

Effluent Quality Assessment

City of Tarpon Springs WWTP

Pinellas County

NPDES #FL0030406

Sampled April 21 and 22, 2008

August 2008

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

City of Tarpon Springs WWTP, 201 East Pine Street, Tarpon Springs, Pinellas County, Florida, 34689. NPDES #FL0030406. Effluent samples for chemical, microbiological and bioassay testing for this facility were collected on April 21, 2008. Additional samples for chemical analyses were collected on April 22, 2008.

Introduction

City of Tarpon Springs Wastewater Treatment Plant (WWTP) is a Type I (permitted capacity ≥ 0.5 MGD) advanced domestic wastewater treatment plant which uses the Bardenpho Biological Nutrient Removal (BNR) process treatment process to treat domestic wastewater. The facility has a design capacity of 4.0 million gallons per day (MGD) annual average daily flow (AADF). The AADF through the facility from April 2007 through March 2008 was 2.130 MGD. The AADF discharged to surface waters was 0.500 MGD and the AADF discharged via reuse was 1.510 MGD. During the sampling event, all discharge was directed to the public access reuse system. The wastewater treatment system consists of:

- an onsite duplex pumping station;
- headworks with mechanically-cleaned fine screen
- two manually-cleaned bar screens
- single vortex grit removal system
- two fermentation tanks
- two primary anoxic tanks
- two aeration basins
- two secondary anoxic basins
- one re-aeration basin with alum coagulant feed for solids control
- two secondary clarifiers
- two backwash filters
- a static mixing basin
- a ground storage/effluent pumping station
- one chlorine contact chamber;
- two dechlorination units;
- one sludge holding basin;
- one 2-MG reclaimed water holding tank; and
- two belt filter presses.

Chlorine gas is used for chlorination. Liquid sodium bisulfite and sulfur dioxide gas is used for dechlorination. Dewatered residuals are transported to a permitted residuals management facility for further treatment and disposal.

Treated effluent is discharged primarily by land application through Reuse System R001 and secondarily to surface waters through Outfall D001. Reuse System R001 has a design capacity of 4.0 MGD AADF. The service area for R001 is generally located within the city limits of Tarpon Springs. Storage of reclaimed water is provided at the WWTP and at the Tarpon Springs Golf Course Lake Number 1 (also designated as surface water discharge D002 – possible intermittent discharge during storm events to a wetland thence to St. Joseph Sound River).

Effluent discharge through Outfall D001 is to the Class III Marine waters of the Anclote River. Outfall D001 is approximately 335 m (1100 feet) north of the WWTP. Effluent is pumped from the facility through a 0.76 m (30 inch) main which connects to a concrete box that discharges at the river bank. The point of discharge is located approximately at latitude 28º 09’ 20.5” N, longitude 82º 45’ 12.3” W.

The facility has an administrative order (AO-090-SW) that was issued on March 19, 2004, to address limits for beryllium, copper and dichlorbromomethane. The facility has no Consent Orders or mixing zones. A review of discharge monitoring report (DMR) data for the past year

revealed permit violations for total nitrogen (values 22 mg/L (March 2007), 12 mg/L (December 2007) and 22 mg/L (March 2008); limit 6 mg/L); dissolved oxygen (value 4.4 mg/L (March 2008); limit ≥ 5.0 mg/L); pH (value 6.4 SU (March 2008); limit 6.5-8.5 SU) and total residual chlorine (value 0.20 mg/L (Sept. 2007); limit ≥ 1.0 mg/L). Facility data shows effluent quality to be neither improving nor declining and overall in compliance with permit limits and surface water criteria. (Facility summary provided by Michele Duggan of FDEP Southwest District).

Methods

Samples were collected from the EFA-01 (chlorine contact chamber after disinfection but prior to discharge) and EFB-01 (turbidity monitoring/TSS sample point after filtration and prior to disinfection) NPDES sampling points for Outfall D001 by Michele Duggan, Peter Wenner and Jason Cohen (FDEP Southwest District) following DEP-SOP-001/01 FS 2400 Wastewater Sampling. All DEP SOPs are available on the web at: http://www.floridadep.org/labs/qa/sops.htm.

See Appendix A for the completed chain of custody form.

The 48-hour screening toxicity tests and algal growth potential tests 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.

Total residual chlorine (3.48 mg/L) was detected in the bioassay sample in the laboratory. An aliquot of this sample was dechlorinated by the addition of sodium thiosulfate (0.025 N) at a rate of 3.5 mL per liter of sample to neutralize the chlorine. Bioassays were performed on the dechlorinated aliquot in addition to the bioassays performed on the original sample. The same concentration of sodium thiosulfate was added to the dechlorinated test controls. The purpose of the dechlorinated test controls was to confirm that there was no adverse effect of adding sodium thiosulfate to the sample. There was no mortality in the dechlorinated controls of either test species.

An aliquot of the AGP sample was salinity adjusted to meet the minimum salinity requirements of the marine test species. Both a freshwater and a saltwater AGP test were performed.

Toxicity Test Results

Tests were performed April 22 - 24, 2008.

Ceriodaphnia dubia 48-hour acute screening bioassay –	LC_{50} < 100%, 100%* mortality in 100% sample within 1 hr 20 min of test initiation
Ceriodaphnia dubia 48-hour acute screening bioassay –	LC_{50} > 100%, 0%* mortality in Dechlorinated 100% sample at 48 hours
Cyprinella leedsi 48-hour acute screening bioassay –	LC_{50} < 100%, 100%* mortality in 100% sample within 15 minutes of test initiation
Cyprinella leedsi 48-hour acute screening bioassay –	LC_{50} > 100%, 0%* mortality in Dechlorinated 100% sample at 48 hours

The bioassay sample was acutely toxic to the test organisms, producing 100% mortality within 15 minutes of test initiation in the *Cyprinella leedsi* test and within 1 hour and 20 minutes of test initiation in the *Ceriodaphnia dubia* test. The dechlorinated sample was not acutely toxic to either test species with 48 hours. The cause of the observed toxicity was primarily attributed to the effluent's residual chlorine. Total residual chlorine levels as low as 0.028 mg/L have been found to be acutely toxic to some freshwater fish and invertebrates (EPA 1986). Although the 48-hour acute screening toxicity test does not reflect the required permit conditions, passing test results from the dechlorinated sample provide confidence that the required permit conditions would likely be met.

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

The effluent Algal Growth Potential (AGP) was 0.3 U (U – Material was analyzed for but not detected; the value reported is the minimum detection limit) 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 phosphorus-limited. The predicted AGP based on inorganic nitrogen concentrations was 32.7 (±20%) mg dry wt/L (Table 1a; Miller et al. 1978). The reason for the difference between the actual and predicted growth in the AGP test was not determined.

Differences greater than an order of magnitude between actual and predicted AGP values are considered sufficient evidence to warrant follow up testing with the algal growth inhibition bioassay. True algal growth inhibition can only be determined by performing an actual algal growth inhibition test. Should algal growth inhibition be suspected, the district should request that the algal growth inhibition test be performed as a follow-up to the inspection.

The effluent Algal Growth Potential (AGP) was 3 U mg dry wt/L of the saltwater species *Dunaliella tertiolecta.* Raschke and Shultz found that AGP values above 10.0 mg dry weight/L represent a "problem" threshold for marine receiving waters, implying nutrient enrichment (Table 1b; personal communication, Marshall Faircloth et. al. FDEP, with Ron Raschke USEPA Region 4, 1987). One potential reason for such low growth in the salinity-adjusted sample is precipitation of enough orthophosphate by the added salts that the sample became extremely phosphorus-limited (Manahan 1994).

See Table 1a and 1b for AGP results.

Chemistry Results

Grab sample collected 4/21/2008

Total residual chlorine (TRC) was detected in the effluent (> 2.2 mg/L) in the field and in the bioassay sample (3.48 mg/L) in the laboratory. Total ammonia was detected in the bioassay sample in the laboratory (10.5 mg/L). Based on the pH, salinity, and temperature of the bioassay sample, the calculated unionized ammonia concentration was 0.33 mg/L. The total ammonia

concentration in the sample collected and preserved for chemical analysis was 14 mg/L. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was 0.19 mg/L.

Nickel was detected in the effluent at levels that comply with Class III Marine water quality criteria (62-302.530, F.A.C.). Atrazine, arsenic, copper, iron and zinc were detected between their respective laboratory method detection limit (MDL) and practical quantitation limit (PQL). Copper was detected in the equipment blank. Cadmium and nitrate/nitrite were detected in both the equipment blank and the composite sampler blank.

Composite sample collected 4/21/2008 (chemistry only)

The total ammonia concentration in the sample collected and preserved for chemical analysis was 13 mg/L. Field parameters were not measured; therefore, the unionized ammonia concentration of the effluent as sampled could not be calculated.

Nickel was detected in the effluent at levels that comply with Class III Marine water quality criteria (62-302.530, F.A.C.). Arsenic, copper, iron, lead and zinc were detected between their respective MDL and PQL.

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

Conclusion

The effluent sample collected from the EFA-01 NPDES sampling point for Outfall D001 for this facility on April 21, 2008, was acutely toxic to both test species during the 48-hour acute screening bioassays. The dechlorinated sample aliquots were not acutely toxic to either test species during the 48-hour acute screening bioassays. The noted toxicity was attributed to the total residual chlorine within the sample. The effluent AGP result and the salinity adjusted AGP result were less than the "problem" thresholds for both fresh and marine receiving waters. The effluent AGP result suggested algal growth inhibition. Effluent water quality samples did not exceed any applicable water quality standards or violate any permit conditions.

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.

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

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. 1986. Quality Criteria for Water. EPA 440/5-86-001.

Table 1a. Measured and predicted algal growth potential (AGP; mg dry weight/L) for orthophosphate (OP) and total phosphorus (TP) limitation of the freshwater species *Pseudokirchneriella subcapitata,* and ratios of the nitrogen to phosphorus for samples collected from the City of Tarpon Springs WWTP on April 21, 2008.

City of Tarpon Springs WWTP												
Location	AGP (measured)		Predicted AGP (OP) ± 20%			Predicted AGP (TP) ± 20%			Inorganic N:P ratio	Total N:P ratio
Effluent	0.3	U	32.7	±	6.5	64.5	±	12.9	190.8	110.0

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

Table 1b. Measured and predicted algal growth potential (AGP; mg dry weight/L) of the saltwater species *Dunaliella tertiolecta* and ratios of nitrogen to phosphorus for samples collected from the City of Tarpon Springs WWTP on April 21, 2008.

City of Tarpon Springs WWTP				
Location	AGP (measured)		Inorganic N:P ratio	Total N:P ratio
Effluent *	3.0	U	190.8	110.0

* - sample salinity adjusted to 7ppt for the AGP test

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

Table 2. Effluent limits, Class III Criteria for predominantly marine waters and chemical, and microbiological data for grab samples collected from the City of Tarpon Springs WWTP on April 21 , 2008, and composite samples collected on April 22, 2008.

City of Tarpon Springs WWTP NPDES# FL0030406	Class III Criteria	Effluent Limits	EFA-01 Grab 4/21/2008	EFA-01 Composite 4/22/2008
Organic Constituents (µg/L)				
Atrazine	-	Report	0.12 I	-
Metals (µg/L unless otherwise noted)				
Aluminum	≤ 1,500	-	60 U	60 U
Arsenic	≤ 50	-	0.74 I	0.78 I
Cadmium	≤ 8.8	-	0.02 UF	0.02 UF
Calcium (mg/L)	-	-	73.4	77.7
Chromium-III	-	-	1 U	1 U
Copper	≤ 3.7	≤ 3.7	1.3 IF	1.8 I
Iron	≤ 300	-	93 I	81 I
Lead	≤ 8.5	-	0.2 U	0.32 I
Magnesium (mg/L)	-	-	18.9	20.8
Nickel	≤ 8.3	-	1.4	1.31
Selenium	≤ 71	-	0.5 U	0.5 U
Silver	≤ 2.3	-	0.025 U	0.025 U
Zinc	≤ 86	-	11 I	15 I
Nutrients (mg/L)				
Ortho-phosphate	-	-	0.076	-
Total Phosphorus	-	≤ 2 sp	0.15	0.17
Total Ammonia	-	-	14	13
Un-ionized Ammonia	-	-	0.19 c	-
Nitrate and Nitrite	-	-	0.5 F	0.86 F
Total Kjeldahl Nitrogen	-	-	16	16
Organic Nitrogen	-	-	2 c	3 c
Total Nitrogen	-	≤ 6 sp	16.5 c	16.86 c
General Physical and Chemical Parameters				
Dissolved Oxygen (mg/L)	≥ 4.0 s	≥ 5.0 s	7.7	-
pH (SU)	6.5 - 8.5 s	6.5 - 8.5 s	7.3	-
Conductivity (µmhos/cm)	-	-	1,630	-
Temperature °C	-	-	25.6	-
Total Residual Chlorine (mg/L)	≤ 0.01 s	≥ 1.0 s*	2.2 *	-
Chlorophyll a (µg/L) - Corrected	-	-	0.83 I	-
Phaeophytin (µg/L)	-	-	0.24 U	-
Total Suspended Solids (mg/L)	-	≤ 10 sp	4 U	-
Total Suspended Solids (mg/L)	-	≤ 5 s**	-	4 U**
Turbidity (NTU)	< 29 ts	-	1.8	-
CBOD, 5 day (mg/L), N - inhibited	-	≤ 10 sp	9.8	5.8
Flow (MGD)	-	≤ 4.0 a	0.49 a	0.49 a
Hardness (mg $CaCO_3$)	-	-	261.11 c	279.67 c
Microbiology (Number of colony forming units/100ml)				
Fecal Coliforms	≤ 400s #	≤ 25 s	1 U	-

Value exceeds the Class III Water Quality Criteria or permit limits

a - Annual average
c - Value is calculated
p - 24 hour flow proportional composite sample
s - Single sample
t - Shall not exceed 29 NTUs above background
F - Analyte was detected in equipment blank and/or composite sampler blank
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
- If 10 or fewer samples are taken within a month, the single sample limit is 400 CFU (62-302.530(6), F.A.C.)
* - Complies with permit limit for EFA-01 NPDES sample collection site
** - EFB-01 NPDES sample collection site

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2008-04-21-46
City of Tarpon Springs WWTP

Customer: SW-DIST
Project ID: FYI3
PMAS: 1153

Requester: Jennifer Paris
Collected By: PETER WENNER, JASON COHEN
Sampling Agency: FDEP, SW-DIST

Field Report Prepared By:
Send Final Report To Tom Gucciardo

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	EFA-1	☐ Comp ☑ Grab	Date 4/21/08 Time 1105 (Eastern)		A
	Field ID: 36340	Tot Res Chlorine (mg/L): >2.2 mg/L	Diss Oxygen (mg/L): 7.74	Storet Station Number:	
	Matrix (Include type e.g. Salt, Fresh, etc): WWTP EFFLUENT	Temp (C): 25.55	pH: 7.28	Sample Depth ☐ m ☐ ft: 0.82 / 1630	☑ Salinity (PPTh) ☑ Sp Conductance (umho/cm)
	Latitude: N 28 ° 9 ' 4.4 "	Longitude: 82 ° 45 ' 14.1 "		NPDES Number:	
	Comments: TOXICITY SAMPLE TIME: 1125 SAMPLES COLLECTED THROUGH FACILITY COMPOSITE SAMPLER				

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	COMPOSITE SAMPLER EQ BLANKS	☐ Comp ☑ Grab	Date 4/21/08 Time 1040 (Eastern)		B
	Field ID: 36343	Tot Res Chlorine (mg/L):	Diss Oxygen (mg/L):	Storet Station Number:	
	Matrix (Include type e.g. Salt, Fresh, etc): DI H_2O	Temp (C):	pH:	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)
	Latitude: o ' " .	Longitude: o ' " .		NPDES Number:	
	Comments: SAMPLES COLLECTED THROUGH FACILITY COMPOSITE SAMPLER				

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	EQUIPMENT BLANKS	☐ Comp ☑ Grab	Date 4/21/08 Time 1040 (Eastern)		C
	Field ID: 36342	Tot Res Chlorine (mg/L):	Diss Oxygen (mg/L):	Storet Station Number:	
	Matrix (Include type e.g. Salt, Fresh, etc): DI H_2O	Temp (C):	pH:	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)
	Latitude: o ' " .	Longitude: o ' " .		NPDES Number:	
	Comments: SAMPLES COLLECTED THROUGH FACILITY COMPOSITE SAMPLER				

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
		☐ Comp ☐ Grab	Date Time Eastern Central		
	Field ID	Tot Res Chlorine (mg/L):	Diss Oxygen (mg/L):	Storet Station Number:	
	Matrix (Include type e.g. Salt, Fresh, etc):	Temp (C):	pH:	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)
	Latitude: o ' " .	Longitude: o ' " .		NPDES Number:	
	Comments: Hellyer Rec'd 1/2 tox JD 9:53 4.22.08				

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
	4/21/08/16:00	DHL		4-22-08 8:45				

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Request Number: RQ-2008-04-21-46
City of Tarpon Springs WWTP

Customer: SW-DIST
Project ID: FYI3
PMAS: 1153

Event ID *

Requestor: Jennifer Paris
Collected By: Michele Duggan
Sampling Agency: FDEP SW-DIST

Field Report Prepared By: Michele Duggan
Send Final Report To Tom Gucciardo

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	EFA-01	X Comp ☐ Grab	Date 04/22/08 Time 1135 Eastern Central	Date 04/22/08 Time 1150 Eastern Central	B
	Field ID: 36341	Tot Res Chlorine (mg/L): -	Diss Oxygen (mg/L): -	Storet Station Number:	
	Matrix (Include type e.g. Salt, Fresh, etc): EFFLUENT (FRESH)	Temp (C): -	pH: -	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)
	Latitude o ' "	Longitude - o ' "	Comments:		NPDES Number: FL0030406

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	EFB-01	☐ Comp X Grab	Date 04/22/08 Time 1150 Eastern Central	Date Time Eastern Central	D
	Field ID: 36344	Tot Res Chlorine (mg/L): -	Diss Oxygen (mg/L):	Storet Station Number:	
	Matrix (Include type e.g. Salt, Fresh, etc): EFFLUENT (FRESH)	Temp (C):	pH:	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)
	Latitude o ' "	Longitude o ' "	Comments:		NPDES Number: FL0030406

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

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

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
Michele Duggan	04/22/08 1430	DHL	FDEP	4-23-08 08:45				

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

FDEP Biology Laboratory - Acute Screen Bioassay Bench Sheets

Facility: Tarpon Springs WWTF

Address: 201 EAST PINE STREET

City: Tarpon Springs County: Pinellas

Contact/District: Michelle Duggan / South West

NPDES Permit #: FL 0030406

LIMS Job #: TLH-2008-04-22-68-01 LIMS Sample #: 1096468

Lims Data Entry: 4-30-08 MF Data Entry Verification: JD 4.30.08

Sample Collection: Date: 4.21.08 Time: 11:05

Hold Time Start: Date: 4.21.08 Time: 11:05

Comments: Aliquot of sample dechlorinated by the addition of 3.5mL of 0.025N Sodium thiosulfate per liter of sample. Dechlorinated controls prepared by adding 3.5mL of 0.025N Sodium thiosulfate to each liter of the appropriate control water MF 4-25-08

Test 1 LC50 = <100%; mortality = 100%
Dechlorinated LC50 = >100%; mortality = 0% MF 5/5/08

Test 2 LC50 = <100%; mortality = 100%
Dechlorinated LC50 = >100%; mortality = 0%

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: 9.5 mg/L Final DO: 7.7 mg/L Duration: 30 minutes Rate: ~100 bubbles/min

Salinity adjusted (Test 1): yes (no) Initial Salinity: ____ Final Salinity: ____ Salts Hypersaline brine

Salinity adjusted (Test 2): yes (no) Initial Salinity: ____ Final Salinity: ____ Salts Hypersaline brine

Dechlorination: (yes) no 3.5 mL of 0.025N Sodium Thiosulfate per liter of sample. Final TRC: ____ MF 4-25-08

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 26.4 max 26.7 mean 26.6

Incubator # ____ min ____ max ____ mean ____

Room B248 min 24.8 max 25.3 mean ____

Investigators' Signatures

Marshall Faircloth

James Daniels

Brian Peterson

Loretta C. Wolfe

REVIEWER

Water Quality Parameters	20% DMW	Moderately Hard Water/ ~~3-26-08 Well Water~~	Salt Water ASW NSW Test 1	Salt Water ASW NSW Test 2	Other:	Original Sample (A)	Method	Measured by	Verified by
Field Total Residual Cl_2 (mg/L):	N/A	N/A	N/A	N/A		not measured MF	Incorrect entry MF 4-25-08	PW	MF
Lab Total Residual Cl_2 (mg/L):	<0.03	<0.03			3.48 (B)	0.05	HACH	JD	BA
Alkalinity (mg/L as $CaCO_3$):	33	148				200	HACH	BA	JD
Hardness (mg/L as $CaCO_3$):	38	141				252	HACH	BA	JD
Total Ammonia (mg/L as N):	<0.017	<0.017				10.5	DENVER	MF	JD
Salinity (ppth):	<1	<1				0.9	YSI (Mettler)	JD	BA

(A) >2.2 mg/L Hach kit Peterson ~~Brian~~ WENNER MF 4-25-08

(B) 3.48 mg/L original sample TRC
0.05 mg/L was TRC in Dechlorinated aliquot
MF 4-25-08

V 1.4 9/12/05

000031

Page

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1096463 Test #: 1 SOP#:TA 07 01 Test Started: Date 4-22-08 Time: 1300
Organism/Batch/Age: C. dubia / 15-08 / <24hours Test Ended: Date 4-24-08 Time: 1100
Chamber/Test Volume: 30 / 20 ml Diluent/ Batch: 20% DMW / 4-15-08
Food/Batch: YCT 2.6 ml / P.sub 1-31-08 Artemia 0hr — 24hr — 48hr — 72hr — Artemia Lot# —
Feeding: (Prior to Test) Prior to Renewal Daily
ctrl = control dechlor - dechlorinated

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	A	5	5 (A)	5 (A)			
	B	B	5	5 (A)	5 (A)			
	C	C	5	5 (A)	5 (A)			
	D	D	5	5 (A)	5 (A)			
100%	A	A	5	0 SD (A)	0-BA			
	B	B	5	0 SD (A)	-			
	C	C	5	0 SD (A)	-			
	D	D	5	0 SD (A)	-			
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: MF / BA Checked by: BK MF / 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_____
Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

Comments: A- test terminated at 1 hour 20 minutes after initiation due to 100% mortality in the 100% sample concentration MF 4-22-08
0% mortality in dechlorinated sample LC50 = >100% MF 4-24-08

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Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 109468 Test #: 2/2 SOP#:TA 07 02 Test Started: Date 4.22.08 Time: 12:30

Organism/Batch/Age: P.prom/4.22.08/4 days Test Ended: Date 4.24.08 Time: 11:30

Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: Mod Hard / 3.26.08

Food/Batch: YCT – P.sub – Artemia 0hr 69.08 24hr – 48hr – 72hr – Artemia Lot# 33433425 gR

Feeding: (Prior to Test) Prior to Renewal Daily

Ctrl = control dechlor = dechlorinated

Concentration	Replicate	Chamber #	Test Hour: 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	A1	5	(A) ~~0 5~~ 10/5	5			
	B	B2	5	~~0 5~~ 10/5	5			
	C	B3	5	~~0 5~~ 10/5	5			
	D	B4	5	5	5			
100%	A	B5	5	0 5 D	–			
	B	B6	5	0 5 D	–			
	C	B7	5	0 5 D	–			
	D	B8	5	0 5 D	–			
dechlor Ctrl	A	F17	5	~~0 5~~ 5	5			
	B	F18	5	5	5			
	C	F19	5	5	5			
	D	F20	5	5	5			
dechlor 100%	A	F21	5	5	5			
	B	F22	5	5	5			
	C	F23	5	5	5			
	D	F24	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: 100% LC50: <100%

If Calculated: 95% CI______ Method______

Comments: (A) Transcription error 24hr column JD. 100% mortality in 100% sample at 0h + 15 minutes mF 4-25-08

0% mortality in the dechlorinated sample LC50 = >100% mF 4-25-08

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

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FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1096468 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					
pH (S.U.)	8.1					
Temperature °C	24.3					
Dissolved Oxygen mg/L	7.6					
Conductivity (µmhos) mmhos	170					
(initials) Measured by:	BA					
(initials) Recorded by:	BA					

Comments: Test ended at 1 hour an 20 minutes after loading. 100% mortality. mt 4-25-08

Ctrl = control DCL = dechlorinated

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M					
pH (S.U.)	7.7					
Temperature °C	24.3					
Dissolved Oxygen mg/L	7.7					
Conductivity (µmhos) mmhos	1704					
(initials) Measured by:	BA					
(initials) Recorded by:	BA					

Comments:

Concentration DCL ctrl 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M		A			
pH (S.U.)	8.2		8.1			
Temperature °C	24.0		24.3			
Dissolved Oxygen mg/L	7.8		7.8 7.3			
Conductivity (µmhos) mmhos	189		202			
(initials) Measured by:	BA		BA			
(initials) Recorded by:	BA		BA			

Comments:

Concentration DCL 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M		A			
pH (S.U.)	8.3 8.6		8.3			
Temperature °C	24.0		24.3			
Dissolved Oxygen mg/L	7.8		7.0			
Conductivity (µmhos) mmhos	1720		1786			
(initials) Measured by:	BA		BA			
(initials) Recorded by:	BA		BA			

Comments:

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FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 109648 Test #: 2 of 2

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

Ctrl = control

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.)	8.0	7.8	7.8			
Temperature °C	24.5	24.6	24.4			
Dissolved Oxygen mg/L	7.6	6.6	7.0			
Conductivity (µmhos) mmhos	328	340	349			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments: 24 hour and 48 hour measurements not needed. test terminated at 0hr + 10 minutes due to 100% mortality MF 4-25-08

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A					
pH (S.U.)	7.7					
Temperature °C	24.1					
Dissolved Oxygen mg/L	7.7					
Conductivity (µmhos) mmhos	1092					
(initials) Measured by:	JD					
(initials) Recorded by:	JD					

Comments:

dechlor = dechlorinated MF

Concentration dechlor ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	8.2	7.8	7.8			
Temperature °C	24.1	24.1	24.9			
Dissolved Oxygen mg/L	7.6	6.0	7.0			
Conductivity (µmhos) mmhos	338	355	351			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments:

Concentration dechlor 100%	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	8.2			
Temperature °C	24.0	24.7	24.4			
Dissolved Oxygen mg/L	7.6	5.4	6.8			
Conductivity (µmhos) mmhos	1639	1722	1736			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments:

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Appendix C. SRT Bench Sheets and Statistical Analysis

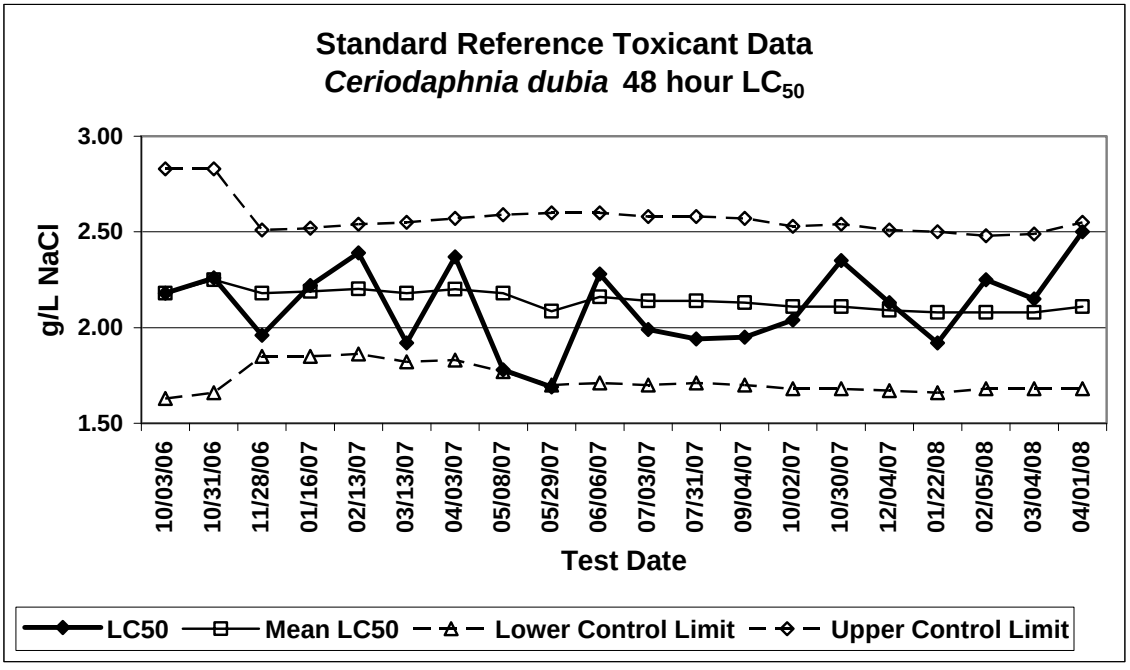
Bureau of Laboratories

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
10/03/06	2.18	2.18	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	2.09	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
10/30/07	2.35	2.11	0.21	1.68	2.54
12/04/07	2.13	2.09	0.20	1.67	2.51
01/22/08	1.92	2.08	0.20	1.66	2.50
02/05/08	2.25	2.08	0.20	1.68	2.48
03/04/08	2.15	2.08	0.20	1.68	2.49
04/01/08	2.50	2.11	0.22	1.68	2.55

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

CV = 10.29
EPA reference 75th quartile CV = 29%



Appendix C. (continued)

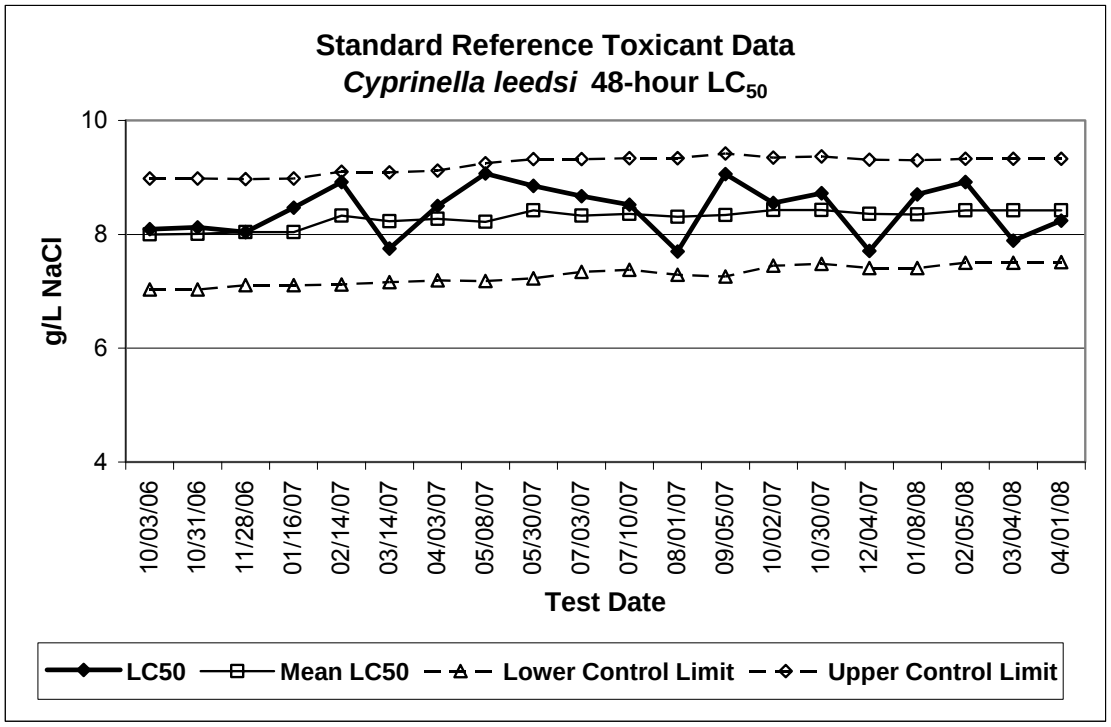
Florida Department of Environmental Protection
Bureau of Laboratories

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
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	0.20	7.11	8.98
02/14/07	8.92	8.33	0.37	7.12	9.10
03/14/07	7.75	8.23	0.41	7.16	9.09
04/03/07	8.50	8.27	0.39	7.19	9.12
05/08/07	9.07	8.22	0.52	7.18	9.25
05/30/07	8.85	8.42	0.46	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
10/30/07	8.72	8.43	0.47	7.48	9.37
12/04/07	7.71	8.36	0.47	7.41	9.31
01/08/08	8.7	8.35	0.47	7.41	9.30
02/05/08	8.92	8.42	0.46	7.50	9.33
03/04/08	7.89	8.42	0.46	7.50	9.33
04/01/08	8.24	8.42	0.45	7.51	9.33

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

CV = 5.4
EPA reference 75th quartile CV = 19%



Appendix C. (continued)

FDEP Biology Laboratory - Acute SRT Bench Sheet

Method from EPA-821-R-02-012

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

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

Test Page 1 of 2

Diluent/ Batch #: DMW / 4.1.08

Toxicant/ Batch#: NaCl / ~~133109~~ 3D / 4.1.08

Test Beginning: Date: 4.1.08 Time: 13:15

Test Ending: Date: 4.5.08 Time: 11:30

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	JD
Alkalinity (mg/L as $CaCO_3$):	90	Hach	BA
Hardness (mg.L as $CaCO_3$):	81	Hach	BA
Total Ammonia (mg/L as N):	<0.017	Denver	DE
Salinity (ppth):	<1	Mettler	BA

Organism Batch #/ Age: 12-07 / <24hrs

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

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

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

Chamber size: 30 mL

Test volume: 20 mL per replicate

Conc. (g/L) µg/L mg/L	Rep.	Chamber #	Number Live 0 hr / ~~48 hr~~	24 hr / ~~72 hr~~	48 hr / ~~96 hr~~	pH (SU) 0 hr / ~~48 hr~~	24 hr / ~~72 hr~~	48 hr / ~~96 hr~~	Temperature (° C) 0 hr / ~~48 hr~~	24 hr / ~~72 hr~~	48 hr / ~~96 hr~~	D.O. (mg/L) 0 hr / ~~48 hr~~	24 hr / ~~72 hr~~	48 hr / ~~96 hr~~	Uncorrected Conductivity µmhos/cm (mmhos/cm) 0 hr / ~~48 hr~~	24 hr / ~~72 hr~~	48 hr / ~~96 hr~~
Control	A	A	5	5	5	7.9		8.0	24.0		24.0	7.8		7.0	0.172		0.183
	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		24.0	7.8		7.1	2.11		3.07
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
2.0	A	A	5	5	5	8.1		7.9	24.0		24.0	7.5		7.0	3.86		4.02
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
2.5	A	A	5	5	2 3D	8.1		7.9	24.1		24.0	7.7		6.9	4.71		4.93
	B	B	5	5	3 2D												
	C	C	5	5	3 2D												
	D	D	5	4 1D	3 1D												
3.0	A	A	5	3 2D	0 3D	8.1		7.9	24.1		24.0	7.6		6.8	5.51		5.7
	B	B	5	4 1D	0 4D												
	C	C	5	3 2D	0 3D												
	D	D	5	4 1D	0 4D												
4.0	A	A	5	0 5D	—	8.1	8.0	—	24.2	24.0	—	7.7	7.7	—	7.25	7.19	—
	B	B	5	0 5D	—												
	C	C	5	0 5D	—												
	D	D	5	0 5D	—												
	A																
	B																
	C																
	D																
Loaded / measured by:			BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA
Recorded by:			BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA

Investigators' Signatures

Bruce Aquila

James Daniel

Marshall Faircloth

Loretta C. Wolfe

REVIEWER

Concentrations prepared by: BA

Loading verified by: JD

Light Intensity: 50-100 Ft. candles

Photoperiod: 16 hours Light / 8 hours dark

Temperature Range °C:

Incubator # 2 min 26.1 max 26.6 mean 26.4

Incubator # ___ min ___ max ___ mean ___

Room B246 min 24.6 max 25.5 mean 25.0

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PAGE

Comments:

Statistics: Method: Spearman-Karber

48/ 96 hour LC_{50}: 2.5

95% Confidence Interval: lower 2.39 upper 2.62

revised 08/24/06 SP

Appendix C. (continued)

FDEP Biology Laboratory - Acute SRT Bench Sheet

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

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

Diluent/ Batch #: DmW / 41.08
Toxicant/ Batch#: NaCl / 41.08

Test Beginning: Date: 4.1.08 Time: 13:15
Test Ending: Date: 4.5.08 Time: 11:30

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	zero	Hach	JD
Alkalinity (mg/L as $CaCO_3$):	90	Hach	BA
Hardness (mg.L as $CaCO_3$):	81	Hach	BA
Total Ammonia (mg/L as N):	<0.017	Denver	MF
Salinity (ppth):	<1	Mettler	BA

Organism Batch #/ Age: 12-071 24 hrs
Feeding: Prior to test / Prior to renewal / Daily
Food: (YCT) (P.subcapitata) Artemia: Lot # —
Food Batch: 7.26.07 1.31.08 0hr — 24hr — 48hr — 72hr —
Chamber size: 30 mL
Test volume: 20 mL per replicate

Conc. (g/L) µg/L mg/L	Rep.	Chamber #	Number Live 0 hr	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 µmhos/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	A	5	5	5	8.1		8.1	24.2		24.2	8.0		7.6	0.178		0.187
	B	B	5	5	5					24.2						0.199	
	C	C	5	5	5					JD						JD	
	D	D	5	5	5												
1.5	A	A	5	5	5	8.1		8.0	24.6		24.1	7.9		7.6	2.86		3.04
	B	B	5	5	5												
	C	C	5	5	4 ID												
	D	D	5	5	5												
2.0	A	A	5	5	5	8.1		8.1	24.7		24.1	7.7		7.6	3.78		3.89
	B	B	5	5	5												
	C	C	5	4 ID	4												
	D	D	5	5	5												
2.5	A	A	2	2	2	8.1		8.1	24.8		24.1	7.7		7.6	4.57		4.86
	B	B	3	1 ID	0 ID												
	C	C	3	2 ID	0 2D												
	D	D	3	2 ID	0 2D												
3.0	A	A	—	—	—	—		—	—		—	—		—	—		—
	B	B	—	—	—												
	C	C	—	—	—												
	D	D	—	—	—												
4.0	A	A	—	—	—	—		—	—		—	—		—	—		—
	B	B	—	—	—												
	C	C	—	—	—												
	D	D	—	—	—												
	A																
	B																
	C																
	D																
Loaded / measured by:			BA	BA	JD	BA		JD	BA		JD	BA		JD	BA		JD
Recorded by:			BA	BA	JD	BA		JD	BA		JD	BA		JD	BA		JD

Investigators' Signatures
Dave Ard
Jane Davis
Marshall Faircloth
Debra C. Wolfe
REVIEWER

Concentrations prepared by: BA
Loading verified by: JD
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 3 min 26.1 max 26.6 mean 26.4
Incubator # ___ min. ___ max. ___ mean ___
Room B248 min. 24.6 max. 25.5 mean 25.0

Comments:

Statistics: Method: Spearman-Karber
48 / (96) hour LC_{50}: 2.26
95% Confidence Interval: lower 2.19 upper 2.32

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 H2O / 3.31.08
Toxicant/ Batch#: NaCl / 3.31.08

Test Beginning: Date: 4.1.08 Time: 1500
Test Ending: Date: 4.5.08 Time: 1200

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	JD
Alkalinity (mg/L as $CaCO_3$):	149	Hach	BA
Hardness (mg.L as $CaCO_3$):	133	Hach	BA
Total Ammonia (mg/L as N):	<0.017	Denver	MF
Salinity (ppth):	< 1	Mettler	JD

Organism Batch #/ Age: 4.1.08 / 13 hrs
Feeding: (Prior to test / Prior to renewal) / Daily
Food: YCT *P.subcapitata* Artemia: Lot # 651-536-90 6.5L
Food Batch: — — 0hr 57-08 24hr — 48hr 59-08 72hr —
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 (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 µmhos/cm (mmhos/cm) 0 hr / 24 hr / 48 hr (48 hr / 72 hr / 96 hr)
Control	A	B1	10 / 10 / 10	8.0 / / 8.2	24.0 / / 24.7	7.7 / / 7.2	0.273 / / 0.282
	B	B2	10 / 10 / 10	/ 8.2 /	/ 24.3 /	/ 7.1 /	/ 0.278 /
	C						
	D						
6	A	B3	10 / 10 / 10	8.0 / / 8.1	24.0 / / 24.7	7.6 / / 6.9	11.6 / / 11.5
	B	B4	10 / 10 / 10	/ 8.1 /	/ 24.4 /	/ 7.0 /	/ 11.5 /
	C						
	D						
7	A	B5	10 / 10 / 10	8.0 / / 8.1	24.0 / / 24.7	7.6 / / 6.8	13.5 / / 13.3
	B	B6	10 / 10 / 9 JD	/ 8.0 /	/ 24.6 /	/ 6.5 /	/ 13.2 /
	C						
	D						
8	A	B7	10 / 7 JD / 7	8.0 / / 8.1	24.0 / / 24.9	7.6 / / 6.6	15.5 / / 15.2
	B	B8	10 / 6 JD / 6	/ 8.0 /	/ 24.4 /	/ 6.4 /	/ 15.0 /
	C						
	D						
9	A	B9	10 / 3 JD / 3	8.0 / / 8.1	24.0 / / 24.6	7.6 / / 6.6	16.8 / / 16.7
	B	B10	10 / 1 JD / 1	/ 8.0 /	/ 24.1 /	/ 6.5 /	/ 16.4 /
	C						
	D						
10	A	B11	10 / 0 JD / —	7.9 / /	24.0 / /	7.6 / /	18.7 / /
	B	B12	10 / 0 JD / —	/ 8.0 /	/ 24.5 /	/ 6.4 /	/ 18.3 /
	C						
	D						
	A						
	B						
	C						
	D						
Loaded / measured by:			BA / JD / JD	JD / JD / JD	JD / JD / JD	JD / JD / JD	JD / JD / JD
Recorded by:			JD / JD / JD	JD / JD / JD	JD / JD / JD	JD / JD / JD	JD / JD / JD

Investigators' Signatures
James Daniel
Brent Rentz
Marshall Faircloth
Loretta C. Wolfe
REVIEWER

Concentrations prepared by: JD
Loading verified by: MF
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min 26.1 max 26.6 mean 26.4
Incubator # ___ min ___ max ___ mean ___
Room B246 min. 24.6 max. 25.5 mean 25.0

Comments:

Statistics: Method: Spearman-Karber
48/ 96 hour LC_{50}: 8.24
95% Confidence Interval: lower 7.95 upper 8.55

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revised 08/24/06 SP

Appendix C. (continued)

FDEP Biology Laboratory - Acute SRT Bench Sheet

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

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

Diluent/ Batch #: Well H2O 133108
Toxicant/ Batch#: NaCl 13308

Test Beginning: Date: 4/1/08 Time: 1500
Test Ending: Date: 4.5.08 Time: 1300

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	~~<.03~~ <.05	Hach	JD
Alkalinity (mg/L as $CaCO_3$):	141	Hach	BA
Hardness (mg.L as $CaCO_3$):	133	Hach	BA
Total Ammonia (mg/L as N):	<0.017	Denver	MF
Salinity (ppth):	21	Mettler	JD

Organism Batch #/ Age: 41.08 / 132y5
Feeding: (Prior to test / Prior to renewal) Daily
Food: YCT P.subcapitata Artemia: Lot # 651-536-90
Food Batch: _____ 0hr 57-08 24hr – 48hr 59-08 72hr –
Chamber size: 1000 mL
Test volume: 500 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 µmhos/cm (mmhos/cm) 0 hr / 24 hr / 48 hr / 48 hr / 72 hr / 96 hr
Control	A	B1	10 10 10	8.1 8.0	24.0 24.5	7.6 6.8	0.277 0.283
	B	B2	10 10 10	8.0	25.0	6.1	0.285
	C						
	D						
6	A	B3	10 10 10	8.0 8.0	24.0 24.6	7.6 6.4	11.3 11.4
	B	B4	10 10 10	7.9	24.7	5.9	11.6
	C						
	D						(FB)
7	A	B5	10 10 10	8.0 8.0	24.0 24.8	7.4 6.3	11.3/6 13.3
	B	B6	9 9 9	7.9	24.8	5.9	13.2
	C						
	D						
8	A	B7	7 7 7	8.0 7.9	24.0 24.9	7.3 6.2	14.8 15.0
	B	B8	6 6 6	7.9	24.6	5.9	15.1
	C						
	D						
9	A	B9	3 3 3	8.0 8.0	24.0 24.9	7.3 6.0	16.4 16.6
	B	B10	1 1 1	7.9	24.6	5.8	16.7
	C						
	D						
10	A	B11	– – –	– –	– –	– –	– –
	B	B12	– – –	–	–	–	–
	C						
	D						
	A						
	B						
	C						
	D						
Loaded / measured by:			JD JD JD	JD JD JD	JD JD JD	JD JD JD	JD JD JD
Recorded by:			JD JD JD	JD JD JD	JD JD JD	JD JD JD	JD JD JD

Investigators' Signatures
James Daniel
Bruce Ard
Marshall Faircloth
Martha C. Willis
REVIEWER

Concentrations prepared by: JD
Loading verified by: MF
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 8 min 24.1 max 26.6 mean 26.4
Incubator # ___ min. ___ max. ___ mean ___
Room B248 min 24.6 max 25.5 mean 25.0

Comments:

Statistics: Method: Spearman-Karber
48 / (96) hour LC_{50}: 8.24
95% Confidence Interval: lower 7.95 upper 8.55

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Appendix C. (continued)

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

DATE: 4-1-08 DURATION: 48 hr TOXICANT : NaCl
SPECIES: *Ceriodaphnia dubia*

RAW DATA:	Concentration (g/L)	Number Exposed	Mortalities
	0.00	20	0
	1.50	20	0
	2.00	20	0
	2.50	20	9
	3.00	20	20
	4.00	20	20

SPEARMAN-KARBER TRIM: .00%

SPEARMAN-KARBER ESTIMATES: **LC50: 2.50**
95% LOWER CONFIDENCE: 2.39
95% UPPER CONFIDENCE: 2.62

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

DATE: 4-1-08 DURATION: 48 hr TOXICANT : NaCl
SPECIES: *Cyprinella leedsi*

RAW DATA:	Concentration (g/L)	Number Exposed	Mortalities
	0.00	20	0
	6.00	20	2
	7.00	20	1
	8.00	20	7
	9.00	20	16
	10.00	20	20

SPEARMAN-KARBER TRIM: 0.00%

SPEARMAN-KARBER ESTIMATES: **LC50: 8.24**
95% LOWER CONFIDENCE: 7.95
95% UPPER CONFIDENCE: 8.55

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: 3/31/08

Shipped to: FDEP

P.O. No: N/A

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia	150	4 DAYS	MS080327	25°C	20‰
Menidia beryllina	150	12DAYS	SS080319	25°C	20‰
Cyprinella leedsi	200	12DAYS	CL080319	25°C	
Pimephales promelas	150	8 DAYS	FM080323	25°C	

Packed by: [signature]

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: 4/21/08

Shipped to: FDEP

P.O. No: N/A

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia	50	6DAYS	MS080415	25°C	20‰
Menidia beryllina					
Cyprinella leedsi	200	11 days	CL080410	25°C	
Pimephales promelas	100	8 DAYS	FM080413	25°C	

Packed by:

Shipped Via: FedEx

Notes:

Thank you for your order.

Appendix E. Chemical Analyses performed on the effluent from the City of Tarpon Springs Wastewater Treatment Plant Outfall D001, sampled on April 21 and 22, 2008.

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
4/21/2008 11:05	EFA 01	AGP/LN	Algal Growth Potential	0.3	U	mg DryWt/L	0.3	0.9
4/21/2008 11:05	EFA 01	AGP/LN	Algal Growth Potential-Salinity Adjusted	3	U	mg DryWt/L	3	3
4/21/2008 11:05	EFA 01	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	9.8		mg/L	0.2	2
4/21/2008 11:05	EFA 01	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	0.83	I	ug/L	0.55	1.7
4/21/2008 11:05	EFA 01	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.24	U	ug/L	0.24	0.71
4/21/2008 11:05	EFA 01	Toxicology	Bioassay-Acute-Scrn-FW-Fish,LC50-dechlr	100	L	LC50		
4/21/2008 11:05	EFA 01	Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	K	LC50		
4/21/2008 11:05	EFA 01	Toxicology	Bioassy-Acute-Scrn-FW-Cdubia,LC50-dechlr	100	L	LC50		
4/21/2008 11:05	EFA 01	Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	K	LC50		
4/21/2008 11:05	EFA 01	Metals	Selenium	0.5	U	ug/L	0.5	2
4/21/2008 11:05	EFA 01	Metals	Beryllium	0.025	U	ug/L	0.025	0.1
4/21/2008 11:05	EFA 01	Metals	Chromium	1	U	ug/L	1	4
4/21/2008 11:05	EFA 01	Metals	Calcium	73.4		mg/L	0.075	0.3
4/21/2008 11:05	EFA 01	Metals	Arsenic	0.74	I	ug/L	0.5	2
4/21/2008 11:05	EFA 01	Metals	Copper	1.3	I	ug/L	0.5	2
4/21/2008 11:05	EFA 01	Metals	Nickel	1.4		ug/L	0.25	1
4/21/2008 11:05	EFA 01	Metals	Zinc	11	I	ug/L	5	20
4/21/2008 11:05	EFA 01	Metals	Magnesium	18.9		mg/L	0.04	0.16
4/21/2008 11:05	EFA 01	Metals	Silver	0.025	U	ug/L	0.025	0.1
4/21/2008 11:05	EFA 01	Metals	Aluminum	60	U	ug/L	60	240
4/21/2008 11:05	EFA 01	Metals	Cadmium	0.02	U	ug/L	0.02	0.08
4/21/2008 11:05	EFA 01	Metals	Iron	93	I	ug/L	30	120
4/21/2008 11:05	EFA 01	Metals	Lead	0.2	U	ug/L	0.2	0.8
4/21/2008 11:05	EFA 01	Nutrients	Turbidity	1.8		NTU	0.1	0.1
4/21/2008 11:05	EFA 01	Nutrients	TSS	4	U	mg/L	4	16
4/21/2008 11:05	EFA 01	Nutrients	Total-P	0.15		mg P/L	0.02	0.06
4/21/2008 11:05	EFA 01	Nutrients	O-Phosphate-P	0.076		mg P/L	0.004	0.01
4/21/2008 11:05	EFA 01	Nutrients	Kjeldahl Nitrogen	16		mg N/L	0.4	1
4/21/2008 11:05	EFA 01	Nutrients	Organic Carbon	9.5		mg C/L	1	5
4/21/2008 11:05	EFA 01	Nutrients	NO2NO3-N	0.5		mg N/L	0.004	0.01
4/21/2008 11:05	EFA 01	Nutrients	Ammonia-N	14		mg N/L	0.2	0.4
4/21/2008 11:05	EFA 01	Pesticides	Butylate	0.2	U	ug/L	0.2	0.8
4/21/2008 11:05	EFA 01	Pesticides	Fenamiphos	0.2	U	ug/L	0.2	0.8

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
4/21/2008 11:05	EFA 01	Pesticides	Metalaxyl	0.25	U	ug/L	0.25	1
4/21/2008 11:05	EFA 01	Pesticides	Mevinphos	0.2	U	ug/L	0.2	0.8
4/21/2008 11:05	EFA 01	Pesticides	Chlorpyrifos Ethyl	0.05	U	ug/L	0.05	0.2
4/21/2008 11:05	EFA 01	Pesticides	Ethoprop	0.1	U	ug/L	0.1	0.4
4/21/2008 11:05	EFA 01	Pesticides	Fonofos	0.1	U	ug/L	0.1	0.4
4/21/2008 11:05	EFA 01	Pesticides	Simazine	0.05	U	ug/L	0.05	0.2
4/21/2008 11:05	EFA 01	Pesticides	Alachlor	0.6	U	ug/L	0.6	2.4
4/21/2008 11:05	EFA 01	Pesticides	Bromacil	0.2	U	ug/L	0.2	0.8
4/21/2008 11:05	EFA 01	Pesticides	Ametryn	0.05	U	ug/L	0.05	0.2
4/21/2008 11:05	EFA 01	Pesticides	Ethion	0.05	U	ug/L	0.05	0.2
4/21/2008 11:05	EFA 01	Pesticides	Norflurazon	0.15	U	ug/L	0.15	0.6
4/21/2008 11:05	EFA 01	Pesticides	Azinphos Methyl	0.2	U	ug/L	0.2	0.8
4/21/2008 11:05	EFA 01	Pesticides	Diazinon	0.05	U	ug/L	0.05	0.2
4/21/2008 11:05	EFA 01	Pesticides	Hexazinone	0.1	U	ug/L	0.1	0.4
4/21/2008 11:05	EFA 01	Pesticides	Malathion	0.15	U	ug/L	0.15	0.6
4/21/2008 11:05	EFA 01	Pesticides	Phorate	0.05	U	ug/L	0.05	0.2
4/21/2008 11:05	EFA 01	Pesticides	Chlorpyrifos Methyl	0.1	U	ug/L	0.1	0.4
4/21/2008 11:05	EFA 01	Pesticides	Metolachlor	0.5	U	ug/L	0.5	2
4/21/2008 11:05	EFA 01	Pesticides	Prometryn	0.15	U	ug/L	0.15	0.6
4/21/2008 11:05	EFA 01	Pesticides	Atrazine	0.12	I	ug/L	0.05	0.2
4/21/2008 11:05	EFA 01	Pesticides	Metribuzin	0.1	U	ug/L	0.1	0.4
4/21/2008 11:05	EFA 01	Pesticides	Naled	0.8	U	ug/L	0.8	3.2
4/21/2008 11:05	EFA 01	Pesticides	Parathion Ethyl	0.15	U	ug/L	0.15	0.6
4/21/2008 11:05	EFA 01	Pesticides	Parathion Methyl	0.1	U	ug/L	0.1	0.4
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Chrysene	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Endosulfan I	3.8	U	ug/L	3.8	15
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Pyrene	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	2,4-Dimethylphenol	9.6	UJ	ug/L	9.6	38
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Aldrin	1.4	U	ug/L	1.4	5.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.96	UJ	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Di-n-octyl phthalate	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Diethyl phthalate	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Dimethyl phthalate	9.6	U	ug/L	9.6	38

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Heptachlor	1.4	U	ug/L	1.4	5.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Hexachlorobutadiene	2.9	U	ug/L	2.9	12
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	alpha-BHC	1.4	U	ug/L	1.4	5.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	gamma-BHC	1.4	U	ug/L	1.4	5.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.7
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Benzo(a)anthracene	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Dieldrin	1.4	U	ug/L	1.4	5.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Endrin aldehyde	3.8	UJ	ug/L	3.8	15
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Fluoranthene	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.7
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	beta-BHC	1.4	U	ug/L	1.4	5.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	delta-BHC	1.4	U	ug/L	1.4	5.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	2-Nitrophenol	0.96	UJ	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	4,4'-DDT	1.4	U	ug/L	1.4	5.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Benzidine	96	U	ug/L	96	380
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Benzo(a)pyrene	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Pentachlorophenol	2.9	U	ug/L	2.9	12
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	4,4'-DDD	1.4	U	ug/L	1.4	5.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.96	UJ	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	4-Nitrophenol	14	U	ug/L	14	58
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Anthracene	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Benzo(k)fluoranthene	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	12
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Di-n-butyl phthalate	4.8	U	ug/L	4.8	19
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Fluorene	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Phenanthrene	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	2,6-Dinitrotoluene	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	2-Chloronaphthalene	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	3,3'-Dichlorobenzidine	38	UJ	ug/L	38	150
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Endosulfan II	3.8	U	ug/L	3.8	15
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	2,4-Dinitrophenol	14	U	ug/L	14	58

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	12
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	4,4'-DDE	1.4	U	ug/L	1.4	5.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Endrin	1.4	U	ug/L	1.4	5.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Heptachlor epoxide	1.4	U	ug/L	1.4	5.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Isophorone	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Nitrobenzene	1.9	U	ug/L	1.9	7.7
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	2,4-Dichlorophenol	0.96	UJ	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	2,4-Dinitrotoluene	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	2-Chlorophenol	0.96	UJ	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Acenaphthene	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Benzo(b)fluoranthene	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Endosulfan sulfate	1.4	U	ug/L	1.4	5.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Hexachlorobenzene	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9	U	ug/L	2.9	12
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Hexachloroethane	2.9	U	ug/L	2.9	12
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.7
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Naphthalene	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Phenol	0.96	UJ	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Acenaphthylene	0.96	U	ug/L	0.96	3.8
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	14	U	ug/L	14	58
4/21/2008 11:05	EFA 01	Priority Organic Pollutants	Butyl benzyl phthalate	4.8	U	ug/L	4.8	19
4/21/2008 11:05	EFA 01	Field Parameter	Specific Conductance	1630		umhos/cm		
4/21/2008 11:05	EFA 01	Field Parameter	Dissolved Oxygen	7.74		mg/L		
4/21/2008 11:05	EFA 01	Field Parameter	Total Residual Chlorine	2.2		mg/L		
4/21/2008 11:05	EFA 01	Field Parameter	pH	7.28				
4/21/2008 11:05	EFA 01	Field Parameter	Temperature	25.55		C		
4/21/2008 10:40	Sampler Blank	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	0.2	U	mg/L	0.2	2
4/21/2008 10:40	Sampler Blank	Metals	Selenium	0.5	U	ug/L	0.5	2
4/21/2008 10:40	Sampler Blank	Metals	Aluminum	60	U	ug/L	60	240
4/21/2008 10:40	Sampler Blank	Metals	Beryllium	0.025	U	ug/L	0.025	0.1
4/21/2008 10:40	Sampler Blank	Metals	Nickel	0.25	U	ug/L	0.25	1

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
4/21/2008 10:40	Sampler Blank	Metals	Lead	0.2	U	ug/L	0.2	0.8
4/21/2008 10:40	Sampler Blank	Metals	Cadmium	0.13		ug/L	0.02	0.08
4/21/2008 10:40	Sampler Blank	Metals	Calcium	0.075	U	mg/L	0.075	0.3
4/21/2008 10:40	Sampler Blank	Metals	Arsenic	0.5	U	ug/L	0.5	2
4/21/2008 10:40	Sampler Blank	Metals	Silver	0.025	U	ug/L	0.025	0.1
4/21/2008 10:40	Sampler Blank	Metals	Copper	0.5	U	ug/L	0.5	2
4/21/2008 10:40	Sampler Blank	Metals	Zinc	5	U	ug/L	5	20
4/21/2008 10:40	Sampler Blank	Metals	Magnesium	0.04	U	mg/L	0.04	0.16
4/21/2008 10:40	Sampler Blank	Metals	Chromium	1	U	ug/L	1	4
4/21/2008 10:40	Sampler Blank	Metals	Iron	30	U	ug/L	30	120
4/21/2008 10:40	Sampler Blank	Nutrients	Kjeldahl Nitrogen	0.08	U	mg N/L	0.08	0.2
4/21/2008 10:40	Sampler Blank	Nutrients	NO2NO3-N	0.008	I	mg N/L	0.004	0.01
4/21/2008 10:40	Sampler Blank	Nutrients	TSS	4	U	mg/L	4	16
4/21/2008 10:40	Sampler Blank	Nutrients	Ammonia-N	0.01	U	mg N/L	0.01	0.02
4/21/2008 10:40	Sampler Blank	Nutrients	Total-P	0.02	U	mg P/L	0.02	0.06
4/21/2008 10:40	Sampler Blank	Nutrients	Organic Carbon	1	U	mg C/L	1	5
4/21/2008 10:40	Sampler Blank	Nutrients	Organic Carbon	1	U	mg C/L	1	5
4/21/2008 10:40	Equipment Blank	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.24	U	ug/L	0.24	0.71
4/21/2008 10:40	Equipment Blank	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	0.55	U	ug/L	0.55	1.7
4/21/2008 10:40	Equipment Blank	Metals	Nickel	0.25	U	ug/L	0.25	1
4/21/2008 10:40	Equipment Blank	Metals	Magnesium	0.04	U	mg/L	0.04	0.16
4/21/2008 10:40	Equipment Blank	Metals	Calcium	0.075	U	mg/L	0.075	0.3
4/21/2008 10:40	Equipment Blank	Metals	Lead	0.2	U	ug/L	0.2	0.8
4/21/2008 10:40	Equipment Blank	Metals	Beryllium	0.025	U	ug/L	0.025	0.1
4/21/2008 10:40	Equipment Blank	Metals	Zinc	5	U	ug/L	5	20
4/21/2008 10:40	Equipment Blank	Metals	Selenium	0.5	U	ug/L	0.5	2
4/21/2008 10:40	Equipment Blank	Metals	Silver	0.025	U	ug/L	0.025	0.1
4/21/2008 10:40	Equipment Blank	Metals	Iron	30	U	ug/L	30	120
4/21/2008 10:40	Equipment Blank	Metals	Copper	0.58	I	ug/L	0.5	2
4/21/2008 10:40	Equipment Blank	Metals	Aluminum	60	U	ug/L	60	240
4/21/2008 10:40	Equipment Blank	Metals	Arsenic	0.5	U	ug/L	0.5	2
4/21/2008 10:40	Equipment Blank	Metals	Cadmium	0.11		ug/L	0.02	0.08
4/21/2008 10:40	Equipment Blank	Metals	Chromium	1	U	ug/L	1	4
4/21/2008 10:40	Equipment Blank	Nutrients	NO2NO3-N	0.005	I	mg N/L	0.004	0.01

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
4/21/2008 10:40	Equipment Blank	Nutrients	Total-P	0.02	U	mg P/L	0.02	0.06
4/21/2008 10:40	Equipment Blank	Nutrients	O-Phosphate-P	0.004	U	mg P/L	0.004	0.01
4/21/2008 10:40	Equipment Blank	Nutrients	Ammonia-N	0.01	U	mg N/L	0.01	0.02
4/21/2008 10:40	Equipment Blank	Nutrients	Kjeldahl Nitrogen	0.08	U	mg N/L	0.08	0.2
4/21/2008 10:40	Equipment Blank	Pesticides	Ametryn	0.049	U	ug/L	0.049	0.2
4/21/2008 10:40	Equipment Blank	Pesticides	Phorate	0.049	U	ug/L	0.049	0.2
4/21/2008 10:40	Equipment Blank	Pesticides	Ethion	0.049	U	ug/L	0.049	0.2
4/21/2008 10:40	Equipment Blank	Pesticides	Chlorpyrifos Methyl	0.098	U	ug/L	0.098	0.39
4/21/2008 10:40	Equipment Blank	Pesticides	Hexazinone	0.098	U	ug/L	0.098	0.39
4/21/2008 10:40	Equipment Blank	Pesticides	Malathion	0.15	U	ug/L	0.15	0.6
4/21/2008 10:40	Equipment Blank	Pesticides	Atrazine	0.049	U	ug/L	0.049	0.2
4/21/2008 10:40	Equipment Blank	Pesticides	Diazinon	0.049	U	ug/L	0.049	0.2
4/21/2008 10:40	Equipment Blank	Pesticides	Parathion Ethyl	0.15	U	ug/L	0.15	0.6
4/21/2008 10:40	Equipment Blank	Pesticides	Fonofos	0.098	U	ug/L	0.098	0.39
4/21/2008 10:40	Equipment Blank	Pesticides	Azinphos Methyl	0.2	U	ug/L	0.2	0.8
4/21/2008 10:40	Equipment Blank	Pesticides	Metalaxyl	0.25	U	ug/L	0.25	1
4/21/2008 10:40	Equipment Blank	Pesticides	Metribuzin	0.098	U	ug/L	0.098	0.39
4/21/2008 10:40	Equipment Blank	Pesticides	Naled	0.78	U	ug/L	0.78	3.1
4/21/2008 10:40	Equipment Blank	Pesticides	Fenamiphos	0.2	U	ug/L	0.2	0.8
4/21/2008 10:40	Equipment Blank	Pesticides	Chlorpyrifos Ethyl	0.049	U	ug/L	0.049	0.2
4/21/2008 10:40	Equipment Blank	Pesticides	Butylate	0.2	U	ug/L	0.2	0.8
4/21/2008 10:40	Equipment Blank	Pesticides	Alachlor	0.59	U	ug/L	0.59	2.4
4/21/2008 10:40	Equipment Blank	Pesticides	Ethoprop	0.098	U	ug/L	0.098	0.39
4/21/2008 10:40	Equipment Blank	Pesticides	Metolachlor	0.49	U	ug/L	0.49	2
4/21/2008 10:40	Equipment Blank	Pesticides	Norflurazon	0.15	U	ug/L	0.15	0.6
4/21/2008 10:40	Equipment Blank	Pesticides	Parathion Methyl	0.098	U	ug/L	0.098	0.39
4/21/2008 10:40	Equipment Blank	Pesticides	Bromacil	0.2	U	ug/L	0.2	0.8
4/21/2008 10:40	Equipment Blank	Pesticides	Simazine	0.049	U	ug/L	0.049	0.2
4/21/2008 10:40	Equipment Blank	Pesticides	Mevinphos	0.2	U	ug/L	0.2	0.8
4/21/2008 10:40	Equipment Blank	Pesticides	Prometryn	0.15	U	ug/L	0.15	0.6
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.6
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Benzo(a)pyrene	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Diethyl phthalate	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Endrin	1.4	U	ug/L	1.4	5.7

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9	U	ug/L	2.9	11
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Pentachlorophenol	2.9	U	ug/L	2.9	11
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	gamma-BHC	1.4	U	ug/L	1.4	5.7
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	2-Chloronaphthalene	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	3,3'-Dichlorobenzidine	38	UJ	ug/L	38	150
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	4,4'-DDE	1.4	U	ug/L	1.4	5.7
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	4-Nitrophenol	14	U	ug/L	14	57
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.95	UJ	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.6
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Phenol	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	2,4-Dinitrophenol	14	U	ug/L	14	57
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Butyl benzyl phthalate	4.8	U	ug/L	4.8	19
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Chrysene	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Endosulfan II	3.8	U	ug/L	3.8	15
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Hexachloroethane	2.9	U	ug/L	2.9	11
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Nitrobenzene	1.9	U	ug/L	1.9	7.6
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	beta-BHC	1.4	U	ug/L	1.4	5.7
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Acenaphthylene	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	14	U	ug/L	14	57
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Dieldrin	1.4	U	ug/L	1.4	5.7
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Endosulfan I	3.8	U	ug/L	3.8	15
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Heptachlor epoxide	1.4	U	ug/L	1.4	5.7
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	2,4-Dichlorophenol	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	11
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	4,4'-DDT	1.4	U	ug/L	1.4	5.7
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Benzidine	95	U	ug/L	95	380
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Benzo(b)fluoranthene	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Di-n-butyl phthalate	4.8	U	ug/L	4.8	19
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Dimethyl phthalate	9.5	U	ug/L	9.5	38
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.95	U	ug/L	0.95	3.8

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	2,4-Dinitrotoluene	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	2,6-Dinitrotoluene	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	2-Chlorophenol	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	2-Nitrophenol	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Acenaphthene	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Aldrin	1.4	U	ug/L	1.4	5.7
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Benzo(a)anthracene	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Isophorone	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.6
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Naphthalene	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	delta-BHC	1.4	U	ug/L	1.4	5.7
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	4,4'-DDD	1.4	U	ug/L	1.4	5.7
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	11
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Endrin aldehyde	3.8	UJ	ug/L	3.8	15
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Phenanthrene	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	2,4-Dimethylphenol	9.5	U	ug/L	9.5	38
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Anthracene	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Benzo(k)fluoranthene	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Di-n-octyl phthalate	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Endosulfan sulfate	1.4	U	ug/L	1.4	5.7
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Fluoranthene	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Fluorene	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Heptachlor	1.4	U	ug/L	1.4	5.7
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Hexachlorobenzene	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Hexachlorobutadiene	2.9	U	ug/L	2.9	11
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	Pyrene	0.95	U	ug/L	0.95	3.8
4/21/2008 10:40	Equipment Blank	Priority Organic Pollutants	alpha-BHC	1.4	U	ug/L	1.4	5.7
4/22/2008 11:50	EFA 01	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	5.8		mg/L	0.2	2
4/22/2008 11:50	EFA 01	Metals	Chromium	1	U	ug/L	1	4
4/22/2008 11:50	EFA 01	Metals	Calcium	77.7		mg/L	0.075	0.3
4/22/2008 11:50	EFA 01	Metals	Silver	0.025	U	ug/L	0.025	0.1

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
4/22/2008 11:50	EFA 01	Metals	Arsenic	0.78	I	ug/L	0.5	2
4/22/2008 11:50	EFA 01	Metals	Iron	81	I	ug/L	30	120
4/22/2008 11:50	EFA 01	Metals	Magnesium	20.8		mg/L	0.04	0.16
4/22/2008 11:50	EFA 01	Metals	Copper	1.8	I	ug/L	0.5	2
4/22/2008 11:50	EFA 01	Metals	Selenium	0.5	U	ug/L	0.5	2
4/22/2008 11:50	EFA 01	Metals	Cadmium	0.02	U	ug/L	0.02	0.08
4/22/2008 11:50	EFA 01	Metals	Aluminum	60	U	ug/L	60	240
4/22/2008 11:50	EFA 01	Metals	Zinc	15	I	ug/L	5	20
4/22/2008 11:50	EFA 01	Metals	Lead	0.32	I	ug/L	0.2	0.8
4/22/2008 11:50	EFA 01	Metals	Nickel	1.31		ug/L	0.25	1
4/22/2008 11:50	EFA 01	Metals	Beryllium	0.051	U	ug/L	0.051	0.2
4/22/2008 11:50	EFA 01	Nutrients	Ammonia-N	13		mg N/L	0.2	0.4
4/22/2008 11:50	EFA 01	Nutrients	TSS	4	U	mg/L	4	16
4/22/2008 11:50	EFA 01	Nutrients	NO2NO3-N	0.86		mg N/L	0.008	0.02
4/22/2008 11:50	EFA 01	Nutrients	Organic Carbon	9.6		mg C/L	1	5
4/22/2008 11:50	EFA 01	Nutrients	Organic Carbon	9.5		mg C/L	1	5
4/22/2008 11:50	EFA 01	Nutrients	Kjeldahl Nitrogen	16		mg N/L	0.4	1
4/22/2008 11:50	EFA 01	Nutrients	Total-P	0.17		mg P/L	0.02	0.06
4/22/2008 11:50	EFB-01	Nutrients	TSS	4	U	mg/L	4	16

Appendix F. FDEP Bioassay Meter/ Device Identification

Facility ID: City of Tarpon Springs WWTP Test Dates: April 22 -April 24, 2008

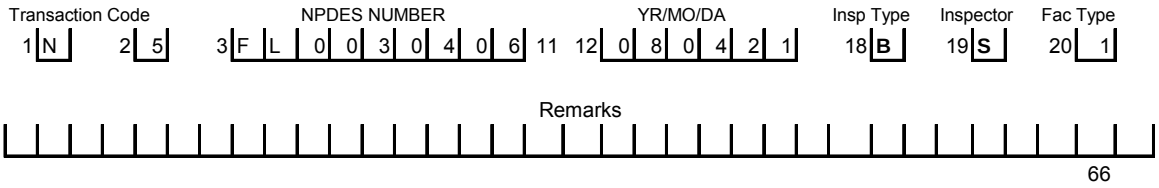
METER / DEVICE	ID	SOP	Parameter	Method	√ used
YSI Model 58 Dissolved Oxygen Meter	90H018262	TA06_04	Dissolved Oxygen	SM 4500 O G	√
Accumet AR-10 pH Meter	93312105	TA06_23	pH	SM 4500 H^+	√
Mettler-Toledo SevenMulti Conductivity Meter	SN 1225117049 Probe H04257	TA06_25	Conductivity Salinity	SM 2510 B SM 2520 B	√
Denver Model 225 ISE with ammonia probe	SN K01377	TA06_17	Ammonia	SM 4500 NH3 F	√
Thermometer (DO probe)	YSI 5750 SN 05J1720	TA06_05	Temperature	SM-2530B modified DEP SOP-001/01 FT1400	√
Hach Pocket Colorimeter II	05050C026378	TA06_22	Total Residual Chlorine	EPA 330.5 SM 4500 CL G	√
Alkalinity (Hach Kit)	No SN	TA06_08	Alkalinity	SM 2320 B	√
Hardness (Hach Kit)	No SN	TA06_09	Hardness	SM 2340 C	√
OHAUS Balance 250D	1125481084	TA06_21 TA06_27	Weight	-	
S-Weights	BIO-S-WEIGHTS-01	NA	Balance check	-	

SM-2530B modified to allow use of electronic and non-mercury filled thermometers.
Insert other device information in blank spaces(if used). Test ID = Facility or SRTs (acute SRT--Chronic SRT)

V 1.1 6/12/08 MF

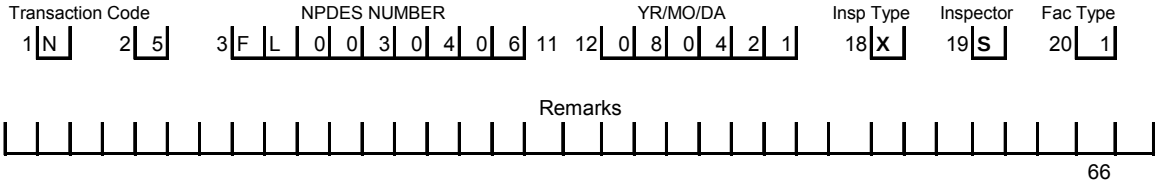
The Bioassay of the City of Tarpon Springs Wastewater Treatment Plant effluent sampled on April 21, 2008. NPDES #FL0030406.

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



The Priority Pollutants Analysis of the City of Tarpon Springs Wastewater Treatment Plant effluent sampled on April 21 and 22, 2008. NPDES #FL0030406.

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



Biological Analyses of the City of Tarpon Springs Wastewater Treatment Plant effluent sampled on April 21, 2008. NPDES #FL0030406.

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

