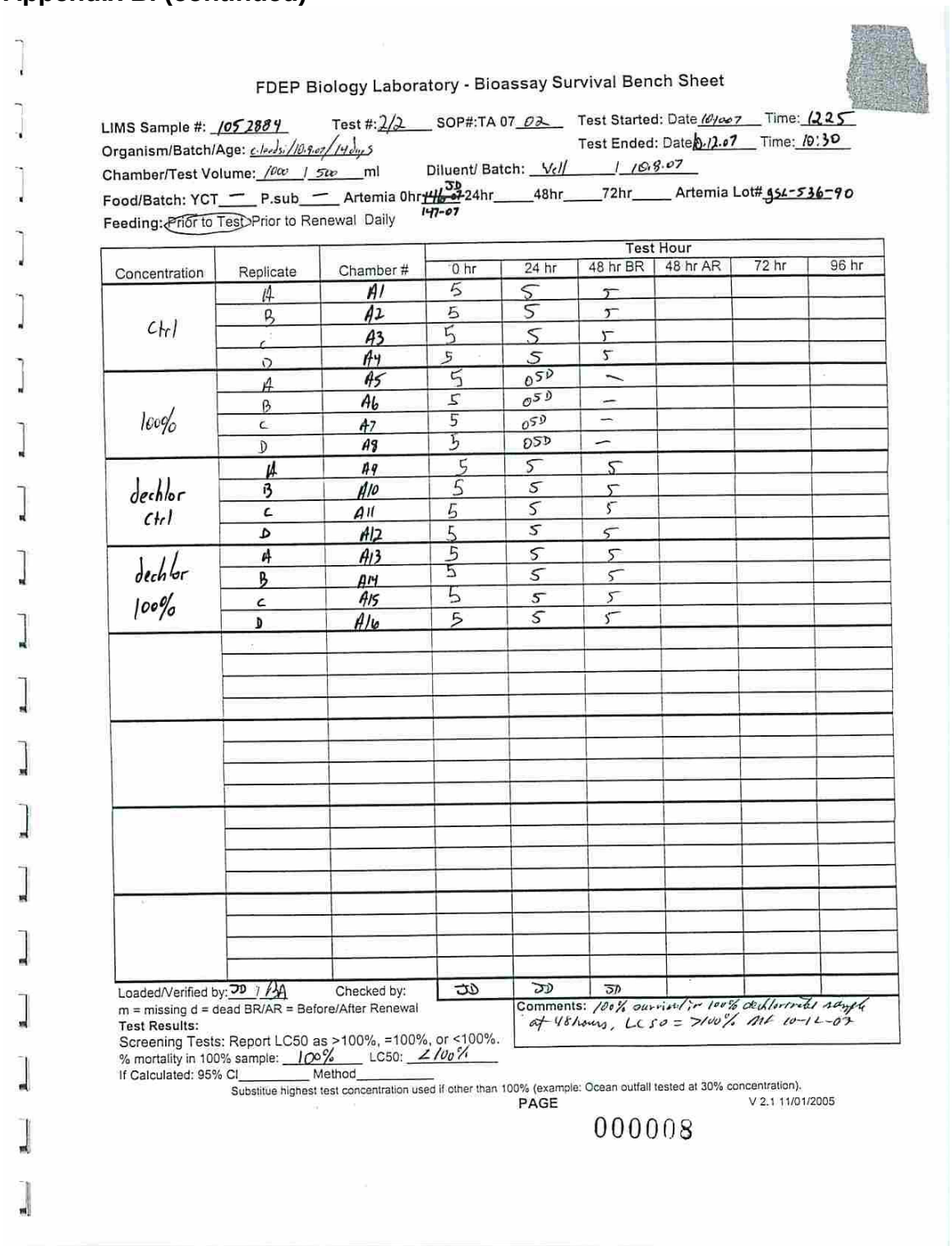
If Calculated: 95% CI ____ Method ____

Comments: LC50 for dechlorinated test = >100% w/ 0% mortality in 100% dechlorinated sample. 10-12-07

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

PAGE 000007 V 2.1 11/01/2005

Appendix B. (continued)



FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1052884 Test #: 2/2 SOP#:TA 07 02 Test Started: Date 10/1007 Time: 1225
Organism/Batch/Age: C.dubia/10.9.07/14days Test Ended: Date 10.12.07 Time: 10:30
Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: Well / 10.8.07
Food/Batch: YCT — P.sub — Artemia 0hr 146-07 (SD 147-07) 24hr 48hr 72hr Artemia Lot# 952-536-90
Feeding: (Prior to Test) Prior to Renewal Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	A1	5	5	5			
	B	A2	5	5	5			
	C	A3	5	5	5			
	D	A4	5	5	5			
100%	A	A5	5	0SD	—			
	B	A6	5	0SD	—			
	C	A7	5	0SD	—			
	D	A8	5	0SD	—			
dechlor Ctrl	A	A9	5	5	5			
	B	A10	5	5	5			
	C	A11	5	5	5			
	D	A12	5	5	5			
dechlor 100%	A	A13	5	5	5			
	B	A14	5	5	5			
	C	A15	5	5	5			
	D	A16	5	5	5			
Loaded/Verified by: JD / BA		Checked by:	JD	JD	JD			

m = missing d = dead BR/AR = Before/After Renewal
Test Results:
Screening Tests: Report LC50 as >100%, =100%, or <100%.
% mortality in 100% sample: 10% LC50: >100%
If Calculated: 95% CI_____ Method_____
Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

Comments: 100% survival in 100% dechlorinated sample at 48hours, LC50 = >100% AR 10-12-07

PAGE V 2.1 11/01/2005

000008

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1052884 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			
pH (S.U.)	8.0	|	8.1			
Temperature °C	24.0	|	24.4			
Dissolved Oxygen mg/L	7.4	|	7.4			
Conductivity (µmhos) mmhos	170.7	+9 BA	195			
(initials) Measured by:	BA		BA			
(initials) Recorded by:	BA		BA			

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	|	M			
pH (S.U.)	7.8	|	8.2			
Temperature °C	24.2	|	24.4			
Dissolved Oxygen mg/L	7.4	|	7.5			
Conductivity (µmhos) mmhos	675	|	731			
(initials) Measured by:	BA		BA			
(initials) Recorded by:	BA		BA			

Comments:

Concentration Dechlor Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	|	M			
pH (S.U.)	8.3	|	8.2			
Temperature °C	24.0	|	24.2			
Dissolved Oxygen mg/L	7.3	|	7.4			
Conductivity (µmhos) mmhos	186	|	194			
(initials) Measured by:	BA		BA			
(initials) Recorded by:	BA		BA			

Comments:

Concentration Dechlor 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	|	M			
pH (S.U.)	7.7	|	8.3			
Temperature °C	24.5	|	24.3			
Dissolved Oxygen mg/L	6.7	|	7.4			
Conductivity (µmhos) mmhos	685	|	709			
(initials) Measured by:	BA		BA			
(initials) Recorded by:	BA		BA			

Comments:

000009

V 2.0 2/24/04

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1052884 Test #: 2 of 2

TEST SOP #: TA07_02 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	A	B	C			
pH (S.U.)	7.7	8.2	8.3			
Temperature °C	24.8	24.0	24.2			
Dissolved Oxygen mg/L	7.6	7.2	7.6			
Conductivity (µmhos) mmhos	270	278	288			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A					
pH (S.U.)	7.6					
Temperature °C	25.3					
Dissolved Oxygen mg/L	7.1					
Conductivity (µmhos) mmhos	671					
(initials) Measured by:	JD					
(initials) Recorded by:	JD					

Comments: Test terminated at three (3) hours after initiation due to 100% mortality in the 100% sample concentration. MH 10-12-04

Concentration Declilor ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	7.8	8.2	8.4			
Temperature °C	25.2	24.0	24.1			
Dissolved Oxygen mg/L	7.3	7.1	7.0			
Conductivity (µmhos) mmhos	290	288	296			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments:

Concentration Declilor 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	7.6	8.0	8.2			
Temperature °C	25.5	24.1	24.0			
Dissolved Oxygen mg/L	7.0	6.7	7.0			
Conductivity (µmhos) mmhos	673	689	706			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments:

V 2.0 2/24/04

FDEP Biology Laboratory - Acute Screen Bioassay Bench Sheets

Facility: Cypress Landing (2 sample) WWTF

Address: 116 Cypress Landing

City: Jacksonville County: Duval

Contact/District: Joseph Emery / Northeast

NPDES Permit #: FL 0043842

LIMS Job #: TLH-2007-10-10-9702 LIMS Sample #: 1052885

Lims Data Entry: 10-12-07 MF Data Entry Verification: 10-12-07 JD

Sample Collection: Date: 10.9.07 Time: 10:00

Hold Time Start: Date: 10.9.07 Time: 10:00

Comments: Sample collected at Dechlorination Chamber MF 10-10-07

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: ____mg/L Final DO: ____mg/L Duration: ____minutes Rate: ~____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 24.9 max 25.9 mean 25.5

Incubator # ____ min ____ max ____ mean ____

Room B246 min 24.5 max 25.9 mean 25.2

Investigators' Signatures

James Tindel

Brent Healy

Marshall Faircloth

Loretta C. Wolfe
REVIEWER

Water Quality Parameters	20% DMW	Moderately Hard Water/ (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		1.67	—	Facility operator MF	
Lab Total Residual Cl_2 (mg/L):	<0.03	<0.03				0.04	HACH	JD	BA
Alkalinity (mg/L as $CaCO_3$):	83	143				119	HACH	BA	JD
Hardness (mg/L as $CaCO_3$):	82	137				201	HACH	BA	JD
Total Ammonia (mg/L as N):	<0.017	<0.017				0.186	DENVER	MF	BA
Salinity (ppth):	<1	<1				<1	YSI / Mettler	JD	BA

V 1.4 9/12/05

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1052885 Test #: 1/2 SOP#:TA 07 01 Test Started: Date 10.10.07 Time: 12:35
Organism/Batch/Age: C.dubia/41-07/<24hrs Test Ended: Date 10.12.07 Time: 10:35
Chamber/Test Volume: 30 / 20 ml Diluent/ Batch: DMW / 10.9.07
Food/Batch: YCT 7.26.07 P.sub 4-4-07 Artemia 0hr — 24hr — 48hr — 72hr — Artemia Lot# —
Feeding: ~~Prior to Test~~ Prior to Renewal Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctl	A	A	5	5	5			
	B	B	5	5	5			
	C	C	~~BA~~ 5	5	5			
	D	D	~~BA~~ 5	4 ID	4			
100%	A	A	5	5	5			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			
Loaded/Verified by: BA/JD		Checked by:	JD	BA				

m = missing d = dead BR/AR = Before/After Renewal
Test Results:
Screening Tests: Report LC50 as >100%, =100%, or <100%.
% mortality in 100% sample: 0% LC50: >100%
If Calculated: 95% CI _____ Method _____
Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

Comments:

PAGE 000012 V 2.1 11/01/2005

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1052885 Test #: 2/2 SOP#:TA 07 02 Test Started: Date 10/10/07 Time: 1250

Organism/Batch/Age: C.dubia/100907/1 days Test Ended: Date 10.12.07 Time: 1040

Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: Well 10.8.07 JD

Food/Batch: YCT — P.sub — Artemia 0hr 147-07 24hr — 48hr — 72hr — Artemia Lot# GSI-536-90

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	C9	5	5	5			
	B	C10	5	5	5			
	C	C11	5	5	5			
	D	C12	5	5	5			
100%	A	C13	5	5	5			
	B	C14	5	5	5			
	C	C15	5	5	5			
	D	C16	5	5	5			
Loaded/Verified by: JD / BA		Checked by:	JD	JD	JD			

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).

PAGE 000013 V 2.1 11/01/2005

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

IMS Sample # : 1052885 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			
pH (S.U.)	8.0		8.0			
Temperature °C	24.4		24.2			
Dissolved Oxygen mg/L	7.5		7.4			
Conductivity (µmhos) mmhos	170		181			
(initials) Measured by:	BA		BA			
(initials) Recorded by:	BA		BA			

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M		M			
pH (S.U.)	7.4		8.3			
Temperature °C	24.5		24.1			
Dissolved Oxygen mg/L	6.4		7.4			
Conductivity (µmhos) mmhos	671		685			
(initials) Measured by:	BA		BA			
(initials) Recorded by:	BA		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:

000014

V 2.0 2/24/04

Page

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1052885 **Test #:** 2 of 2

TEST SOP #: TA07_ 02 **Test Species:** *Ceriodaphnia dubia* (*Cyprinella leedsi*) *Pimephales promelas* *Americamysis bahia* *Menidia beryllina* Other:_____

Concentration C+1	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	8.0	8.2	8.3			
Temperature °C	24.2	24.0	24.1			
Dissolved Oxygen mg/L	7.5	7.0	7.3			
Conductivity (µmhos) mmhos	284	277	282			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	7.4	7.7	8.1			
Temperature °C	24.4	24.1	24.5			
Dissolved Oxygen mg/L	6.5	6.6	6.4			
Conductivity µmhos mmhos	703	685	693			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

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:

V 2.0 2/24/04

Appendix C. SRT Bench Sheets and Statistical Analysis

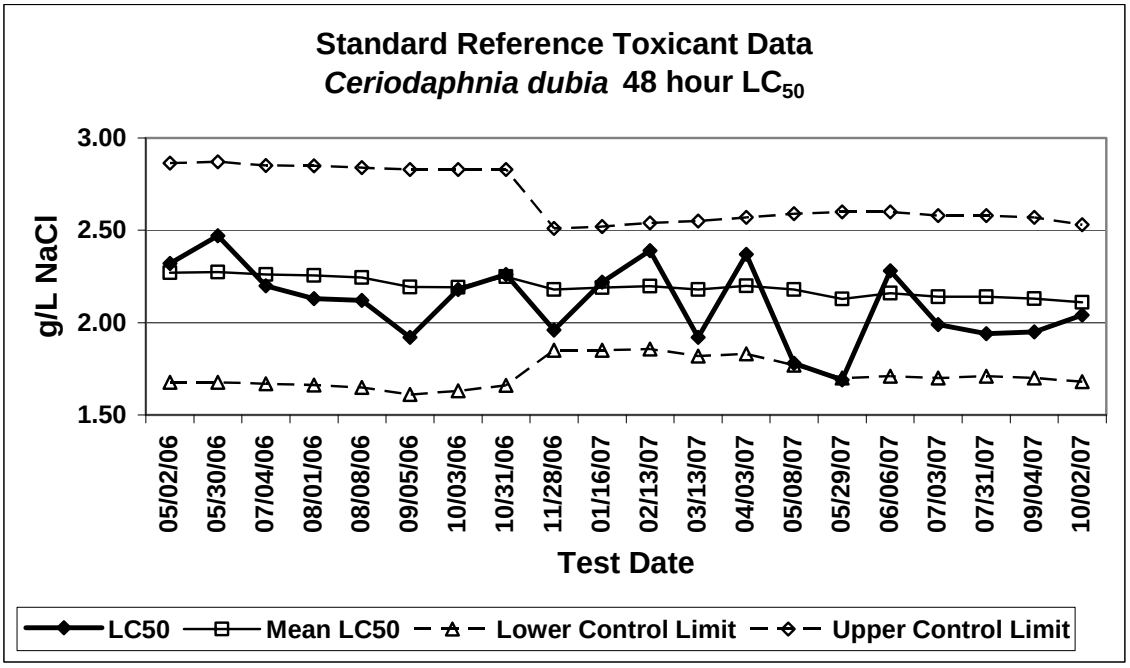
Florida Department of Environmental Protection
Bureau of Laboratories

Standard Reference Toxicant (SRT) Test Data - 48-hour Acute Toxicity
Ceriodaphnia dubia (water flea) - Sodium Chloride (NaCl)

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
05/02/06	2.32	2.27	0.30	1.68	2.87
05/30/06	2.47	2.27	0.30	1.68	2.87
07/04/06	2.20	2.26	0.30	1.67	2.85
08/01/06	2.13	2.26	0.30	1.66	2.85
08/08/06	2.12	2.24	0.30	1.65	2.84
09/05/06	1.92	2.19	0.30	1.61	2.83
10/03/06	2.18	2.19	0.30	1.63	2.83
10/31/06	2.26	2.25	0.29	1.66	2.83
11/28/06	1.96	2.18	0.17	1.85	2.51
01/16/07	2.22	2.19	0.17	1.85	2.52
02/13/07	2.39	2.20	0.17	1.86	2.54
03/13/07	1.92	2.18	0.18	1.82	2.55
04/03/07	2.37	2.20	0.18	1.83	2.57
05/08/07	1.78	2.18	0.21	1.77	2.59
05/29/07	1.69	2.13	0.23	1.70	2.60
06/06/07	2.28	2.16	0.22	1.71	2.60
07/03/07	1.99	2.14	0.22	1.70	2.58
07/31/07	1.94	2.14	0.22	1.71	2.58
09/04/07	1.95	2.13	0.22	1.70	2.57
10/02/07	2.04	2.11	0.21	1.68	2.53

Means are of the last 20 SRT tests.
Lower Control Limit = mean - 2 * Std Dev
Upper Control Limit = mean + 2 * Std Dev

CV = 10.15
EPA reference 75th quartile CV = 29%



Appendix C. (continued)

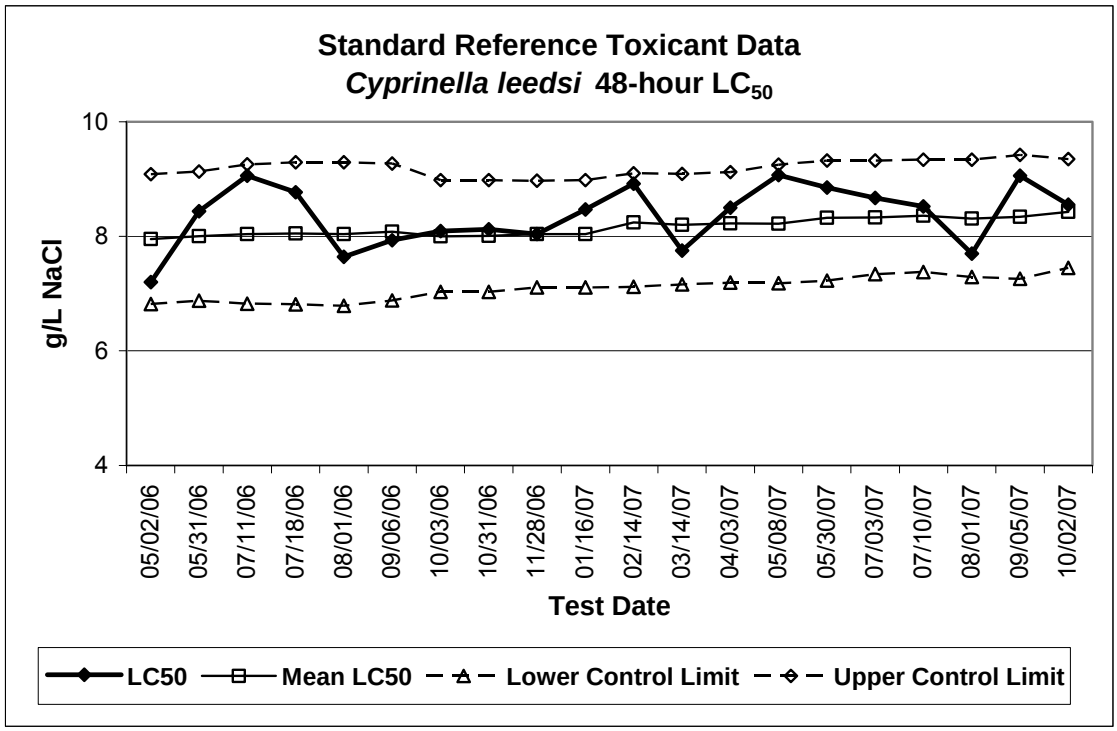
Florida Department of Environmental Protection
Bureau of Laboratories

Standard Reference Toxicant (SRT) Test Data - 48-hour Acute Toxicity
Cyprinella leedsi (bannerfin shiner) - Sodium Chloride (NaCl)

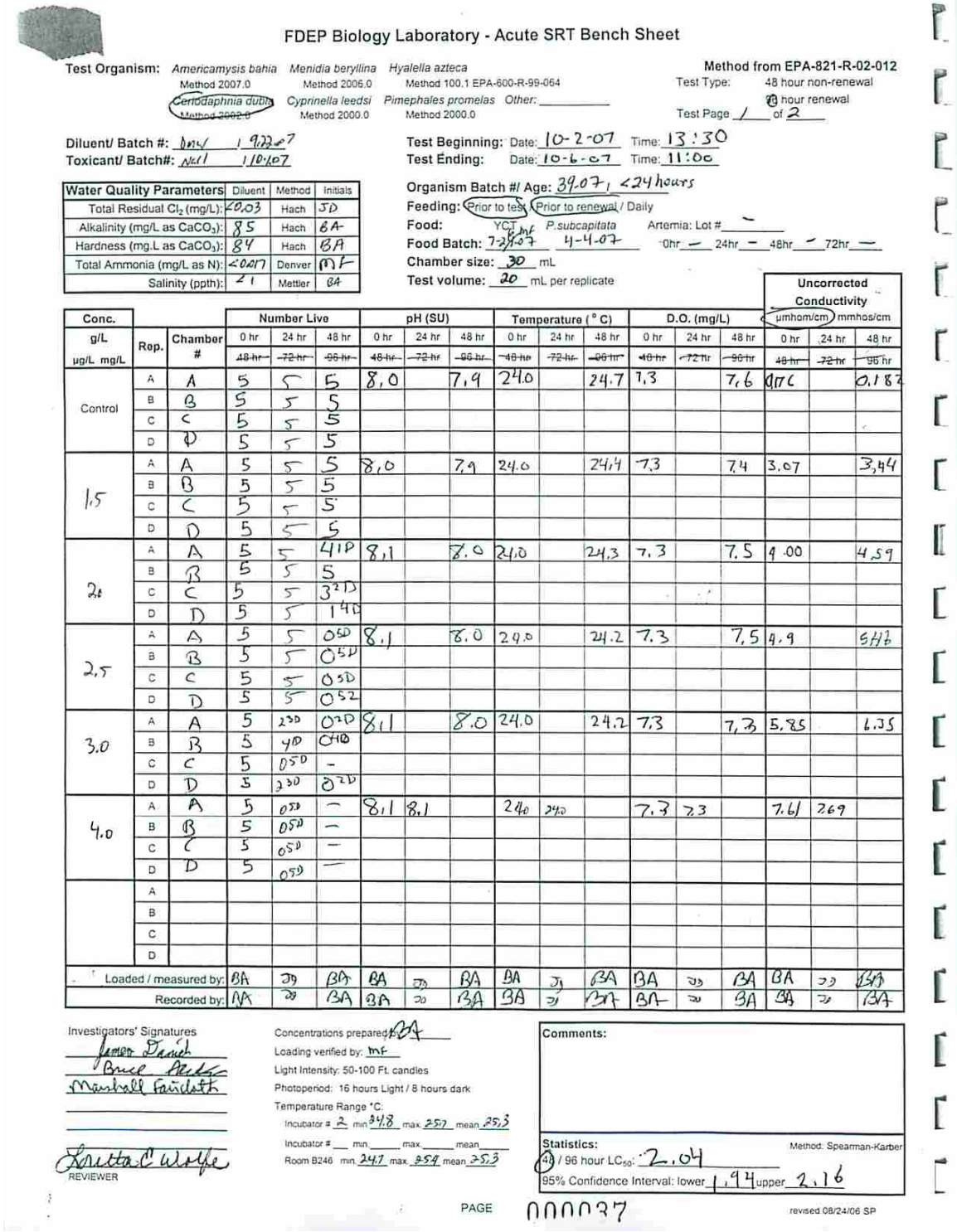
Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
05/02/06	7.2	7.95	0.57	6.82	9.09
05/31/06	8.44	8.00	0.56	6.88	9.13
07/11/06	9.06	8.04	0.61	6.82	9.26
07/18/06	8.77	8.05	0.62	6.81	9.29
08/01/06	7.64	8.04	0.63	6.79	9.29
09/06/06	7.93	8.08	0.60	6.88	9.27
10/03/06	8.09	8.00	0.49	7.03	8.98
10/31/06	8.12	8.01	0.49	7.03	8.98
11/28/06	8.04	8.04	0.46	7.11	8.97
01/16/07	8.47	8.04	0.54	7.11	8.98
02/14/07	8.92	8.24	0.56	7.12	9.10
03/14/07	7.75	8.20	0.55	7.16	9.09
04/03/07	8.50	8.23	0.53	7.19	9.12
05/08/07	9.07	8.22	0.52	7.18	9.25
05/30/07	8.85	8.32	0.56	7.23	9.32
07/03/07	8.67	8.33	0.50	7.34	9.32
07/10/07	8.52	8.36	0.49	7.38	9.34
08/01/07	7.7	8.31	0.51	7.29	9.34
09/05/07	9.06	8.34	0.54	7.26	9.42
10/02/07	8.55	8.43	0.47	7.45	9.35

Means are of the last 20 SRT tests.
Lower Confidence Limit = mean - 2 * Std Dev
Upper Confidence Limit = mean + 2 * Std Dev

CV = 5.58
EPA reference 75th quartile CV = 19%



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 #: DMW 1.9.22.07
Toxicant/ Batch#: NaCl 1.10.07

Test Beginning: Date: 10-2-07 Time: 13:30
Test Ending: Date: 10-6-07 Time: 11:00

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	JD
Alkalinity (mg/L as $CaCO_3$):	85	Hach	BA
Hardness (mg.L as $CaCO_3$):	84	Hach	BA
Total Ammonia (mg/L as N):	<0.07	Denver	MF
Salinity (ppth):	21	Mettler	BA

Organism Batch #/ Age: 39.07, <24 hours
Feeding: Prior to test / Prior to renewal / Daily
Food: YCT MF P.subcapitata Artemia: Lot #_____
Food Batch: 7-2-07 4-4-07 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 µmhom/cm mmhos/cm 0 hr (48 hr)	24 hr (72 hr)	48 hr (96 hr)
Control	A	A	5	5	5	8.0		7.9	24.0		24.7	7.3		7.6	0.176		0.182
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
1.5	A	A	5	5	5	8.0		7.9	24.0		24.4	7.3		7.4	3.07		3.44
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	4 1D												
2.0	A	A	5	5	4 1D	8.1		8.0	24.0		24.3	7.3		7.5	4.00		4.59
	B	B	5	5	5												
	C	C	5	5	3 2D												
	D	D	5	5	1 4D												
2.5	A	A	5	5	0 5D	8.1		8.0	24.0		24.2	7.3		7.5	4.9		5.16
	B	B	5	5	0 5D												
	C	C	5	5	0 5D												
	D	D	5	5	0 5D												
3.0	A	A	5	2 3D	0 2D	8.1		8.0	24.0		24.2	7.3		7.3	5.85		6.35
	B	B	5	4 D	C 4D												
	C	C	5	0 5D	-												
	D	D	5	2 3D	0 2D												
4.0	A	A	5	0 5D	—	8.1	8.1		24.0	24.0		7.3	7.3		7.61	7.69	
	B	B	5	0 5D	—												
	C	C	5	0 5D	—												
	D	D	5	0 5D	—												
	A																
	B																
	C																
	D																
Loaded / measured by:			BA	JD	BA	BA	JD	BA	BA	JD	BA	BA	JD	BA	BA	JD	BA
Recorded by:			NA	JD	BA	BA	JD	BA	BA	JD	BA	BA	JD	BA	BA	JD	BA

Investigators' Signatures
James Beach
Bruce Neidig
Marshall Faircloth
Loretta C Wolfe
REVIEWER

Concentrations prepared: BA
Loading verified by: MF
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min 24.8 max 25.7 mean 25.3
Incubator # ___ min _____ max _____ mean _____
Room B246 min 24.7 max 25.4 mean 25.3

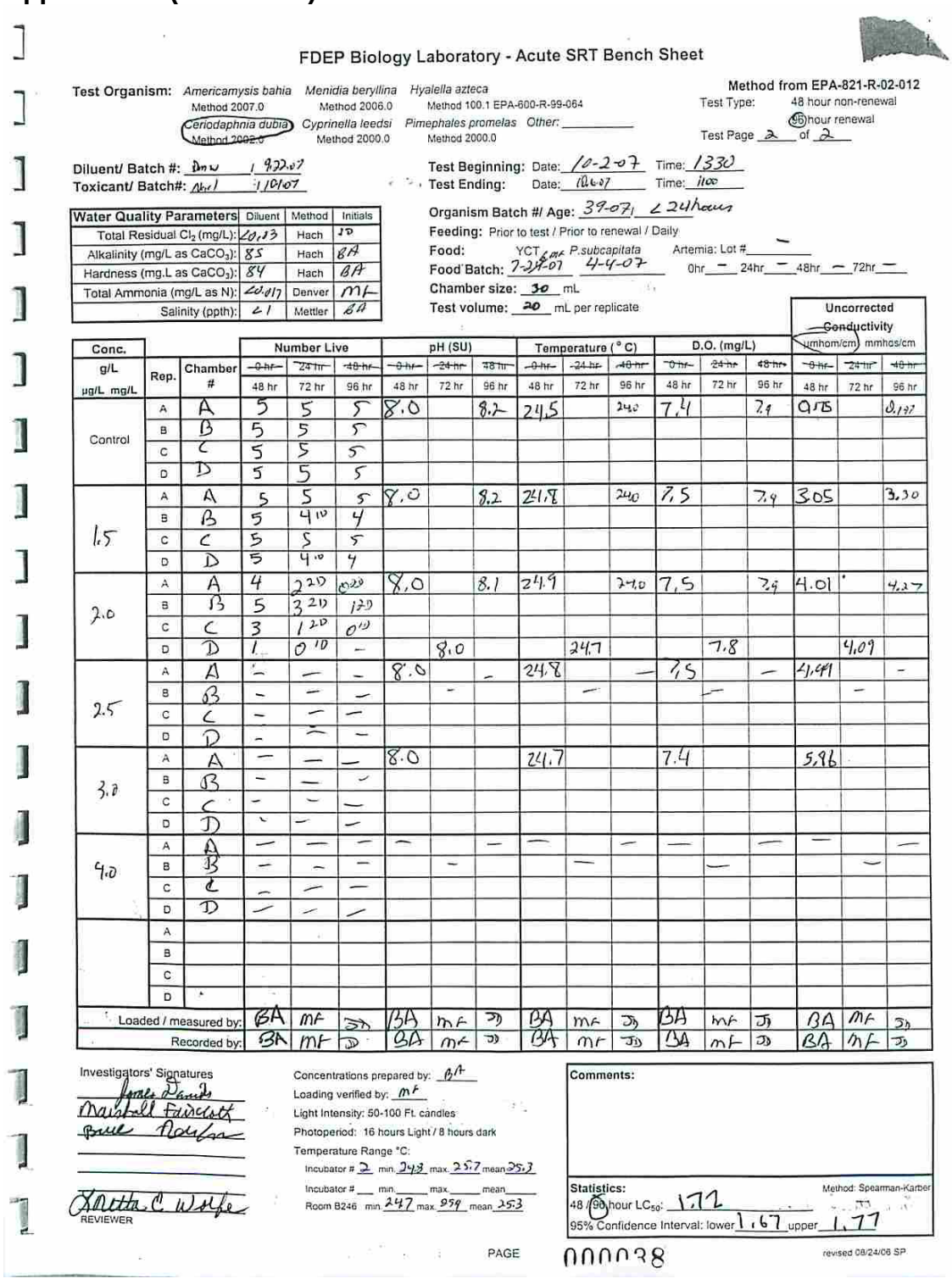
Comments:

Statistics: Method: Spearman-Karber
48 / 96 hour LC_{50}: 2.04
95% Confidence Interval: lower 1.94 upper 2.16

PAGE 000037

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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 / 922.07
Toxicant/ Batch#: Nacl / 110107

Test Beginning: Date: 10-2-07 Time: 1330
Test Ending: Date: 10-6-07 Time: 1100

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	20.03	Hach	JD
Alkalinity (mg/L as $CaCO_3$):	85	Hach	BA
Hardness (mg.L as $CaCO_3$):	84	Hach	BA
Total Ammonia (mg/L as N):	20.017	Denver	MF
Salinity (ppth):	21	Mettler	BA

Organism Batch #/ Age: 39-07 / 24hours
Feeding: Prior to test / Prior to renewal / Daily
Food: YCT, Sel. P.subcapitata Artemia: Lot #_____
Food Batch: 7-24-07 4-4-07 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 / 24 hr / 48 hr (48 hr / 72 hr / 96 hr)	pH (SU) 0 hr / 24 hr / 48 hr (48 hr / 72 hr / 96 hr)	Temperature (°C) 0 hr / 24 hr / 48 hr (48 hr / 72 hr / 96 hr)	D.O. (mg/L) 0 hr / 24 hr / 48 hr (48 hr / 72 hr / 96 hr)	Uncorrected Conductivity (µmhom/cm) mmhos/cm 0 hr / 24 hr / 48 hr (48 hr / 72 hr / 96 hr)
Control	A	A	5 5 5	8.0 — 8.2	24.5 — 24.0	7.4 — 7.9	915 — 0.197
	B	B	5 5 5				
	C	C	5 5 5				
	D	D	5 5 5				
1.5	A	A	5 5 5	8.0 — 8.2	24.8 — 24.0	7.5 — 7.9	305 — 3.30
	B	B	5 4 10 4				
	C	C	5 5 5				
	D	D	5 4 10 4				
2.0	A	A	4 2 20 0 22	8.0 — 8.1	24.9 — 24.0	7.5 — 7.9	4.01 — 4.27
	B	B	5 3 20 1 20				
	C	C	3 1 20 0 10				
	D	D	1 0 10 —	— 8.0 —	— 24.7 —	— 7.8 —	— 4.09 —
2.5	A	A	— — —	8.0 — —	24.8 — —	7.5 — —	4.49 — —
	B	B	— — —	— — —	— — —	— — —	— — —
	C	C	— — —				
	D	D	— — —				
3.0	A	A	— — —	8.0 — —	24.7 — —	7.4 — —	5.96 — —
	B	B	— — —				
	C	C	— — —				
	D	D	— — —				
4.0	A	A	— — —	— — —	— — —	— — —	— — —
	B	B	— — —	— — —	— — —	— — —	— — —
	C	C	— — —				
	D	D	— — —				
	A						
	B						
	C						
	D						
Loaded / measured by:			BA MF JD	BA MF JD	BA MF JD	BA MF JD	BA MF JD
Recorded by:			BA MF JD	BA MF JD	BA MF JD	BA MF JD	BA MF JD

Investigators' Signatures
James Davis
Marshall Faircloth
Bruce Nordan
Martha C. Wolfe
REVIEWER

Concentrations prepared by: BA
Loading verified by: MF
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 24.3 max. 25.7 mean 25.3
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 24.7 max. 25.9 mean 25.3

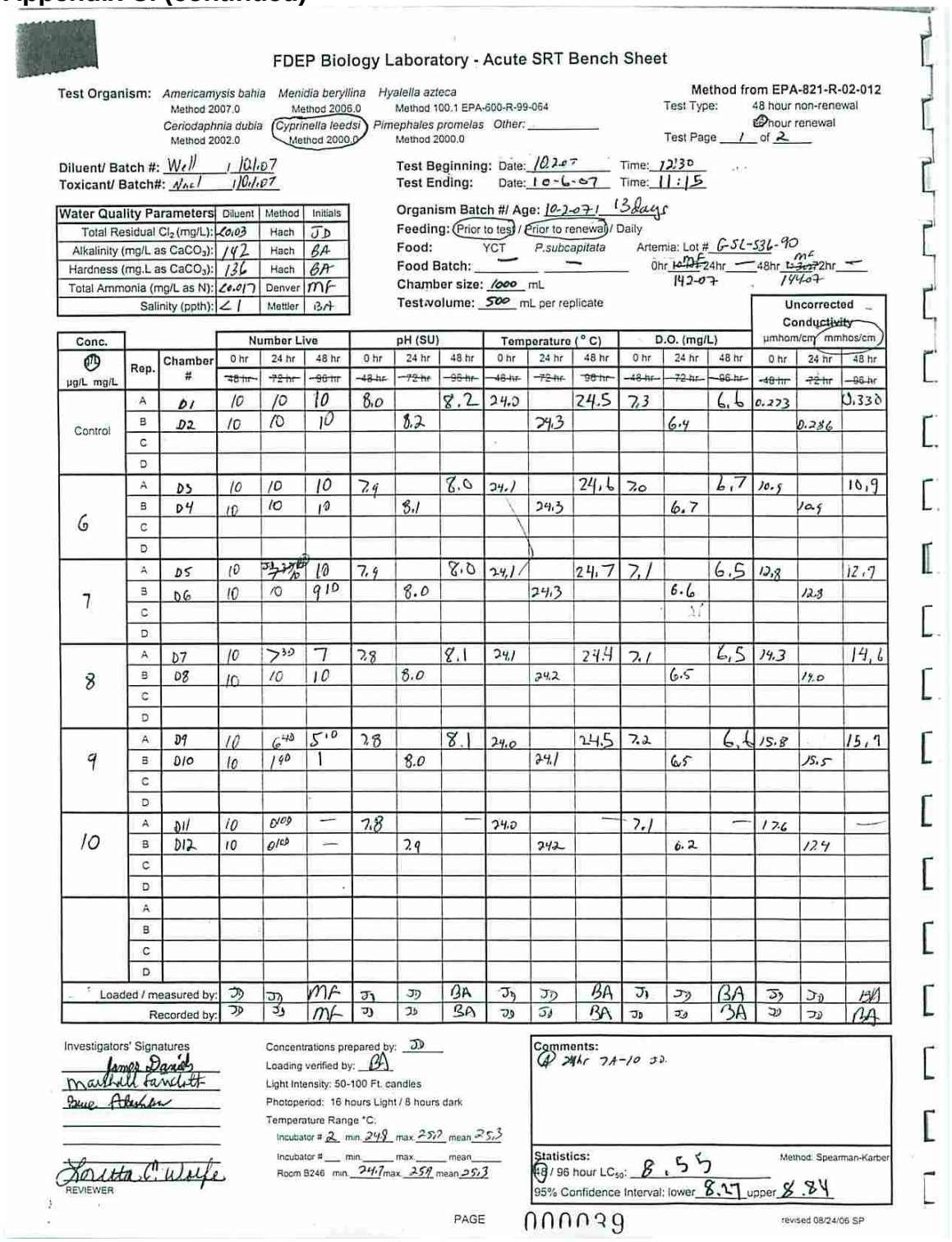
Comments:

Statistics: Method: Spearman-Karber
48 / (96) hour LC_{50}: 1.72
95% Confidence Interval: lower 1.67 upper 1.77

PAGE 000038

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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 / 10.1.07
Toxicant/ Batch#: NaCl / 10.1.07

Test Beginning: Date: 10.2.07 Time: 12:30
Test Ending: Date: 10-6-07 Time: 11:15

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	JD
Alkalinity (mg/L as $CaCO_3$):	142	Hach	BA
Hardness (mg.L as $CaCO_3$):	136	Hach	BA
Total Ammonia (mg/L as N):	<0.017	Denver	MF
Salinity (ppth):	<1	Mettler	BA

Organism Batch #/ Age: 10-2-07 / 13days
Feeding: (Prior to test) / (Prior to renewal) / Daily
Food: YCT — *P.subcapitata* — Artemia: Lot # GSL-536-90
Food Batch: _____ _____ 0hr ~~MF~~ mc 24hr — 48hr ~~MF~~ mc 2hr —
142-07 14407
Chamber size: 1000 mL
Test volume: 500 mL per replicate

Conc. µg/L mg/L	Rep.	Chamber #	Number Live 0 hr	24 hr	48 hr	pH (SU) 0 hr	24 hr	48 hr	Temperature (°C) 0 hr	24 hr	48 hr	D.O. (mg/L) 0 hr	24 hr	48 hr	Uncorrected Conductivity µmhom/cm (mmhos/cm) 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	D1	10	10	10	8.0		8.2	24.0		24.5	7.3		6.6	0.273		0.330
	B	D2	10	10	10		8.2			24.3			6.4			0.286	
	C																
	D																
6	A	D3	10	10	10	7.9		8.0	24.1		24.6	7.0		6.7	10.5		10.9
	B	D4	10	10	10		8.1			24.3			6.7			10.9	
	C																
	D																
7	A	D5	10	~~7~~ 10	10	7.9		8.0	24.1		24.7	7.1		6.5	12.8		12.7
	B	D6	10	10	9 10		8.0			24.3			6.6			12.8	
	C																
	D																
8	A	D7	10	>30	7	7.8		8.1	24.1		24.4	7.1		6.5	14.3		14.6
	B	D8	10	10	10		8.0			24.2			6.5			14.0	
	C																
	D																
9	A	D9	10	6 40	5 10	7.8		8.1	24.0		24.5	7.2		6.6	15.8		15.9
	B	D10	10	1 90	1		8.0			24.1			6.5			15.5	
	C																
	D																
10	A	D11	10	0 100	—	7.8		—	24.0		—	7.1		—	12.6		—
	B	D12	10	0 100	—		7.9			24.2			6.2			12.4	
	C																
	D																
	A																
	B																
	C																
	D																
Loaded / measured by:			JD	JD	MF	JD	JD	BA	JD	JD	BA	JD	JD	BA	JD	JD	MF
Recorded by:			JD	JD	MF	JD	JD	BA	JD	JD	BA	JD	JD	BA	JD	JD	BA

Investigators' Signatures
James Davis
Marshall Faircloth
Dave Abraham
Loretta C. Wolfe
REVIEWER

Concentrations prepared by: JD
Loading verified by: BA
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 24.9 max. 25.7 mean 25.3
Incubator # ___ min. _____ max. _____ mean _____
Room B246 min. 24.7 max. 25.9 mean 25.3

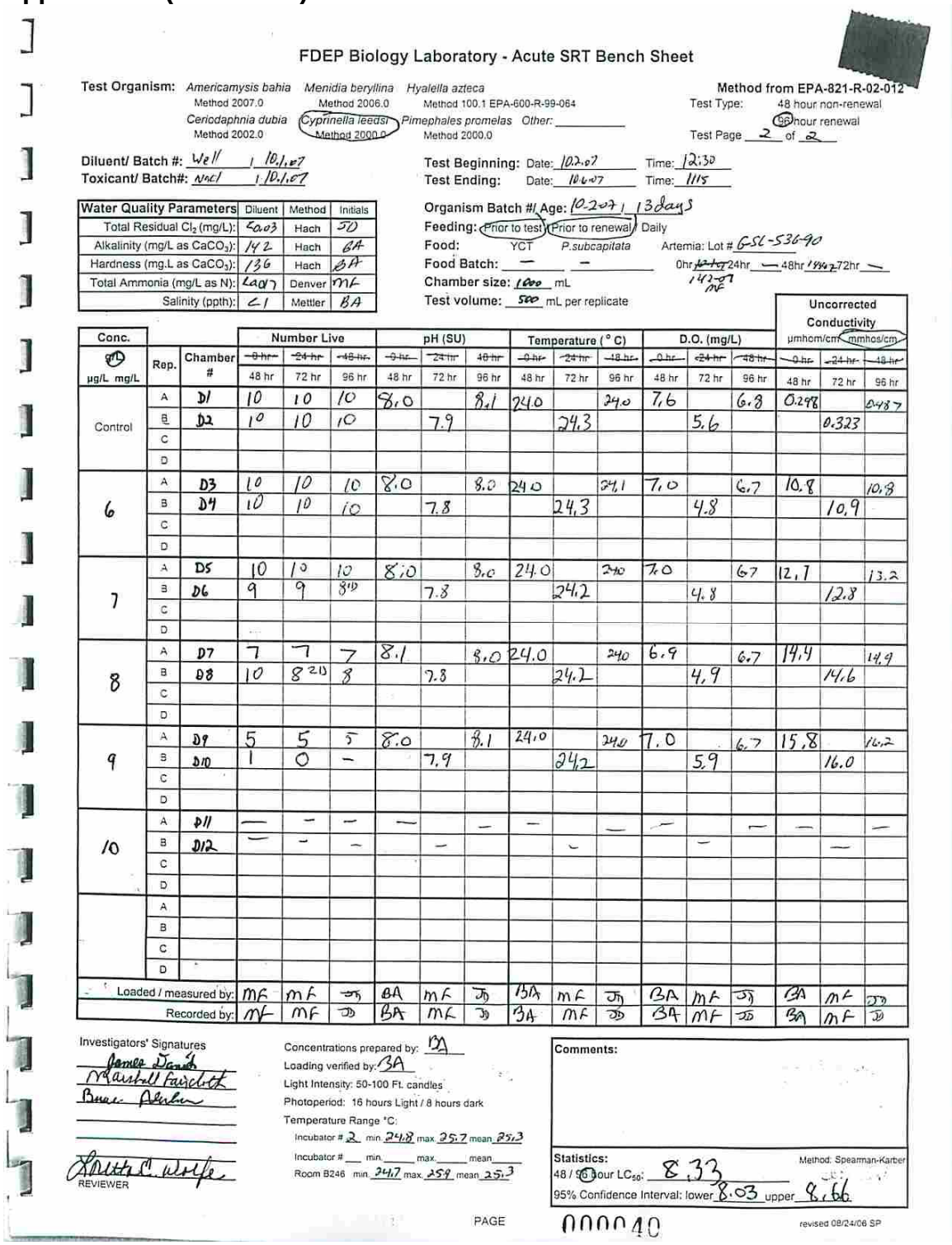
Comments:
@ 24hr 7A-10 JD.

Statistics: Method: Spearman-Karber
48 / 96 hour LC_{50}: 8.55
95% Confidence Interval: lower 8.27 upper 8.84

PAGE 000039

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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 #: Well / 10.1.07
Toxicant/ Batch#: NaCl / 10.1.07

Test Beginning: Date: 10.2.07 Time: 12:30
Test Ending: Date: 10.6.07 Time: 1115

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	SD
Alkalinity (mg/L as $CaCO_3$):	142	Hach	BA
Hardness (mg.L as $CaCO_3$):	136	Hach	BA
Total Ammonia (mg/L as N):	<0.07	Denver	MF
Salinity (ppth):	21	Mettler	BA

Organism Batch #/ Age: 10.2.07 / 13days
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

Conc. µg/L mg/L	Rep.	Chamber #	Number Live 0 hr / 24 hr / 48 hr	pH (SU) 0 hr / 24 hr / 48 hr	Temperature (°C) 0 hr / 24 hr / 48 hr	D.O. (mg/L) 0 hr / 24 hr / 48 hr	Uncorrected Conductivity µmhom/cm (mmhos/cm) 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	D1	10 / 10 / 10	8.0 / / 8.1	24.0 / / 24.0	7.6 / / 6.8	0.298 / / 0.487
	B	D2	10 / 10 / 10	/ 7.9 /	/ 24.3 /	/ 5.6 /	/ 0.323 /
	C						
	D						
6	A	D3	10 / 10 / 10	8.0 / / 8.0	24.0 / / 24.1	7.0 / / 6.7	10.8 / / 10.8
	B	D4	10 / 10 / 10	/ 7.8 /	/ 24.3 /	/ 4.8 /	/ 10.9 /
	C						
	D						
7	A	D5	10 / 10 / 10	8.0 / / 8.0	24.0 / / 24.0	7.0 / / 6.7	12.1 / / 13.2
	B	D6	9 / 9 / 8D	/ 7.8 /	/ 24.2 /	/ 4.8 /	/ 12.8 /
	C						
	D						
8	A	D7	7 / 7 / 7	8.1 / / 8.0	24.0 / / 24.0	6.9 / / 6.7	14.4 / / 14.9
	B	D8	10 / 8 2D / 8	/ 7.8 /	/ 24.2 /	/ 4.9 /	/ 14.6 /
	C						
	D						
9	A	D9	5 / 5 / 5	8.0 / / 8.1	24.0 / / 24.0	7.0 / / 6.7	15.8 / / 16.2
	B	D10	1 / 0 / —	/ 7.9 /	/ 24.2 /	/ 5.9 /	/ 16.0 /
	C						
	D						
10	A	D11	— / — / —	— / / —	— / / —	— / / —	— / / —
	B	D12	— / — / —	/ — /	/ — /	/ — /	/ — /
	C						
	D						
	A						
	B						
	C						
	D						
Loaded / measured by:			MF / MF / SD	BA / MF / SD	BA / MF / SD	BA / MF / SD	BA / MF / SD
Recorded by:			MF / MF / SD	BA / MF / SD	BA / MF / SD	BA / MF / SD	BA / MF / SD

Investigators' Signatures
James Davis
Marshall Faircloth
Bruce Alcalen
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 24.8 max 25.7 mean 25.3
Incubator # ___ min ___ max ___ mean ___
Room B246 min 24.7 max 25.9 mean 25.3

Comments:

Statistics: Method: Spearman-Karber
48 / (96) hour LC_{50}: 8.33
95% Confidence Interval: lower 8.03 upper 8.66

PAGE 000040

revised 08/24/06 SP

Appendix C. (continued)

DATE: 10/02/07 TEST NUMBER: 1 DURATION: 48 h
TOXICANT : NaCl
SPECIES: *Ceriodaphnia dubia*

RAW DATA: Concentration (g/L)	Number Exposed	Mortalities
.00	20	0
1.50	20	0
2.00	20	7
2.50	20	20
3.00	20	20
4.00	20	20

SPEARMAN-KARBER TRIM: .00%

SPEARMAN-KARBER ESTIMATES: LC50: 2.04
95% LOWER CONFIDENCE: 1.94
95% UPPER CONFIDENCE: 2.16

DATE: 10/02/07 TEST NUMBER: 1 DURATION: 48 h
TOXICANT : NaCl
SPECIES: *Cyprinella leedsi*

RAW DATA: Concentration (g/L)	Number Exposed	Mortalities
.00	20	0
6.00	20	0
7.00	20	1
8.00	20	3
9.00	20	14
10.00	20	20

SPEARMAN-KARBER TRIM: .00%

SPEARMAN-KARBER ESTIMATES: LC50: 8.55
95% LOWER CONFIDENCE: 8.27
95% UPPER CONFIDENCE: 8.84

Appendix D. Test Organism Receipts

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: 7/23/07

Shipped to: FL DEP

P.O. No: N/A

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia					
Menidia beryllina					
Cyprinella leedsi	150	10 DAYS	CL070713	25°C	
Pimephales promelas					

Packed by:

Shipped Via: Fed Ex

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: 9/17/07

Shipped to: FDEP

P.O. No: N/A

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia					
Menidia beryllina					
Cyprinella leedsi	150	9 DAYS	CL070908	25°C	
Pimephales promelas					

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: 10/1/07

Shipped to: FDEP

P.O. No: N/A

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia	150	4 DAYS	MS070927	25°C	20
Menidia beryllina	150	12 DAYS	SS070919	25°C	20
Cyprinella leedsi	150	12 DAYS	CL070919	25°C	
Pimephales promelas	150	7 DAYS	FM070924	25°C	

Packed by: JL

Shipped Via: Fed Ex

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: 10/8/07

Shipped to: FDEP

P.O. No: N/A

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia					
Menidia beryllina					
Cyprinella leedsi	150	12 DAY	CL070926	25°C	
Pimephales promelas					

Packed by:

Shipped Via: FedEx.

Notes:

Thank you for your order.

Appendix E. Chemical Analyses performed on the effluent from the Cypress Landing Wastewater Treatment Facility Outfall D-001, sampled on July 23, September 17, and October 9, 2007.

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
7/23/2007 10:18	Effluent	AGP/LN	Algal Growth Potential	526		mg DryWt/L	0.1	0.3
7/23/2007 10:18	Effluent	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.29	I	ug/L	0.24	0.71
7/23/2007 10:18	Effluent	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	11		mg/L	0.2	2
7/23/2007 10:18	Effluent	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	0.55	U	ug/L	0.55	1.7
7/23/2007 10:18	Effluent	Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	No Result		LC50		
7/23/2007 10:18	Effluent	Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	No Result		LC50		
7/23/2007 10:18	Effluent	Metals	Silver	0.025	U	ug/L	0.025	0.1
7/23/2007 10:18	Effluent	Metals	Chromium	1	U	ug/L	1	4
7/23/2007 10:18	Effluent	Metals	Copper	6.05	A	ug/L	0.25	1
7/23/2007 10:18	Effluent	Metals	Iron	190	A	ug/L	5	20
7/23/2007 10:18	Effluent	Metals	Cadmium	0.032	I	ug/L	0.02	0.08
7/23/2007 10:18	Effluent	Metals	Calcium	33.3	A	mg/L	0.02	0.08
7/23/2007 10:18	Effluent	Metals	Aluminum	88	A	ug/L	5	20
7/23/2007 10:18	Effluent	Metals	Arsenic	0.52	I	ug/L	0.5	2
7/23/2007 10:18	Effluent	Metals	Nickel	1.54	A	ug/L	0.25	1
7/23/2007 10:18	Effluent	Metals	Zinc	38	A	ug/L	5	20
7/23/2007 10:18	Effluent	Metals	Lead	0.38	I	ug/L	0.2	0.8
7/23/2007 10:18	Effluent	Metals	Magnesium	16.6	A	mg/L	0.005	0.02
7/23/2007 10:18	Effluent	Metals	Selenium	0.5	U	ug/L	0.5	2
7/23/2007 10:18	Effluent	Nutrients	TSS	8	I	mg/L	4	16
7/23/2007 10:18	Effluent	Nutrients	NO2NO3-N	9.7		mg N/L	0.08	0.2
7/23/2007 10:18	Effluent	Nutrients	Ammonia-N	0.061		mg N/L	0.01	0.02
7/23/2007 10:18	Effluent	Nutrients	Kjeldahl Nitrogen	1.5		mg N/L	0.08	0.2
7/23/2007 10:18	Effluent	Nutrients	Total-P	2.3		mg P/L	0.1	0.3
7/23/2007 10:18	Effluent	Nutrients	O-Phosphate-P	2		mg P/L	0.04	0.1
7/23/2007 10:18	Effluent	Pesticides	Hexazinone	0.1	U	ug/L	0.1	0.4
7/23/2007 10:18	Effluent	Pesticides	Bromacil	0.2	U	ug/L	0.2	0.8
7/23/2007 10:18	Effluent	Pesticides	Simazine	0.05	U	ug/L	0.05	0.2
7/23/2007 10:18	Effluent	Pesticides	Malathion	0.15	U	ug/L	0.15	0.6
7/23/2007 10:18	Effluent	Pesticides	Fenamiphos	0.2	U	ug/L	0.2	0.8
7/23/2007 10:18	Effluent	Pesticides	Ethoprop	0.1	U	ug/L	0.1	0.4
7/23/2007 10:18	Effluent	Pesticides	Norflurazon	0.15	U	ug/L	0.15	0.6
7/23/2007 10:18	Effluent	Pesticides	Fonofos	0.1	U	ug/L	0.1	0.4

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
7/23/2007 10:18	Effluent	Pesticides	Ametryn	0.05	U	ug/L	0.05	0.2
7/23/2007 10:18	Effluent	Pesticides	Phorate	0.05	U	ug/L	0.05	0.2
7/23/2007 10:18	Effluent	Pesticides	Metolachlor	0.5	U	ug/L	0.5	2
7/23/2007 10:18	Effluent	Pesticides	Diazinon	0.05	U	ug/L	0.05	0.2
7/23/2007 10:18	Effluent	Pesticides	Chlorpyrifos Methyl	0.1	U	ug/L	0.1	0.4
7/23/2007 10:18	Effluent	Pesticides	Metribuzin	0.1	U	ug/L	0.1	0.4
7/23/2007 10:18	Effluent	Pesticides	Alachlor	0.6	U	ug/L	0.6	2.4
7/23/2007 10:18	Effluent	Pesticides	Mevinphos	0.2	U	ug/L	0.2	0.8
7/23/2007 10:18	Effluent	Pesticides	Ethion	0.05	U	ug/L	0.05	0.2
7/23/2007 10:18	Effluent	Pesticides	Azinphos Methyl	0.2	U	ug/L	0.2	0.8
7/23/2007 10:18	Effluent	Pesticides	Prometryn	0.15	U	ug/L	0.15	0.6
7/23/2007 10:18	Effluent	Pesticides	Parathion Methyl	0.1	U	ug/L	0.1	0.4
7/23/2007 10:18	Effluent	Pesticides	Parathion Ethyl	0.15	U	ug/L	0.15	0.6
7/23/2007 10:18	Effluent	Pesticides	Naled	0.8	U	ug/L	0.8	3.2
7/23/2007 10:18	Effluent	Pesticides	Metalaxyl	0.25	U	ug/L	0.25	1
7/23/2007 10:18	Effluent	Pesticides	Chlorpyrifos Ethyl	0.05	U	ug/L	0.05	0.2
7/23/2007 10:18	Effluent	Pesticides	Butylate	0.2	U	ug/L	0.2	0.8
7/23/2007 10:18	Effluent	Pesticides	Atrazine	0.05	U	ug/L	0.05	0.2
7/23/2007 10:18	Effluent	Priority Organic Pollutants	1,4-Dichlorobenzene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	2,4-Dinitrotoluene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Benzo(a)anthracene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	12
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Pentachlorophenol	2.9	U	ug/L	2.9	12
7/23/2007 10:18	Effluent	Priority Organic Pollutants	gamma-BHC	1.4	U	ug/L	1.4	5.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	2,4-Dinitrophenol	14	U	ug/L	14	58
7/23/2007 10:18	Effluent	Priority Organic Pollutants	2-Chloronaphthalene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	4,4'-DDT	1.4	U	ug/L	1.4	5.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Benzidine	96	U	ug/L	96	380
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Fluorene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Phenanthrene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	alpha-BHC	1.4	U	ug/L	1.4	5.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	2,4-Dichlorophenol	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	2,6-Dinitrotoluene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	2-Nitrophenol	0.96	U	ug/L	0.96	3.8

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
7/23/2007 10:18	Effluent	Priority Organic Pollutants	4,4'-DDD	1.4	U	ug/L	1.4	5.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	4,4'-DDE	1.4	U	ug/L	1.4	5.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	14	U	ug/L	14	58
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Endosulfan I	3.8	U	ug/L	3.8	15
7/23/2007 10:18	Effluent	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	1,3-Dichlorobenzene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	2-Chlorophenol	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Benzo(b)fluoranthene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Dimethyl phthalate	48	U	ug/L	48	190
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Phenol	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	2,4-Dimethylphenol	9.6	U	ug/L	9.6	38
7/23/2007 10:18	Effluent	Priority Organic Pollutants	3,3'-Dichlorobenzidine	38	U	ug/L	38	150
7/23/2007 10:18	Effluent	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.7
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Acenaphthene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Benzo(k)fluoranthene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Di-n-butyl phthalate	4.8	U	ug/L	4.8	19
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Endrin aldehyde	3.8	U	ug/L	3.8	15
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Fluoranthene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Nitrobenzene	1.9	U	ug/L	1.9	7.7
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Pyrene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	beta-BHC	1.4	U	ug/L	1.4	5.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Aldrin	1.4	U	ug/L	1.4	5.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Benzo(a)pyrene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Butyl benzyl phthalate	4.8	U	ug/L	4.8	19
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Chrysene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Endosulfan sulfate	1.4	U	ug/L	1.4	5.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Endrin	1.4	U	ug/L	1.4	5.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Heptachlor epoxide	1.4	U	ug/L	1.4	5.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Hexachlorobutadiene	2.9	U	ug/L	2.9	12
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Isophorone	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.7
7/23/2007 10:18	Effluent	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	2.9	U	ug/L	2.9	12

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
7/23/2007 10:18	Effluent	Priority Organic Pollutants	1,2-Dichlorobenzene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	12
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Acenaphthylene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Diethyl phthalate	1	IV	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9	U	ug/L	2.9	12
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Hexachloroethane	2.9	U	ug/L	2.9	12
7/23/2007 10:18	Effluent	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.7
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Naphthalene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	delta-BHC	1.4	U	ug/L	1.4	5.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	4-Nitrophenol	14	U	ug/L	14	58
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Anthracene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Di-n-octyl phthalate	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Dieldrin	1.4	U	ug/L	1.4	5.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Endosulfan II	3.8	U	ug/L	3.8	15
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Heptachlor	1.4	U	ug/L	1.4	5.8
7/23/2007 10:18	Effluent	Priority Organic Pollutants	Hexachlorobenzene	0.96	U	ug/L	0.96	3.8
7/23/2007 10:18	Effluent	Field Parameters	Temperature	21.69		C		
7/23/2007 10:18	Effluent	Field Parameters	Specific Conductance	894		umhos/cm		
7/23/2007 10:18	Effluent	Field Parameters	pH	6.41				
7/23/2007 9:50	Equipment Blank	Metals	Iron	5	U	ug/L	5	20
7/23/2007 9:50	Equipment Blank	Metals	Silver	0.025	U	ug/L	0.025	0.1
7/23/2007 9:50	Equipment Blank	Metals	Arsenic	0.5	U	ug/L	0.5	2
7/23/2007 9:50	Equipment Blank	Metals	Cadmium	0.02	U	ug/L	0.02	0.08
7/23/2007 9:50	Equipment Blank	Metals	Selenium	0.5	U	ug/L	0.5	2
7/23/2007 9:50	Equipment Blank	Metals	Nickel	0.25	U	ug/L	0.25	1
7/23/2007 9:50	Equipment Blank	Metals	Zinc	5	U	ug/L	5	20
7/23/2007 9:50	Equipment Blank	Metals	Lead	0.2	U	ug/L	0.2	0.8
7/23/2007 9:50	Equipment Blank	Metals	Copper	0.25	U	ug/L	0.25	1

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
7/23/2007 9:50	Equipment Blank	Metals	Chromium	1	U	ug/L	1	4
7/23/2007 9:50	Equipment Blank	Metals	Magnesium	0.005	U	mg/L	0.005	0.02
7/23/2007 9:50	Equipment Blank	Metals	Aluminum	5	U	ug/L	5	20
7/23/2007 9:50	Equipment Blank	Metals	Calcium	0.02	U	mg/L	0.02	0.08
7/23/2007 9:50	Equipment Blank	Nutrients	Kjeldahl Nitrogen	0.08	U	mg N/L	0.08	0.2
7/23/2007 9:50	Equipment Blank	Nutrients	Ammonia-N	0.01	U	mg N/L	0.01	0.02
7/23/2007 9:50	Equipment Blank	Nutrients	Total-P	0.02	U	mg P/L	0.02	0.06
7/23/2007 9:50	Equipment Blank	Nutrients	O-Phosphate-P	0.004	U	mg P/L	0.004	0.01
7/23/2007 9:50	Equipment Blank	Nutrients	NO2NO3-N	0.004	U	mg N/L	0.004	0.01
7/23/2007 9:50	Equipment Blank	Pesticides	Mevinphos	0.19	U	ug/L	0.19	0.76
7/23/2007 9:50	Equipment Blank	Pesticides	Bromacil	0.19	U	ug/L	0.19	0.76
7/23/2007 9:50	Equipment Blank	Pesticides	Chlorpyrifos Methyl	0.095	U	ug/L	0.095	0.38
7/23/2007 9:50	Equipment Blank	Pesticides	Parathion Ethyl	0.14	U	ug/L	0.14	0.56
7/23/2007 9:50	Equipment Blank	Pesticides	Diazinon	0.048	U	ug/L	0.048	0.19
7/23/2007 9:50	Equipment Blank	Pesticides	Metolachlor	0.48	U	ug/L	0.48	1.9
7/23/2007 9:50	Equipment Blank	Pesticides	Metribuzin	0.095	U	ug/L	0.095	0.38
7/23/2007 9:50	Equipment Blank	Pesticides	Metalaxyl	0.24	U	ug/L	0.24	0.96
7/23/2007 9:50	Equipment Blank	Pesticides	Azinphos Methyl	0.19	U	ug/L	0.19	0.76
7/23/2007 9:50	Equipment Blank	Pesticides	Simazine	0.048	U	ug/L	0.048	0.19
7/23/2007 9:50	Equipment Blank	Pesticides	Malathion	0.14	U	ug/L	0.14	0.56
7/23/2007 9:50	Equipment Blank	Pesticides	Ethoprop	0.095	U	ug/L	0.095	0.38
7/23/2007 9:50	Equipment Blank	Pesticides	Chlorpyrifos Ethyl	0.048	U	ug/L	0.048	0.19
7/23/2007 9:50	Equipment Blank	Pesticides	Parathion Methyl	0.095	U	ug/L	0.095	0.38
7/23/2007 9:50	Equipment Blank	Pesticides	Norflurazon	0.14	U	ug/L	0.14	0.56
7/23/2007 9:50	Equipment Blank	Pesticides	Fonofos	0.095	U	ug/L	0.095	0.38
7/23/2007 9:50	Equipment Blank	Pesticides	Ametryn	0.048	U	ug/L	0.048	0.19
7/23/2007 9:50	Equipment Blank	Pesticides	Prometryn	0.14	U	ug/L	0.14	0.56
7/23/2007 9:50	Equipment Blank	Pesticides	Naled	0.76	U	ug/L	0.76	3
7/23/2007 9:50	Equipment Blank	Pesticides	Ethion	0.048	U	ug/L	0.048	0.19
7/23/2007 9:50	Equipment Blank	Pesticides	Butylate	0.19	U	ug/L	0.19	0.76
7/23/2007 9:50	Equipment Blank	Pesticides	Atrazine	0.048	U	ug/L	0.048	0.19
7/23/2007 9:50	Equipment Blank	Pesticides	Alachlor	0.57	U	ug/L	0.57	2.3
7/23/2007 9:50	Equipment Blank	Pesticides	Hexazinone	0.095	U	ug/L	0.095	0.38
7/23/2007 9:50	Equipment Blank	Pesticides	Phorate	0.048	U	ug/L	0.048	0.19

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
7/23/2007 9:50	Equipment Blank	Pesticides	Fenamiphos	0.19	U	ug/L	0.19	0.76
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	2,4-Dimethylphenol	9.5	U	ug/L	9.5	38
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Benzo(a)anthracene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Benzo(a)pyrene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Benzo(k)fluoranthene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Diethyl phthalate	1	IV	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Endosulfan I	3.8	U	ug/L	3.8	15
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.6
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	2,4-Dichlorophenol	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	4,4'-DDD	1.4	U	ug/L	1.4	5.7
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	4,4'-DDT	1.4	U	ug/L	1.4	5.7
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Acenaphthene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Aldrin	1.4	U	ug/L	1.4	5.7
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	15	IV	ug/L	14	57
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Butyl benzyl phthalate	4.8	U	ug/L	4.8	19
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Dimethyl phthalate	48	U	ug/L	48	190
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Fluorene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Hexachloroethane	2.9	U	ug/L	2.9	11
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Di-n-octyl phthalate	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Pentachlorophenol	2.9	U	ug/L	2.9	11
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Phenanthrene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	1,2-Dichlorobenzene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	1,3-Dichlorobenzene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.6
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Anthracene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Hexachlorobenzene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	alpha-BHC	1.4	U	ug/L	1.4	5.7

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	delta-BHC	1.4	U	ug/L	1.4	5.7
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	gamma-BHC	1.4	U	ug/L	1.4	5.7
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Benzidine	95	U	ug/L	95	380
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Fluoranthene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Heptachlor epoxide	1.4	U	ug/L	1.4	5.7
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	2,4-Dinitrophenol	14	U	ug/L	14	57
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	3,3'-Dichlorobenzidine	38	U	ug/L	38	150
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	4-Nitrophenol	14	U	ug/L	14	57
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Acenaphthylene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Dieldrin	1.4	U	ug/L	1.4	5.7
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Endosulfan sulfate	1.4	U	ug/L	1.4	5.7
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Endrin	1.4	U	ug/L	1.4	5.7
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Endrin aldehyde	3.8	U	ug/L	3.8	15
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9	U	ug/L	2.9	11
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Nitrobenzene	1.9	U	ug/L	1.9	7.6
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Phenol	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	1,4-Dichlorobenzene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	2-Chloronaphthalene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	2-Nitrophenol	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	4,4'-DDE	1.4	U	ug/L	1.4	5.7
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Benzo(b)fluoranthene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	11
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Heptachlor	1.4	U	ug/L	1.4	5.7
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Isophorone	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	2.9	U	ug/L	2.9	11
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Pyrene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	2,4-Dinitrotoluene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	2,6-Dinitrotoluene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	2-Chlorophenol	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	11
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Chrysene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Di-n-butyl phthalate	4.8	U	ug/L	4.8	19
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.95	U	ug/L	0.95	3.8

Appendix E. (continued)

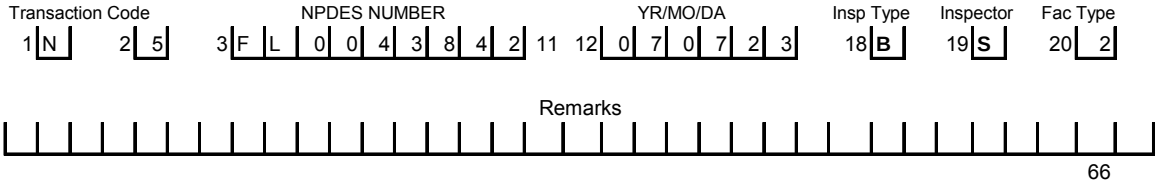
Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Endosulfan II	3.8	U	ug/L	3.8	15
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Hexachlorobutadiene	2.9	U	ug/L	2.9	11
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.6
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	Naphthalene	0.95	U	ug/L	0.95	3.8
7/23/2007 9:50	Equipment Blank	Priority Organic Pollutants	beta-BHC	1.4	U	ug/L	1.4	5.7
9/17/2007 10:09	Effluent	Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	No Result		LC50		
9/17/2007 10:09	Effluent	Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	No Result		LC50		
9/17/2007 10:09	Effluent	Metals	Copper	2.62		ug/L	0.25	1
9/17/2007 10:09	Effluent	Field Parameters	pH	6.28				
9/17/2007 10:09	Effluent	Field Parameters	Specific Conductance	1354		umhos/cm		
9/17/2007 10:09	Effluent	Field Parameters	Temperature	25.55		C		
9/17/2007 10:09	Effluent	Field Parameters	Dissolved Oxygen	0.44		mg/L		
10/9/2007 10:15	Blank	Metals	Sodium	0.5	U	mg/L	0.5	2
10/9/2007 10:15	Blank	Metals	Copper	0.25	U	ug/L	0.25	1
10/9/2007 10:15	Blank	Nutrients	Chloride	0.2	U	mg Cl/L	0.2	0.5
10/9/2007 10:15	Blank	Nutrients	Sulfate	0.2	U	mg SO4/L	0.2	0.5
10/9/2007 9:40	Effluent CCC	Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	K	LC50		
10/9/2007 9:40	Effluent CCC	Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	K	LC50		
10/9/2007 9:40	Effluent CCC	Toxicology	Bioassy-Acute-Scrn-FW-Cdubia,LC50-dechlr	100	L	LC50		
10/9/2007 9:40	Effluent CCC	Toxicology	Bioassay-Acute-Scrn-FW-Fish,LC50-dechlr	100	L	LC50		
10/9/2007 9:40	Effluent CCC	Metals	Sodium	49.2		mg/L	0.5	2
10/9/2007 9:40	Effluent CCC	Metals	Copper	19.9		ug/L	0.25	1
10/9/2007 9:40	Effluent CCC	Nutrients	Chloride	75		mg Cl/L	1	2.5
10/9/2007 9:40	Effluent CCC	Nutrients	Sulfate	95		mg SO4/L	1	2.5
10/9/2007 9:40	Effluent CCC	Field Parameters	Specific Conductance	673		umhos/cm		
10/9/2007 9:40	Effluent CCC	Field Parameters	Temperature	25.7		C		
10/9/2007 9:40	Effluent CCC	Field Parameters	Dissolved Oxygen	2.46		mg/L		
10/9/2007 9:40	Effluent CCC	Field Parameters	pH	7.08				
10/9/2007 9:40	Effluent CCC	Field Parameters	Total Residual Chlorine	0.34		mg/L		
10/9/2007 10:00	Effluent Dechlor Unit	Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	L	LC50		
10/9/2007 10:00	Effluent Dechlor Unit	Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	L	LC50		
10/9/2007 10:00	Effluent Dechlor Unit	Metals	Copper	5.7		ug/L	0.25	1
10/9/2007 10:00	Effluent Dechlor Unit	Metals	Sodium	51.6		mg/L	0.5	2
10/9/2007 10:00	Effluent Dechlor Unit	Nutrients	Chloride	71		mg Cl/L	1	2.5

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
10/9/2007 10:00	Effluent Dechlor Unit	Nutrients	Sulfate	100		mg SO4/L	1	2.5
10/9/2007 10:00	Effluent Dechlor Unit	Field Parameters	Total Residual Chlorine	1.67		mg/L		
10/9/2007 10:00	Effluent Dechlor Unit	Field Parameters	pH	7.91				
10/9/2007 10:00	Effluent Dechlor Unit	Field Parameters	Dissolved Oxygen	6.27		mg/L		
10/9/2007 10:00	Effluent Dechlor Unit	Field Parameters	Temperature	25.63		C		
10/9/2007 10:00	Effluent Dechlor Unit	Field Parameters	Specific Conductance	663		umhos/cm		

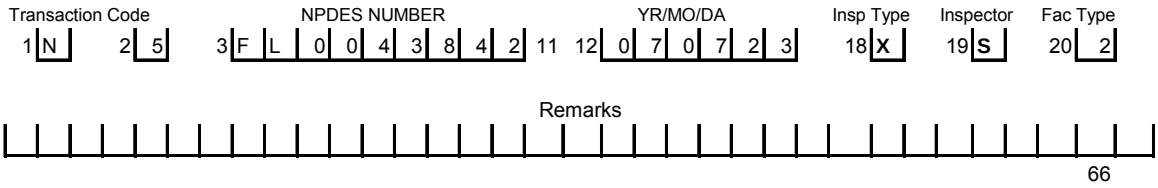
The Bioassay of Cypress Landing Wastewater Treatment Facility effluent sampled on July 23, September 17 and October 9, 2007. NPDES #FL0043842.

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



The Priority Pollutants Analysis of Cypress Landing Wastewater Treatment Facility effluent sampled on July 23, 2007. NPDES #FL0043842.

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



Biological Analyses of Cypress Landing Wastewater Treatment Facility effluent sampled on July 23, 2007. NPDES #FL0042842.

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

