

Effluent Quality Assessment

City of Palmetto WWTF

Manatee County

NPDES #FL0020401

Sampled July 21 and 22, 2008

November 2008

Biology Section
Bureau of Laboratories
Division of Environmental Assessment and Restoration

Quality Manual No. 870346G
NELAC Certification No. E31780

City of Palmetto Wastewater Treatment Facility, 1310 28th Avenue West, Palmetto, Manatee County, Florida 34221. NPDES #FL0020401. Effluent samples for bioassay testing for this facility were collected on July 21, 2008. Additional effluent samples for Algal Growth Potential, Chemical and Microbiological analyses were collected on July 22, 2008.

Introduction

City of Palmetto Wastewater Treatment Facility (WWTF) is an advanced domestic wastewater treatment plant which uses a Type I multi-process, multi-train activated-sludge process to treat domestic wastewater. The facility has a design flow of 2.4 million gallons per day (MGD) three-month average daily flow (3MADF), with a permitted surface water discharge of 1.4 MGD 3MADF and a permitted discharge through reuse system R-001 of 2.4 MGD annual average daily flow (AADF). The 3MADF from June 2007 through May 2008 to surface waters (Outfall D-001) was 0.39 MGD and the annual average daily flow through reuse system R-001 was 0.905 MGD. The wastewater treatment system consists of:

- A headworks/ influent pumping station with an influent screening structure and grit removal system.

A biological treatment process consisting of:

- two fermentation tanks of 119000 gallons each, from which mixed liquor is directed to two separate advanced treatment trains.

Train one is a dual-channel Bardenpho five-stage process consisting of:

- two fermentation basins of 60,000 gallons total volume;
- two first anoxic basins of 162,000 gallons total volume;
- two aeration basins of 280,000 gallons total volume;
- two second anoxic basins of 130,000 gallons total volume; and,
- two re-aeration basins of 60,000 gallons total volume.

The Bardenpho train provides mixed liquor to:

- two secondary clarifiers with a total volume of 25,600 gallons and a total surface area of 2,514 sq. feet.

Train two is an oxidation ditch system consisting of:

- a 236,000 gallon anoxic tank; and,
- a Carrousel oxidation-ditch aeration basin of 479,000 gallons.

The treatment process continues to:

- three automatic backwash traveling bridge filters with a total area of 915 sq. feet;
- a dual-channel contact basin with a volume of 78,995 gallons with a liquid chlorination system and an effluent transfer pumping station.

The solids handling stream consists of:

- two aerobic digesters;
- one sludge thickening tank;
- one mechanical belt-filter press; and,
- four sludge drying beds.

Residuals are disposed by land application or in a Class I or Class II solid waste landfill.

Liquid chlorine is used for disinfection. Sodium bisulfate is used for dechlorination. Effluent is primarily disposed through public access Reuse System R-001. R-001 is an existing 2.625 MGD AADF permitted capacity slow-rate public access system which comprises the Palmetto Area Reuse System. As a secondary means of disposal, effluent is intermittently discharged to the Class II (Shellfish Propagation or Harvesting) surface waters of Terra Ceia Bay, at discharge

location D-001. Outfall D-001 is approximately 457 m (~1500 feet) in length, and discharges at a depth of about 1.34 m (~4.4 feet). The point of discharge is located approximately at latitude 27°31'25"N, longitude 82°36'05"W.

Effluent may also be directed to an on-site reject pond having a capacity of 7.983 million gallons. Reclaimed water placed into the reject pond may be re-pumped through dual mechanical filters for algae stripping, and then to the head of the traveling bridge filters, or by gravity to the headworks for re-treatment. Part III reclaimed water may also be directed to a 2.0 million gallon above-ground storage tank, and then pumped by a high service reuse pumping station with a 25,000 gallon hydropneumatic tank, and thence to the public access reuse system.

The facility has no Administrative Orders or Consent Orders. The facility has a mixing zone for copper, nickel and toxicity. The mixing zone is a circular area with a radius of 2.35 meters and a total surface area of 17.4 meters, centered over the outfall. The mixing zone includes the entire water column from the surface to the bottom, and otherwise complies with the physical requirements of Rule 62-4.244, F.A.C. The granting of the mixing zone also includes the installation and operation of a Tideflex check valve at the end of the 30" discharge pipe. This check valve remains closed during periods of no discharge. The effective diameter of the check valve will vary with discharge flow to increase the discharge port velocity, in order to promote more rapid mixing.

A review of Discharge Monitoring Report (DMR) data from January 2007 – May 2008, revealed the following permit violations: (Fecal coliforms-% of results that are non-detectable: 11/2007 - value 40%, 5/2008 - value 69%, permitted value ≥75%), and, (Fecal coliforms - colony forming units/100mL 11/2007 - value 31 CFU/100mL (2x), permitted value ≤ 25 CFU/100mL). The effluent's dichlorobromomethane concentrations for the review period exceeded the permitted limit for dichlorobromomethane of 22 µg/L annual average(AA) (January. and February. 2007, 32 µg/L AA: August 2007 through April 2008 AA, respectively in µg/L, 30, 30, 30, 31, 31, 30, 30, 30 and 30). The DMR review found the facility to be operating within permitted limits except as noted above. (Facility information provided by Peter Wenner, Joe Squitieri and Jason Cohen of FDEP Southwest District.)

Methods

Samples were collected from the EFA-01 NPDES sampling point for Outfall D-001 by Jason Cohen, Peter Wenner, Gitta Schmitt, and Joe Squitieri (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 96-hour acute definitive toxicity tests and algal growth potential test were performed following internal DEP SOPs TA07_03, TA07_04, 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.

An aliquot of the bioassay sample was salinity-adjusted from an apparent salinity of approximately 0.38 parts per thousand (ppth) to a salinity of approximately 30 ppth using 40 Fathoms® artificial sea salts for the *Americamysis bahia* and *Menidia beryllina* tests, per permit conditions. The salt control used for the tests was prepared by diluting 20 ppth artificial seawater (ASW) with well water to a salinity of approximately 1 ppth then salting this solution with artificial sea salts to match the salinity of the test solution (approximately 30 ppth). The purpose of the salt control was to confirm that there was no effect of adding artificial sea salts to the sample. There was no mortality in the salt controls of either test.

Prior to test initiation, the bioassay sample was aerated for 20 minutes at approximately 100 bubbles per minute, to decrease the dissolved oxygen (DO) concentration from 9.6 mg/L to 8.0 mg/L. The *A. bahia* test was also aerated at 48 hours due to low DO concentrations (< 4.0 mg/L).

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

Toxicity Test Results

Tests were performed July 22 - 26, 2008.

Americamysis bahia 96-hour acute definitive bioassay –	LC_{50} > 100%, 5% mortality* in 100% sample at 96 hours
Menidia beryllina 96-hour acute definitive bioassay –	LC_{50} > 100%, 0% mortality* in 100% sample at 96 hours

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

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

*NOTE: In a 96-hour acute definitive test, 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 99.2 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 69.8 (±20%) mg dry wt/L (Table 1; Miller et al. 1978).

The effluent Algal Growth Potential (AGP) was 36.2 mg dry wt/L of the saltwater species *Dunaliella tertiolecta.* Raschke and Shultz found that AGP values above 10.0 mg dry weight/L represent a "problem" threshold for marine receiving waters, implying nutrient enrichment (personal communication, Marshall Faircloth, et. al. FDEP, with Ron Raschke USEPA Region 4 1987).

See Table 1 for AGP results.

Chemistry Results

Total residual chlorine (TRC) and total ammonia were not detected in the bioassay sample in the laboratory. TRC was not measured in the bioassay sample in the field; however, TRC was not detected in the field in the effluent collected for chemical analyses. The total ammonia concentration in the sample collected and preserved for chemical analysis was 0.038 mg/L. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was ≤0.02 mg/L.

Cadmium and nickel were detected in the effluent at levels that comply with Class II water quality criteria (62-302.530, F.A.C.). Antimony, arsenic, copper, iron, zinc, and oils and greases were detected between the laboratory method detection limits (MDL) and practical quantitation limits (PQL).

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

Conclusion

The effluent sample collected from the EFA-01 NPDES sampling point for Outfall D-001 for this facility on July 21, 2008, was not acutely toxic to either test species during the 96-hour acute definitive bioassays. The effluent AGP results exceeded the "problem" threshold for both freshwater and marine receiving waters, suggesting that nutrient enrichment may be an issue. 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.

Raschke, R. L. and D. A. Schultz. 1987. The use of the algal growth potential test for data assessment. J. Wat. Poll. Cont. Fed. 59(4): 222-227.

Table 1a. 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* for samples collected from the City of Palmetto WWTF on July 22, 2008.

City Of Palmetto WWTF					
Location	AGP (measured)	Predicted AGP (TSIN) ± 20%	Predicted AGP (TN) ± 20%	Inorganic N:P ratio	Total N:P ratio
D-001	99.2	69.8 ± 14.0	106.4 ± 21.3	4.1	5.0

Table 1b. Measured 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 Palmetto WWTF on July 22, 2008.

City Of Palmetto WWTF			
Location	AGP (measured)	Inorganic N:P ratio	Total N:P ratio
D-001	36.2	4.1	5.0

Table 2. Effluent limits, Class II Criteria for predominantly marine waters and chemical and microbiological data for samples collected on July 22, 2008.

City Of Palmetto Wastewater Treatment Facility NPDES# FL0020401	Class II Criteria	Effluent Limits	D-001
Organic Constituents (µg/L)			
Dichlorobromomethane	≤ 22 a	Report	-
Metals (µg/L unless otherwise noted)			
Aluminum	≤ 1,500	-	60 U
Antimony	≤ 4,300	-	0.54 I
Arsenic	≤ 50	-	1.3 I
Cadmium	≤ 8.8	-	0.11
Calcium (mg/L)	-	-	64.2
Chromium-III	-	-	0.5 U
Copper	≤ 3.7	≤ 5.8 s p	0.88 I
Iron	≤ 300	-	60 I
Lead	≤ 8.5	-	0.2 U
Magnesium (mg/L)	-	-	16.8
Nickel	≤ 8.3	≤ 25.0 s p	3.07
Selenium	≤ 71	-	0.5 U
Silver	≤ 2.3	-	0.025 U
Zinc	≤ 86	-	13 I
Nutrients (mg/L)			
Ortho-phosphate	-	-	0.45
Total Phosphorus	-	≤ 2.0 s p	0.56
Total Ammonia	-	-	0.038
Un-ionized Ammonia	-	-	≤ 0.02 c
Nitrate and Nitrite	-	-	1.8
Total Kjeldahl Nitrogen	-	-	1
Organic Nitrogen	-	-	0.962 c
Total Nitrogen	-	≤ 6.0 s p	2.8 c
General Physical and Chemical Parameters			
Dissolved Oxygen (mg/L)	≥ 4.0	≥ 5.0 s	6.4
pH (SU)	6.5 - 8.5	6.5 - 8.5 s	7.3
Conductivity (µmhos/cm)	-	-	853
Temperature °C	-	-	30.5
Salinity	-	-	≤ 0.37 c
Total Residual Chlorine (mg/L)	≤ 0.01	-	≤ 0.03 £
CBOD, 5 day (mg/L), N - inhibited	-	≤ 10.0 s p	5.4 A V
Oils and Greases (mg/L)	≤ 5.0	≤ 5.0 s	1.9 I
Flow (MGD)	-	≤ 1.4 *	0.39 a
Hardness (mg $CaCO_3$)	-	-	229.49 c
Microbiology (Number of colony forming units/100ml)			
Fecal Coliforms	≤ 400s #		1

a - Annual average

c - Value is calculated

p - Permit limit based on a 16-hour flow proportional sample

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

- If 10 or fewer samples are taken within a month, the single sample limit is 400 CFU (62-302.530(6), F.A.C.)

* - 3-Month Average Daily Flow

£ - Measured in Central Laboratories

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2008-07-21-18
City of Palmetto WWTP

Requester: Kathryn Brackett Field Report Prepared By:

Customer: SW-DIST
Collected By: JASON COHEN / GITTA SCHMITT, J. SQUIRES Send Final Report To Tom Gucciardo

Project ID: FYI3
Sampling Agency: FDEP

PMAS: 1143

Lab ID *	Location: DO-1			☐ Comp ☑ Grab	Collection (begin) Date	Time: 1735	Eastern Central	Collection (end) Date Time	Eastern Central	Bottle Group(s)**
	Field ID: 36569			Tot Res Chlorine (mg/L): 0	Diss Oxygen (mg/L): 6.38			Storet Station Number		A
	Matrix (Include type e.g. Salt, Fresh, etc): FRESH WATER WASTEWATER	Temp (C): 30.49	pH: 7.30	Sample Depth: 0.2 ☑ m ☐ ft	0.41 / 853	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)		NPDES Number		
	Latitude: 27° 31' 42.3"	Longitude: 82° 35' 50.2"		Comments: DO% 85.3						
Lab ID *	Location: FIELD BLANK			☐ Comp ☑ Grab	Collection (begin) Date Time	Eastern Central	Collection (end) Date Time	Eastern Central	Bottle Group(s)**	
	Field ID: 36569			Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)		Storet Station Number		B	
	Matrix (Include type e.g. Salt, Fresh, etc): FRESH	Temp (C)	pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)		NPDES Number			
	Latitude: ~~82° 35' 50.2"~~	Longitude		Comments						
Lab ID *	Location: COMPOSITE			☑ Comp ☐ Grab	Collection (begin) Date: 7/21/08 Time: 900	Eastern Central	Collection (end) Date: 7/22/08 Time: 900	Eastern Central	Bottle Group(s)**	
	Field ID: 36570			Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)		Storet Station Number			
	Matrix (Include type e.g. Salt, Fresh, etc): FRESH	Temp (C)	pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)		NPDES Number			
	Latitude	Longitude		Comments						
Lab ID *	Location			☐ Comp ☐ Grab	Collection (begin) Date Time	Eastern Central	Collection (end) Date Time	Eastern Central	Bottle Group(s)**	
	Field ID			Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)		Storet Station Number			
	Matrix (Include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)		NPDES Number			
	Latitude	Longitude		Comments						

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
	7/22/08 1310	DHL						7-23-08 8:20a

* 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

Event ID *

Request Number: RQ-2008-07-21-18
City of Palmetto WWTP

Requester: Kathryn Brackett
Field Report Prepared By:

Customer: SW-DIST
Collected By: PETER WEAVER, JASON COHEN
Send Final Report To Tom Gucciardo

Project ID: FYI3
Sampling Agency: SOUTHWEST DISTRICT

PMAS: 1143

Lab ID *	Location				Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	D-002				☑ Comp ☐ Grab	Date 7/20/08 Time 0900 Eastern Central	Date 7/21/08 Time 0900 Eastern Central	A
	Field ID				Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	
	36568							
	Matrix (Include type e.g. Salt, Fresh, etc)	Temp (C)	pH		Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number	
	FRESH (WASTEWATER EFF.)							
	Latitude o ' "	Longitude o ' "			Comments	TOXICITY SAMPLES ONLY		

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

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

Lab ID *	Location				Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
					☐ Comp ☐ Grab			
	Field ID				Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	
	Matrix (Include type e.g. Salt, Fresh, etc)	Temp (C)	pH		Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number	
	Latitude o ' "	Longitude o ' "			Comments	3 Heavy Rad = 7.14 by 50 10:10 HL 7.22.08		

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
	7/21/08/1600	DHL						7.22.08/5:50

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information

last revised October 1, 2003

FDEP Biology Laboratory - Acute Definitive Bioassay Bench Sheets

Facility: City of Palmetto WWTP

Address: 1310 28th Avenue West

City: Palmetto County: Manatee (MF) Zip 34221

Contact/District: Peter Wenner / Southwest TAMPA

NPDES Permit #: FL 0020401

LIMS Job #: TLH-2008-07-22-02 LIMS Sample #: 116222

Lims Data Entry: MF 8-1-08 Data Entry Verification: BA 8-1-08

Sample Collection: Date: 7-21-08 Time: 0900

Hold Time Start: Date: 7-21-08 Time: 0900

Comments: a bahia test aerated @ 48 hours due to DO < 4.0 mg/L MF 7-24-08

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

Test Type: (Definitive)
Static / (Static Renewal) / Flow-through

Test Duration: 48 (96) Hours.

Light Intensity : 50 - 100 ft. candles.

Photoperiod : 16 hours light 8 hours dark.

Test 1 validation: **Test 1:** SOP TA 07_03

Control survival ≥90%: (Yes) No

Temperature Range ≤3°C: (Yes) No

Test 2 validation: **Test 2:** SOP TA 07_04

Control survival ≥90%: (Yes) No

Temperature Range ≤3°C: (Yes) No

(√one)

Test 1 incubated in: [√] Incubator #: 2 [ ] Waterbath:

Test 2 incubated in: [√] Incubator #: 2 [ ] Waterbath:

Initial sample handling:

PH adjustment : yes (no) Initial pH: ____ NaOH N HCl N ____ Drops mL Final pH: ____

Aeration : (Yes) no Initial DO: 9.6 mg/L Final DO: 8.6 mg/L Duration: 20 minutes Rate: ~100 bubbles/min

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

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

Dechlorination: yes (no) ____mL of 0.025N Sodium Thiosulfate per liter of sample. Final TRC: ____

Sample Validation:

Temperature: Shipped ≤6°C (Yes) No ----- If Hand Delivered: Cooling (received °C < collected °C) (Yes) No BA MF 7-16-08

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: (if used)

Incubator # 2 min 23.8 max 24.7 mean 24.3

Incubator # ____ min.____ max.____ mean____

Waterbath #: 1 min 22.8 max 25.6 mean 24.2

Room B246 min 25.0 max 26.0 mean 25.5

Investigators' Signatures

Joseph M. Faircloth

James Dimock

Bruce Dost

Loretta C. Wolfe
REVIEWER

Water Quality Parameters	20% DMW	Well Water	Moderately Hard Water	Salt Water (ASW) NSW Test 1	Salt Water (ASW) NSW Test 2	Salinity Other: Adjusted Palmetto	Original Sample	Measured by	Verified by
Batch #				7-21-08	7-21-08				
Field Total Residual Cl_2 (mg/L):	N/A	N/A	N/A	N/A	NA	NA	not measured		MF
Lab Total Residual Cl_2 (mg/L):				<0.03	<0.03	—	<0.03	JD	MF
Alkalinity (mg/L as $CaCO_3$):				243	243	214	149	BA	MF
Hardness (mg/L as $CaCO_3$):				—	—	—	247	BA	MF
Total Ammonia (mg/L as N):				<0.051	<0.051	—	<0.017	MF	JD
Conductivity: µmhos (mmhos)				45.9	45.9	46.2	0.889	JD/MF	JD
Salinity (ppth):				29.5	29.5	30	0.38	JD/MF	JD

V 1.7 7/8/09

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 116222 Test #: 1 SOP#:TA 07 03 Test Started: Date 7-22-08 Time: 1300
Organism/Batch/Age: A bahia / 7-22-08 / 5days Test Ended: Date 7-26-08 Time: 1210
Chamber/Test Volume: 400 / 300 ml Diluent/ Batch: 30ppth ASW 7-21-08 Test Duration: 48 hr (96 hr)
Food/Batch: ☐ YCT ☐ P.sub
☑ Artemia: 0hr 117 24hr 118 48hr 119 72hr 120 Artemia Lot# 38438
Feeding: ☑ Prior to Test ☑ Prior to Renewal ☑ 0 hr ☑ 24 hr ☑ 48 hr ☑ 72 hr

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl %	A	T1	5	5	5	5	5	5
	B	T2	5	5	5	5	5	5
	C	T3	5	5	5	5	5	5
	D	T4	5	5	5	5	5	5
6.25%	A	T5	5	5	5	5	5	5
	B	T6	5	5	5	5	5	5
	C	T7	5	5	5	5	5	5
	D	T8	5	5	5	5	5	5
12.5%	A	T9	5	5	5	5	5	5
	B	T10	5	5	5	5	5	5
	C	T11	5	5	5	5	5	5
	D	T12	5	5	5	5	5	5
25%	A	T13	5	5	5	5	5	5
	B	T14	5	5	5	5	5	5
	C	T15	5	5	5	5	5	5
	D	T16	5	5	5	5	5	5
50%	A	T17	5	5	5	5	5	5
	B	T18	5	4/D	4	4	4	4
	C	T19	5	5	5	5	5	5
	D	T20	5	5	5	5	5	5
100%	A	T21	5	5	5	5	5	5
	B	T22	5	5	4/D	4	4	4
	C	T23	5	5	5	5	5	5
	D	T24	5	5	5	5	5	5
S.W Ctrl	A	T25	5	5	5	5	5	5
	B	T26	5	5	5	5	5	5
	C	T27	5	5	5	5	5	5
	D	T28	5	5	5	5	5	5
			JJ	JB	JS	JD	JD	MF

Loaded/Verified by: JJ / MF Checked by:
m = missing d = dead BR/AR = Before/After Renewal
Test Results:
Screening Tests: Report LC50 as >100%, =100%, or <100%.
% mortality in 100% sample: 5% LC50: >100
If Calculated: 95% CI_____ Method_____

Comments:

V 2.3 7/15/2008

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

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Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 116222 Test #: 2 SOP#:TA 07 04 Test Started: Date 7-22-08 Time: 1315
Organism/Batch/Age: M. beryllina / 7-22-08 / 13 days Test Ended: Date 7-26-08 Time: 1330 mF
Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: 30ppth ASW / 7-21-08 Test Duration: 48 hr
Food/Batch: ☐ YCT_____ ☐ P.sub_____ (96 hr)
☑ Artemia: 0hr 117 24hr — 48hr 119 72hr — Artemia Lot# 38438
Feeding: ☑ Prior to Test ☑ Prior to Renewal ☑ 0 hr ☐ 24 hr ☑ 48 hr ☐ 72 hr

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
ctrl	A	D1	10	10	10	10	10	10
	B	D2	10	8D	8	8	8	8
6.25%	A	D3	10	10	10	10	10	10
	B	D4	10	10	10	10	10	10
12.5%	A	D5	10	10	10	10	10	10
	B	D6	10	9D	9	9	9	9
25%	A	D7	10	9D	9	9	9	9
	B	D8	10	10	10	10	10	10
50%	A	D9	10	9D	9	9	9	9
	B	D10	10	10	10	10	10	10
100%	A	D11	10	10	10	10	10	10
	B	D12	10	10	10	10	10	10
salt ctrl	A	D13	10	10	10	10	10	10
	B	D14	10	10	10	10	10	10
Loaded/Verified by: JB / MF		Checked by:	JD	JB	SB	JD	JD	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: 0% LC50: >100%
If Calculated: 95% CI_____ Method_____

Comments:

V 2.3 7/15/2008
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 # : 111622 Test #: 1 of 2

TEST SOP #: TA07_03 Test Species: ☐ Ceriodaphnia dubia ☐ Cyprinella leedsi ☐ Pimephales promelas

Test aerated: (yes) no (circle one) Check 1: ☑ Americamysis bahia ☒ Menidia beryllina ☐ Other:

JD

Concentration: Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.4	8.3	8.2	8.4	8.2	8.2
Temperature °C	24.6	24.1	24.3	24.0	24.4	24.7
Dissolved Oxygen mg/L aerate if < 4	6.3	5.2	4.3	5.9	6.0	6.5
Conductivity µmhos (mmhos)	46.8 mf 45.9 mf	45.9	48.5	45.9	45.4	47.0
Salinity ppth 30	29.3	30.4	32.1	30.4	30.4	31.6
(initials) Measured by:	mf	JD	JD	JD	JD	mf
(initials) Recorded by:	mf	JD	JD	JD	JD	mf

Comments: Recorded Salt control in control spaces for Cond. and Salinity mf 7-22-08

Test aerated @ 48 hours mf 7-24-08

Concentration: 6.25	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.4	8.3	8.2	8.4	8.2	8.2
Temperature °C	24.5	24.1	24.3	24.1	24.3	24.5
Dissolved Oxygen mg/L aerate if < 4	6.5	5.4	3.7	5.8	6.0	6.3
Conductivity µmhos (mmhos)	46.8	46.4	49.0	47.5	47.1	47.5
Salinity ppth	30.2	30.4	32.3	31.4	31.3	31.5
(initials) Measured by:	mf	JD	JD	JD	JD	mf
(initials) Recorded by:	mf	JD	JD	JD	JD	mf

Comments:

Salinity only needs measuring if saltwater.

Concentration: 12.5	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.4	8.3	8.2	8.5	8.2	8.2
Temperature °C	24.5	24.1	24.4	24.1	24.2	24.4
Dissolved Oxygen mg/L aerate if < 4	6.5	5.4	4.0	5.7	5.9	6.4
Conductivity µmhos (mmhos)	46.7	46.7	49.1	47.9	47.3	47.8
Salinity ppth	30.4	30.4	32.2	31.4	31.3	31.5
(initials) Measured by:	mf	JD	JD	JD	JD	mf
(initials) Recorded by:	mf	JD	JD	JD	JD	mf

Comments:

Concentration: 25	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.4	8.2	8.1	8.5	8.2	8.2
Temperature °C	24.5	24.1	24.4	24.1	24.1	24.5
Dissolved Oxygen mg/L aerate if < 4	6.5	5.4	4.0	5.7	6.0	6.5
Conductivity µmhos (mmhos)	46.6	47.0	48.8	48.0	47.3	47.9
Salinity ppth	30.3	30.5	32.0	31.3	31.3	31.4
(initials) Measured by:	mf	JD	JD	JD	JD	mf
(initials) Recorded by:	mf	JD	JD	JD	JD	mf

Comments:

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1116222 **Test #:** 1 of 2

TEST SOP #: TA07_03 **Test Species:** ☐ *Ceriodaphnia dubia* ☐ *Cyprinella leedsi* ☐ *Pimephales promelas*

Test aerated: (yes) no (circle one) Check 1: ☑ *Americamysis bahia* ☐ *Menidia beryllina* ☐ Other:_____

Concentration 50	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.4	8.3	8.2	8.5	8.2	8.1
Temperature °C	24.6	24.0	24.3	24.0	24.1	24.5
Dissolved Oxygen mg/L aerate if < 4	6.5	4.8	4.0	5.5	5.9	6.1
Conductivity µmhos (mmhos)	46.3	46.3	48.5	47.7	47.3	47.6
Salinity ppth	30.1	30.0	31.7	30.9	31.0	31.2
(initials) Measured by:	MF	JD	JD	JD	JD	MF
(initials) Recorded by:	MF	JD	JD	JD	JD	MF

Comments: Test aerated at 48 hours MF 7-24-08

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.5	8.2	8.1	8.6	8.2	8.1
Temperature °C	24.8	24.3	24.3	24.1	24.1	24.5
Dissolved Oxygen mg/L aerate if < 4	6.5	4.3	4.1	5.7	5.9	6.2
Conductivity µmhos (mmhos)	46.2	46.1	49.0	48.1	47.8	47.9
Salinity ppth	30.0	30.1	31.9	31.0	31.3	31.3
(initials) Measured by:	MF	JD	JD	JD	JD	MF
(initials) Recorded by:	MF	JD	JD	JD	JD	MF

Comments:

Salinity only needs measuring if saltwater.

Concentration Salt ctl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.5	8.4	8.2	8.5	8.2	8.2
Temperature °C	25.2	24.3	24.3	24.2	24.1	24.5
Dissolved Oxygen mg/L aerate if < 4	6.3	5.1	4.4	6.0	5.9	6.5
Conductivity µmhos (mmhos)	45.9	46.3	48.9	47.8	47.6	47.5
Salinity ppth	29.3	29.5	31.6	31.0	31.0	30.9
(initials) Measured by:	MF	JD	JD	JD	JD	MF
(initials) Recorded by:	MF	JD	JD	JD	JD	MF

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 aerate if < 4						
Conductivity µmhos mmhos						
Salinity ppth						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 116222 **Test #:** 2 of 2

TEST SOP #: TA07_04 **Test Species:** ☐ *Ceriodaphnia dubia* ☐ *Cyprinella leedsi* ☐ *Pimephales promelas*

Test aerated: yes (no) (circle one) Check 1: ☐ *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	A	JD KA	B	A
pH (S.U.)	8.4	8.3	8.4	8.4	8.2	8.1
Temperature °C	24.6	24.2	24.3	24.0	24.4	24.8
Dissolved Oxygen mg/L aerate if < 4	6.3	5.0	5.2	6.0	4.4	5.4
Conductivity µmhos (mmhos)	46.8	46.2	48.2	47.4	47.6	48.6
Salinity ppth	30.3	29.9	31.5	30.9	30.0	31.2
(initials) Measured by:	MF	JD	JD	JD	JD	MF
(initials) Recorded by:	MF	JD	JD	JD	JD	MF

Comments:

Concentration 6.25	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	A	JD KA	B	A
pH (S.U.)	8.4	8.3	8.3	8.5	8.2	8.2
Temperature °C	24.5	24.4	24.4	24.1	24.3	24.7
Dissolved Oxygen mg/L aerate if < 4	6.5	5.3	5.4	5.9	4.3	5.4
Conductivity µmhos (mmhos)	46.8	46.4	49.0	48.0	48.3	48.9
Salinity ppth	30.3	30.2	32.1	31.3	30.8	31.9
(initials) Measured by:	MF	JD	JD	JD	JD	MF
(initials) Recorded by:	MF	JD	JD	JD	JD	MF

Comments:

Salinity only needs measuring if saltwater.

Concentration 12.5	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	A	JD KA	B	A
pH (S.U.)	8.4	8.3	8.3	8.5	8.2	8.1
Temperature °C	24.5	24.4	24.6	24.1	24.0	24.6
Dissolved Oxygen mg/L aerate if < 4	6.5	5.2	5.5	5.9	4.2	5.3
Conductivity µmhos (mmhos)	46.8	46.8	49.2	48.0	48.4	50.4
Salinity ppth	30.3	30.4	32.3	31.3	30.9	32.8
(initials) Measured by:	MF	JD	JD	JD	JD	MF
(initials) Recorded by:	MF	JD	JD	JD	JD	MF

Comments:

Concentration 25	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	A	JD AK	B	A
pH (S.U.)	8.4	8.3	8.3	8.5	8.2	8.1
Temperature °C	24.5	24.4	24.6	24.1	24.2	24.6
Dissolved Oxygen mg/L aerate if < 4	6.5	5.1	5.3	5.9	4.1	5.0
Conductivity µmhos (mmhos)	46.7	46.1	48.5	47.8	48.0	49.0
Salinity ppth	30.3	30.0	31.7	31.1	31.2	32.0
(initials) Measured by:	MF	JD	JD	JD	JD	MF
(initials) Recorded by:	MF	JD	JD	JD	JD	MF

Comments:

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 116272 **Test #:** 2 of 2

TEST SOP #: TA07_04 **Test Species:** ☐ *Ceriodaphnia dubia* ☐ *Cyprinella leedsi* ☐ *Pimephales promelas*

Test aerated: yes (no) (circle one) Check 1: ☐ *Americamysis bahia* ☑ *Menidia beryllina* ☐ Other:_____

Concentration 50	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	A	A	B	A
pH (S.U.)	8.5	8.3	8.3	8.6	8.3	8.2
Temperature °C	24.7	24.4	24.6	24.1	24.2	24.8
Dissolved Oxygen mg/L aerate if < 4	6.4	5.0	4.8	6.0	4.0	5.0
Conductivity µmhos (mmhos)	46.4	45.7	47.3	47.4	47.6	48.2
Salinity ppth	30.0	29.6	30.9	30.7	30.8	31.4
(initials) Measured by:	MF	JD	JD	JD	JD	MF
(initials) Recorded by:	MF	JD	JD	JD	JD	MF

Comments:

Concentration 100	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	A	A	B	A
pH (S.U.)	8.5	8.3	8.2	8.7	8.3	8.2
Temperature °C	25.1	24.4	24.5	24.2	24.1	24.6
Dissolved Oxygen mg/L aerate if < 4	6.3	5.0	5.2	6.2	4.0	5.0
Conductivity µmhos (mmhos)	46.5	46.0	48.1	47.4	48.0	50.2
Salinity ppth	30.0	29.8	31.3	30.8	31.2	32.8
(initials) Measured by:	MF	JD	JD	JD	JD	MF
(initials) Recorded by:	MF	JD	JD	JD	JD	MF

Comments:

Salinity only needs measuring if saltwater.

Concentration SaH Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	A	A	B	A
pH (S.U.)	8.5	8.4	8.3	8.5	8.2	8.1
Temperature °C	25.2	24.4	24.7	24.3	24.2	24.8
Dissolved Oxygen mg/L aerate if < 4	6.3	4.7	5.0	6.6	4.2	5.2
Conductivity µmhos (mmhos)	~~46.1~~	45.7	47.6	47.5	47.8	48.5
Salinity ppth	29.5	29.6	30.9	30.5	31.1	31.6
(initials) Measured by:	MF	JD	JD	JD	JD	MF
(initials) Recorded by:	MF	JD	JD	JD	JD	MF

Comments: (A) Cond 45.9 MF 7-22-08

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 aerate if < 4						
Conductivity µmhos mmhos						
Salinity ppth						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

Appendix B. (continued)

Bioassay Instrument ID

Test ID: City of Palmetto WWTP Dates: July 22–26, 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	SM 2510 B	✓
			Salinity	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

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Appendix C. (continued)

Florida Department of Environmental Protection
Bureau of Laboratories

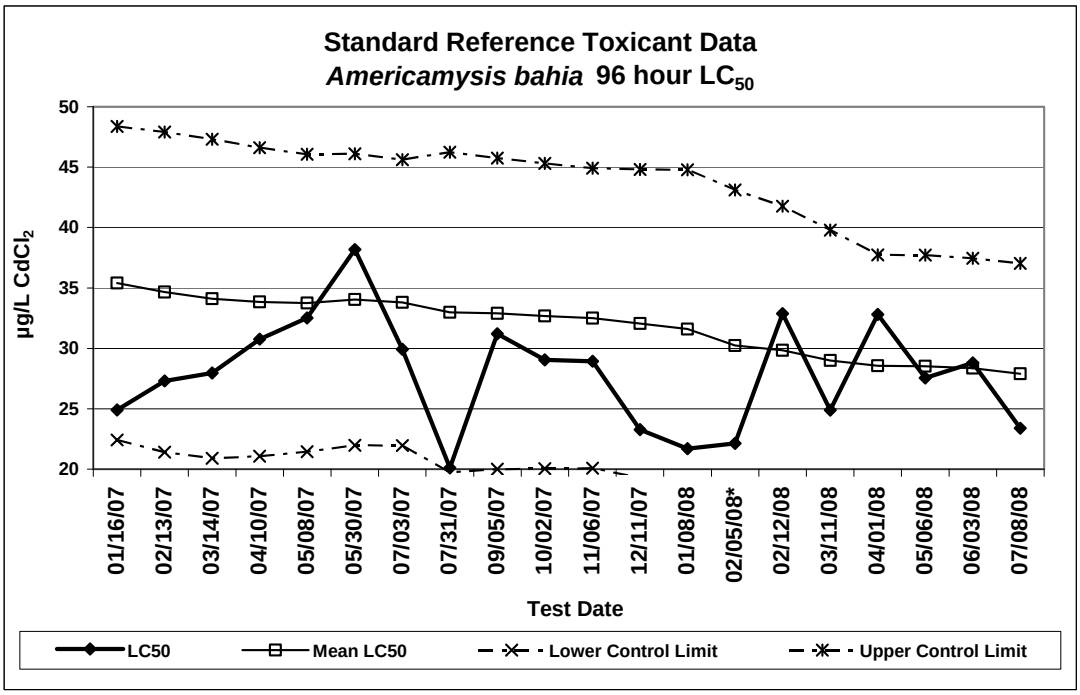
Standard Reference Toxicant (SRT) Test Data - 96-hour Acute Toxicity
Americamysis bahia (mysid shrimp) - Cadmium Chloride ($CdCl_2$)

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
01/16/07	24.91	35.40	6.49	22.42	48.37
02/13/07	27.31	34.66	6.62	21.41	47.90
03/14/07	27.97	34.10	6.60	20.90	47.31
04/10/07	30.77	33.85	6.39	21.07	46.62
05/08/07	32.52	33.75	6.15	21.46	46.05
05/30/07	38.18	34.05	6.03	21.98	46.11
07/03/07	29.92	33.79	5.92	21.95	45.63
07/31/07	20.10	32.98	6.62	19.74	46.23
09/05/07	31.20	32.89	6.44	20.01	45.76
10/02/07	29.04	32.68	6.32	20.04	45.32
11/06/07	28.93	32.50	6.21	20.08	44.91
12/11/07	23.28	32.06	6.38	19.30	44.81
01/08/08	21.69	31.59	6.60	18.38	44.79
02/05/08*	22.13	30.23	6.44	17.35	43.12
02/12/08	32.87	29.83	5.96	17.90	41.76
03/11/08	24.89	29.00	5.39	18.22	39.78
04/01/08	32.81	28.56	4.60	19.36	37.75
05/06/08	27.55	28.52	4.60	19.31	37.72
06/03/08	28.81	28.37	4.54	19.29	37.46
07/08/08	23.40	27.91	4.56	18.80	37.03

CV = 16.33

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

EPA reference 75th quartile CV = 26%



*Forty-eight hour results exceeded control limits. Follow up tests performed on 2/12/08 were carried out to 96-hours.

Appendix C. (continued)

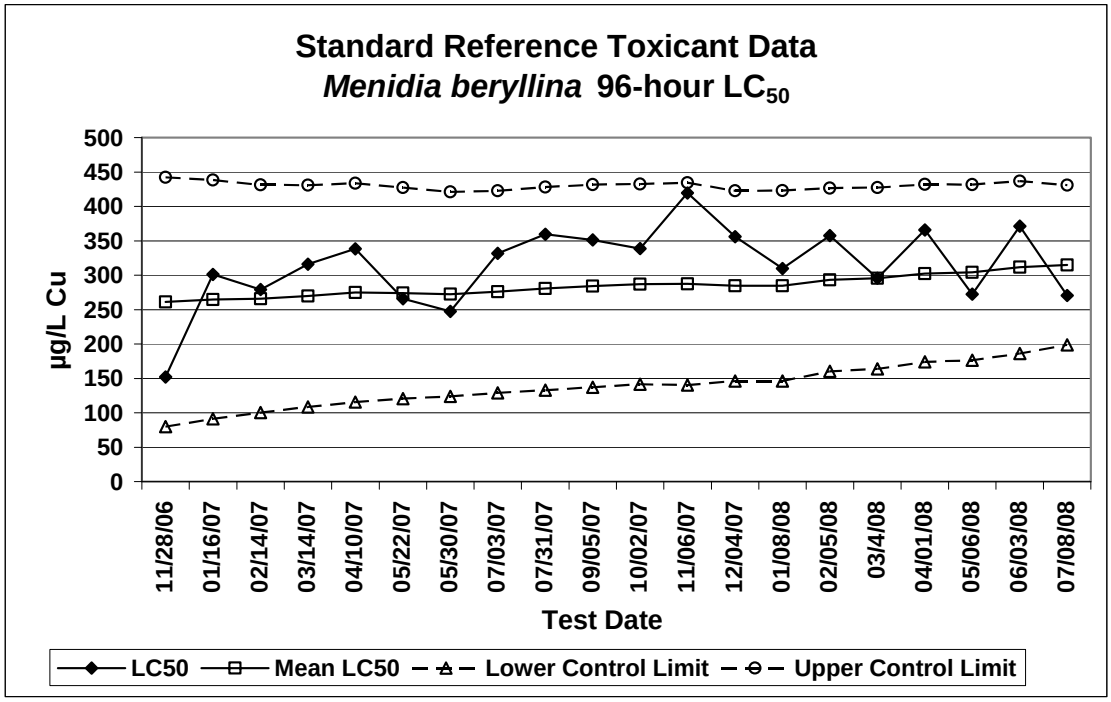
Florida Department of Environmental Protection
Bureau of Laboratories

Standard Reference Toxicant (SRT) Test Data - 96-hour Acute Toxicity
Menidia beryllina (inland silverside) - Copper Chloride ($CuCl_2$) as Cu

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
11/28/06	152.17	261.19	90.59	80.01	442.37
01/16/07	301.29	264.83	86.79	91.25	438.41
02/14/07	279.18	266.03	82.76	100.51	431.55
03/14/07	316.16	269.88	80.54	108.80	430.96
04/10/07	338.35	274.77	79.51	115.75	433.79
05/22/07	265.69	274.17	76.66	120.85	427.49
05/30/07	247.36	272.49	74.36	123.77	421.21
07/03/07	331.66	275.97	73.41	129.15	422.80
07/31/07	359.44	280.61	73.89	132.83	428.39
09/05/07	351.35	284.33	73.62	137.10	431.57
10/02/07	338.91	287.06	72.69	141.69	432.44
11/06/07	419.55	287.50	73.50	140.50	434.51
12/04/07	356.02	284.51	69.07	146.36	422.65
01/08/08	309.80	284.71	69.14	146.43	423.00
02/05/08	357.47	293.49	66.51	160.48	426.50
03/4/08	295.52	295.53	65.88	163.77	427.28
04/01/08	365.9	302.28	64.49	174.29	432.27
05/06/08	272.5	304.29	63.81	176.66	431.91
06/03/08	371.38	311.63	62.59	186.45	436.80
07/08/08	270.47	315.01	58.07	198.87	431.14

Organism supplier changed July 7, 2006

CV = 18.43
EPA reference 75th quartile CV = 21%



Appendix C. (continued)

[redacted]

000039

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 #: ASW / 6.23.08
Toxicant/ Batch#: $CdCl_2$ / 7.7.08

Test Beginning: Date: 7.8.08 Time: 1330
Test Ending: Date: 7-12-08 Time: 1225

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	42.03	Hach	SS
Alkalinity (mg/L as $CaCO_3$):	105	Hach	BA
Hardness (mg.L as $CaCO_3$):	—	Hach	—
Total Ammonia (mg/L as N):	<0.034	Denver	MF
Salinity (ppth):	~20	Mettler	20

Organism Batch #/ Age: 7808 / 5 days
Feeding: (Prior to test) (Prior to renewal) (Daily)
Food: YCT P.subcapitata Artemia: Lot # 38438
Food Batch: — —
0hr 113 24hr 114 48hr 115 72hr 116
Chamber size: 350 mL
Test volume: 350 mL per replicate

Conc. g/L (µg/L) mg/L	Rep.	Chamber #	Number Live 0hr / 24hr / 48hr (~~48 hr~~ / ~~72 hr~~ / ~~96 hr~~)	pH (SU) 0hr / 24hr / 48hr (~~48 hr~~ / ~~72 hr~~ / ~~96 hr~~)	Temperature (°C) 0hr / 24hr / 48hr (~~48 hr~~ / ~~72 hr~~ / ~~96 hr~~)	D.O. (mg/L) 0hr / 24hr / 48hr (~~48 hr~~ / ~~72 hr~~ / ~~96 hr~~)	Uncorrected Conductivity µmhos/cm (mmhos/cm) 0hr / 24hr / 48hr (~~48 hr~~ / ~~72 hr~~ / ~~96 hr~~)
Control	A	Tox 1	5 / 5 / 5	8.3 / — / 8.0	24.0 / — / 24.3	6.9 / — / 4.6	32.4 / — / 32.7
	B	Tox 2	5 / 5 / 5	— / 8.1 / —	— / 24.2 / —	— / 4.6 / —	— / 33.1 / —
	C	Tox 3	5 / 5 / 5				
	D	Tox 4	5 / 5 / 5				
20	A	Tox 5	5 / 5 / 5	8.4 / — / 7.9	24.1 / — / 24.2	6.7 / — / 4.5	34.4 / — / 32.9
	B	Tox 6	5 / 5 / 5	— / 8.2 / —	— / 24.3 / —	— / 4.4 / —	— / 33.7 / —
	C	Tox 7	5 / 5 / 5				
	D	Tox 8	5 / 5 / 5				
30	A	Tox 9	5 / 4D / 4	8.4 / — / 8.1	24.2 / — / 24.2	6.8 / — / 4.3	34.2 / — / 33.2
	B	Tox 10	5 / 5 / 5	— / 8.2 / —	— / 24.3 / —	— / 4.3 / —	— / 33.8 / —
	C	Tox 11	5 / 5 / 5				
	D	Tox 12	5 / 5 / 5				
45	A	Tox 13	5 / 1D / 2D	8.4 / — / 8.0	24.2 / — / 24.2	6.9 / — / 4.4	34.2 / — / 35.1
	B	Tox 14	5 / 5 / 4D	— / 8.2 / —	— / 24.3 / —	— / 4.7 / —	— / 34.3 / —
	C	Tox 15	5 / 3D / 3				
	D	Tox 16	5 / 4D / 1D				
67	A	Tox 17	5 / 3D / 1D	8.4 / — / 8.1	24.2 / — / 24.1	6.8 / — / 4.4	33.9 / — / 35.1
	B	Tox 18	5 / 3D / 0D	— / 8.1 / —	— / 24.1 / —	— / 4.7 / —	— / 34.3 / —
	C	Tox 19	5 / 2D / 0D				
	D	Tox 20	5 / 4D / 3D				
100	A	Tox 21	5 / 3D / 0D	8.4 / — / 8.1	24.5 / — / 24.2	6.8 / — / 4.9	34.3 / — / 35.3
	B	Tox 22	5 / 1D / 0D	— / 8.2 / —	— / 24.2 / —	— / 4.8 / —	— / 34.8 / —
	C	Tox 23	5 / 1D / 0D				
	D	Tox 24	5 / 3D / 0D				
	A						
	B						
	C						
	D						
Loaded / measured by:			JS / JS / JS	JS / JS / JS	JS / JS / JS	JS / JS / JS	JS / JS / JS
Recorded by:			JS / JS / JS	JS / JS / JS	JS / JS / JS	JS / JS / JS	JS / JS / JS

Investigators' Signatures
James Daniel
Brent Nelson
Marshall Faircloth
REVIEWER

Concentrations prepared by: JS
Loading verified by: JS
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 25.7 max. 26.7 mean 26.2
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 22.7 max. 25.7 mean 24.2

Comments:

Statistics: Method: Spearman-Karber
(48) 96 hour LC_{50}: 47.67
95% Confidence Interval: lower 42.22 upper 53.83

Appendix C. (continued)

000040

[redacted]

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 #: ASW 1 623 08
Toxicant/ Batch#: cdcl2 1 7.7.08

Test Beginning: Date: 7.8.08 Time: 1330
Test Ending: Date: 7-12-08 Time: 1225

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	JD
Alkalinity (mg/L as $CaCO_3$):	225	Hach	BA
Hardness (mg.L as $CaCO_3$):	—	Hach	—
Total Ammonia (mg/L as N):	20,034	Denver	MF
Salinity (ppth):	~~MF~~ ~20	Mettler	JD

Organism Batch #/ Age: 7.8.08 1 <1d 3s
Feeding: (Prior to test) (Prior to renewal) (Daily)
Food: YCT *P.subcapitata* (Artemia: Lot # 38438)
Food Batch: — —
Chamber size: 350 mL
Test volume: 250 mL per replicate
0hr 1/3 24hr 1/4 48hr 1/5 72hr 1/6

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	tox 1	5	5	5	8.4		8.0	24.0		24.7			4.4	338		35.2
	B	tox 2	5	5	5												
	C	tox 3	5	5	5				24.0			6.7			338		
	D	tox 4	5	5	5		8.1			24.0			5.0			32.7	
20	A	tox 5	5	5	5	8.3		8.0			24.6			4.4			34.8
	B	tox 6	5	5	3 2D												
	C	tox 7	5	5	4 1D				24.0			6.6			34.1		
	D	tox 8	5	5	4 1D		8.1			24.2			4.8			33.9	
30	A	tox 9	4	0 4D	0	8.4											
	B	tox 10	5	1 4D	0 1D			8.1			24.6			4.6			33.9
	C	tox 11	5	1 4D	0 1D				24.0			6.5			335		
	D	tox 12	5	2 3D	0 2D		8.2			24.2			4.4			33.7	
45	A	tox 13	2	1 1D	0 1D	8.3		8.1			24.7			4.8			34.6
	B	tox 14	4	1 3D	1												
	C	tox 15	3	0 3D	-				24.0			6.6			34.1		
	D	tox 16	1	0 1D	—		8.2			24.3			5.0			34.1	
67	A	tox 17	1	0 1D	—	8.3											
	B	tox 18	—	—	—												
	C	tox 19	—	—	—				24.0			6.6			34.1		
	D	tox 20	3	0 3D	—		8.2			24.2			5.2			34.1	
100	A	tox 21	—	—	—												
	B	tox 22	—	—	—												
	C	tox 23	—	—	—												
	D	tox 24	—	—	—												
	A																
	B																
	C																
	D																
Loaded / measured by:			JD	JD	MF	JD	JD	MF	JD	JD	MF	JD	JD	MF	JD	JD	MF
Recorded by:			JD	JD	MF	JD	JD	MF	JD	JD	MF	JD	JD	MF	JD	JD	MF

Investigators' Signatures
James Daniel
Brian A. Cox
Marshall Faircloth
Roberta C. Welsh
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. 25.1 max. 26.1 mean 26.2
Incubator # ___ min. ___ max. ___ mean. ___
Room B248 min. 22.1 max. 25.1 mean 24.2

Comments:

Statistics: Method: Spearman-Karber
48 / (96) hour LC_{50}: 23.40
95% Confidence Interval: lower 22.06 upper 24.82

Appendix C. (continued)

000037

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 #: ASW / 6.23.08
Toxicant/ Batch#: CuCl2 / 7.7.08

Test Beginning: Date: 7.8.08 Time: 1335
Test Ending: Date: 7-12-08 Time: 1215

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	JD
Alkalinity (mg/L as $CaCO_3$):	225	Hach	BK
Hardness (mg.L as $CaCO_3$):	—	Hach	--
Total Ammonia (mg/L as N):	<0.031	Denver	MC
Salinity (ppth):	~30	Mettler	JD

Organism Batch #/ Age: 7808 / 13d 5
Feeding: (Prior to test) (Prior to renewal) Daily
Food: YCT \ *P.subcapitata* \ (Artemia) Lot # 38738
Food Batch: _____ _____ 0hr 115 24hr — 48hr 115 72hr —
Chamber size: 1000 mL
Test volume: 500 mL per replicate

Conc. g/L (µg/L) mg/L	Rep.	Chamber #	Number Live 0hr / 48hr / 96hr	pH (SU) 0hr / 24hr / 48hr	Temperature (°C) 0hr / 24hr / 48hr	D.O. (mg/L) 0hr / 24hr / 48hr	Uncorrected Conductivity µmhos/cm (mmhos/cm) 0hr / 24hr / 96hr
Control	A	A1	10 / 10 / 10	8.4 / — / 8.2	24.0 / — / 24.6	6.8 / — / 5.7	33.2 / — / 33.4
	B	A2	10 / 10 / 10	— / 8.3 / —	— / 24.2 / —	— / 5.9 / —	— / 34.3 / —
	C						
	D						
100	A	A3	10 / 10 / 10	8.4 / — / 8.2	24.1 / — / 24.7	6.8 / — / 5.7	33.7 / — / 34.9
	B	A4	10 / 10 / 10	— / 8.3 / —	— / 24.2 / —	— / 5.8 / —	— / 34.7 / —
	C						
	D						
200	A	A5	10 / 9(0) / 9	8.4 / — / 8.2	24.2 / — / 24.6	6.5 / — / 5.7	338 / — / 34.1
	B	A6	10 / 8(9) / 9	— / 8.3 / —	— / 24.7 / —	— / 5.8 / .	— / 34.8 / —
	C						
	D						
300	A	A7	10 / 5(9) / 5	8.4 / — / 8.2	24.4 / — / 24.6	6.6 / — / 5.8	33.9 / — / 34.7
	B	A8	10 / 5(9) / 5	— / 8.3 / —	— / 24.4 / —	— / 5.9 / —	— / 34.9 / —
	C						
	D						
400	A	A9	10 / 3(8)0 / 2	8.4 / — / 8.2	24.5 / — / 24.6	6.8 / — / 6.0	336 / — / 35.7
	B	A10	10 / 6(9)0 / —	— / 8.3 / —	— / 24.3 / —	— / 5.8 / —	— / 34.5 / —
	C						
	D						
500	A	A11	10 / 0(9)0 /	8.4 / — / —	24.7 / — / —	6.9 / — / —	340 / — / —
	B	A12	10 / 0(9)0 /	— / 8.3 / —	— / 24.3 / —	— / 5.8 / —	— / 34.9 / —
	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 Daniels
Brian Jones
Marshall Faircloth

Charlotte 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. 25.1 max. 26.7 mean 26.2
Incubator # ___ min. _____ max. _____ mean _____
Room B248 min. 22.7 max. 25.7 mean 24.2

Comments:
Blower: 243.6

Statistics: Method: Spearman-Karber
48/96 hour LC_{50}: 275.2 (BA)
95% Confidence Interval: lower ~~246.3~~ (BA) upper 310.89

Appendix C. (continued)

000038

FDEP Biology Laboratory - Acute SRT Bench Sheet

Test Organism: *Americamysis bahia* Method 2007.0 / ~~Method 2666.0~~ (*Menidia beryllina*) / *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 #: FSW / 6.23.08
Toxicant/ Batch#: cu2 / 17203

Test Beginning: Date: 7.8.08 Time: 1335
Test Ending: Date: 7-12-08 Time: 1215

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	SD
Alkalinity (mg/L as $CaCO_3$):	225	Hach	BA
Hardness (mg.L as $CaCO_3$):	—	Hach	—
Total Ammonia (mg/L as N):	<0.034	Denver	ML
Salinity (ppth):	~30	Mettler	SD

Organism Batch #/ Age: 7.8.08 / 1 3days
Feeding: (Prior to test)/(Prior to renewal) / Daily
Food: YCT / *P.subcapitata* / (Artemia) Lot # 38435
Food Batch: \ / \
0hr 113 24hr — 48hr 115 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	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
			(0) hr / (24) hr / (48) hr	(0) hr / (24) hr / (48) hr	(0) hr / (24) hr / (48) hr	(0) hr / (24) hr / (48) hr	(0) hr / (24) hr / (48) hr
Control	A	A1	10 / 10 / 10	8.3 / — / 8.2	24.1 / — / 24.7	6.6 / — / 5.6	31.1 / — / 34.6
	B	A2	10 / 10 / 10	— / 8.2 / —	— / 24.1 / —	— / 5.5 / —	— / 33.9 / —
	C						
	D						
100	A	A3	10 / 10 / 10	8.4 / — / 8.2	24.1 / — / 24.9	6.5 / — / 5.5	32.5 / — / 34.4
	B	A4	10 / 10 / 10	— / 8.2 / —	— / 24.1 / —	— / 5.4 / —	— / 34.2 / —
	C						
	D						
200	A	A5	9 / 9 / 9	8.4 / — / 8.2	24.0 / — / 24.9	6.7 / — / 5.5	32.8 / — / 34.6
	B	A6	8 / 8 / 8	— / 8.2 / —	— / 24.1 / —	— / 5.3 / —	— / 33.9 / —
	C						
	D						
300	A	A7	5 / 5 / 4 10	8.4 / — / 8.2	24.0 / — / 25.0	6.7 / — / 5.5	32.8 / — / 34.1
	B	A8	5 / 5 / 5	— / 8.2 / —	— / 24.2 / —	— / 5.4 / —	— / 33.7 / —
	C						
	D						
400	A	A9	2 / 2 / 2	8.3 / — / 8.3	24.1 / — / 24.9	6.5 / — / 5.5	33.0 / — / 34.0
	B	A10	— / — / —	— / 8.3 / —	— / 24.4 / —	— / 5.5 / —	— / 33.7 / —
	C						
	D						
500	A	A11					
	B	A12					
	C						
	D						
	A						
	B						
	C						
	D						
Loaded / measured by:			SD / SD / MF	SD / SD / MF	SD / SD / MF	SD / SD / MF	SD / SD / MF
Recorded by:			SD / SD / MF	SD / SD / MF	SD / SD / MF	SD / SD / MF	SD / SD / MF

Investigators' Signatures
Jenna Daniels
Marshall Faircloth
Loretta C. Wolfe
REVIEWER

Concentrations prepared by: SD
Loading verified by: BA
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min 25.7 max 26.7 mean 26.1
Incubator # ___ min ___ max ___ mean ___
Room B246 min 22.7 max 25.7 mean 24.2

Comments:

Statistics: Method: Spearman-Karber
48 (96) hour LC_{50}: 270.47
95% Confidence Interval: lower 239.47 upper 305.47

Appendix C. (continued)

***Americamysis bahia* Acute Standard Reference Toxicant Test**

DATE: 7-8-08 DURATION: 96 hr TOXICANT: CdCl2
SPECIES: *Americamysis bahia*

RAW DATA:	Concentration (ug/L)	Number Exposed	Mortalities
	0.00	20	0
	20.00	20	4
	30.00	20	20
	45.00	20	19
	67.00	20	20
	100.00	20	20

SPEARMAN-KARBER TRIM: 20.00%

SPEARMAN-KARBER ESTIMATES: LC50: 23.40
95% LOWER CONFIDENCE: 22.06
95% UPPER CONFIDENCE: 24.82

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

***Menidia beryllina* Acute Standard Reference Toxicant Test**

DATE: 7-8-08 DURATION: 96 hr TOXICANT: CuCl2
SPECIES: *Menidia beryllina*

RAW DATA:	Concentration (ug/L)	Number Exposed	Mortalities
	0.00	20	0
	100.00	20	0
	200.00	20	3
	300.00	20	11
	400.00	20	18
	500.00	20	20

SPEARMAN-KARBER TRIM: .00%

SPEARMAN-KARBER ESTIMATES: LC50: 270.47
95% LOWER CONFIDENCE: 239.47
95% UPPER CONFIDENCE: 305.47

Appendix D. Test Organism Receipts

MARINCO BIOASSAY LABORATORY
The Aquatic Toxicology Specialists

NELAP Certification # E84191

Organism Shipment Record

State of Florida Aquaculture Certificate Number AQ0668007

Date: 7/7/08

Shipped to: FDEP

P.O. No: N/A

Species	Quantity	Age	Brood Number	Temp.	pH	Salinity
Mysidopsis bahia	150	4 DAYS	MS 080703	26°C	8.1 s.u	20‰
Menidia beryllina	150	12 DAYS	SS 080625	25°C	8.0 s.u	20‰
						Hardness
Cyprinella leedsi	150	10 DAYS	CL 080627	26°C	7.9	90mg/L
Pimephales promelas	150	8 DAYS	FM 080629	25°C	7.8	86mg/L

Packed by: JU

Shipped Via: FedEx

Notes: _____

Thank you for your order.

4569 Samuel Street · Sarasota, FL 34233 · Tel: 941-925-3594 · Fax: 941-922-3874 · Web: www.biologylab.com

Appendix D. (continued)

MARINCO BIOASSAY LABORATORY
The Aquatic Toxicology Specialists

NELAP Certification # E84191

Organism Shipment Record

State of Florida Aquaculture Certificate Number AQ0668007

Date: 7/21/08

Shipped to: FDEP

P.O. No: N/A

Species	Quantity	Age	Brood Number	Temp.	pH	Salinity
Mysidopsis bahia	250 acute	4 DAYS	MS080717	25°C	8.0	20‰
Menidia beryllina	250 acute	12 DAYS	SS080709	26°C	7.9	20‰
						Hardness
Cyprinella leedsi	150 acute	10 DAYS	CL080711	25°C	7.8	88 mg/L
Pimephales promelas						

Packed by:

Shipped Via: FedEx

Notes:

Thank you for your order.

4569 Samuel Street · Sarasota, FL 34233 · Tel: 941-925-3594 · Fax: 941-922-3874 · Web: www.biologylab.com

Appendix E. Chemical Analyses performed on the effluent from the City of Palmetto Wastewater Treatment Facility Outfall D-001, sampled on July 22, 2008.

Date Sampled	Field ID	Analysis Group	Components	Result	Remarks	Units	MDL	PQL
7/22/2008 9:35	Effluent	AGP/LN	Algal Growth Potential	99.2		mg DryWt/L	0.3	0.9
7/22/2008 9:35	Effluent	AGP/LN	Algal Growth Potential-Salinity Adjusted	37.2		mg DryWt/L	3	3
7/22/2008 9:35	Effluent	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	5.4	AV	mg/L	0.2	2
7/22/2008 9:35	Effluent	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.24	U	ug/L	0.24	0.71
7/22/2008 9:35	Effluent	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	0.55	U	ug/L	0.55	1.7
7/22/2008 9:35	Effluent	Overflow	Fecal Coliforms-Membrane Filter	1		#/100 mL	1	
7/22/2008 9:35	Effluent	Metals	Nickel	3.07		ug/L	0.25	1
7/22/2008 9:35	Effluent	Metals	Copper	0.88	I	ug/L	0.5	2
7/22/2008 9:35	Effluent	Metals	Silver	0.025	U	ug/L	0.025	0.1
7/22/2008 9:35	Effluent	Metals	Chromium	0.5	U	ug/L	0.5	2
7/22/2008 9:35	Effluent	Metals	Arsenic	1.3	I	ug/L	0.5	2
7/22/2008 9:35	Effluent	Metals	Zinc	13	I	ug/L	5	20
7/22/2008 9:35	Effluent	Metals	Antimony	0.54	I	ug/L	0.5	2
7/22/2008 9:35	Effluent	Metals	Magnesium	16.8		mg/L	0.04	0.16
7/22/2008 9:35	Effluent	Metals	Iron	60	I	ug/L	30	120
7/22/2008 9:35	Effluent	Metals	Aluminum	60	U	ug/L	60	240
7/22/2008 9:35	Effluent	Metals	Lead	0.2	U	ug/L	0.2	0.8
7/22/2008 9:35	Effluent	Metals	Calcium	64.2		mg/L	0.075	0.3
7/22/2008 9:35	Effluent	Metals	Cadmium	0.11		ug/L	0.02	0.08
7/22/2008 9:35	Effluent	Metals	Beryllium	0.025	U	ug/L	0.025	0.1
7/22/2008 9:35	Effluent	Metals	Selenium	0.5	U	ug/L	0.5	2
7/22/2008 9:35	Effluent	Nutrients	Ammonia-N	0.038		mg N/L	0.01	0.02
7/22/2008 9:35	Effluent	Nutrients	Kjeldahl Nitrogen	1		mg N/L	0.08	0.2
7/22/2008 9:35	Effluent	Nutrients	NO2NO3-N	1.8		mg N/L	0.04	0.1
7/22/2008 9:35	Effluent	Nutrients	Total-P	0.56		mg P/L	0.02	0.06
7/22/2008 9:35	Effluent	Nutrients	O-Phosphate-P	0.45		mg P/L	0.04	0.1
7/22/2008 9:35	Effluent	Overflow	Oil and Grease	1.9	I	mg/L	1.4	5
7/22/2008 9:35	Effluent	Pesticides	Ametryn	0.048	U	ug/L	0.048	0.19
7/22/2008 9:35	Effluent	Pesticides	Azinphos Methyl	0.19	U	ug/L	0.19	0.76
7/22/2008 9:35	Effluent	Pesticides	Parathion Ethyl	0.14	U	ug/L	0.14	0.56
7/22/2008 9:35	Effluent	Pesticides	Phorate	0.048	UJ	ug/L	0.048	0.19
7/22/2008 9:35	Effluent	Pesticides	Bromacil	0.19	UJ	ug/L	0.19	0.76
7/22/2008 9:35	Effluent	Pesticides	Butylate	0.19	U	ug/L	0.19	0.76

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Components	Result	Remarks	Units	MDL	PQL
7/22/2008 9:35	Effluent	Pesticides	Ethion	0.048	U	ug/L	0.048	0.19
7/22/2008 9:35	Effluent	Pesticides	Metolachlor	0.48	U	ug/L	0.48	1.9
7/22/2008 9:35	Effluent	Pesticides	Metribuzin	0.095	U	ug/L	0.095	0.38
7/22/2008 9:35	Effluent	Pesticides	Parathion Methyl	0.095	U	ug/L	0.095	0.38
7/22/2008 9:35	Effluent	Pesticides	Prometryn	0.14	U	ug/L	0.14	0.56
7/22/2008 9:35	Effluent	Pesticides	Atrazine	0.048	U	ug/L	0.048	0.19
7/22/2008 9:35	Effluent	Pesticides	Malathion	0.14	U	ug/L	0.14	0.56
7/22/2008 9:35	Effluent	Pesticides	Norflurazon	0.14	U	ug/L	0.14	0.56
7/22/2008 9:35	Effluent	Pesticides	Ethoprop	0.095	UJ	ug/L	0.095	0.38
7/22/2008 9:35	Effluent	Pesticides	Alachlor	0.57	U	ug/L	0.57	2.3
7/22/2008 9:35	Effluent	Pesticides	Fonofos	0.095	U	ug/L	0.095	0.38
7/22/2008 9:35	Effluent	Pesticides	Hexazinone	0.095	U	ug/L	0.095	0.38
7/22/2008 9:35	Effluent	Pesticides	Metalaxyl	0.24	U	ug/L	0.24	0.96
7/22/2008 9:35	Effluent	Pesticides	Naled	0.76	U	ug/L	0.76	3
7/22/2008 9:35	Effluent	Pesticides	Chlorpyrifos Ethyl	0.048	U	ug/L	0.048	0.19
7/22/2008 9:35	Effluent	Pesticides	Chlorpyrifos Methyl	0.095	U	ug/L	0.095	0.38
7/22/2008 9:35	Effluent	Pesticides	Fenamiphos	0.19	U	ug/L	0.19	0.76
7/22/2008 9:35	Effluent	Pesticides	Diazinon	0.048	U	ug/L	0.048	0.19
7/22/2008 9:35	Effluent	Pesticides	Mevinphos	0.19	UJ	ug/L	0.19	0.76
7/22/2008 9:35	Effluent	Pesticides	Simazine	0.048	U	ug/L	0.048	0.19
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Benzo(k)fluoranthene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Chrysene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Heptachlor epoxide	1.4	U	ug/L	1.4	5.7
7/22/2008 9:35	Effluent	Priority Organic Pollutants	delta-BHC	1.4	U	ug/L	1.4	5.7
7/22/2008 9:35	Effluent	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	2,4-Dinitrophenol	14	U	ug/L	14	57
7/22/2008 9:35	Effluent	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	11
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Anthracene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Benzo(b)fluoranthene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Di-n-octyl phthalate	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Fluoranthene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Pentachlorophenol	2.9	U	ug/L	2.9	11
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Phenol	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	2-Chloronaphthalene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.95	U	ug/L	0.95	3.8

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Components	Result	Remarks	Units	MDL	PQL
7/22/2008 9:35	Effluent	Priority Organic Pollutants	4-Nitrophenol	14	U	ug/L	14	57
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	11
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Endosulfan I	3.8	U	ug/L	3.8	15
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Endrin	1.4	U	ug/L	1.4	5.7
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9	U	ug/L	2.9	11
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Hexachloroethane	2.9	U	ug/L	2.9	11
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Isophorone	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Naphthalene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	gamma-BHC	1.4	U	ug/L	1.4	5.7
7/22/2008 9:35	Effluent	Priority Organic Pollutants	2,6-Dinitrotoluene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Benzo(a)pyrene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	2,4-Dichlorophenol	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	2,4-Dimethylphenol	9.5	U	ug/L	9.5	38
7/22/2008 9:35	Effluent	Priority Organic Pollutants	2,4-Dinitrotoluene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	2-Chlorophenol	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	4,4'-DDD	1.4	U	ug/L	1.4	5.7
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Benzidine	95	U	ug/L	95	380
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Benzo(a)anthracene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Dimethyl phthalate	9.5	UJ	ug/L	9.5	38
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Endosulfan II	3.8	U	ug/L	3.8	15
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Endosulfan sulfate	1.4	U	ug/L	1.4	5.7
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Endrin aldehyde	3.8	U	ug/L	3.8	15
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Fluorene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Heptachlor	1.4	U	ug/L	1.4	5.7
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Acenaphthylene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Diethyl phthalate	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Hexachlorobutadiene	2.9	U	ug/L	2.9	11
7/22/2008 9:35	Effluent	Priority Organic Pollutants	4,4'-DDE	1.4	U	ug/L	1.4	5.7
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Butyl benzyl phthalate	4.8	U	ug/L	4.8	19

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Components	Result	Remarks	Units	MDL	PQL
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Dieldrin	1.4	U	ug/L	1.4	5.7
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Hexachlorobenzene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Nitrobenzene	1.9	U	ug/L	1.9	7.6
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Phenanthrene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Pyrene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	alpha-BHC	1.4	U	ug/L	1.4	5.7
7/22/2008 9:35	Effluent	Priority Organic Pollutants	beta-BHC	1.4	U	ug/L	1.4	5.7
7/22/2008 9:35	Effluent	Priority Organic Pollutants	4,4'-DDT	1.4	U	ug/L	1.4	5.7
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Aldrin	1.4	U	ug/L	1.4	5.7
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	14	U	ug/L	14	57
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Di-n-butyl phthalate	4.8	U	ug/L	4.8	19
7/22/2008 9:35	Effluent	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.6
7/22/2008 9:35	Effluent	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.6
7/22/2008 9:35	Effluent	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	2-Nitrophenol	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Priority Organic Pollutants	3,3'-Dichlorobenzidine	38	U	ug/L	38	150
7/22/2008 9:35	Effluent	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.6
7/22/2008 9:35	Effluent	Priority Organic Pollutants	Acenaphthene	0.95	U	ug/L	0.95	3.8
7/22/2008 9:35	Effluent	Field Parameter	Temperature	30.49		C		
7/22/2008 9:35	Effluent	Field Parameter	Sample Depth	0.2		m		
7/22/2008 9:35	Effluent	Field Parameter	Dissolved Oxygen	6.38		mg/L		
7/22/2008 9:35	Effluent	Field Parameter	Specific Conductance	853		umhos/cm		
7/22/2008 9:35	Effluent	Field Parameter	pH	7.3				
7/21/2008 9:00	Effluent	Toxicology	Bioassay-Acute-Def-SW-Fish, LC50	100	L	LC50		
7/21/2008 9:00	Effluent	Toxicology	Bioassay-Acute-Def-SW-Mysid, LC50	100	L	LC50		
7/22/2008 10:05	Blank	Nutrients	O-Phosphate-P	0.004	U	mg P/L	0.004	0.01
7/22/2008 10:05	Blank	Overflow	Oil and Grease	1.4	U	mg/L	1.4	5
7/22/2008 10:05	Blank	Pesticides	Malathion	0.14	U	ug/L	0.14	0.56
7/22/2008 10:05	Blank	Pesticides	Metolachlor	0.48	U	ug/L	0.48	1.9
7/22/2008 10:05	Blank	Pesticides	Norflurazon	0.14	U	ug/L	0.14	0.56
7/22/2008 10:05	Blank	Pesticides	Diazinon	0.048	U	ug/L	0.048	0.19
7/22/2008 10:05	Blank	Pesticides	Ethoprop	0.095	UJ	ug/L	0.095	0.38
7/22/2008 10:05	Blank	Pesticides	Atrazine	0.048	U	ug/L	0.048	0.19
7/22/2008 10:05	Blank	Pesticides	Azinphos Methyl	0.19	U	ug/L	0.19	0.76
7/22/2008 10:05	Blank	Pesticides	Fonofos	0.095	U	ug/L	0.095	0.38

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Components	Result	Remarks	Units	MDL	PQL
7/22/2008 10:05	Blank	Pesticides	Butylate	0.19	U	ug/L	0.19	0.76
7/22/2008 10:05	Blank	Pesticides	Prometryn	0.14	U	ug/L	0.14	0.56
7/22/2008 10:05	Blank	Pesticides	Chlorpyrifos Methyl	0.095	U	ug/L	0.095	0.38
7/22/2008 10:05	Blank	Pesticides	Fenamiphos	0.19	U	ug/L	0.19	0.76
7/22/2008 10:05	Blank	Pesticides	Hexazinone	0.095	U	ug/L	0.095	0.38
7/22/2008 10:05	Blank	Pesticides	Mevinphos	0.19	UJ	ug/L	0.19	0.76
7/22/2008 10:05	Blank	Pesticides	Naled	0.76	U	ug/L	0.76	3
7/22/2008 10:05	Blank	Pesticides	Ethion	0.048	U	ug/L	0.048	0.19
7/22/2008 10:05	Blank	Pesticides	Parathion Methyl	0.095	U	ug/L	0.095	0.38
7/22/2008 10:05	Blank	Pesticides	Alachlor	0.57	U	ug/L	0.57	2.3
7/22/2008 10:05	Blank	Pesticides	Chlorpyrifos Ethyl	0.048	U	ug/L	0.048	0.19
7/22/2008 10:05	Blank	Pesticides	Metalaxyl	0.24	U	ug/L	0.24	0.96
7/22/2008 10:05	Blank	Pesticides	Parathion Ethyl	0.14	U	ug/L	0.14	0.56
7/22/2008 10:05	Blank	Pesticides	Phorate	0.048	UJ	ug/L	0.048	0.19
7/22/2008 10:05	Blank	Pesticides	Simazine	0.048	U	ug/L	0.048	0.19
7/22/2008 10:05	Blank	Pesticides	Metribuzin	0.095	U	ug/L	0.095	0.38
7/22/2008 10:05	Blank	Pesticides	Ametryn	0.048	U	ug/L	0.048	0.19
7/22/2008 10:05	Blank	Pesticides	Bromacil	0.19	UJ	ug/L	0.19	0.76
7/22/2008 10:05	Blank	Priority Organic Pollutants	2-Nitrophenol	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.6
7/22/2008 10:05	Blank	Priority Organic Pollutants	Anthracene	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	Di-n-butyl phthalate	4.8	U	ug/L	4.8	19
7/22/2008 10:05	Blank	Priority Organic Pollutants	Endosulfan sulfate	1.4	U	ug/L	1.4	5.7
7/22/2008 10:05	Blank	Priority Organic Pollutants	Pentachlorophenol	2.9	U	ug/L	2.9	11
7/22/2008 10:05	Blank	Priority Organic Pollutants	Phenanthrene	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	alpha-BHC	1.4	U	ug/L	1.4	5.7
7/22/2008 10:05	Blank	Priority Organic Pollutants	4-Nitrophenol	14	U	ug/L	14	57
7/22/2008 10:05	Blank	Priority Organic Pollutants	Aldrin	1.4	U	ug/L	1.4	5.7
7/22/2008 10:05	Blank	Priority Organic Pollutants	Benzidine	95	U	ug/L	95	380
7/22/2008 10:05	Blank	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	Butyl benzyl phthalate	4.8	U	ug/L	4.8	19
7/22/2008 10:05	Blank	Priority Organic Pollutants	Dimethyl phthalate	9.5	UJ	ug/L	9.5	38
7/22/2008 10:05	Blank	Priority Organic Pollutants	Isophorone	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	Acenaphthylene	0.95	U	ug/L	0.95	3.8

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Components	Result	Remarks	Units	MDL	PQL
7/22/2008 10:05	Blank	Priority Organic Pollutants	Benzo(k)fluoranthene	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	Diethyl phthalate	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	Endrin	1.4	U	ug/L	1.4	5.7
7/22/2008 10:05	Blank	Priority Organic Pollutants	Fluoranthene	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	Heptachlor epoxide	1.4	U	ug/L	1.4	5.7
7/22/2008 10:05	Blank	Priority Organic Pollutants	Hexachlorobutadiene	2.9	U	ug/L	2.9	11
7/22/2008 10:05	Blank	Priority Organic Pollutants	Phenol	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	2,4-Dimethylphenol	9.5	U	ug/L	9.5	38
7/22/2008 10:05	Blank	Priority Organic Pollutants	2,6-Dinitrotoluene	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	2-Chlorophenol	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	3,3'-Dichlorobenzidine	38	U	ug/L	38	150
7/22/2008 10:05	Blank	Priority Organic Pollutants	4,4'-DDD	1.4	U	ug/L	1.4	5.7
7/22/2008 10:05	Blank	Priority Organic Pollutants	Acenaphthene	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.6
7/22/2008 10:05	Blank	Priority Organic Pollutants	Naphthalene	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	beta-BHC	1.4	U	ug/L	1.4	5.7
7/22/2008 10:05	Blank	Priority Organic Pollutants	2,4-Dinitrophenol	14	U	ug/L	14	57
7/22/2008 10:05	Blank	Priority Organic Pollutants	4,4'-DDE	1.4	U	ug/L	1.4	5.7
7/22/2008 10:05	Blank	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	Benzo(a)pyrene	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	Endosulfan I	3.8	U	ug/L	3.8	15
7/22/2008 10:05	Blank	Priority Organic Pollutants	Fluorene	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	Heptachlor	1.4	U	ug/L	1.4	5.7
7/22/2008 10:05	Blank	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.6
7/22/2008 10:05	Blank	Priority Organic Pollutants	delta-BHC	1.4	U	ug/L	1.4	5.7
7/22/2008 10:05	Blank	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	2,4-Dinitrotoluene	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	Benzo(b)fluoranthene	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	14	U	ug/L	14	57
7/22/2008 10:05	Blank	Priority Organic Pollutants	Chrysene	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	Di-n-octyl phthalate	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	Dieldrin	1.4	U	ug/L	1.4	5.7

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Components	Result	Remarks	Units	MDL	PQL
7/22/2008 10:05	Blank	Priority Organic Pollutants	Endrin aldehyde	3.8	U	ug/L	3.8	15
7/22/2008 10:05	Blank	Priority Organic Pollutants	Hexachlorobenzene	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9	U	ug/L	2.9	11
7/22/2008 10:05	Blank	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	Nitrobenzene	1.9	U	ug/L	1.9	7.6
7/22/2008 10:05	Blank	Priority Organic Pollutants	Pyrene	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	2,4-Dichlorophenol	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	2-Chloronaphthalene	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	11
7/22/2008 10:05	Blank	Priority Organic Pollutants	gamma-BHC	1.4	U	ug/L	1.4	5.7
7/22/2008 10:05	Blank	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	4,4'-DDT	1.4	U	ug/L	1.4	5.7
7/22/2008 10:05	Blank	Priority Organic Pollutants	Benzo(a)anthracene	0.95	U	ug/L	0.95	3.8
7/22/2008 10:05	Blank	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	11
7/22/2008 10:05	Blank	Priority Organic Pollutants	Endosulfan II	3.8	U	ug/L	3.8	15
7/22/2008 10:05	Blank	Priority Organic Pollutants	Hexachloroethane	2.9	U	ug/L	2.9	11

The Bioassay of City of Palmetto Wastewater Treatment Facility effluent sampled on July 21, 2008. NPDES #FL0020401.

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

Transaction Code		NPDES NUMBER		YR/MO/DA		Insp Type	Inspector	Fac Type
1 N	2 5	3 F L 0 0 2 0 4 0 1	11	12 0 8 0 7 2 1		18 **B**	19 **S**	20 1

Remarks

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The Priority Pollutants Analysis of City of Palmetto Wastewater Treatment Facility effluent sampled on July 22, 2008. NPDES #FL0020401.

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

Transaction Code		NPDES NUMBER		YR/MO/DA		Insp Type	Inspector	Fac Type
1 N	2 5	3 F L 0 0 2 0 4 0 1	11	12 0 8 0 7 2 2		18 **X**	19 **S**	20 1

Remarks

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Biological Analyses of City of Palmetto Wastewater Treatment Facility effluent sampled on July 22, 2008. NPDES #FL0020401.

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

Transaction Code		NPDES NUMBER		YR/MO/DA		Insp Type	Inspector	Fac Type
1 N	2 5	3 F L 0 0 2 0 4 0 1	11	12 0 8 0 7 2 2		18 **S**	19 **S**	20 1

Remarks

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